SOLVENCY II

BACKGROUND DOCUMENT ON THE OPINION ON THE 2020 REVIEW OF SOLVENCY II

Analysis

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European Insurance and
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1. Introduction

1.1 This background documents sets out the analysis that EIOPA's technical advice for the 2020 review is based on. The impact assessment for the advice is set out in a separate background document.

1.2 For each policy issue the analysis is structured as follows:

- Extract from the call for advice – taken from the call for advice that the European Commission made to EIOPA in February 2019
- Previous advice – earlier advice from EIOPA or its predecessor CEIOPS relevant for the policy issue
- Relevant legal provisions – provisions from:
    - Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance[1] (hereafter "Solvency II Directive")
    - Commission Delegated Regulation (EU) 2015/35 of 10 October 2014 supplementing Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II)[2] (hereafter "Delegated Regulation")
    - Technical standards for Solvency II
- Other regulatory background – where relevant regulatory background other than Solvency II
- Identification of the issue
- Analysis

1.3 The advice resulting from the analysis is set out in the main document of the Opinion.

[1] OJ L 335, 17.12.2009, p.1.

[2] OJ L 12, 17.1.2015, p.1.

2. LTG measures and measures on equity risk

2.1. Introduction

2.1 The Solvency II Directive includes the following long-term guarantees measures (LTG measures) and measures on equity risk:

Articles	Name of the measure
77a	Extrapolation of the risk-free interest rates
77b, 77c	Matching adjustment (MA)
77d	Volatility adjustment (VA)
106	Symmetric adjustment mechanism to the equity risk charge
138(4)	Extension of the recovery period
304	Duration-based equity risk sub-module
308c	Transitional on the risk-free rate
308d	Transitional on technical provisions

2.2 The LTG measures were introduced in the Solvency II Directive through Directive 2014/51/EU of the European Parliament and of the Council of 16 April 2014 amending Directives 2003/71/EC and 2009/138/EC and Regulations (EC) No 1060/2009, (EU) No 1094/2010 and (EU) No 1095/2010 in respect of the powers of the European Supervisory Authority (European Insurance and Occupational Pensions Authority) and the European Supervisory Authority (European Securities and Markets Authority) (Omnibus II Directive)[3] in order to ensure an appropriate treatment of insurance products that include long-term guarantees. The measures on equity risk should ensure an appropriate measurement of the risks arising from changes in the level of equity prices in setting the capital requirement for insurance and reinsurance undertakings.

2.3 Article 77f of the Solvency II Directive requires a review of the LTG measures and the measures on equity risk by 1 January 2021. The review consists of the following elements:

- EIOPA annually reports on the impact of the application of the LTG measures and the measures on equity risk to the European Parliament, the Council and the Commission.
- EIOPA provides an opinion on the assessment of the application of the LTG measures and the measures on equity risk to the Commission.

2.4 Based on the opinion submitted by EIOPA the European Commission submits a report on the impact of the LTG measures and the measures on equity risk

[3] OJ L 153, 22.05.2014, p.1

to the European Parliament and to the Council. The report will be accompanied, if necessary, by legislative proposals.

2.5 EIOPA has provided annual reports on LTG measures and the measures on equity risk (LTG reports) since the start of Solvency II.[4] EIOPA provided the last LTG report in December 2020.

2.6 The LTG reports are factual and do not include recommendations on the measures. They present information on the use of the measures and on their impact on the financial position of undertakings, on policyholder protection, on the investments of undertakings, on consumers and products, on competition and level playing field in the EU insurance market and on financial stability. In addition the first three reports had different thematic foci. The LTG report 2016 analysed in particular the approval processes for the measures and the technical information on the relevant risk-free interest rate term structures and on the symmetric adjustment to the equity risk charge. The LTG report 2017 put a focus on the public disclosure on the measures by undertakings and the LTG report 2018 on the risk management of undertakings in relation to the measures. The LTG reports are in particular based on the responses to annual information requests to NSAs and insurance and reinsurance undertakings.

2.7 Related to the review of the LTG measures and measures on equity risk EIOPA received a Call for Information from the European Commission in April 2018.[5] Accordingly, EIOPA should provide information on the liquidity of insurance liabilities, on the asset management of insurance undertakings, in particular the holding period of assets, on LTG measures and on the market valuation of insurance liabilities. EIOPA will respond to the call in December 2019. The response will be published on EIOPA's website. In order to collect information for response EIOPA issued a request to stakeholders for feedback on illiquid liabilities in 2018.[6]

2.8 For the purpose of this Opinion EIOPA carried out an information request to the NSAs and to the insurance industry from May to June 2019 on the LTG measures, the dynamic volatility adjustment and long-term illiquid liabilities.

2.9 The draft advice on LTG measures and measures on equity risk provided in this consultation paper is in particular based on that information request, the

[4] See https://www.eiopa.europa.eu/sites/default/files/publications/submissions/eiopa-bos-16-279_ltg_report_2016.pdf, https://www.eiopa.europa.eu/sites/default/files/publications/reports/2017-12-20_ltg_report_2017.pdf, https://www.eiopa.europa.eu/sites/default/files/publications/pdfs/2018-12-18_ltg_annualreport2018.pdf, https://www.eiopa.europa.eu/sites/default/files/publications/reports/eiopa-ltg-report2019.pdf and https://www.eiopa.europa.eu/sites/default/files/publications/reports/eiopa-bos-20-706-long-term-guarantees-ltg-report-2020.pdf.

[5] See https://register.eiopa.europa.eu/Publications/Requests%20for%20advice/Request%20for%20information%202018-04-25.pdf.

[6] https://www.eiopa.europa.eu/content/review-illiquid-liabilities-and-analysis-potential-implications-request-feedback-launched_en.

LTG reports 2016 to 2018 and the preparatory work to respond to the Call for Information.

2.2. Extrapolation of risk-free interest rates

2.2.1. Extract from the call for advice

> ***3.1. Extrapolation of the Risk-Free Interest Rate term structure (Art. 77a)***
>
> *In order to ensure that the rules applicable to the last liquid point in the Solvency II Risk-free interest rate term structure ensure its stability in different market situations, including market crisis situations and periods of increasing interest rates, EIOPA is asked to provide evidence, for all currencies of the Union, on criteria to determine the last liquid point. As a minimum, evidence should be provided on the value of the last liquid point in accordance with the following criteria*
>
> - *the depth, liquidity and transparency of swap and bond markets in a currency;*
> - *the ability of insurance and reinsurance undertakings to match with bonds the cash-flows which are discounted with non-extrapolated interest rates in a currency;*
> - *for all relevant maturities, the cumulative value of bonds with maturities larger than or equal to the relevant maturity in relation to the volume of bonds in the market*.
>
> *This evidence should be provided at the very least for the time period 2016-2018, and ideally several years further in the past, including to the extent possible periods of market stresses and increased interest rates, and be accompanied by a variation analysis of those parameters relevant for determining the last liquid point per currency.*
>
> *If EIOPA's analysis suggests inappropriateness of any currently implemented last liquid points, EIOPA is requested to provide a comprehensive impact assessment of potential modifications to these last liquid points on volatility of insurance and reinsurance undertakings' own funds and solvency coverage ratio, as well as on financial stability. This impact assessment should be provided in a sufficient level of detail, as a minimum on country level.*

2.2.2. Previous advice

2.10 In October 2009 CEIOPS issued technical advice to the European Commission in respect of the determination of risk-free interest rates for the valuation of technical provisions. This included, amongst others, a set of criteria which the relevant risk-free interest rate term structure should meet:

a) No credit risk: the rates should be free of credit risk.

b) Realism: it should be possible to earn the rates in practice.

c) Reliability: the determination of the rates should be reliable and robust.

d) High liquidity: the rates should be based on financial instruments from deep, liquid and transparent markets.

e) No technical bias: the rates should have no technical bias.

2.11 Regarding long maturities, CEIOPS stated that the extrapolation of the risk-free curve significantly impacts the present value of long term insurance liabilities and that therefore the technique of extrapolation needs to adhere to these criteria, with the exception of liquidity. Moreover, CEIOPS noted that "high volatility of long-term discount rates can cause substantial changes in the value of liabilities and thereby lead to procyclical effects". Therefore, CEIOPS proposed that next to meeting the above criteria, the choice of the extrapolation technique should also take into account the effect on financial stability. CEIOPS did not prescribe a method for extrapolation at this stage but intended to set out a set of principles during the Level 3 process.

2.12 This advice was followed by a quantitative impact study (QIS 5) in 2010 where a concrete set of interest rate term structures had to be determined. For that purpose, the non-extrapolated part of the risk-free interest rate curves was delivered by the industry. Instead of basing the curve on available government bond rates (as CEIOPS had advised), inter-bank swap rates adjusted for credit risk were used as an input for the non-extrapolated part of the curve. The extrapolation based on this input was performed by EIOPA. For that purpose, a macroeconomic extrapolation technique was chosen to arrive at the extrapolation beyond the last available data point. This technique is quite similar to the current way of extrapolating the interest rate term structure as it was already based on the Smith-Wilson methodology and the assumption of an ultimate forward rate (UFR) which was at those days set at 4.2% for most of the currencies.

2.13 The discussion on the adequacy of the extrapolation method and its parametrization continued following the QIS5 exercise and was part of the negotiations on the Omnibus II Directive on the "LTG package" starting in 2011. A further impact study, the so-called long-term guarantees assessment, was performed by EIOPA at request of the legislator, and technical findings[7] were provided in 2013, including technical findings on the extrapolation. The focus of this assessment was the specification of the convergence speed to the UFR, not the setting of the UFR nor the choice of the last liquid point (LLP) being the maturity where the extrapolation starts.[8] Therefore, EIOPA did not provide recommendations in this respect. The report however noted, in line with the previous CEIOPS advice, that the extrapolation technique has a strong influence on the variability over time of technical provisions of insurance contracts providing long-term guarantees. The report reflected that an appropriate balance is necessary in order to

[7] See https://register.eiopa.europa.eu/Publications/Reports/EIOPA_LTGA_Report_14_June_2013_01.pdf

[8] The Terms of Reference for the long-term guarantees assessment stipulated that only a proposal for the speed of convergence should be tested

reconcile the aim of financial stability (overcoming volatility) with the aim to provide for a realistic valuation according to market practices (prevention of bad risk management incentives).

2.2.3. Relevant legal provisions

2.14 The determination of the risk-free interest rate term structure and in particular the extrapolation is specified in Article 77a of the Solvency II Directive and Articles 43 to 48 of the Delegated Regulation. According to Article 43 of the Delegated Regulation, insurance and reinsurance undertakings shall be able to earn the rates in a risk-free manner in practice and the rates shall be reliably determined based on financial instruments traded in a deep, liquid and transparent financial market The preference as reference instrument is set out to be interest rate swap rates (cf. Article 44 (1) of the Delegated Regulation). The extrapolation method is based on forward rates converging to a UFR that takes account of expectations of the long-term real interest rate and of expected inflation (cf. Article 77a, 4th sentence of the Directive and Article 47 of the Delegated Regulation). Further specifications on the UFR are set out in Article 47 of the Delegated Regulation.

2.15 With respect to the UFR, EIOPA developed a methodology allowing for a regular quantification of the size of the UFR, which was published in April 2017.[9] The determination of the risk-free interest rate term structures, including the setting of the UFR and the determination of the currently applied last liquid points for all currencies is set out in EIOPAs technical documentation on the risk-free interest rate[10].

2.16 The last liquid points for all currencies are derived on the basis of a "DLT assessment" which analyses whether the individual maturities of the reference instruments can be derived from deep, liquid and transparent (DLT) markets. Only financial instruments which are considered to stem from DLT markets are included in the determination of the risk-free interest rate term structure. The interest rates for the missing maturities are interpolated and extrapolated on the basis of the Smith-Wilson method. Article 77a of the Solvency II Directive sets out that the determination of the relevant risk-free rate term structure should also take into account whether the market for bonds is deep, liquid and transparent. It stipulates that for maturities where the markets for the relevant financial instruments or for bonds are no longer DLT, the relevant risk-free interest rate term structure shall be extrapolated.

2.17 Recital 30 of the Omnibus II Directive specifies that the LLP for the euro under market conditions similar to those at the date of entry into force of that Directive to be at a maturity of 20 years. It also sets a target for the determination of the risk-free interest rate term structure in outlining that it

[9] See https://www.eiopa.europa.eu/sites/default/files/publications/pdfs/17eiopa_2017-04-05_ufr_press_release.pdf?source=search.

[10] See https://www.eiopa.europa.eu/tools-and-data/risk-free-interest-rate-term-structures_en.

should avoid artificial volatility of technical provisions and eligible own funds and provide an incentive for good risk management.

2.18 Recital 21 of the Delegated Regulation further specifies the so-called "residual volume criterion" for the euro. This states that „…the market for bonds denominated in euro should not be regarded as deep and liquid where the cumulative volume of bonds with maturities larger than or equal to the last maturity is less than 6 percent of the volume of all bonds in that market."

2.19 The risk-free interest rates for the euro are derived from swap rates. The LLP applied for these interest rates is currently 20 years. The choice of this LLP is not based on the liquidity of swap markets, but as mentioned above the result of several provisions of Solvency II that restrict the LLP:

2.20 Article 77a requires that bond markets are deep, liquid and transparent up to the LLP, also where the interest rates are derived from swaps.[11]

2.21 Recital 30 of the Omnibus II Directive states that is should be possible to match liability cash-flows up to the LLP with bond cash-flows (matching criterion).

2.22 Recital 30 further states that under market conditions similar to those at the date of entry into force of the Omnibus II Directive the LLP for the euro should be 20 years.

2.23 In June 2017 EIOPA adopted a new methodology for carrying out the deep, liquid and transparent assessment of financial markets (DLT assessment). According to that methodology, as applied on data for 2016 and 2017, the maturities for which the swap market for the euro is deep, liquid and transparent are 1 to 15, 20, 25, 30, 40 and 50 years. The assessment further showed that the depth and liquidity for the maturity of 30 years was higher than that of 20 years.

2.2.4. Identification of the issue

2.24 Reliability and robustness of the term structure (also in times of market turbulence or crisis) are important prerequisites to ensure a robust supervisory system. Limiting volatility of long-term discount rates might limit pro-cyclical effects and thus have a positive impact on financial stability. On the other hand, market consistency and the use of market information from deep, liquid and transparent markets foster adequate risk management and ensure an adequate level of technical provisions also having a positive impact on financial stability.

2.25 In the last years, EIOPA gathered NSAs experience with the different LTG measures including the extrapolation and shared these findings via the yearly

[11] See also recital 21 of the Delegated Regulation

LTG reports. Different experience was reported by NSAs mirroring the above-mentioned conflict between market consistency and stability of the interest rate term structure.[12] Responses received particularly focussed on the LLP being set to 20 years for the euro. NSAs did not emphasise the need to reassess the current derivation of the UFR or the choice of the speed of convergence.

2.26 The European Systemic Risk Board (ESRB) published a report on the macro prudential consequences of regulatory risk-free yield curves in August 2017.[13] The report identified four requirements for regulatory risk-free interest rates: realistic estimate of the time value of money, consistent application, adequate risk management and limiting procyclicality. Based on these requirements the report proposes with regards to Solvency II in particular to extend the LLP for the euro from 20 to 30 years, extending the convergence speed from 40 to 100 years and blending the extrapolated part of the curve partly with market data. Under current market conditions these proposals would result in lower risk-free interest rates. The report notes that the exact impact of changes to the risk-free interest rates on the insurers' solvency should be carefully assessed before arriving at a conclusion. The following sub-sections outline a number of issues which are relevant for an assessment of the setting of the LLP for the euro.

2.27 The information requests performed in the last couple of years by EIOPA on the impact of the extrapolation on undertaking's solvency position captured the sensitivity with respect to the LLP as well as of the convergence speed and UFR. Of those three parameters, the results identified the LLP to be the most sensitive one in terms of impact on undertaking's solvency position.

2.28 Against this background, the LLP for the euro being set at 20 years was identified to be the major issue to review with respect to extrapolation of risk-free interest rates. However, it is noted that any implications of the LLP always need to be considered jointly with the setting and calibration of the convergence speed and UFR.

2.29 Another policy issue was identified namely how to phase in any change of the extrapolation acknowledging the high impact thereof.

2.30 The following sub-sections outline a number of issues which are relevant for an assessment of the setting of the LLP for the euro (policy issue I). Next to that information on the DLT assessment is included and the second policy issues described.

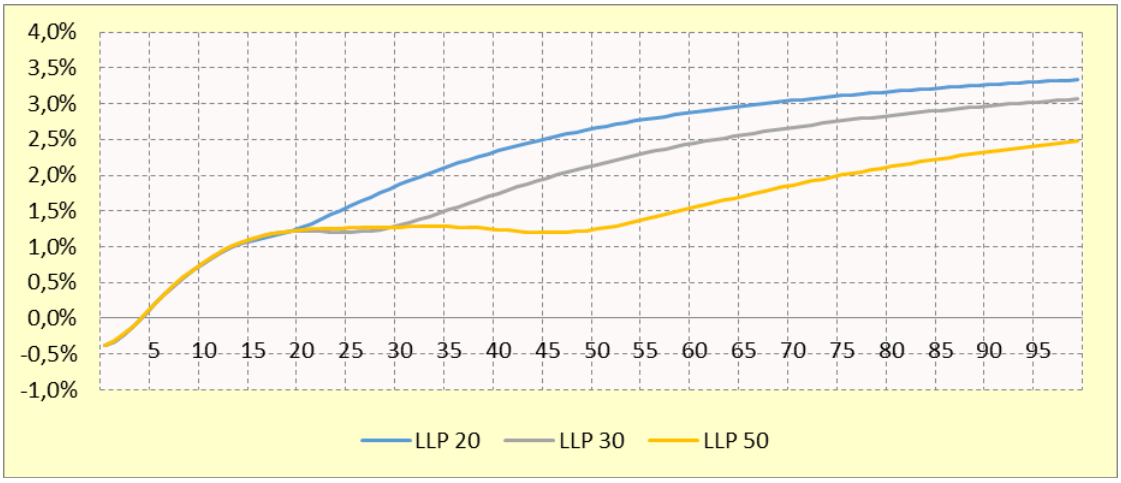
[12] See for example page 81 of the EIOPA's LTG report 2018.

[13] See ESRB: Regulatory risk-free yield curve properties and macro prudential consequences, August 2017, https://www.esrb.europa.eu/pub/pdf/reports/esrb.reports170817_regulatoryriskfreeyieltcurveproperties.en.pdf.

2.2.4.1. Issue I – Underestimation of technical provisions

2.31 The setting of the LLP implicitly impacts the size of interest rates in the extrapolated part of the interest rate term structure. Starting with the LLP, the extrapolation method ensures that interest rates converge smoothly to the ultimate forward rate. Market information for maturities after the LLP are not taken into account in the interest rate term structure; the extrapolated interest rates can therefore significantly diverge from market rates.

2.32 The following graph illustrates the difference in interest rate term structures as at year-end 2018 for the euro comparing the LLP of 20 years with an LLP of 30 or 50 years.

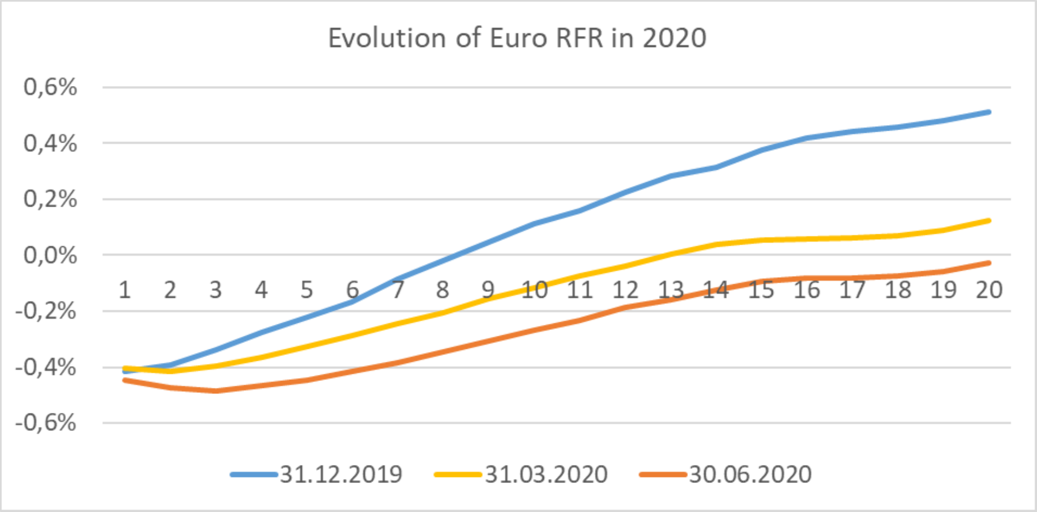


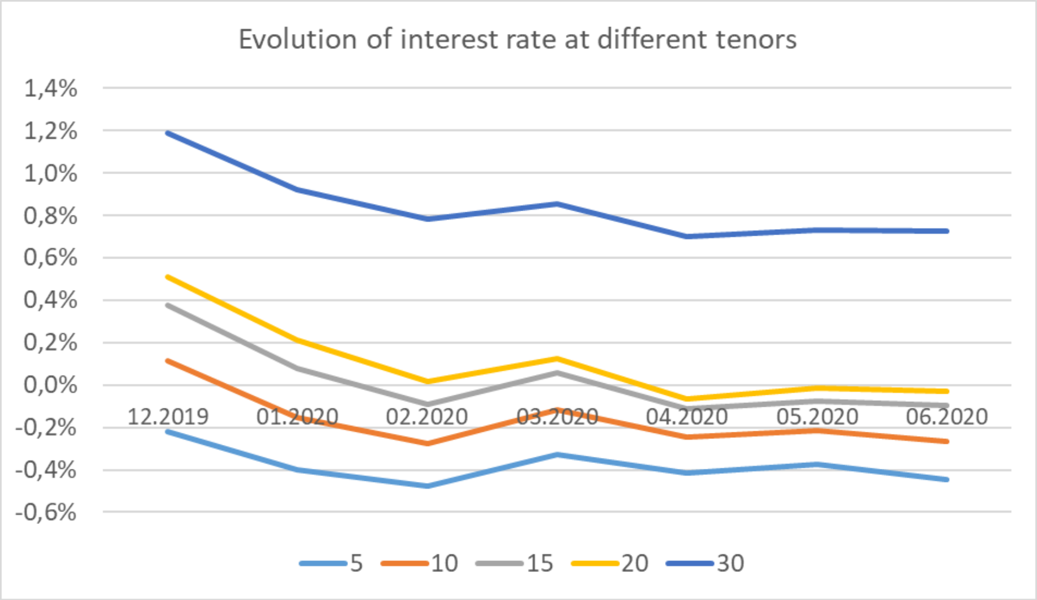
2.33 After the LLP interest rates converge to the UFR, which is set at 4.05% at year-end 2018. As the UFR is higher than the interest rate at the LLP, this leads to an increase of interest rates after the LLP; the larger this difference the steeper the increase after the LLP. This effect is symmetric - if the UFR was lower than the level of the interest rate at the LLP, the extrapolation would lead to a decrease of interest rates after the LLP. The size of such effects depends on how the current interest rate level at the LLP compares to the level of the UFR – the nearer they are, the flatter the forward rate curve in the extrapolated part and the less relevant is the choice of the LLP for the extrapolated interest rates becomes.

2.34 The same holds for the convergence speed. The current setting of the convergence speed to 40 years leads to a situation that the UFR is reached after 60 years for the euro. Where the convergence speed would be reduced, e.g. to 100 years as proposed by the ESRB, more weight would be given to the market rates and the UFR would be reached far later. This would also increase market consistency.

2.35 In the current low interest rate environment, the difference between the UFR (since end of March 2019 at 3.90% for the euro) and the level of swap rates at 20, 30 or 50 years is still high, resulting in a high difference between the observed level of swap rates and the extrapolated rates. This fosters the supervisory concern that the technical provisions are underestimated as interest rates for long-term maturities (and thus long-term liabilities) are discounted with too optimistic interest rate assumptions. In a situation where a transfer of liabilities is necessary (e.g. where an undertaking no longer complies with its SCR and/or MCR), this leads to the risk that technical provisions may not be sufficient to transfer the liabilities which might then put policyholders at risk where rights need to be cut.

2.36 Strong movements in interest rates could be observed during the first months of 2020, interest rates have dropped, in particular for longer maturities reinforcing supervisory concerns. The following graph outlines this evolution for the euro:





2.37 In the undertakings' balance sheet, this deficiency would show up in those future years where the difference between observed swap rates and extrapolated rates persists and undertakings actually earn a lower rate than the interest rate used to calculate their technical provisions. In that situation, the undertakings incur losses each year that reduce their own funds. Where insurers have long-term liabilities valued with risk-free interest rates that are too high, persisting losses from inappropriate discounting (where extrapolated rates are persistently higher than market rates) may make their financial situation deteriorate and put policyholders at risk. Similarly, if extrapolated rates would be below market rates undertaking incur yearly gains, increasing their own funds every year.

2.38 This deficiency could also put at risk the protection of policyholders and beneficiaries where undertakings pay out dividends or do other voluntary capital distributions in times where technical provisions are underestimated. This would lower the capital basis although this amount of own funds could still be required to ensure sustainable solvency positions in the future where interest rates persist to be lower than the extrapolated risk-free interest rates.

2.39 Future decreases of the UFR mitigates the issue but does not solve it since the level of the UFR is only decreasing slowly and will stay above current market rates. The reason for the slow decrease is that the UFR changes at maximum by 15 bps per year and that its real rate component is a long-term average (since 1961). Furthermore the UFR includes an inflation component of 2 percentage points and only gets lower than that amount when the long-term historical average of real rates becomes negative.

2.2.4.2. Issue II – Risk management incentives

2.40 The determination of the LLP is not only relevant for the magnitude of risk-free interest rates and consequentially the size of technical provisions and the solvency position of undertakings. There are wider implications for the governance of an undertaking.

2.41 Where the extrapolated risk-free interest rates differ from the market rates, undertakings need to decide whether they hedge the risk as it is reflected in their solvency balance sheet or whether they hedge the risk that actually exists in the financial markets. Whether this makes a difference depends on whether undertakings have liabilities with maturities exceeding the LLP. Where the hedging is based on the extrapolated risk-free interest rates[14], it reduces the volatility of Solvency II own funds, at least in the short term, but may leave the insurer exposed to the risks of financial markets in the long run. On the other hand, where undertakings decide to hedge the risks of the financial market, it may increase the volatility of their Solvency II own funds. For that reason the lower LLP may incentivise undertakings to base the hedging on the extrapolated risk-free interest rates instead of hedging the actual risk in financial markets.

2.42 The differences between hedging the risks of financial markets and hedging the extrapolated term structure is illustrated by a sensitivity analysis. The

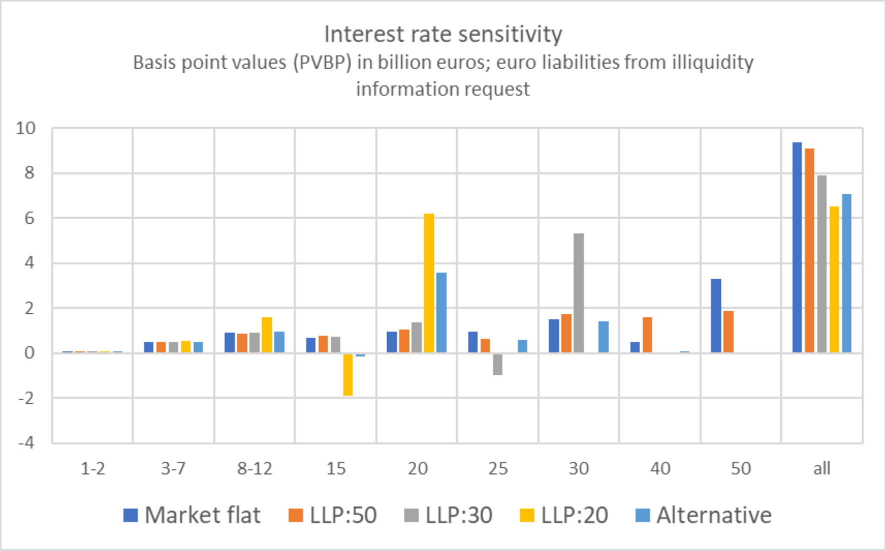
[14] See for example: Greenwood, Robin M. and Vissing-Jorgensen, Annette, The Impact of Pensions and Insurance on Global Yield Curves (December 29, 2018). Harvard Business School Finance Working Paper No. 18-109. Available at SSRN: https://ssrn.com/abstract=3196068 or http://dx.doi.org/10.2139/ssrn.3196068

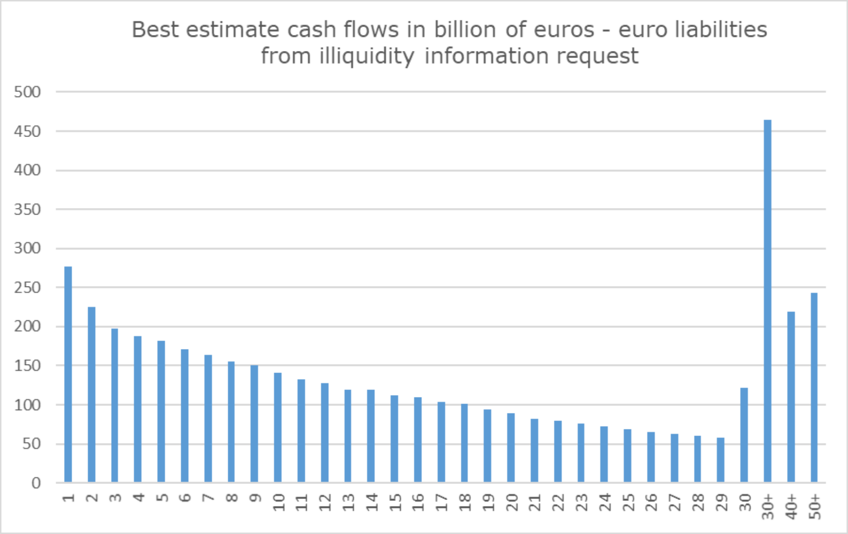
figure below shows the interest rate sensitivities measured in basis point value (PVBP) to euro swap rates with different maturities if the euro liability cash flows were discounted with the current basic risk free rate term structure for the euro (LLP: 20) or a term structure based on market interest rates with a flat extrapolation after a maturity of 50 years (market flat). The euro liability cash-flows were taken from the illiquidity information request[15] (see the next figure below). The discounted value of these cash flows with the current basic risk free rate term structure equals 3,600 billion euros.

2.43 As an example, a decrease in all DLT swap rates with maturities 8 to 12 years with one basis point would increase the discounted value of these cash flows by approximately 1 billion euros. To hedge against changes in swap rates with these maturities undertakings would have to buy bonds or swaps with these maturities and match this basis point value. Similarly, a decrease of the 15 year euro swap rate with one basis point implies a, counterintuitive, decrease in the discounted value of the liabilities of 1 billion euros. Where undertakings hedge the extrapolated term structure against changes in the swap rate with a maturity of 15 years they would have to (short-)sell bonds and swaps with a 15 year maturity to match this negative basis point value. (Short-)selling bonds and swaps would match the sensitivity of the regulatory valuation of the liabilities, but is not a cash flow match as the cash flows around the maturity of 15 years are all positive. Matching the regulatory value of the liabilities would also imply to buy 4 billion euro PVBP of bonds and swaps with a maturity of 20 years and no bonds and swaps beyond the LLP of 20 years. These sensitivities are a consequence of the Smith-Wilson extrapolation method in which the 15-20 year swap rate difference affects the extrapolation after the LLP of 20 years. On the other hand, where undertakings do hedge the risk in financial markets it would however have unintended consequences in the solvency balance sheets.

2.44 The column 'all' is the total interest rate sensitivity measured in PVBP if all DLT swap rates decrease by 1 basis point. In such a scenario the discounted value of the euro liability cash flows increases by a bit over 4 billion euros. The current basic risk free interest rate term structure for the euro thus reduces the total interest rate sensitivity to interest rate changes with approximately 30 percent, from 6 billion euros to a bit over 4 billion euros. To hedge the total interest rate sensitivity undertakings it would thus suffice to just match the liability cash flows for 70 percent. Thus, undertakings hedging the risks in financial markets for more than 70 percent will typically experience a higher volatility of excess of assets over liabilities than undertakings that hedge for 70 percent.

[15] See https://register.eiopa.europa.eu/Publications/Requests%20for%20advice/Request%20for%20information%202018-04-25.pdf.





2.45 If no sufficient bonds and loans are available to match liability cash-flows for maturities beyond the LLP undertakings may use derivatives to hedge these risks. Provided that the hedging instruments are understood by the insurer, their application can be an effective risk-mitigation technique.

2.46 Overall, the LTG reports illustrated that the relevance of Solvency II requirements in the decision making process of insurance undertakings' investment decisions differ across different markets in Europe.[16] The relevance of Solvency II requirements was identified to depend on local pre-requisites, such as e.g. the presence and design of local statutory requirements or national tax regulations.

2.47 However, where the Solvency II requirements play a relevant role in investment decisions of insurance undertakings, any deviation of the interest rate term structure used for the valuation of technical provisions from

[16] See in particular the thematic focus on risk management in the LTG report 2018

observable market prices may give the wrong incentives for adequate risk management.

2.48 This was reported to be the case for one NSA which identified that the ALM considerations and resulting decisions are particularly relevant when the SCR ratio falls below a threshold; i.e. after an SCR breach an undertaking matching its liabilities beyond the LLP to a large extent may feel itself forced to reduce the amount of cash flow matching as the large extent of cash flow matching implies higher regulatory own fund volatility and may thus further weaken its solvency position.

2.49 No specific observations or evidence on negative risk management incentives were observed by the other NSAs.

2.2.4.3. Issue III – Stability of the solvency position and impact on financial stability

2.50 The volatility of interest rates used for the valuation of technical provisions affects the volatility of technical provisions. The extent to which the volatility of interest rates translates to a volatility of technical provisions and own funds depends on the specifics of the risk profile of the undertaking concerned, on the term of the liabilities and in particular on the degree of matching between asset and liability cash flows.

2.51 Where undertakings are closely matched for all maturities, a deviation of the interest rate curve for the valuation of technical provisions from market information increases the volatility of own funds. Where undertakings have very long-term liabilities and are not closely matched with corresponding assets, an early start of the extrapolation increases the stability of technical provisions and own funds.

2.52 There are concerns that undertakings in that situation may exhibit procyclical investment behaviour when interest rates fall. The undertakings could buy long-term swaps in order to improve their matching and reduce their interest risk charge. This could put further pressure on the swap rates. Such behaviour was analysed by the Bank for International Settlement[17] and it was found that "declining long-term interest rates tend to widen the negative duration gap between the assets and liabilities of insurers and pension funds, and any attempted rebalancing by increasing asset duration results in further downward pressure on interest rates." The study also acknowledges that "duration-matching strategies of long-term investors can amplify movements in long-term interest rates".

2.53 On the other hand, the study also shows that this behaviour does not depend on market-consistent regulatory requirements. The study reports that from 2009 to 2014, i.e. before Solvency II when regulatory discount rates in Germany were static, "German insurance firms have tended to exhibit an

[17] See https://www.bis.org/publ/work519.pdf, see also the study referred to in footnote 17

abnormally strong demand response to a change in the price of long duration bonds; that is they demanded more bonds with higher duration when their prices (yields) were rising (falling)." A change of the LLP of risk-free interest rates may therefore have no impact on this behaviour. The ESRB found mixed evidence on whether market-consistent regulatory requirements lead to procyclical behaviour of insurance undertakings.[18] Furthermore, the concerns about procyclicality have to be assessed in the view of the total impact of extending the LLP on financial stability. A key feature usually identified to strengthen the financial system is to reduce maturity mismatches. Undertakings having matched their cash flows to a larger extent in advance, experience lower losses from declining rates and are less forced to procyclically reduce their risks by extending their asset duration and subsequently further reduce rates.

2.54 There are also concerns that a late start of the extrapolation may put current business practices of long-term life insurance at risk which mitigate risks not only on the basis of a well-diversified portfolio but also over time. The early start of the extrapolation allows undertakings to sell long-term business against rates above the current market interest rates while not suffering a regulatory loss or even realizing an increase in regulatory own funds. Pricing new business against higher rates than current market rates would result in losses with a later start of the extrapolation – at least in the current low-yield environment; a later start of the extrapolation may thus increase the price of long-term business. There are however different views whether Solvency II should facilitate such business practices because they may not be sustainable when interest rates are persistently low.

2.2.4.4. Evidence on DLT assessments

2.55 In the current legal framework, several provisions are relevant to specify the LLP for the different currencies, see also description in annex 2.1.

2.56 The call for advice lists the following requirements:

The depth, liquidity and transparency of swap and bond markets

2.57 For the swap market, that implies a consideration on the number and notional amount of trades to identify those maturities where the swap market is DLT. This assessment is centrally performed by EIOPA consistently across currencies based on specific thresholds chosen.

2.58 For the bond market the DLT conditions of Article 77a of the Directive are equally important and primarily assessed on the basis of trade volume and trade frequency.

2.59 Irrespective of whether swaps or government bonds are used to derive the risk-free interest rates, the depth, liquidity and transparency of bond markets limit the LLP for that derivation.

[18] See ESRB: Regulatory risk-free yield curve properties and macroprudential consequences.

Matching criterion:

2.60 The criterion is about the ability of insurance and reinsurance undertakings to match with bonds the cash-flows which are discounted with non-extrapolated interest rates.

2.61 This criterion is reflected in recital 30 of the Omnibus II Directive and is motivated by the idea that sufficient bonds should be available to match the insurance cash flows up to the LLP. For the purpose of implementing this criterion bond cash flows and liability cash flows are compared per maturity to assess the maturity when no longer sufficient bond volume is available on the market to match the liabilities.

Residual volume criterion:

2.62 The residual volume criterion states that the cumulative value of bonds with maturities larger than or equal to the relevant maturity in relation to the volume of bonds in the market. This criterion is only applicable to the euro.

2.63 According to recital 21 of the Delegated Regulation the residual volume criterion is part of assessing the depth, liquidity and transparency of bond markets for the euro. For the criterion the maturity up to when most of the bond volume (based on a threshold of 6%) is available on the market is calculated. The bond market is not considered deep, liquid and transparent at and beyond that maturity.

2.64 These three criteria are assessed in the following paragraphs to assess their impact and relevance with respect to the stability of the interest rate term structures used for the valuation of technical provisions. The aim of this analysis is to include times of increases in interest rates and periods of market stresses, so where data was available the analysis includes historical data up to 2006.

2.65 In 2017 EIOPA revised the methodology for the DLT assessment with the aim to improve objectivity of outcomes and their consistency across currencies and to make use of newly available data like swap trade data and liability cash-flow data.

2.66 The revision resulted in the following main changes:

- The DLT assessment for swaps is carried out on the basis of swap trade data and in accordance with specified, uniform thresholds for all currencies.
- The assessment of the bond market was fully specified, including a specification of the matching criterion.
- The DLT assessment for government bond markets and general bond markets is primarily based on trade volume and trade frequency of those instruments.

2.67 The methodology is set out in annex 2.1.

2.2.4.4.1. DLT assessment of the swap market

2.68 The following tables set out the results of the DLT assessment of swap markets for 2016 to 2019. Maturities for which the depth, liquidity and transparency of swap markets could be verified are marked green. For maturities beyond 50 years the swap markets were not found to be deep and liquid.

2.69 For years before 2016 appropriate swap trade data to assess the depth and liquidity of swap markets per maturity are not available.

2.70 Annex 2.3 sets out a sensitivity analysis of the results with regard to the thresholds for depth and liquidity.

Outcome of swap DLT assessment 2016

Maturity	EUR	AUD	BRL	CAD	CHF	CLP	CNY	COP	CZK	GBP	HKD	HUF	INR	JPY	KRW	MXN	MYR	NOK	NZD	PLN	RON	RUB	SEK	SGD	THB	TRY	TWD	USD	ZAR
1Y	1	1	1	1	0	0	1	0	0	1	1	0	1	1	1	1	1	1	1	0	0	0	1	1	1	0	0	1	1
2Y	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	1
3Y	1	1	1	1	0	0	0	1	0	1	1	0	1	1	1	1	0	1	1	0	0	0	1	1	0	0	0	1	1
4Y	1	1	1	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0	1	0	0	0	1	0	0	0	0	1	0
5Y	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	1
6Y	1	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7Y	1	1	1	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	1	0
8Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
9Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
10Y	1	1	0	1	1	0	0	1	1	1	1	1	0	1	1	1	0	1	1	1	0	0	1	1	0	0	0	1	1
11Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
13Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
16Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
21Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
26Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
31Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40Y	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50Y	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Outcome of swap DLT assessment 2017

Maturity	EUR	AUD	BRL	CAD	CHF	CLP	CNY	COP	CZK	GBP	HKD	HUF	INR	JPY	KRW	MXN	MYR	NOK	NZD	PLN	RON	RUB	SEK	SGD	THB	TRY	TWD	USD	ZAR
1Y	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	0	1	1
2Y	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	1
3Y	1	1	1	1	0	0	0	1	0	1	1	1	1	1	1	1	0	1	1	0	0	0	1	1	0	0	0	1	1
4Y	1	1	1	1	0	0	0	0	0	1	0	0	1	1	1	1	0	1	1	0	0	0	1	0	0	0	0	1	0
5Y	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	1
6Y	1	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0
7Y	1	1	0	1	0	0	0	0	0	1	0	0	0	1	1	1	0	0	1	0	0	0	1	0	0	0	0	1	0
8Y	1	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
9Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
10Y	1	1	0	1	1	0	0	1	1	1	1	1	0	1	1	1	0	1	1	1	0	0	1	1	0	0	0	1	1
11Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
13Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
16Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
21Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25Y	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
26Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
27Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30Y	1	1	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
31Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40Y	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50Y	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Outcome of swap DLT assessment 2018

Maturity	EUR	AUD	BRL	CAD	CHF	CLP	CNY	COP	CZK	GBP	HKD	HUF	INR	JPY	KRW	MXN	MYR	NOK	NZD	PLN	RON	RUB	SEK	SGD	THB	TRY	TWD	USD	ZAR
1Y	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	0	0	1	1
2Y	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	1	1	1	0	0	1	1
3Y	1	1	1	1	0	0	1	0	0	1	1	1	1	1	1	1	0	0	1	1	0	0	1	1	0	0	0	1	1
4Y	1	1	0	1	0	0	0	0	0	1	0	0	1	1	1	1	0	0	1	0	0	0	1	0	0	0	0	1	0
5Y	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	1
6Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7Y	1	1	0	1	0	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0
8Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
9Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
10Y	1	1	0	1	1	0	0	0	1	1	1	1	0	1	1	1	0	1	1	1	0	0	1	1	0	0	0	1	1
11Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
13Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
16Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
21Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25Y	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
26Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
27Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30Y	1	1	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
31Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40Y	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50Y	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Outcome of swap DLT assessment 2019

Maturity	EUR	AUD	BRL	CAD	CHF	CLP	CNY	COP	CZK	GBP	HKD	HUF	INR	JPY	KRW	MXN	MYR	NOK	NZD	PLN	RON	RUB	SEK	SGD	THB	TRY	TWD	USD	ZAR
1Y	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	0	0	1	1
2Y	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	1	1	1	0	0	1	1
3Y	1	1	1	1	0	0	1	0	0	1	1	0	0	1	1	1	0	0	1	0	0	0	1	1	1	0	0	1	1
4Y	1	1	1	1	0	0	0	0	0	1	0	0	0	1	1	1	0	0	1	0	0	0	1	0	0	0	0	1	0
5Y	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	1
6Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7Y	1	1	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
9Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
10Y	1	1	0	1	1	0	0	0	1	1	1	1	0	1	1	1	0	1	1	1	0	0	1	1	1	0	1	1	1
11Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12Y	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
13Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
16Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
21Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25Y	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
26Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30Y	1	1	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
31Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

2.2.4.4.2. DLT assessment of the bond market and the government bond market

2.71 The following table set out the results of the DLT assessment for the government bond market for 2016 to 2018. The assessment is carried out by NSAs.

	2016	2017	2018	2019
CHF	1 to 15 years	1 to 15 years	1 to 15 years	1 to 15 years
CZK	1 to 15 years	1 to 15 years	1 to 12 years	1 to 15 years
GBP	1 to 50 years	1 to 50 years	1 to 50 years	1 to 50 years
HRK	1 to 5, 7 to 9, 11, 15 years	2-4, 6, 7, 9 and 13 years	1 to 12 years	1 to 5, 7, 8, 11 and 13 years
HUF	1 to 15 years	1 to 15 years	1 to 15 years	1 to 15 years
ISK	1, 2, 5, 7, 11, 13 years	2, 4, 7, 10 and 13 years	1, 4, 7, 10, 12 years	1, 2, 3, 5, 8 and 10 years
NOK	1, 2, 4, 6 to 10 years	1, 2, 4, 6 to 10 years	1 to 10 years	1 to 10 years
PLN	1 to 10 years	1 to 10 years	1 to 10 years	1 to 10 years
RON	1 to 5, 7, 8, 10 to 12, 15 years	1 to 5, 7, 8, 10 to 12 and 15 years	1 to 15 years	1 to 6, 8, 9 and 12 years
SEK	N/A	1, 2, 5, 7 and 10 years	1 to 10 years	1, 2, 5, 7, 10 years

2.72 The results for both the whole bond market coincide with those for the government bond market.

2.73 For the euro and for non-EEA currencies comparable assessment have not been carried out because trade volume and trade frequency data for government bonds of those currencies are not available. With regard to the euro a particular obstacle to the assessment is that there are no consistent data across the euro area countries.

2.2.4.4.3. Matching criterion

2.74 The following tables set out the result of the matching criterion calculations for 2016 to 2018. The matching criterion sets a limit to the LLP. The table provides that limit or, where no limit applies, a dash. The calculation was carried out for the whole best estimate as referred to in recital 30 of the Omnibus II Directive and for an alternative where cash-flows from best estimates for unit-linked and index-linked insurance are not included in the comparison. The alternative approach results in the same or in higher limits.

2.75 The calculation is based on liability data from the regular supervisory reporting of undertakings and bond data from the Centralised Securities

Database (CSDB)[19]. The liability data for 2016, the first year when undertakings had to provide cash-flow information, may be affected by reporting errors. The liability data for 2018 may not be complete because of late data reporting. Adding additional liability data could reduce the LLP limits that the matching criterion produces.

2.76 Compared to the LLPs currently used to derive the risk-free interest rates, the calculated limits would have an impact on the LLP for the euro, the Hungarian forint, the Norwegian krone and the Swedish krone by reducing the LLP.

Limit to the LLP resulting from the matching criterion

	Maximum LLP according to the matching criterion					
	All best estimate cash-flows			**Without cash-flows from best estimates for UL/IL insurance**		
	2016	**2017**	**2018**	**2016**	**2017**	**2018**
EUR	10	15	15	10	15	23
CHF	-	-	-	-	-	-
CZK	24	27	19	24	27	22
GBP	-	-	-	-	-	-
HRK	10	15	14	10	15	14
HUF	16	14	13	16	14	13
ISK	-	-	-	-	-	-
NOK	10	10	7	10	10	9
PLN	13	12	11	13	12	11
RON	11	10	13	11	10	13
SEK	10	6	5	10	9	10

2.2.4.4.4. Residual volume criterion

2.77 EIOPA calculates the residual volume criterion on the basis of CSDB data which provides a limited data history. In order to assess the residual bond criterion for a longer historical time period, a subset of the bond universe was assessed based on information from Bloomberg. This subset was considered sufficiently large and representative to investigate the results of the residual bond criterion over time.

2.78 Based on the bond data from Bloomberg, the residual bond criterion was assessed for the euro and other currencies. The outstanding volumes of bond

[19] https://www.ecb.europa.eu/pub/pdf/other/centralisedsecuritiesdatabase201002en.pdf

cashflows are displayed in annex 2.5. Based on a threshold of 6%, the results are displayed in the following table.

Limit to the LLP resulting from the residual bond criterion – threshold 6%[20]

	EUR	USD	AUD	JPY	CHF	GBP	RON	HRK
2006	22	25	13	19	43	49	14	n/a
2007	22	25	14	19	29	48	13	n/a
2008	21	25	13	19	28	47	12	n/a
2009	20	26	12	20	27	46	20	n/a
2010	20	27	12	20	26	45	19	10
2011	18	27	14	23	25	44	10	9
2012	20	27	15	24	25	43	15	8
2013	20	27	14	25	20	39	14	7
2014	20	27	15	24	19	38	13	6
2015	20	27	14	26	20	38	12	11
2016	21	27	14	27	21	39	11	10
2017	22	27	13	27	20	38	10	11
2018	22	27	10	27	20	37	10	11
2019	22	27	14	27	20	38	10	15
Q12020	22	27	14	27	20	38	10	15
Q22020	22	27	15	27	20	38	10	15

	ISK	HUF	NOK	CZK	PLN	SEK
2006	19	14	26	30	22	16
2007	18	16	25	30	15	21
2008	25	15	24	29	21	20
2009	25	16	21	28	20	30
2010	25	15	15	27	19	29
2011	23	17	15	26	18	28
2012	22	16	14	25	17	27
2013	37	10	10	26	15	10
2014	36	11	10	25	14	11
2015	35	10	10	20	11	10
2016	34	11	10	19	11	10
2017	31	10	10	18	11	10
2018	32	9	13	17	10	10
2019	23	11	9	20	10	9
Q12020	23	11	10	16	10	9
Q22020	23	11	10	16	10	9

2.79 Annex 2.6 also includes a sensitivity analysis with respect to the threshold.

[20] EIOPA has also analysed the total amount outstanding of bonds and jumps in the resulting LLP are usually paired with jumps in the total amount outstanding in a certain currency.

2.2.4.4.5. Implications of the DLT assessment

2.80 The DLT assessment evidence has the following implications for the financial instruments used to derive the risk-free interest rates with significant impact. The matching criterion was not taken into account in the implications.

	Status quo on instruments used and LLP	DLT assessment implication
CHF	Swaps, LLP 25	New LLP 10
CZK	Swaps, LLP 15	New LLP 10
GBP	Swaps, LLP 50	New LLP 30
HUF	Government bonds, LLP 15	Change to swaps, new LLP 10
PLN	Government bonds, LLP 10	Change to swaps, LLP 10
RON	Government bonds, LLP 10	New LLP 12
USD	Swaps, LLP 50	New LLP 30

2.2.4.5. Introduction of changes to the extrapolation method

2.81 EIOPA acknowledges that the impact of the extrapolation varies depending on the market situation of when a change of the extrapolation is implemented.

2.82 In particular, as observed during the Covid-19 pandemic interest rates have decreased considerably which influences the impact of the introduction of a change to the extrapolation. As observed in the CIR, the impact was considerably higher at Q2 2020 than at YE 2019 as tested in the HIA.

2.83 Therefore, it needs to be considered how changes to the extrapolation method can be introduce when interest rates are extremely low.

2.2.5. Analysis

2.2.5.1. Options considered

2.84 In view of the descriptions above, EIOPA has considered several policy options on the determination of the LLP (policy issue I).

Option 1: No change

Option 2: The LLP stays at 20 years for the euro and additional safeguards are introduced in pillar 2 and 3

2.85 This option would target identified issues on risk management incentives with the help of additional requirements in pillar 2 or pillar 3. The requirements are as follows:

- Insurance and reinsurance undertakings should be required to perform prescribed sensitivity analyses on an extension of the LLP for the euro to 50 and include the results in the regular supervisory reporting (RSR)[21].
- Undertakings report the results of this sensitivity analyses in the SFCR to foster transparency and market discipline.

2.86 Under this option the criteria for the determination of the LLP would be left unchanged, in particular the reference to the bond markets.

Option 3: The LLP is increased to 30 years for the euro

2.87 The option aims to strike a balance between, on the one hand, improving the market-consistency of technical provisions and avoiding problematic risk management incentives and, on the other hand, the stability of technical provisions and own funds.

2.88 The option would be implemented by introducing a general ceiling for the LLP. Where the DLT assessment would show that financial instruments for maturities beyond 30 are traded in deep, liquid and transparent market, as currently for the euro swaps of maturities 40 and 50 years, they would not be taken into account in deriving the extrapolated rates.

2.89 The assessment of the depth, liquidity and transparency of the bond market, including the matching criterion and the residual volume criterion would not be used anymore to determine which maturities of the swap market should be used to derive the risk-free interest rates.

2.90 This option would target identified issues on risk management incentives with the help of additional requirements in pillar 2 or pillar 3. The requirements are as follows:

- Insurance and reinsurance undertakings should be required to perform prescribed sensitivity analyses on an extension of the LLP for the euro to 50 and include the results in the regular supervisory reporting (RSR)[22].
- Undertakings report the results of this sensitivity analyses in the SFCR to foster transparency and market discipline.

Option 4: The LLP is increased to 50 years

2.91 This option is in line with the outcome of the DLT assessment for euro swap markets which shows that 50 years is the largest maturity for which swaps are traded in deep, liquid and transparent markets.

2.92 The assessment of the depth, liquidity and transparency of the bond market, including the matching criterion and the residual volume criterion would not

[21] This could be implemented by adding another column in S.22.01. in the annual QRT.

[22] This could be implemented by adding another column in S.22.01. in the annual QRT.

be used anymore to determine which maturities of the swap market should be used to derive the risk-free interest rates.

Option 5: An alternative extrapolation method is adopted

2.93 Rather than moving the LLP, EIOPA has analysed an alternative extrapolation method, specified in annex 2.6. This option would not only affect the risk-free interest rate term structure for the euro, but for all currencies.

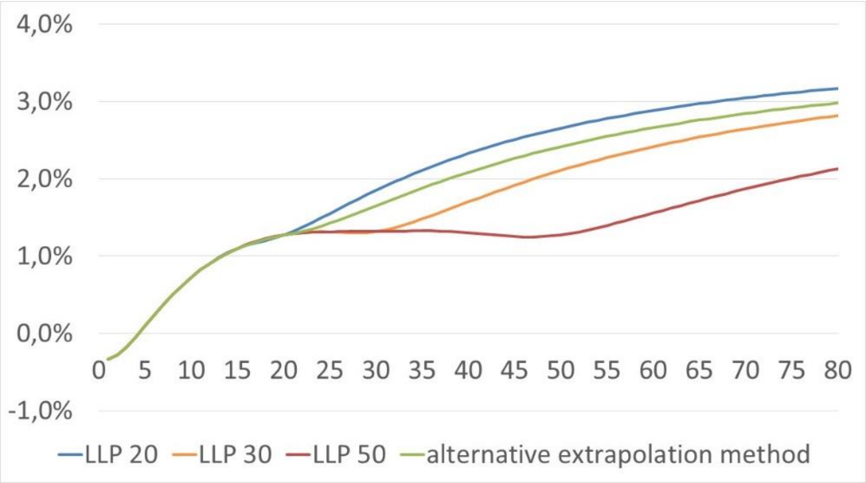
2.94 The alternative extrapolation method takes into account market data beyond the current LLP; in the alternative extrapolation method the LLP is referred to as the first smoothing point, FSP. The weight of these data corresponds to their reliability measured by the DLT assessment.

2.95 Under this option, the criteria for the determination the maturities for which market are deep, liquid and transparent would be left unchanged. The reference to bond markets would remain and be implemented by means of the residual volume criterion for all currencies. The matching criterion would no longer be required.

2.96 This option would target identified issues on risk management incentives with the help of additional requirements in pillar 2 or pillar 3. The requirements are as follows:

- Insurance and reinsurance undertakings should be required to perform prescribed sensitivity analyses, a reduction of the convergence parameter to 5% and include the results in the regular supervisory reporting (RSR)[23].
- Undertakings report the results of this sensitivity analyses in the SFCR to foster transparency and market discipline.

2.97 The impact of these options on risk-free interest rate term structure is disclosed in the following graph.



[23] This could be implemented by adding another column in S.22.01. in the annual QRT.

2.98 For all of the options, additional safeguards are envisaged and outlined in section 2.7 on risk management.

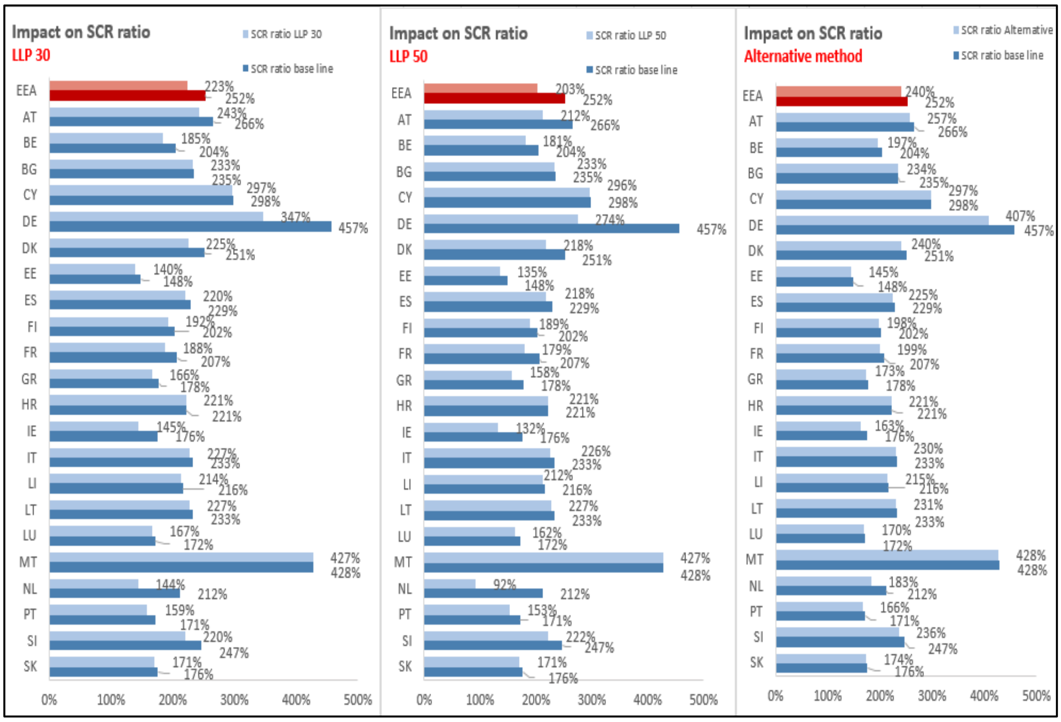
2.2.5.2. Impact of the options on the financial position

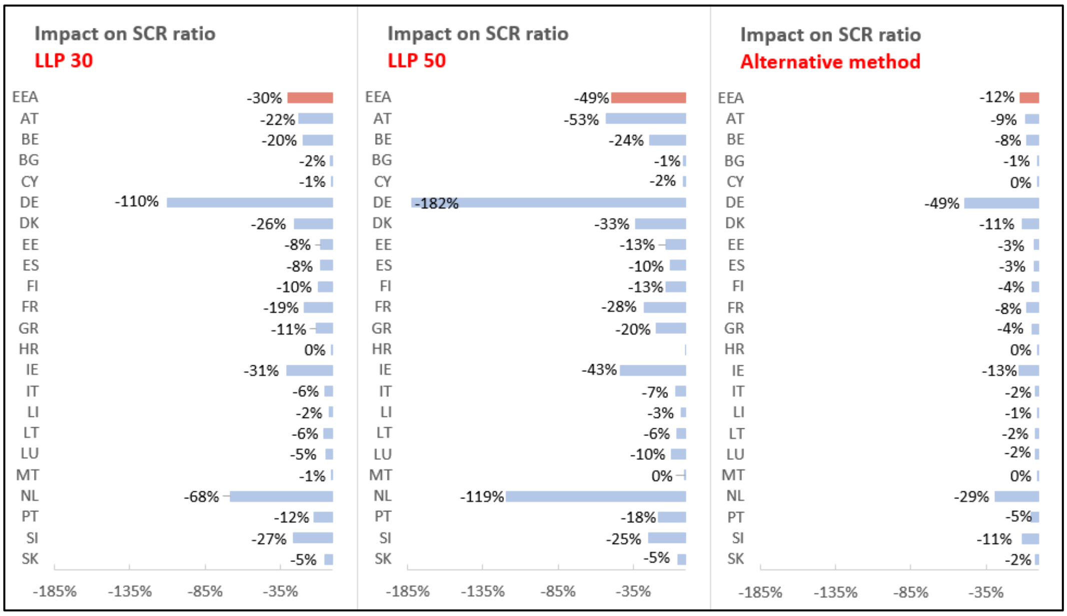
2.99 For the LTG reports 2017 and 2018 EIOPA has assessed the impact on undertakings' solvency position of increasing the LLP for the euro to 30 years. Accordingly, at the end of 2016 the increase of the LLP would have reduced the SCR ratio of undertakings with long-term cash flows on average from 240% to 211%. At the end of 2017 the SCR ratio of undertakings with long-term cash flows would have fallen on average from 238% to 215%.

2.100 For this advice EIOPA has carried out an information request to 299 insurance and reinsurance undertakings with long-term liabilities about the impact of an increase of the LLP for the euro to 30 years and to 50 years for the end of 2018. The impact varies across countries. At the end of 2018 large reductions can be observed for Germany (from 457% to 347% for an LLP of 30 years) and the Netherlands (from 212% to 144% for an LLP of 30 years) while for other countries of the euro area the impact is on average around 11 percentage points for an LLP of 30 years.

2.101 The impact of an increase of the LLP on the SCR ratio of undertakings is shown in the following diagrams. The first diagrams compare the current SCR ratio with an SCR ratio resulting from an increase of the LLP to 30 and 50 years. The second set of diagrams show the absolute impact on the SCR ratio in percentage points. The third diagram shows the impact of the alternative extrapolation methodology on the SCR ratio. As the method was not included in the information request, EIOPA has approximated the impact by interpolation. For that purpose the alternative term structure is considered as a combination of the term structure with an LLP of 20 and an LLP of 30. On average over the different maturities, the alternative method is approximately equal to 60 percent of the term structure with an LLP of 20 years plus 40 percent of the term structure with an LLP of 30 years. The eligible own funds and the SCR under the alternative term structure are than calculated as 60 percent of these values in the scenario with the LLP of 20 years and 40 percent of these values in the scenarios with an LLP of 30 years.

2.102 It should be noted that all SCR ratios include the impact of the transitionals where it is applied. Furthermore, it should be noted that that the impact displayed does not include the impact on the SCR of possible changes to the interest rate risk calibration (see section 5.1). A change of the LLP or extrapolation method could also have an impact on the interest rate risk calibration.



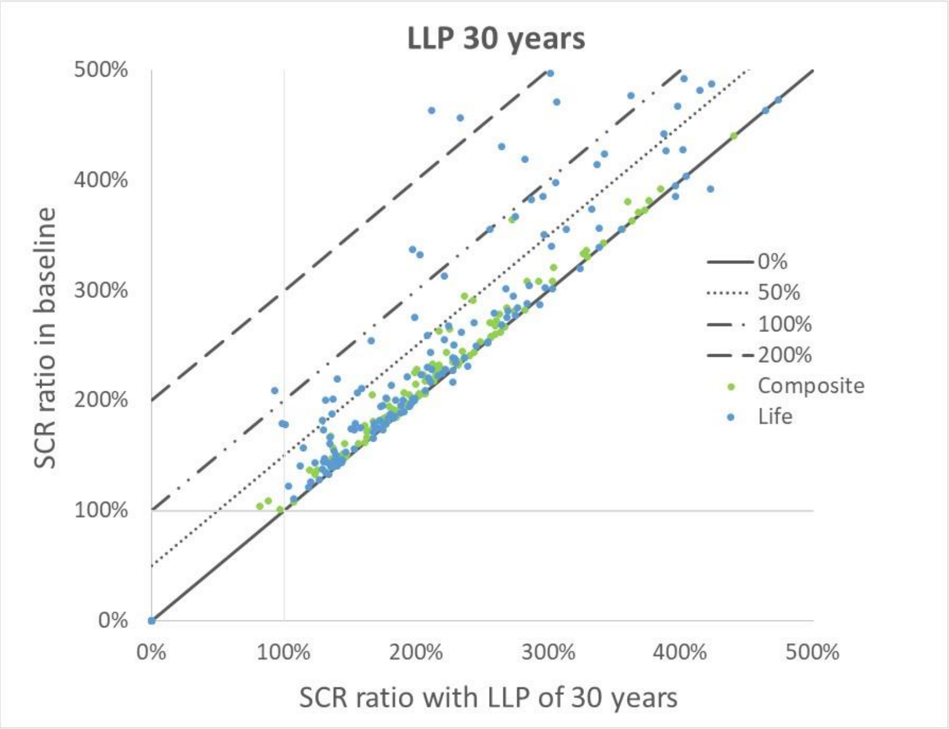


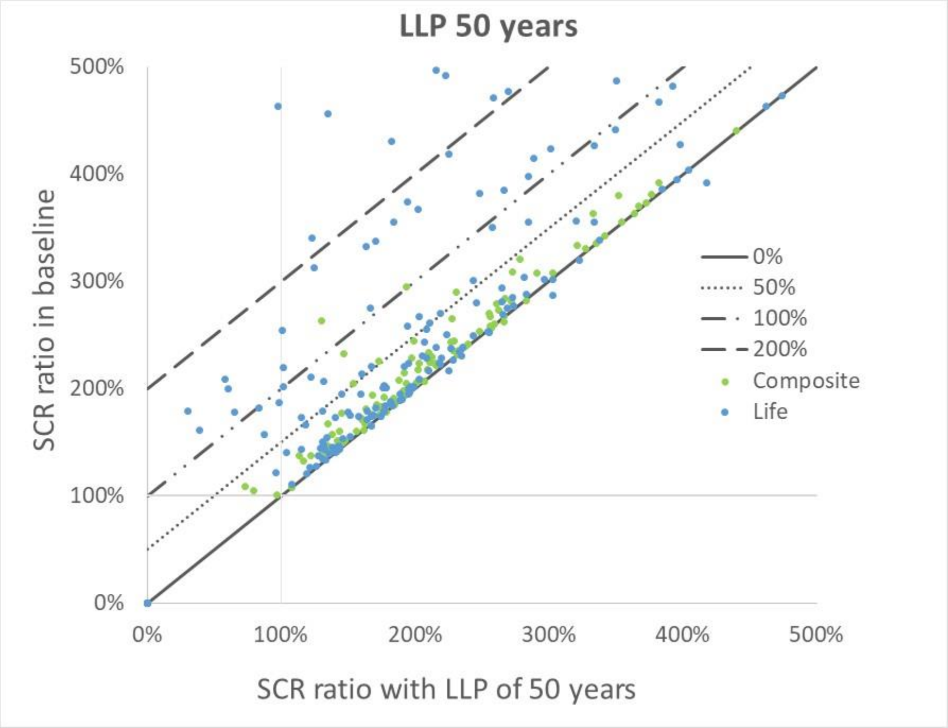
2.103 At EEA level, option 3 would result in a reduction of the SCR ratio by 30 percentage points, option 4 would result in a reduction of the SCR ratio by 49 percentage points and option 5 would result in a reduction of the SCR ratio by 12 percentage points. The average change in SCR ratios is the highest for undertakings in Germany and the Netherlands.

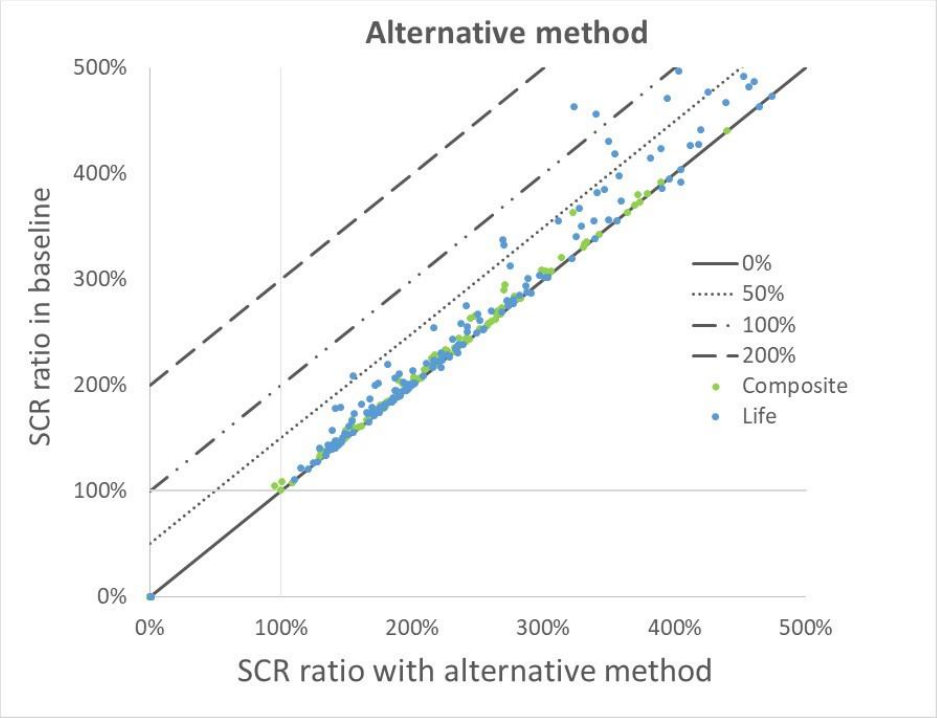
2.104 For each undertaking in the sample, the following graphs show the individual solvency ratios in the baseline (including all other LTG measures and measures on equity risk) against the solvency ratios in each of the options (option 3 (LLP 30), option 4 (LLP 50) and option 5 (alternative extrapolation method)).

2.105 Each dot in the diagrams represents one undertaking. The type of each undertaking is indicated by the colour of the dot. The horizontal axis relates to the SCR ratio in the individual options. The solvency ratios in the baseline are shown on the vertical axis. The SCR ratio of 100% that undertakings are required to have under Solvency II is indicated by additional vertical and horizontal lines. The more an undertaking is located away from the diagonal line, the bigger the impact of the measures. The broken diagonal lines correspond to an absolute impact of 50, 100 and 200 percentage points on the SCR ratio.

2.106 The graphs show that the impact is very diverse across undertakings. Note that only those undertakings are displayed in the graphs that do not exceed 500% of solvency ratio in the baseline or the scenario considered.



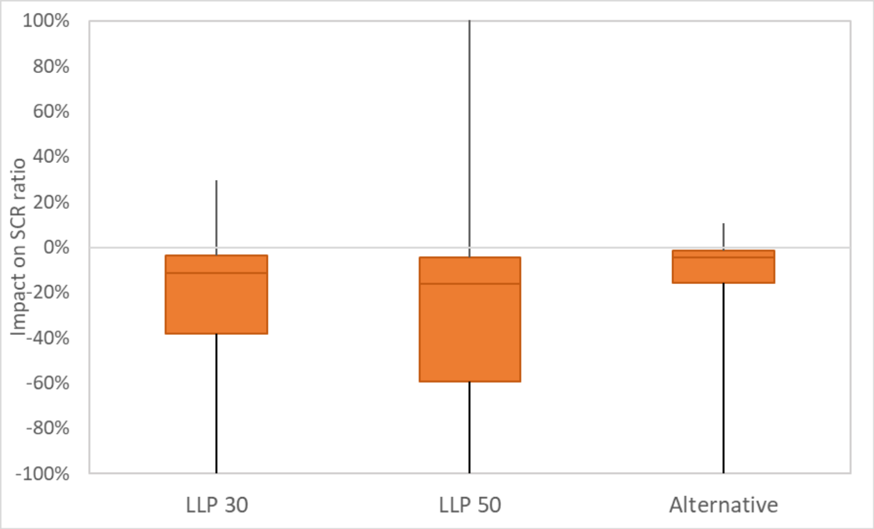




2.107 In terms of SCR ratio, 27 undertakings reported an absolute impact of more than 100 percentage points for changing the LLP to 30 years. For an increase of the LLP to 50 years, this was the case for 56 undertakings and for introducing an alternative extrapolation method for 7 undertakings. The vast majority thus reported an absolute impact lower than 100 percentage points for all scenarios.

2.108 5 undertakings reported an SCR ratio below 100% for an LLP of 30 years. This is the case for 13 undertakings in case of an LLP of 50 years and for 2 undertakings under the alternative extrapolation method.

2.109 The box-plots below illustrate how the impact of the options compared to the baseline (including VA, MA and measures on equity risk and equity transitional) is distributed across undertakings, by showing the 1st and 3rd quartiles and the median of reported impacts in percentage points. The median of reported impacts does not differ significantly across the three options, however the distribution of the first and second quartiles does vary considerably. The widest distribution is observed for the increase of the LLP to 50 years, followed by the increase to the LLP to 30 years and it is smallest for the alternative extrapolation method. A number of outliers are observable with impacts even below -100.



2.110 Regarding the alternative method (option 5), an impact assessment also has to be made for other currencies than the euro. The table below shows that for more than half of the currencies the LLP coincides with the First Smoothing Point (FSP) used in the alternative method. For these currencies the difference between the two curves is negligible. Also for currencies where the FSP is earlier and market data is used until the LLP, but weighted based on liquidity, the impact does not seem to be large. Annex 2.7 provides an overview of the interest rate term structures for various currencies under the current and the alternative method.

2.111 In general, the impact of the new methodology or a variation in extrapolation depends on the market situation considered. See also the impact assessment background document for further information on the impact of the extrapolation as at YE 2019 and Q2 2020.

2.112 The following table compares the main parameters of the current method (assuming updates due to the DLT assessment 2019) with those of the alternative extrapolation method:

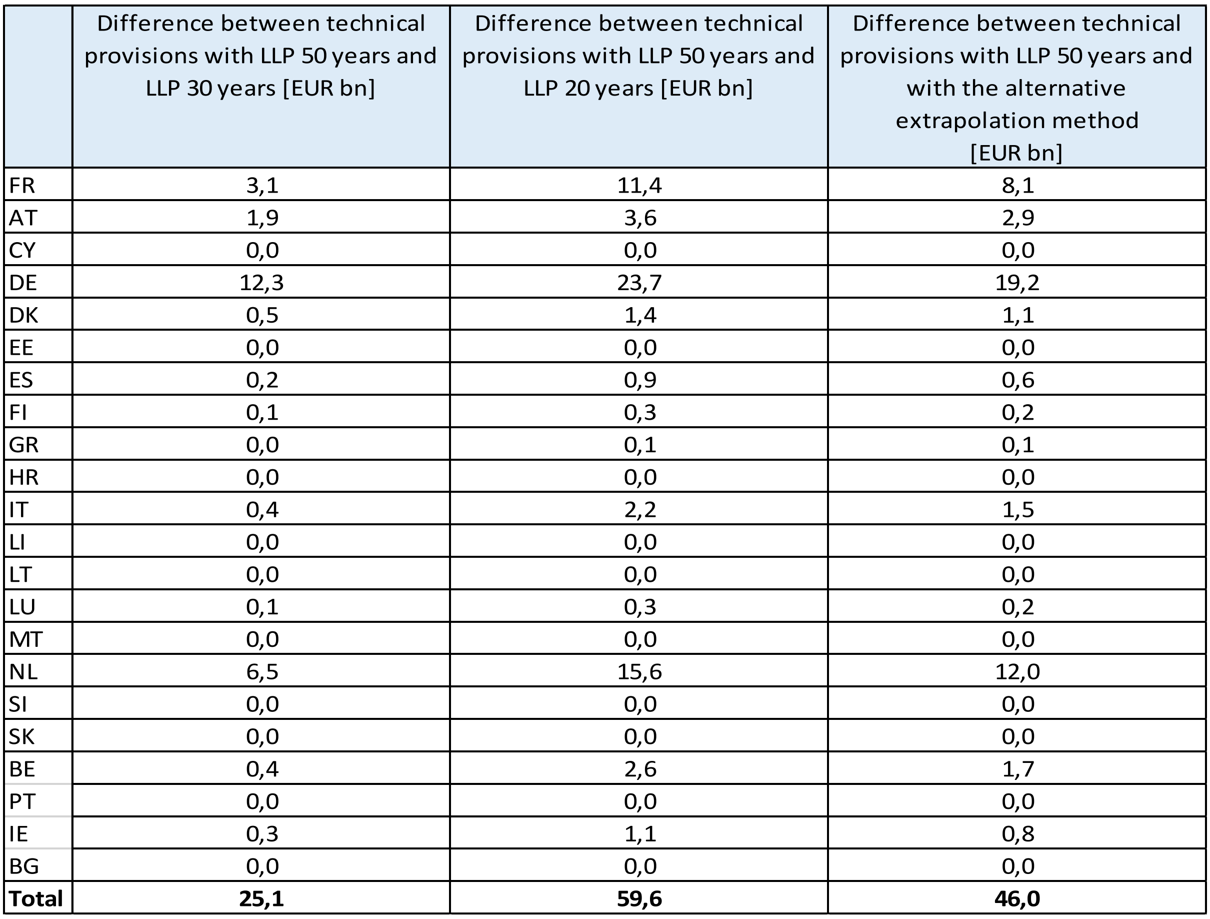
	LLP	First smoothing point	Market data used until
EUR	20	20	50
USD	30	25	30
AUD	30	15	30
JPY	30	25	30
CHF	10	10	10
GBP	30	30	30
RON	12	10	12
HRK	13	9	13
HUF	10	10	10
NOK	10	10	10
CZK	10	10	10
PLN	10	10	10
SEK	10	10	10

2.2.5.3. Assessment of the options in view of the issues identified

2.2.5.3.1. Impact of options on Issue I – Underestimation of technical provisions

2.113 The graph included in section 2.2.4.1 already outlined the differences in interest rates for the extrapolated part compared to market rates.

2.114 Option 4 (LLP of 50 years) would remove the underestimation issue. Option 3 (LLP of 30 years) and option 5 would partially address the issue while option 2 (LLP of 20 years with safeguards) would not address the issue at all. The following table sets out the difference between technical provisions calculated on the basis of all available data from deep and liquid swap markets (as derived with a LLP of 50 years) and technical provisions derived with LLPs of 20 and 30 years as well as with the alternative extrapolation method. The figures relate to 299 insurance and reinsurance undertakings with long-term liabilities and reference date 31 December 2018. The results derived for the alternative extrapolation method were not part of the information request but are interpolated based on these data*.*

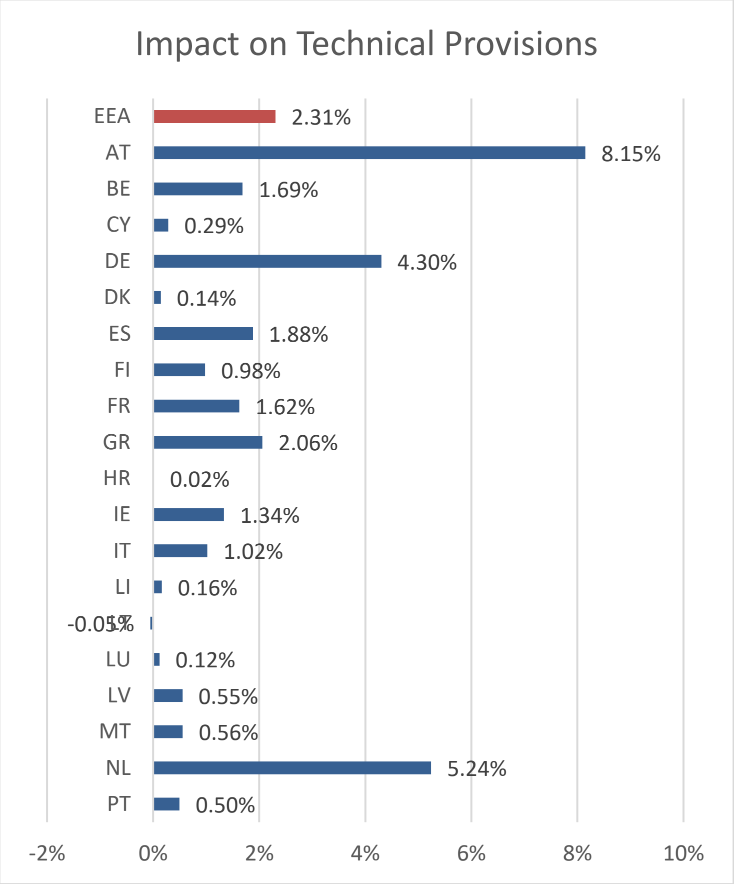


	Difference between technical provisions with LLP 50 years and LLP 30 years [EUR bn]	Difference between technical provisions with LLP 50 years and LLP 20 years [EUR bn]	Difference between technical provisions with LLP 50 years and with the alternative extrapolation method [EUR bn]
FR	3,1	11,4	8,1
AT	1,9	3,6	2,9
CY	0,0	0,0	0,0
DE	12,3	23,7	19,2
DK	0,5	1,4	1,1
EE	0,0	0,0	0,0
ES	0,2	0,9	0,6
FI	0,1	0,3	0,2
GR	0,0	0,1	0,1
HR	0,0	0,0	0,0
IT	0,4	2,2	1,5
LI	0,0	0,0	0,0
LT	0,0	0,0	0,0
LU	0,1	0,3	0,2
MT	0,0	0,0	0,0
NL	6,5	15,6	12,0
SI	0,0	0,0	0,0
SK	0,0	0,0	0,0
BE	0,4	2,6	1,7
PT	0,0	0,0	0,0
IE	0,3	1,1	0,8
BG	0,0	0,0	0,0
Total	**25,1**	**59,6**	**46,0**

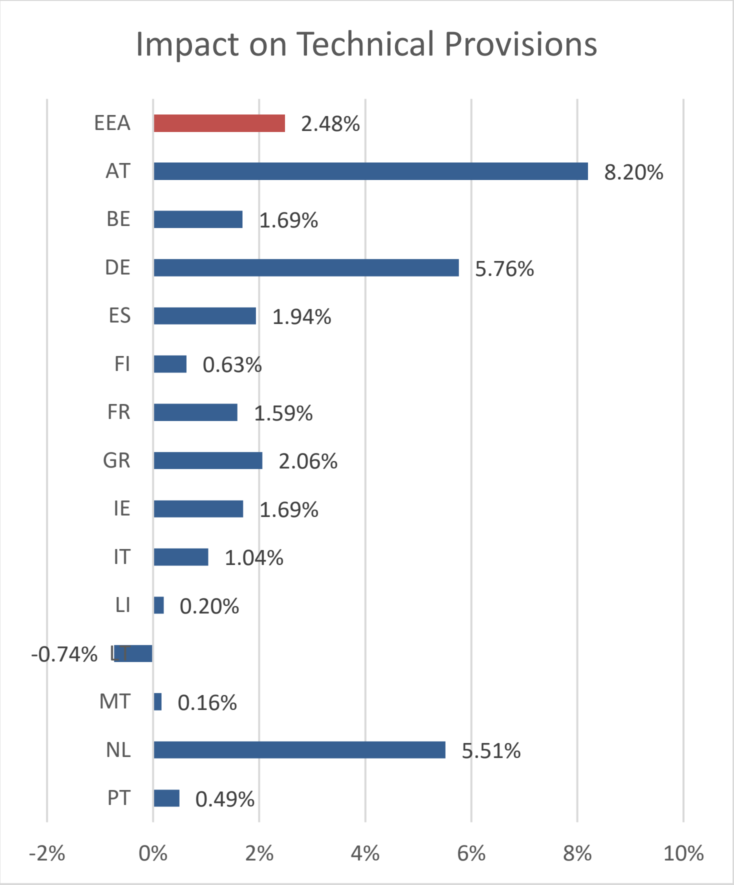
2.115 EIOPA updated that assessment as part of the CIR which included a calculation of the LLP to 30 years for the euro and its impact on technical provisions.

2.116 For the total CIR sample, technical provisions increase by 2.3% where the LLP for the euro is changed to 30. Though, as expected, results vary by country and by type of undertaking.

2.117 The following graph outlines the impact for the different markets for the whole CIR sample including all types of undertakings:



2.118 As the sample is different from previous information requests, the results cannot be directly compared to earlier analysis, e.g. from the LTG report 2019. Though, the numbers still indicate that the impact of an LLP 30 would – on average - be higher at Q2 2020 than in times of a more moderate interest rate environment, e.g. as at YE 2018. The following graph outlines the impact for the different markets focussing on life and composite undertakings only. The results are a bit more accentuated compared to the total sample.

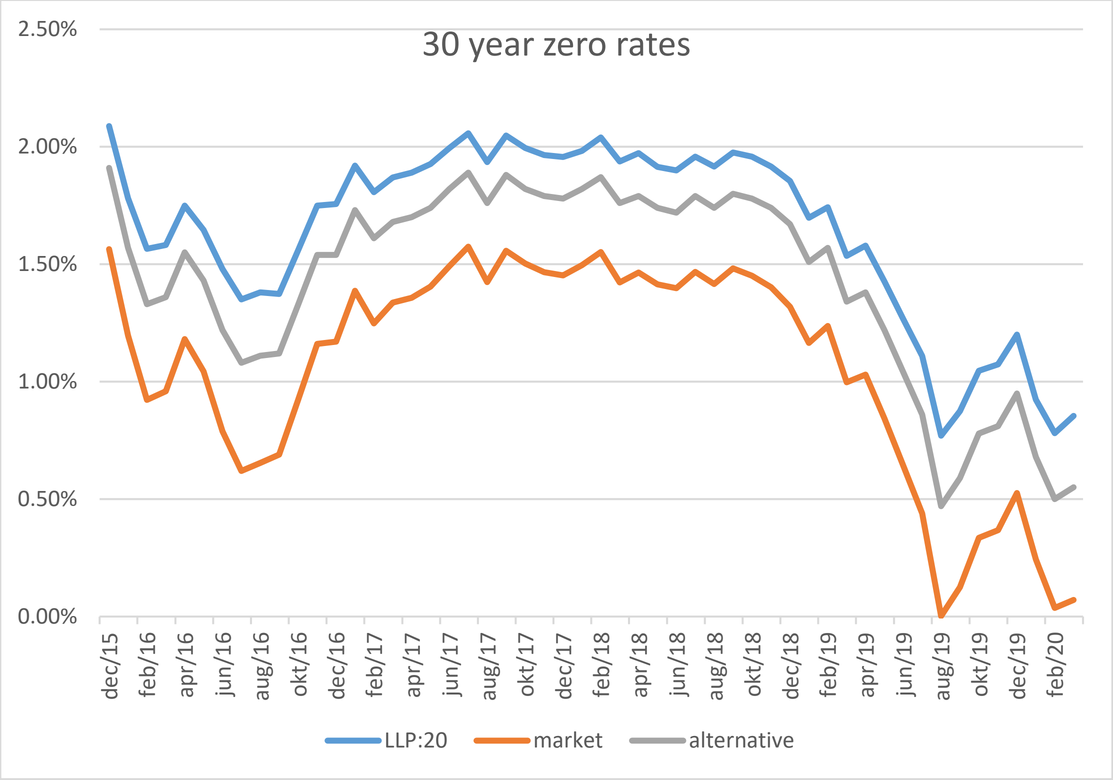


2.119 For the whole sample of the CIR, the impact of a shift of the LLP of the euro to 30 has an impact of EUR 124 bn in terms of Technical Provisions.

2.120 An analysis of the materiality of the potential of future unwind of losses needs to be considered over time respecting the "lifetime" of a long-term guarantee product in insurers balance sheets.

2.121 The following graph outlines the extrapolated rates for maturity 30 and the observed market rates for the time-period Q1 1999 – Q2 2020. This analysis takes into account the effect of changes to the ultimate forward rate (UFR) on the extrapolated rates[24].

[24] See also page 95 of EIOPA's LTG report 2018.



2.122 As outlined in at the beginning of this chapter the extrapolation is symmetric, extrapolated rates may exceed or be lower than observed market rates. As can be seen in the graph during times of higher interest rates the extrapolated rates tended to be lower than market rates, whereas in current times of low interest rates the extrapolated rates exceed the observed market rates. So, whether technical provisions are over- or underestimated can change through the life-time of the contract. If market forward rates beyond the applicable LLP increase to the level of the UFR (currently 3.9% but decreasing) then underreserving will disappear.

2.123 As outlined in section 2.2.4.1, where undertakings earn lower rates than the interest rates used to calculate their technical provisions, deficiencies show up in the balance sheet (and vice versa for surpluses). Where undertakings earn sufficient returns exceeding risk-free market rates, no deficiencies will arise. However, undertakings need to take risks to actually earn such excess returns to compensate the decrease of own funds over time; they no longer can meet their liabilities risk-free. On top of that, if during the lifetime of the liabilities the undertaking breaches its SCR and/or MCR, the liabilities may need to be transferred, but cannot be transferred because of the underreserving that is then still in place.

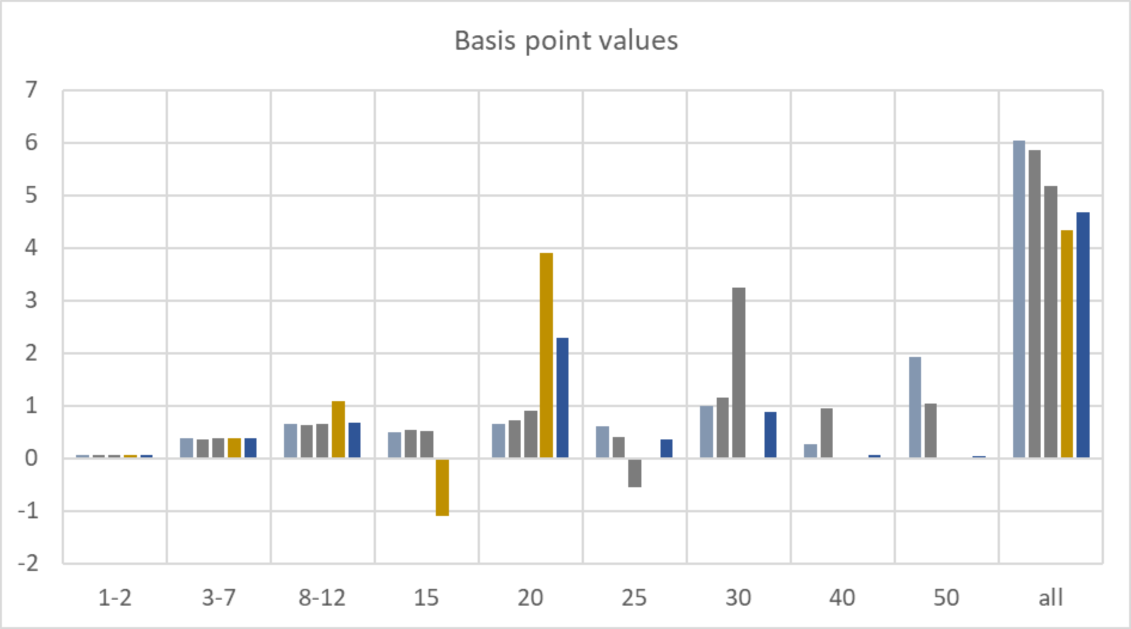
2.2.5.3.2. Impact of options on Issue II – Risk management incentives

2.124 The figure below shows that the options with an LLP of 30 or 50 years or the alternative extrapolation method reduce the wrong risk management incentives described in section 2.2.4.2 as they bring the interest rate sensitivity of the extrapolated term structure closer to market reality. With an LLP of 30 years the negative interest rate sensitivity moves to the 25 year rates, but decreases compared to the term structure with an LLP of 20 years. For the LLP of 50 years and for the alternative method, on an aggregate level, there are no longer negative interest rate sensitivities. All options increase the interest rate sensitivity to 30 year rates, but this increase is modest for the alternative method, while it is significantly larger for the option with an LLP of 30 years. In contrast to hedging the risks in financial markets, hedging the regulatory value of the liabilities undertakings would require to buy more 30 year bonds and swaps under the option with an LLP of 30 years than under the alternative method as well as under the option with an LLP of 50 years. If the alternative method would be implemented undertakings would have to replace part of their 20 year swaps and bonds with 25 and 30 year bonds and swaps.

2.125 The total interest rate sensitivity if all swaps decrease by 1 basis point, presented in the column 'all', increases for all options, but is modest for the alternative method. Under the alternative method matching the cash flows for 75 percent would hedge the interest rate sensitivities of the regulatory value of the liabilities whereas this is 70 percent under the current LLP of 20 years; the total interest rate sensitivity increases from a bit over 4 billion euros to 4.5 billion euros compared to a total PVBP of 6 billion euros under pure market interest rates (market flat). To hedge the total interest rate sensitivities under the option with an LLP of 30 years the total PVBP of the assets would have to increase to a bit over 5 billion euros; i.e. a cash flow hedge of approximately 85 percent would make the regulatory valuation of the liabilities insensitive to changes in the swap rates. With an LLP of 50 years the cash flow match would need to be almost 100 percent to match the interest rate sensitivities of the liabilities.

2.126 Although the alternative method relies on the 40 and 50 year swap rates, there is hardly any exposure to these rates. This is due to the fact that the weights of these rates are based on the extent of illiquidity; the liquidity of the 40 and 50 years swap rates is significantly lower than the liquidity of the 30 year swap rate and therefore the 30 year swap rate sensitivity dominates the 40 and 50 year sensitivities. In this way, the alternative method automatically adjusts the interest rate demand for less liquid maturities if the liquidity of a specific maturity increases or decreases.

Interest rate sensitivities of insurer's liabilities cash flow



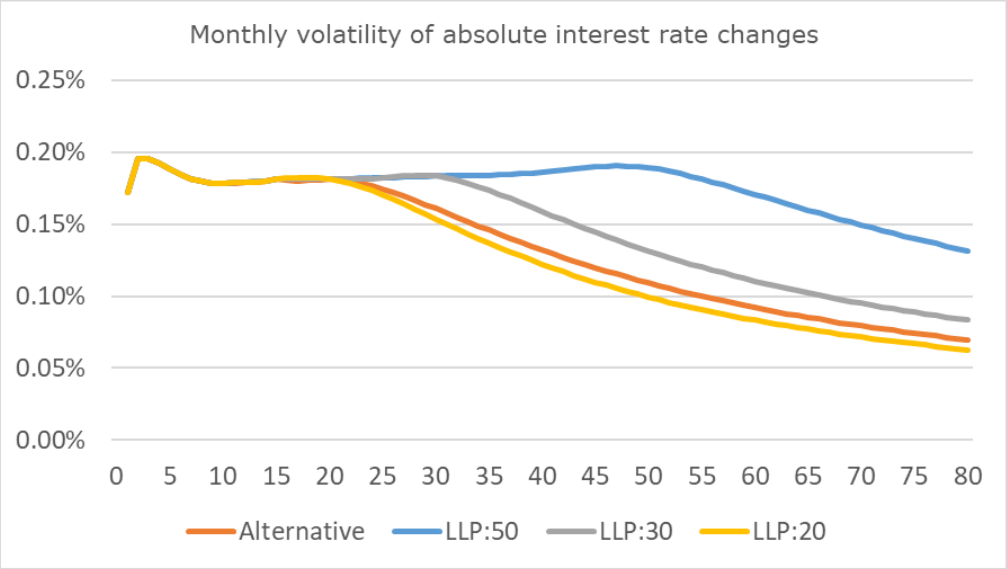
Interest rate sensitivities in terms of basis points values for the respective swap rates at the x-axis for the different extrapolation methods based on 60 equal annual cash flows of 100; 'all' indicates the total interest rate sensitivity.

2.2.5.3.3. Impact of options on Issue II – Stability of the solvency position and impact on financial stability

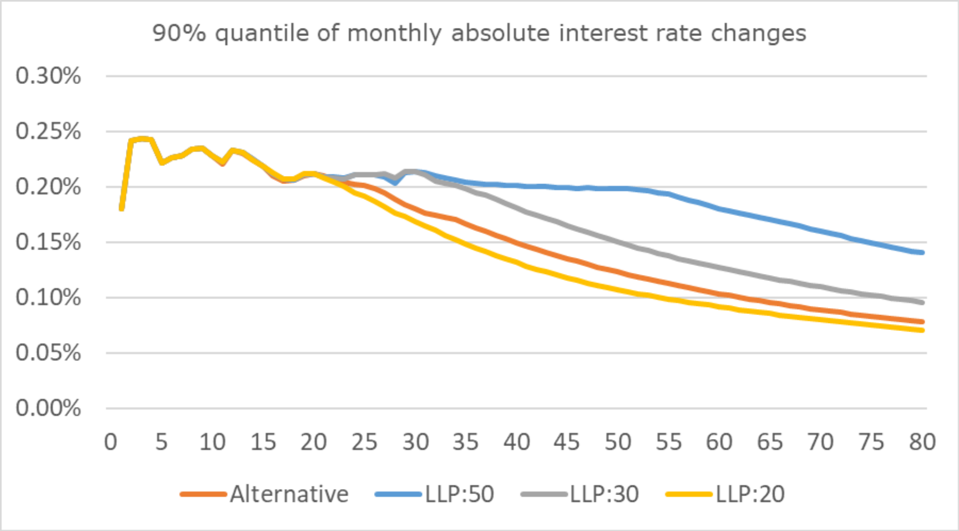
2.127 For the LTG report 2018 EIOPA has also analysed the impact of changes to the LLP on the volatility of risk-free interest rates and own funds. The analysis showed that the volatility of interest rates decreases with increasing maturity after the LLP.

2.128 The following graph shows the monthly volatility of the absolute changes in interest rates. Compared to the results shown in the LTG report 2018[25] the graph also shows the results for an LLP of 50 years and the alternative extrapolation method. The historical rates for the alternative method were derived by fixing the weights to the most recent weights. Euro swap rates for the current DLT maturities were available from December 1998 with the exception of the 40 and 50 year swap rates that were available from September 2000; before September 2000 the 40 and 50 year rates were set equal to the 30 year swap rate at that time. For the interest rates with an LLP of 30 and LLP of 50 an increase in standard deviation is observable beyond 20 years compared to an LLP of 20 years. For the alternative extrapolation method, the long-term interest rates are slightly more volatile than under the current method for a LLP of 20 years, but are significantly less volatile than compared to the other proposed options.

[25] Cf. page 98 of EIOPA's LTG report 2018.



2.129 In addition to the observation of quarterly changes in spot rates, the analysis also considered maximum and 90% quantile of quarterly changes of spot rates as a relevant metric to assess and compare volatility of interest rates (reflecting "jumps" in interest rates of one monthly to another). The following graph outlines the empirical 90% quantile of quarterly changes in spot rates. Again, compared to the results shown in the LTG report 2018, the graph now also includes the results for an LLP of 50 and the alternative extrapolation method.



2.130 For option 4 it can be observed that the 90% quantile increases for the whole extrapolated part of the risk-free term structure compared to the base case. The increase is different for option 3 where a higher increase in results can be observed in particular for maturities 20 to 37. Under both options, the quantiles would still usually be lower than that of the not-extrapolated rates.

2.131 The available data in 2018 were not sufficient to draw conclusions on what the impact of an increased LLP on the volatility of own funds would be.

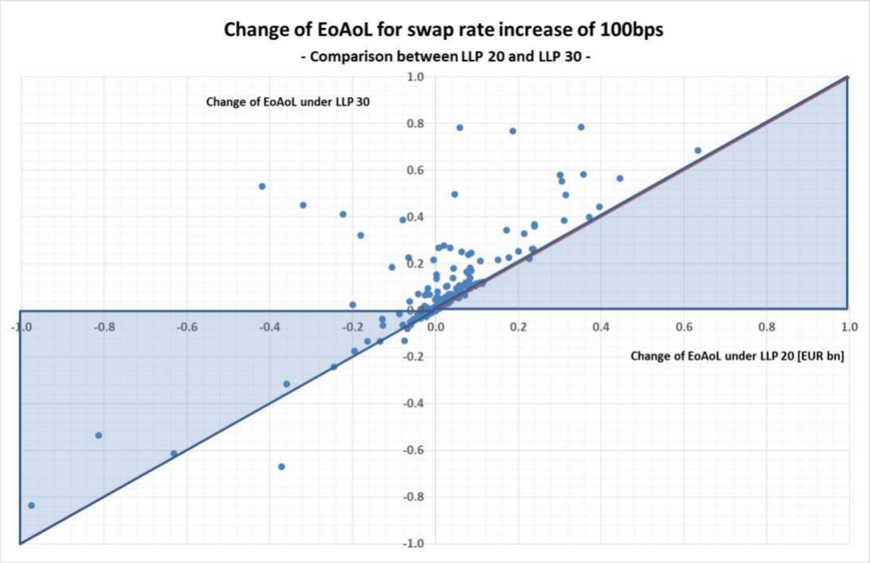
2.132 For the Opinion on the 2020 review EIOPA has therefore carried out an information request to insurance and reinsurance undertakings about the impact of an increase of the LLP for the euro to 30 years and to 50 years as well as for the alternative extrapolation method for the end of 2018.

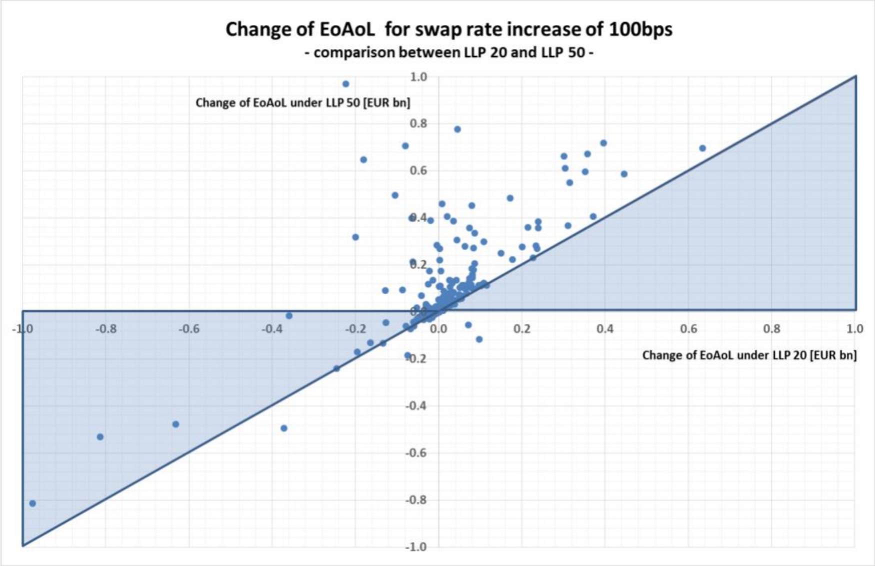
2.133 The following diagrams set out first results from the volatility analysis. Undertakings were asked to assess the effect of an increase of swap rates by 100 bps on their assets and liabilities under different LLPs for the euro. The diagrams show the impact of the increase in swap rates on the excess of assets over liabilities (EoAoL). Each dot in the diagrams represents an undertaking. The horizontal position of a dot corresponds to the impact on EoAoL under an LLP of 20 years. The vertical position of a dot corresponds to the impact on EoAoL under an LLP of 30 years (first diagram), 50 years (second diagram) or the alternative extrapolation method (third diagram). The results derived for the alternative extrapolation method are interpolated based on results for the LLP of 30 and 50 years.

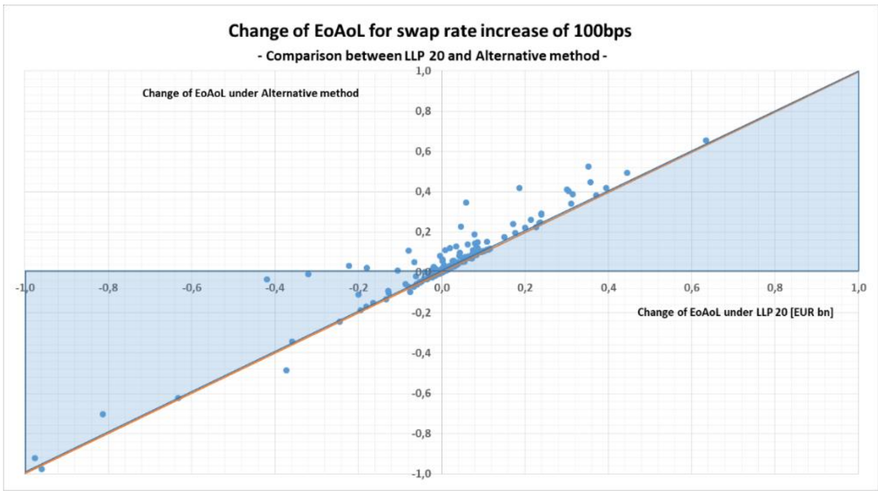
2.134 For undertakings positioned on the red diagonal of the first diagram, the impact of the 100 bps increase is the same under an LLP of 20 years and an LLP of 30 years. For the undertakings in the blue marked triangular areas the impact is lower under an LLP of 20 years than under an LLP of 30 years. The same interpretation applies to the second and third diagram.

2.135 Undertakings in the upper left (or lower right) quadrant of the diagrams experience a loss under the LLP of 20 years and a gain under the LLP of 30 years or 50 years or alternative extrapolation method (and vice versa).

2.136 It should be noted that the measured impact reflects the current interest rate risk hedging of undertakings. Changing the LLP may have an impact on the hedging strategy and the volatility caused by interest rate shocks.







2.137 The following tables set out the pros and cons of Options 2, 3, 4 and 5 compared to the status quo (Option 1).

Option 2: The LLP stays at 20 years and additional safeguards are introduced in pillar 2 and 3	
Pros	**Cons**
Additional safeguards may mitigate issue II and concerns with respect to issue III, but effectiveness is unclear.	*None identified (compared to the status quo)*[26]

Option 3: The LLP is increased to 30 years	
Pros	**Cons**
Would improve market-consistency of the risk-free interest rate term structure and	Would increase volatility of own funds (but not as much as Option 4). There are

[26] See issues identified in section 2.2.4 with respect to the cons of the status quo

thereby partially mitigate the risk of underestimation of technical provisions.	concerns that this increased volatility could have procyclical effects where insurers are not closely matched.
Closer to outcome of DLT assessment of euro swap market than current LLP of 20 years.	The LLP would not be derived on the basis of a DLT methodology.
Would reduce wrong incentives for risk management, but not fully remove them	

Option 4: The LLP is increased to 50 years	
Pros	**Cons**
Would ensure market consistency of the risk-free interest rate term structure and avoid the underestimation of technical provisions.	Would increase volatility of own funds. There are concerns that the increased volatility could have procyclical effects where insurers are not closely matched.
In line with outcome of DLT assessment of euro swap market. One single DLT method for all currencies, no longer an exemption for the euro.	
Would remove wrong incentives for risk management.	

Option 5: An alternative extrapolation method is adopted	
Pros	**Cons**
Would slightly improve market-consistency of the risk-free interest rate term structure and thereby partially mitigate the risk of underestimation of technical provisions.	Moderate increase of volatility of own funds. There are concerns that the increased volatility could have procyclical effects where insurers are not closely matched.
Slightly closer to outcome of DLT assessment of euro swap market than current LLP of 20 years.	
Would reduce wrong incentives for risk management, but not fully remove them.	
Would be applicable to all currencies and an exemption for the euro would no longer be required.	

2.2.5.4. Introduction of changes to the extrapolation method

2.138 EIOPA also considered a mechanism to limit the impact of introducing the alternative extrapolation method when interest rates are extremely low specified as follows. The mechanism takes into account that low interest rates are mainly an issue with regard to the legacy book of insurance contracts. Those insurance contracts are running off and their relevance for the overall portfolio will reduce over time. Therefore the mechanism phases out over time.

2.139 During periods of very low interest rates for a currency the convergence parameter *a* of the extrapolation method should be modified in order to limit the impact of introducing the method. The modification should phase out until 2032 when also the transitionals on risk-free interest rates and on technical provisions will end. To achieve this the parameter *a* should be equal to:

- 10% when the risk-free interest rate at the FSP is 0.5% or higher
- *X* when the risk free interest rate at the FSP is -0.5% or lower
- Linearly interpolated for an interest rate at the FSP is between -0.5% and 0.5%

X should be equal to 20% during the first year of application of the alternative extrapolation method and decrease linearly to 10% in 2032. For currencies with a FSP of less than 15 years the starting value for *X* should be 14%.

The mechanism should not be applied with regard to the Swedish krona.

2.140 Safeguards should apply when the mechanism is triggered, in particular undertakings should disclose and report to supervisors the impact of the mechanism on their financial position in order to ensure transparency. For that purpose EIOPA would publish risk-free interest rate term structures with and without the mechanism.

2.141 When it is triggered for a currency the application of the mechanism would be mandatory for all undertakings with liabilities in that currency.

2.3. Matching adjustment

2.3.1. Diversification benefits

2.3.1.1. Extract from the call for advice

> ***3.2. Matching adjustment (Art. 77b, 77c) and volatility adjustment (Art. 77d)***
>
> *[…]*
>
> *b) Matching adjustment*
>
> *EIOPA is asked to provide an assessment of the quantitative impact on the calculation of the best estimate and the solvency position of insurance undertakings of the following approaches for the calculation/application of the matching adjustment:*
>
> - *Approach 1: a change in the current assumption of no diversification benefits (including full diversification); where EIOPA assesses*

assumptions of partial diversification, it should provide criteria and methods to determine the appropriate level of diversification;

- *[…]*

2.3.1.2. Relevant legal provisions

2.142 The MA portfolio is characterized by being a separated portfolio of assets and liabilities in which cash flows are matched, and assets assigned to that portfolio are exclusively devoted to cover the best estimate of the liabilities included in the portfolio.

2.143 Article 77b of the Solvency II Directive specifies the MA portfolio. The regulation does not require that the MA portfolio is a ring fence fund, as clarified in recital 36 of Directive 2014/51/EU (Omnibus II).

2.144 The legal texts clarify that the separated portfolio should be understood in an economic sense and a legal ring fenced fund is not required.

2.145 Nevertheless, according to Article 217 of the Delegated Regulation MA portfolios and ring-fenced funds are treated in the same way in the calculation of the SCR standard formula. In particular, the SCR of an undertaking with MA portfolios is the sum of notional SCRs calculated for those portfolios and for any other business.

2.146 The assets assigned to the separated portfolio are exclusively devoted to cover the best estimate of liabilities (expected losses) included in that portfolio, and are never used to cover any other losses. But the assets backing the SCR (they are other assets than the ones assigned to the MA portfolio) can be used to cover any unexpected loss, given there is only one SCR.

2.147 On the other hand, although assets included in the MA portfolio cannot be used to cover losses from the rest of the undertaking, assets from the remaining part of the undertaking can be used to pay for liabilities included in the MA portfolio if necessary.

2.3.1.3. Identification of the issue

2.148 Article 13(37) of the Solvency II Directive states:

'diversification effects' means the reduction in the risk exposure of insurance and reinsurance undertakings and groups related to the diversification of their business, resulting from the fact that the adverse outcome from one risk can be offset by a more favourable outcome from another risk, where those risks are not fully correlated;

2.149 Diversification benefit arises when two processes are not completely dependent on each other, and a bad (good) outcome for one process does not necessarily mean a bad (good) outcome for the other. In general, this diversification benefits are recognized in Solvency II through correlation matrices, in which correlation 1 is rare, what means that the aggregation of capital charges of different risks is usually smaller than the addition.

2.150 The limitation to the diversification benefits stated in Article 217 of the Delegated Regulation may discourage the use of the MA because it requires a higher amount of capital. There are examples where the loss of diversification in the SCR exceeds the increase of own funds resulting from the use of the MA in the calculation of technical provisions.

2.151 This restriction does not exist in other analogous cases in the Solvency II regime:

- Undertakings with internal models approved: approved internal models allow for diversification benefit between the MA portfolio and the remaining part of the undertaking. The restriction stated in Article 217 of the Delegated Regulation is applicable only to standard formula users.
- Mono-liner undertakings do not suffer this limitation. For undertakings devoted only to MA business, lack of diversification benefits is not a problem at all if they have the whole business under MA in one unique portfolio. But if this is not the case, diversification benefits will be lost with the current regulation. This may introduce an inappropriate disincentive to undertakings that want to diversify their risk exposure.
- Composites: composite undertakings are obligated to keep a separate management for life and non-life insurance, but there is a single SCR for which diversification benefits among life and non-life business are recognized (Articles 73 and 74 of the Solvency II Directive). To calculate the group SCR the diversification benefits between life and non-life undertakings are considered.

2.3.2. Analysis

2.152 Where the business of an insurance undertaking is divided into different sub-portfolios, a risk event to which the undertaking is exposed to could affect these sub-portfolios in different ways. In case where a risk event leads to a loss in one sub-portfolio, but to a gain in another sub-portfolio, in order to net off such gains and losses the undertaking would generally need to transfer assets between these portfolios. Where assets assigned to a sub-portfolio cannot be used to cover losses arising from risks on other sub-portfolios, the undertaking may not be able to realize the full diversification effects between the different sub-portfolios. Therefore, restrictions on diversification benefits can be economically justified in such a setting.

However, in the specific context of the MA EIOPA considers that for the reasons set out below restrictions on diversification benefits would not be justified:

- Assets assigned to the MA portfolio have to cover the best estimate of liabilities included in the portfolio (Article 77b(1)(a)).

2.153 The cash flow matching is only possible if cash-flows derived from assets and liabilities are predictable. Strict criteria are stated in the regulation to allow the matching adjustment only where these criteria are met. Cash flows derived from fixed income assets can only cover expected payments derived from insurance obligations, because only expected payments are predictable in time and size. In the context of the MA, a cash flow matching with regard to unexpected payments would not be possible. In the Solvency II framework, expected cash flows are allocated to the technical provisions, specifically to the best estimate, and unexpected losses (payments) in the SCR. According to this, Article 77 b(1)(a) of the Solvency II Directive points out that the assets assigned to the matching portfolio have to cover the best estimate of the portfolio of insurance or reinsurance obligations.

- And these assets covering the best estimate cannot be used to cover losses arising from other activities of the undertakings (Article 77b(1)(b)).

2.154 Assets assigned to the matching portfolio have to cover the expected payments (BE) and no additional payments. This is a logical consequence of the cash-flow matching: if these assets were used to cover losses arising from other activities of the undertaking (i.e. activities outside the matching portfolio), the cash flow matching would be in danger.

- The assets assigned to a matching portfolio only need to cover the expected payments (best estimate) from the business included in that portfolio. Therefore, it is not necessary to have assets to cover either the risk margin or the SCR for the business included in the matching portfolio.

2.155 Payments covered by the risk margin or SCR are not predictable. Therefore, it is not possible to match these payment with the cash flows derived from fixed income assets. For this reason, risk margin and SCR are out of the scope of the matching portfolio. This is confirmed by the point 1.5 of the introduction of the Guidelines on ring-fenced funds (EIOPA BOS 14/169), that points out that "the requirement to calculate a notional SCR in respect of a ring–fenced fund does not require undertakings to maintain an amount of own funds within a ring-fenced fund equal to or greater than the notional SCR". Therefore, it is only mandatory to have assets in the MA portfolio to cover the best estimate.

- Current legislation does not require a specific SCR for the unexpected risks to which the matching portfolio is exposed, but is limiting the diversification benefits, what can be translated as the requirement of a higher amount of SCR.

2.156 According to Article 217 of the Delegated Regulation, the SCR of an undertaking with MA portfolios is the sum of notional SCRs calculated for those portfolios and for any other business (the notional SCR is an intermediate step to calculate the unique SCR for the whole undertaking). But some diversification benefits are lost with this calculation (leading to a higher SCR), specifically diversification benefits among the matching portfolio and the rest of the undertaking. The diversification benefits in question do not relate to the best estimate but to the SCR, which is reflecting the unexpected losses. For that reason, the existence of diversification benefits cannot affect or reduce the assets covering the best estimate (the assets covering the SCR are different to the ones covering the best estimate).

2.157 MA portfolios and ring-fenced funds are treated in the same way in the calculation of the SCR standard formula. However, as mentioned above, the matching portfolio is not a legal ring fenced fund. This is because the features of such a fund do not apply to the matching portfolio: the business included in the matching portfolio is not a particular business that requires a separated treatment in the undertaking. The separated portfolio is justified because a cash flow matching is applied to this business. In order to guarantee that the obligations are paid at maturity, it is necessary that the assets devoted to that target are effectively used, and are not used for other objectives. There is not necessity for an SCR specific for the matching portfolio because it is not a ring fenced fund.

- The existence of diversification benefits cannot affect or reduce the assets covering the best estimate. The limitation of diversification benefits implies a higher amount of SCR for the undertaking that is using the MA, and it could be in contradiction with Article 101(3) of the Solvency II Directive.

2.158 The diversification benefits relate to the SCR, not the technical provisions. The SCR covers unexpected risk of different nature: underwriting risk, market risk, counterparty risk, operational risk. If the regulation does not recognize diversification benefits for the SCR derived from the MA portfolio then, it can be argued, it should be based on evidence of higher correlation for that portfolio with the rest of the undertaking. But there seems to be no higher correlation because including business in an MA portfolio does not change its correlation with the other risks.

2.159 For instance, the longevity risk included in the matching portfolio (MP) doesn't change its correlation with the mortality risks existing in business outside the MP only because its expected cash flows are matched with the ones derived from fixed income assets. The bonds included in the MP doesn't change its correlation with other assets (equities, real estate, another bonds) if you take these bonds out of the MP, the correlation will be the same. The same rationale is valid for other risks. EIOPA has not found reasons to justify a partial limitation of the diversification benefits.

2.160 Therefore this higher amount of SCR cannot be based in a different correlation among risks.

2.161 One could think that this higher amount of SCR is justified because the unexpected risks affecting the MP are bigger. But this is not the case either. In a MA portfolio there is lower interest and spread risks than in a non-matched portfolio (in fact, there is not market risk, the "hold to maturity" substitutes the market risk for default risk). These lower interest and spread risk are a natural consequence of the cash flow matching and this lower risk is reflected in the SCR of MA users.

2.162 The only underwriting risks connected to the portfolio of insurance or reinsurance obligations are longevity risk, expense risk, revision risk and limited mortality risk (Article77b(1)(e)). This limited scope guarantees the predictability and illiquidity of the liabilities under MA. As in any other portfolio of life insurance liabilities, these risks can have a better or worse performance but not all will materialize in a 99.5% VaR scenario at the same time.

2.163 Furthermore, the strict requirements of the MA prevent losses from forced sales. These requirements guarantee the illiquidity and predictability of the liabilities included in the MA portfolio. The surrender option for the policyholder does not exist or if this exists, the surrender value is the market value of assets backing the liabilities.

2.164 If any underwriting risk, for example the longevity risk, has a performance worse than expected, it means that the insured person lives longer than expected and it is necessary to make additional payments not foreseen initially. This does not break the matching; the assets matched will be used to pay the expected payments. For the unexpected payments, more asset will be integrated in the MA portfolio, assets coming from the SCR, as in any other portfolio (with or without cash-flow matching). A MA portfolio does not bear higher longevity risk than a non-matched portfolio: obviously, the inclusion or not inclusion of an obligation in a MA portfolio does not alter the likelihood of better or worse performance of longevity risk. Even in the case of a worse than expected performance of longevity risk, the discount of the best estimate (the expected payments) with the MA will not create a problem.

2.165 Therefore, if there is not a different correlation among the risks by the mere fact of the existence of a MA portfolio in the undertaking, and the market risk derived from the MA portfolio is lower than in a non-matched portfolio (being the underwriting risk equal), the higher amount of SCR required by a user of the MA should be justified or, if this justification is not found, it would provide an argument for removing it. The essence of Solvency II is that each undertaking has to keep reserves according to its risks. If there is not higher correlation, if there is not higher risk (in fact, market risk us lower in a MA portfolio, as recognized in the SCR standard formula), the provisions of Article 217 of the Delegated Regulation could be contradicting Article 101(3) of the Solvency II Directive.

- A removal of current diversification restrictions in the SCR standard formula calculations would be in line with findings from the calculation of the SCR in internal models

2.166 EIOPA has carried out an information request to MA users which among others has asked internal model users to explain the treatment of diversification in the internal model and to quantify the difference between the current calculation of the SCR and a calculation that would allow for full diversification benefits.

2.167 As a result, it was found that in internal models the effects of any non-diversification that may arise through the requirement that the assigned assets in a MA portfolio cannot be used to cover losses arising from other activities of the undertakings is typically not material. As reasons for this effect, internal model users mentioned that existing surplus within the MA portfolio is typically small in relation to the MA portfolio's contribution to the SCR, and that it is unlikely that further surpluses would arise in the MA portfolio in scenarios which are adverse for other business. Moreover, in the case of deficits arising in the MA portfolio, assets would be transferred into the MA portfolio from the non-MA portfolio.

2.168 Therefore, removing restrictions on diversification for the standard formula would lead to a more consistent treatment of diversification between standard formula users and users of internal models.

2.169 Overall, EIOPA considers that removing the limitation in the diversification benefits will ensure a level playing field through sufficient harmonized rules, improving transparency and better comparability. At the same time, it will avoid unjustified constraints:

- to the availability of insurance and reinsurance, in particular insurance products with long-term guarantees (in benefit of policyholders and consumers), and
- to hold long-term investments by insurance and reinsurance undertakings (in benefit of the European economy).

2.3.2.1. Options considered

2.170 In view of the descriptions above, EIOPA has considered two main options:

Option 1: No change: Maintain the limitation to diversification benefits for MA portfolios in the SCR standard formula

Option 2: Remove the limitation to diversification benefits for MA portfolios in the SCR standard formula

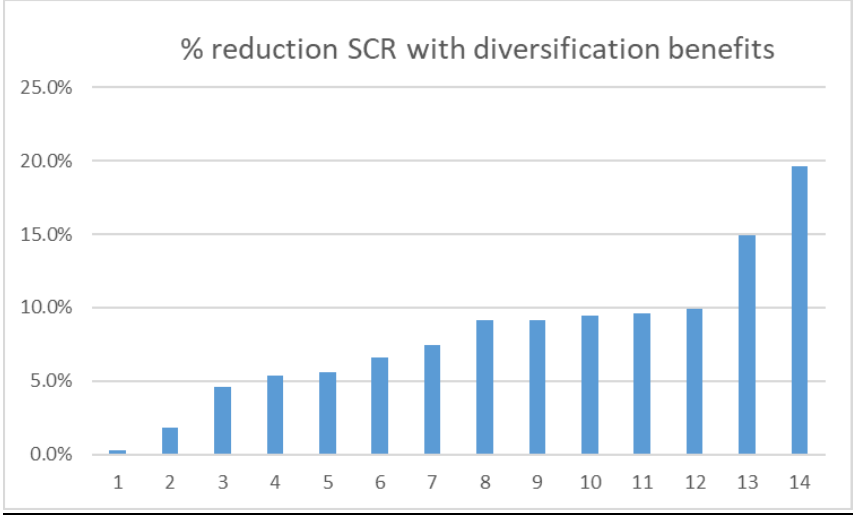
2.3.2.2. Impact of options

2.171 EIOPA collected data on the impact of Option 2. Results from that data collection, covering 14 Spanish and 18 UK undertakings, show that the adoption of Option 2 would reduce the SCR of MA users as follows:

- for UK undertakings between 0% and 6.15%, with a weighted average of 0.29%,
- for Spanish undertakings between 0.3% and 19.6%, with a weighted average of 8.5%. It would mean a reduction of 0.9% of the overall SCR for the Spanish market.

2.172 5 out of 18 UK undertakings are full internal model users and a further 9 are on partial internal models. For the 5 undertakings on full internal models and 5 of the undertakings on partial internal models, there is zero impact. This is because the internal models have assessed that there are no meaningful restrictions to diversification in the SCR calculation. Of the remaining 4 partial internal model firms, 3 show an impact of less than 0.5% and the last firm shows an impact of 1.87%. The impact on the 4 UK undertakings applying the standard formula ranges from 0.4% to 6.15% and the weighted average is 2.59%. All Spanish insurers of the sample apply the standard formula.

Spanish data



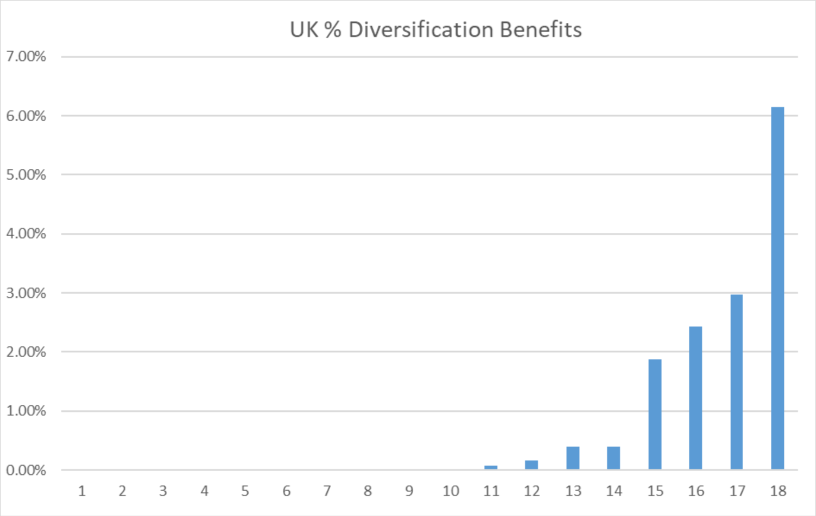
Min	0,3%
Max	19,6%
Median	8,3%
Average	8,1%
Weighted average	8,5%

2.173 In terms of solvency ratio, the improvement after considering diversification benefits is in the following table:

Min	+0.0pp
Max	53.8pp
Median	18.4pp
Average	20.3pp
Percentile 25	12.7pp
Percentile 75	29.4pp

2.174 If we consider the overall Spanish market, the option 2 would imply an increase of the solvency ratio of 1.8%.

UK Data



Min	0.00%
Max	6.15%
Median	0.00%
Average	0.80%
Weighted Average	0.29%

2.175 In terms of solvency ratio, the improvement after considering diversification benefits is in the following table:

Min	+0.0pp
Max	+12.0pp
Median	+0.0pp
Average	+1.5pp
Percentile 25	+0.0pp
Percentile 75	+0.6pp

2.176 The impact on the SCR Ratio for the 4 UK firms using the standard formula ranges from +0.6% points to +12.0% points and the weighted average is +4.4% points.

2.177 The assets included in the MA portfolio are devoted exclusively to cover the best estimate (expectation of insurance liabilities) of the liabilities included in that portfolio. If as a consequence of the evolution of assets and liabilities included in the MA portfolio a profit is derived from those assets, that profit cannot be used to cover losses outside the MA portfolio. Different to the best estimate is the SCR, devoted to cover unexpected losses, and for which there are different assets, outside of the MA portfolio. Unexpected losses are not suitable for a cash-flow matching, assets covering those kind of losses are backing the unique SCR in the undertaking. Maintaining restrictions for diversifications benefits for the SCR of a MA user would imply the requirement of an SCR higher to the 99.5 VaR, what is not supported neither by the regulation nor for evidences of a bigger risk (in fact, the market risk is lower in a MA portfolio). Removing the limitations doesn't imply additional risk for the payment of the best estimate. Internal models support this conclusion.

2.178 In order to implement that change references to matching adjustment portfolios in Articles 70, 81, 216, 217 and 234 of Solvency II Delegated Regulation should be removed. In view of recital 36 of the Directive 2014/51/EU (Omnibus) a change to the Directive might be necessary to implement the advice.

2.3.3. Asset eligibility criteria

2.3.3.1. Extract from the call for advice

> ***3.2. Matching adjustment (Art. 77b, 77c) and volatility adjustment (Art. 77d)***
>
> *[…]*
>
> *b) Matching adjustment*
>
> *EIOPA is asked to provide an assessment of the quantitative impact on the calculation of the best estimate and the solvency position of insurance undertakings of the following approaches for the calculation/application of the matching adjustment:*
>
> - *[…]*
> - *Approach 2: a review of the criteria for eligible assets for the use of the matching adjustment, including their cash flow characteristics and credit quality.*

2.3.3.2. Relevant legal provisions

2.179 The relevant legal provisions for the topic of the matching adjustment's (MA) asset eligibility criteria are:

- Recital 31 of the Omnibus II Directive
- Article 77b of the Solvency II Directive
- Article 132 of the Solvency II Directive
- Article 2 of Commission Implementing Regulation (EU) 2015/500

2.3.3.3. Identification of the issue

2.180 The rationale for the MA is explained in recital 31 of the Omnibus II Directive. This sets out that undertakings that hold bonds or similar assets to maturity are not exposed to the risk of changing spreads on those assets. This justifies an adjustment to own funds to reflect that undertakings are not exposed to the risk of short term movements in asset values. Underlying this thinking are assumptions such as:

- Undertakings are able to obtain additional risk-free returns via a buy-and-hold strategy.
- Matched cash flows permit the undertaking to avoid selling when spreads are high. (liabilities are illiquid)
- Undertakings will earn the MA so long as the fundamental spread allows for costs of default and managing the portfolio to maturity.

2.181 In order to benefit from this treatment it is essential that the undertaking can rely on earning specific returns by holding the assets to maturity. Contrast the situation with real assets (e.g. property, commodities etc.) whose returns are not guaranteed, because markets for those assets can be dislocated away from their fundamentals for substantial and unpredictable lengths of time (and indeed the concept of 'fundamental value' can be redefined over time for such assets). The absence of this 'pull to par' effect for some assets justifies that there should be criteria to limit the types of asset that can be included in a MA portfolio (MAP).

2.182 Specifically, Solvency II requires assets included in the MAP to meet two requirements:

1. They must be "bonds or other assets with similar cash flow characteristics" (Article 77b(1a)) and
2. They have to have "fixed cash flows" as defined in Article 77b(1h).

2.183 EIOPA's annual LTG reports have assessed the losses in MA portfolios compared against the fundamental spread provisions.[27] Every year it has been observed that the fundamental spread significantly exceeds the losses from default and downgrade within those portfolios, indicating that undertakings are earning the MA as expected, arising from the assets held. This provides some reassurance that the measure is operating as expected.

2.184 Nevertheless, there have been borderline cases which present a challenge to the application of the asset eligibility requirements (and indicate that the requirements could be improved).

2.185 For example, undertakings can attempt to overcome these requirements by providing assets whose legal form appears to ensure that the asset is "bond-like" (e.g. are legally loans) and which technically have a fixed schedule of cash flows, but which expose undertakings to the same risks as

[27] For example, section II.3 'Impact on policyholder protection' in EIOPA's LTG report 2018.

the ineligible assets. It is likely that these assets will be incompatible with Solvency II requirements, such as the Prudent Person Principle and NSAs should challenge undertakings accordingly. Nevertheless the current absence of a targeted provision leaves NSAs having to rely on an indirect tool to ensure the adequacy of assets in the MAP.

2.186 Separately, there are assets with some uncertainty as to the timing of the first/last cash flows but with a limited range of cash flow patterns and therefore more akin to bonds than to real assets. These assets are suitable for backing annuity liabilities and include callable bonds or loans that have fixed cash flows only after an uncertain start date (e.g. as used to back infrastructure projects). Nevertheless, a literal reading of the "fixed cash flow" requirement would penalise such assets by treating them as if they had the same uncertainty as real assets. Therefore it is appropriate to consider if an alternative treatment can be devised within the matching adjustment framework for these assets.

2.3.4. Analysis

2.187 For clarity, the proposed 'look-through' and 'yield to worst' approaches (described in more detail below) would only be relevant for assets which satisfy the Directive's Prudent Person Principle (PPP) and risk management provisions, and where firms meet the rest of the MA eligibility criteria. Article 132 in particular requires undertakings to "only invest in assets and instruments whose risks the undertaking concerned can properly identify, measure, monitor, manage, control and report." Moreover "Assets held to cover technical provisions must be invested in a manner appropriate to the nature and duration of the liabilities."

Look-through principle

2.188 Following a 'look-through' approach could aid undertakings and NSAs when assessing the suitability of restructured assets to be included in the MAP. The proposal is to clarify a look-through principle to help identify asset structures where the underlying assets are not suitable to match MA liabilities, in particular because they are not sufficiently fixed in term. In the examples below we focus on securitisations as an example of such assets, but it is important to note that many other types of structures can function similarly. Therefore it is important not to limit this approach to securitisations.

2.189 The look-through principle will comprise some considerations relevant to the underlying (unrestructured) asset and others relevant to the nature of the restructuring. It should allow assessment of the asset against four criteria:

1) *The underlying asset provides a sufficiently fixed level of income*

2.190 Structured assets can be suitable to back MA-eligible liabilities, where the underlying assets are appropriate given the fixed nature and duration of the liabilities. For example securitisations backed by residential mortgages (RMBS) are ubiquitous, have well established price histories and can achieve high ECAI ratings. In this case the underlying assets are loans with fixed terms, but subject to prepayment risk which likely renders them ineligible for inclusion in the MAP.

2.191 As noted in previous EIOPA Q&A, it is possible to restructure a portfolio of such mortgages in such a way that the resulting senior notes meet MA eligibility requirements; conversely, it is also possible for those securitisations to not meet the MA criteria and remain ineligible[28]. Where the resulting RMBS meet the MA eligibility conditions, the securitisation will have eliminated the part of the mortgage spreads that corresponds to idiosyncratic risk (e.g. prepayment on an individual loan via a loss-absorbing junior tranche, which is not eligible for inclusion in the MAP).

2.192 At the other end of the spectrum, it would not be appropriate to securitise real assets (e.g. property) that do not match the nature of MA liabilities. In these cases the undertaking still remains exposed to the risk of changing spreads on the underlying assets and cash flows will be dependent on the realisable value of the underlying asset.

2.193 Looking back at the underlying assumptions of the MA (recital 31 of the Omnibus II Directive), we can see that the key difference relates to whether the securitised asset provides a mechanism for the undertaking to earn risk-free returns as a buy-and-hold investor. Therefore any cash flows derived from securitising real assets will not provide sufficiently fixed cash flows. In other words, the risk profile of such underlying assets is not sufficiently quantifiable such that the credit risk arising from a restructuring of these assets can be assessed in a way that allows an appropriate Fundamental Spread to be assigned to the restructured asset.

2) *the restructured asset cash flows are supported by loss absorbency features such that those cash flows are sufficiently fixed in term and will remain so even as operating conditions change*

2.194 Where an asset has been structured into a range of tranches, the junior tranches should provide loss absorbency to protect the senior note payments, e.g. a proportion of the cash flows accruing to the junior note in the early years of the transaction being kept in reserve in case of subsequent losses that reach the senior notes. In this way the lower rated structured notes provide genuine loss absorbency and ensure that the senior note is only exposed to default and downgrade risks such that it is MA-eligible.

[28] EIOPA Questions & Answers [ID #1090 and #1091] related to Long-Term Guarantees Assessment.

2.195 It would not be satisfactory, for example, if the underlying assets were unsuitable for a buy-and-hold strategy and required frequent buying and selling or removing from the structure. Rather any subsequent deterioration in the security of the MA-eligible senior note(s) should be reflected through the regular process of reviewing and updating the rating of the restructured asset without impeding running off the asset to maturity[29].

2.196 Therefore it is necessary to look through to the underlying assets of any re-structure to verify that the asset cash flows are sufficiently fixed in term and amount and that they will remain so even as operating conditions change.

3) Financial guarantees do not give rise to MA

2.197 It has been noted above that underlying assets that provide direct exposure to real assets cannot provide the basis for genuinely fixed cash flows for MA purposes. Similar considerations apply where the exposure to those assets is indirect via embedded guarantees.

2.198 Where the underlying assets include a written guarantee on the performance of other assets, then they are subject to an increased level of risk compared to an equivalent asset without such a guarantee. Therefore such a guarantee will also increase the amount of spread that should properly be attributed to risks retained by the firm and in consequence this element of spread should not give rise to MA benefit.

2.199 Where the underlying asset includes embedded financial guarantees, undertakings should be able to demonstrate to NSAs that the additional retained risks have not resulted in additional MA benefit, e.g. because they have been appropriately reflected in the fundamental spread of the MA-eligible senior notes, or because they are borne by the loss absorbing junior or equity tranches and are therefore reflected in their value.

4) Undertaking is able to properly identify, measure, monitor, manage, control and report the underlying risks

2.200 Article 77b(1)(b) requires that the portfolio of assets assigned to cover the best estimate of the portfolio of obligations should be identified, organised and managed separately from the rest of the undertaking. In order to properly manage any restructured assets it is important for the undertaking to be able to understand and mitigate the risks to which they (and hence the MAP) are exposed.

2.201 In addition, undertakings are required to comply with the Directive's risk management and Prudent Person Principle (PPP) provisions. Article 132 in

[29] This is notwithstanding the fact that it should be possible to rebalance downgraded assets out of the MAP. The key point here is that any such rebalancing should be done at a time of the undertaking's choosing, purely for risk management reasons. At no point should undertakings be forced sellers of assets where the MA is applied.

particular requires undertakings to “only invest in assets and instruments whose risks the undertaking concerned can properly identify, measure, monitor, manage, control and report.”

2.202 This entails several underlying considerations for the suitability of the underlying assets to be included in MAPs. For example, undertakings must retain the ability to understand and mitigate the risks pertaining to the underlying asset. Undertakings should look through to the underlying assets to ensure that these are suitable for the nature and duration of the MA liabilities

2.203 Undertakings should consider carefully the prudence of any transactions or arrangements they enter into for the purposes of the MA, including their behaviour under stress, and whether the associated risks are well understood and appropriately managed.

’Yield to worst’ approach

2.204 As explained under ‘Identification of the issue’ the range of asset classes in undertakings’ MAPs has been constrained by following a literal interpretation of the Directive requirement (Article 77b(1h)): “the cash flows of the assigned portfolio of assets are fixed and cannot be changed by the issuers of the assets or any third parties.” Assets, such as certain callable bonds, could be suitable for backing annuity liabilities but do not have strictly fixed cash flows due to the call option(s); i.e. the exact timing of the redemption payment is unknown and coupon payments after the next call date (NCD) may not be received; or alternatively the asset may continue paying scheduled cash flows until the Final Maturity Date (FMD). [30]

2.205 Beyond callable bonds, there are other assets where there is some uncertainty regarding the timing of cash flows, and that might benefit from a similar treatment. Notably certain infrastructure investments where a loan finances the construction phase (e.g. of a hospital, a toll road etc.) and repayments only commence when the physical asset goes into the operating phase. For large projects there can be some uncertainty of the possible start date of operation (e.g. because the asset may take 4 years to build instead of the planned 3), but investors are guaranteed that the operating phase (and hence the loan repayments) will commence by a certain date (e.g. year 5).

2.206 EIOPA considered whether it would be appropriate to allow such assets to enter the MA portfolio based on a ‘yield to worst’ treatment where an

[30] Callable bonds are eligible in the terms described in the last paragraph of Article 77b.1 of Solvency II Directive: “In the event that issuers or third parties have the right to change the cash flows of an asset in such a manner that the investor receives sufficient compensation to allow it to obtain the same cash flows by re-investing in assets of an equivalent or better credit quality, the right to change the cash flows shall not disqualify the asset for admissibility to the assigned portfolio in accordance with point (h) of the first subparagraph.‟

undertaking would assume whichever call date were the most onerous in the calculation of the MA to produce the lowest MA benefit. However there were considerable difficulties in allowing such a treatment whilst maintaining consistency with the underlying principles of MA which require the matching of fixed cash flow liabilities by fixed cash flow assets.

2.207 In particular, a yield to worst approach would expose the undertaking to the risk that cash flows might not arise at the time they were expected (e.g. the risk that the bond might be called at NCD when the MA calculations assumed FMD, or vice-versa). In these cases, even if the new cash flows resulted in higher MA benefit, the undertaking might be required to sell the asset in order to restore cash flow matching, might struggle to meet liability cash flows, or might be exposed to reinvestment risk. EIOPA considers that these risks are incompatible with the MA framework that is based on earning risk-free returns as a buy-and-hold investor, and would pose an obstacle to undertakings being able to demonstrate compliance with the MA criteria.

2.208 EIOPA considered mitigants such as requiring the undertaking to demonstrate sufficient liquidity within the MAP (i.e. by holding cash) to ensure it could meet liability cash flows and mitigate the risk of a change to the timing of the early asset cash flows. However these mitigants were considered to be either inappropriate (in that they would permit other less suitable assets to be included in the MA portfolio) or ineffective (in that they would significantly dilute the resulting MA benefit).

2.209 EIOPA investigated other alternatives, such as permitting the assumption of reinvestment at the current forward risk-free rates, but this was found to have similar deficiencies. As a result EIOPA decided not to propose a change in approach at this stage.

Efficiency and Effectiveness of presented approach

2.210 The MA treatment of assets is one of the influences of an undertaking's selection of assets to back its long-term liabilities. Those assets were purchased with the intention to hold to maturity and it would be disruptive (and contrary to the very principles underlying the MA) to alter the MA rules in a way that requires a forced sale. To avoid market disruption, the proposed 'look through' approach should be implemented prospectively (i.e. not retroactively to assets already in MA portfolios).

2.211 The intent of the look-through principle would be to help ensure that undertakings only include in MA portfolio assets which can earn additional risk-free returns when held to maturity. The primary impact would be to mitigate the risk of unsuitable assets being included in the MAP. This would support the supervision of the two existing requirements in points (a) and (h) of Article 77b(1). A principles-based approach would be better able to address different types of restructuring, compared with measures to block specific types of restructuring. For most structured assets, EIOPA expects the principle will be straightforward for undertakings and NSAs to implement and ensure a level playing field. Complex structures may possibly pose a challenge to a consistent implementation of the look-through principle, but these would pose a greater challenge under the current position without a targeted provision to assess these situations. To this aim, EIOPA's Q&A process can be an adequate instrument for the harmonization.

2.212 An additional benefit of the look-through is that through applying the principle (and gaining assurance that both the underlying and restructured assets are appropriate for inclusion in the MAP) NSAs will gain a better understanding of the risks facing the asset.

2.213 For undertakings there would be some cost of providing additional information about underlying assets, but arguably this is a necessary cost to bear to demonstrate asset eligibility. The process to assess the MA suitability of a complex restructured asset already requires NSA resource and the look-through principle with its specific criteria would make this supervisory process more efficient, instead of a reliance on general requirements such as the Prudent Person Principle.

2.4. Volatility adjustment

2.4.1. Extract from the call for advice

3.2. Matching adjustment (Art. 77b, 77c) and volatility adjustment (Art. 77d)

EIOPA is asked to assess the efficient functioning of the volatility adjustment and the matching adjustment as mechanisms to prevent pro-cyclical behaviour on financial markets and to mitigate the effect of exaggerations of bond spreads, in view of a level playing field in the EU and policyholder protection.

The Commission services are envisaging to assess possible approaches to review the design, calibration and functioning of the adjustments, whilst not precluding the possibility of a single adjustment mechanism.

a) Volatility adjustment

EIOPA is asked to provide an assessment of the quantitative impact on the calculation of the best estimate and the solvency position of insurance undertakings of the following approaches for the calculation/application of the volatility adjustment:

- *Approach 1: the application of an adjustment that takes into account the illiquidity features and/or duration of insurers' liabilities, while maintaining the current concept of representative portfolios. That adjustment may rely on different "application ratios";*
- *Approach 2: the application of an adjustment that takes into account the weights of own assets holdings of each insurer; that adjustment may rely on different "application ratios" depending on the level of cash-flow matching of insurance liabilities portfolios. When applying this approach,*

EIOPA should specify the assumptions regarding diversification benefits in the calculation of the Solvency Capital Requirement.

In addition, EIOPA is asked to review the functioning of the increased volatility adjustment per country given its purpose and suggest amendments to the measure where necessary.

2.4.2. Previous advice

2.214 EIOPA carried out an assessment of long-term guarantees measures for the European Parliament, the European Council and the European commission in 2013. In the findings of the assessment EIOPA suggested the introduction of a volatility balancer. The volatility balancer is a permanent and predictable adjustment to risk-free interest rates with the objective to deal with unintended consequences of volatility. The volatility balancer as in particular the following features:

- Based on a currency-specific reference portfolio, the adjustment is derived from the spread difference to the relevant risk-free rate less the portion related to default risk.
- In exceptional circumstances, this adjustment may not reflect the reality of a given market. Where this is the case, e.g. the spread of a national reference portfolio exceeds two times the spread of the currency specific reference portfolio and this national spread is at least 100 bps, the spread is additionally adjusted for that market by adding the amount that the national spread exceeds two times the currency spread.
- The calculated spread (already excluding the portion linked to default risk) is adjusted to account for risk associated with the implementation of the adjustment by means of an application factor of 20%.
- The adjustment affects own funds by the introduction of a special own funds item.

2.4.3. Relevant legal provisions

2.215 The VA is motivated in recital 32 of the Omnibus II Directive and specified in Article 77d of the Solvency II Directive. The calculation of the VA is further detailed in Articles 49 to 51 of the Delegated Regulation.

2.4.4. Technical improvements of VA calculation

2.4.4.1. Relevant legal provisions

2.216 Article 77d(2) Solvency II Directive specifies the calculation of the VA. This specification is further detailed the Delegated Regulation, specifically in Article 49(1), Article 49(3)(a) and Article 50.

2.4.4.2. Identification of the issue

2.217 As part of the current EIOPA methodology for the computation of the VA on basis of representative portfolios, information on spreads and yields per individual "buckets" in the fixed income investments of insurers need to be aggregated to average spreads and yields at the level of the overall government bonds or corporate bonds portfolios.

2.218 To investigate the robustness of this aggregation mechanism under different economic environments, EIOPA has simulated a computation of the VA for the time period January 2007 to February 2019.

2.219 This exercise revealed two technical deficiencies in the current aggregation mechanism, which are related to the following technical aspects:

— the fact that the representative portfolios is only updated at a yearly basis, which requires a "freeze" of assumptions on the representative portfolio during this period; and

— the disallowance of negative average spreads for the government bond and corporate bond portfolios.

2.220 On the first deficiency, EIOPA carried out an analysis and identified amendments to the calculations of the VA that address this deficiency (see annex 2.27). These amendments do not require changes in the legal text and are therefore not set out in the advice below. EIOPA intends to implement these amendments in context of a later implementation of changes to the Solvency II legal framework following the SII Review. In the analysis of the design options for the VA, these amendments have already been taken into account.

2.221 A description of the historic simulation of VA values which EIOPA conducted is included in annex 2.14. A description of the second deficiency mentioned in paragraph 2.219 is contained in the following sub-section.

2.4.4.2.1. Disallowance of negative spreads for corporate and government bond portfolios

2.222 According to Article 50 of the Delegated Regulation, the spread for the representative portfolio shall be calculated as

(1) $$S = w_{gov} \cdot \max\left(S_{gov}, 0\right) + w_{corp} \cdot \max(S_{corp}, 0)$$

where

— w_{gov} denotes the ratio of the value of government bonds included in the reference portfolio;

— S_{gov} denotes the average currency spread on government bonds included in the reference portfolio;

— w_{corp} denotes the ratio of the value of bonds other than government bonds, loans and securitisations included in the reference portfolio;

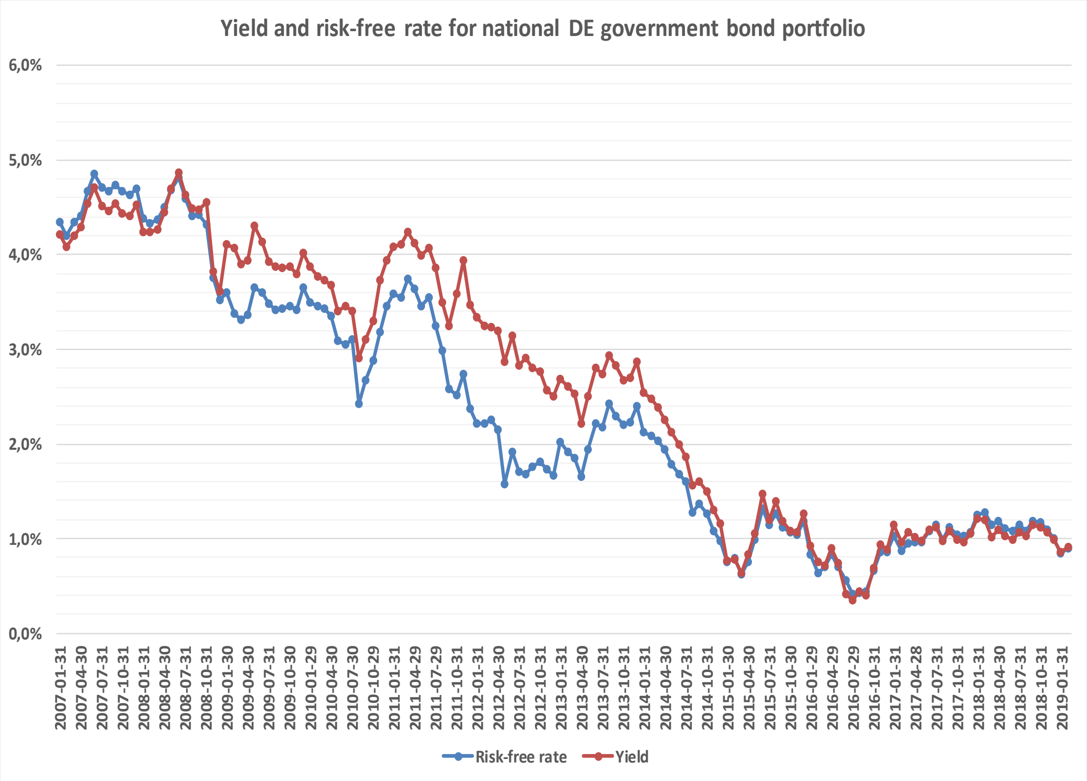
— S_{corp} denotes the average currency spread on bonds other than government bonds, loans and securitisations included in the reference portfolio.

2.223 This means that, for calculating the overall spread for the representative portfolio, the aggregated spreads for the portfolios of government bonds and of corporate bonds are subject to a lower bound of zero.

2.224 Such an approach does not appear economically justified. Instead, in case where the risk-free rates exceed the yield, an allowance for a negative spread would be a better reflection of the economic characteristics of the investments.

2.225 To assess the relevance of this issue, EIOPA has analysed how often the zero value floor for the spreads for the government and corporate bond portfolios (as shown in equation (4)) becomes effective on basis of the simulation of VA values during 2007 to 2019. This simulation comprised 4088 aggregations of corporate bond and government bond portfolios.[31] Out of these, in 402 cases (9.8%) the aggregation would have resulted in a negative aggregated spread. All of these cases are related to government bond portfolios.

2.226 For illustration, the following diagram shows the evolution of aggregated risk-free rates and yields for government bond in the national representative portfolio for Germany used in the simulation of VA values.[32]

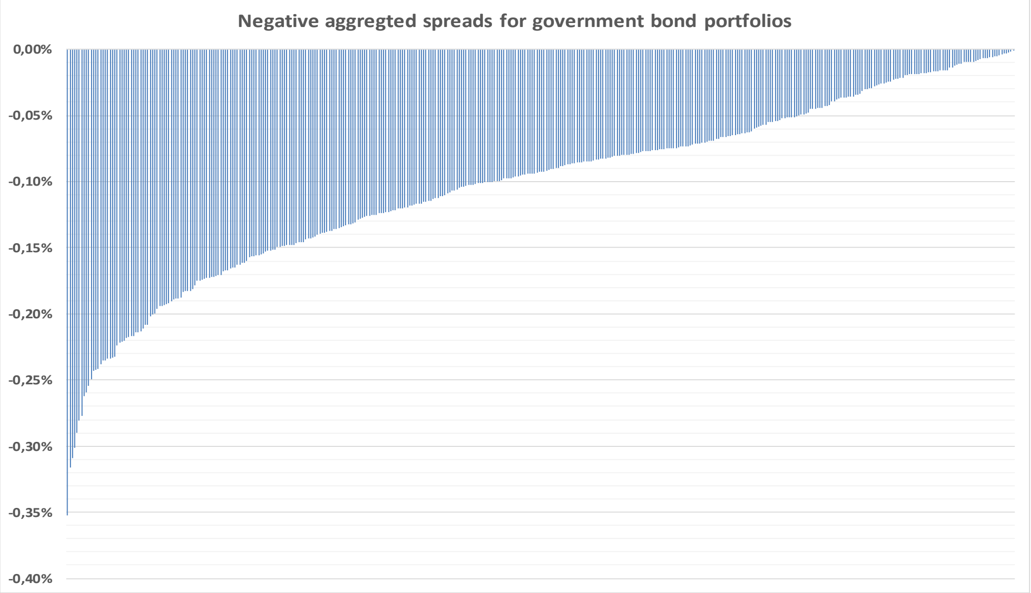


[31] consisting of 14 government bond and 14 corporate bond portfolios over 146 monthly calculations

[32] Note that the government bond portfolio in the national representative portfolio for Germany does not only contain German sovereign bonds, but is representative for all government bonds which insurers are invested in to cover the best estimate for obligations of products sold in German insurance market and denominated in euro.

2.227 This shows that negative spreads occurred during 2007 until April 2008, and then during most of the time period from mid July 2017 to February 2019.

2.228 For assessing the relevance of negative spreads, not only the frequency but also the severity of aggregated negative spreads is of interest. The following diagram shows the size of negative the 402 cases of negative spreads observed in the simulation of historic VA values:



This shows that, in most cases, the size of the negative spread is rather small. In 50% of cases, the size is below 9 BPS, and in 75% of all cases it is below 15 BPS.[33]

2.4.4.3. Analysis

2.229 On the disallowance of negative spreads for corporate and government bond portfolios, the following two options have been identified:

- **Option 1:** no change
- **Option 2**: allowance of negative aggregated spreads for corporate and government bond portfolios

2.230 The preferred policy option for this issue is to allow negative aggregated spreads for corporate and government bond portfolios to have a better economic reflection of the spreads in the representative portfolio. EIOPA expects that this has only a small impact on the calculated VA values.

[33] I.e., in 50% of cases the negative spread is greater or equal to -9 BPS, and in 75% of all cases it is greater or equal to -15 BPS.

2.4.5. Design of the VA

2.4.5.1. Identification of the issue

2.231 EIOPA has carried out an extensive review of the efficient functioning of the volatility adjustment since the start of Solvency II. This review took into account the observations on the impact of the application of the VA as contained in the EIOPA reports on long-term guarantees measures and measures on equity risk for the years 2016, 2017 and 2018. These reports capture the overall impact of the LTG measures and measures on equity risk on the financial position of the undertakings, the impact on policyholder protection, the impact on investments, the impact on consumer protection and availability of products, the impact on competition and level playing field in the EU insurance market and the impact on financial stability.

2.232 EIOPA identified the following main objectives that can be attributed to the VA:

1. Prevent procyclical investment behaviour;
2. Mitigate the impact of exaggerations of bond spreads on own funds; and
3. Recognise illiquidity characteristics of liabilities in the valuation of technical provisions.

2.233 Against these objectives, EIOPA identified the following main deficiencies in the current design of the VA:

	Potential deficiency	Relation to VA objectives
1	Impact of VA may over- or undershoot impact of spread exaggerations on asset side (e.g. due to asset allocation, credit quality, duration mismatches)	Impairs fulfilling objectives 1 and 2
2	Application of VA does not take into account illiquidity characteristics of liabilities	Impairs fulfilling objectives 2 and 3
3	Cliff effect of country-specific increase, activation mechanism does not work as expected	Impairs fulfilling objectives 1 and 2
4	Misestimation of risk correction of VA	Impairs fulfilling objectives 2 and 3
5	VA almost always positive; not symmetric, i.e. no resilience build up in "good times"	Impairs fulfilling objective 1
6	Underlying assumptions of VA unclear	No direct relation to VA objectives, but impairs supervision of the VA application
7	Risk-free interest rates with VA not market-consistent	No direct relation to VA objectives, but impairs supervision of the VA application

2.234 These deficiencies are described in more detail in in annex 2.8 of this document.

2.4.5.2. Analysis

2.4.5.2.1. Options to address individual deficiencies

2.235 EIOPA has assessed a number of options to review the design, calibration and functioning of the adjustment, and to address the deficiencies as outlined in section 2.4.5.1.

2.236 The following sub-sections provide a summary of these options for the individual deficiencies described in the previous section. A detailed technical description, together with an analysis of their impact, is contained in annex 2.9 of this document. Note that these options have been developed on basis of the technical improvements to the VA calculation described in section 2.4.4. Therefore, these technical improvements should be included in each these options, where applicable.

Over- or undershooting effect of the VA

2.237 EIOPA has assessed the following policy options to address this issue:

- **Option 1: no change**
- **Option 2: Undertaking-specific VA** - calculating the VA based on the undertaking-specific asset weights. For each asset class, the spreads used in the calculation of the VA would still be the same for all undertakings and taken from market indices.
- **Option 3: Overshooting factor** - An adjustment that takes into account the amount of fixed-income assets and the asset-liability duration mismatch by means of application ratios
- **Option 4**: **Proportionate overshooting factor** – introduce an adjustment as in option 3, but allow for simplifications in the calculation of the factor to ensure a more proportionate approach

2.238 A detailed description of options 2 and 3 can be found in annex 2.9.[34]

2.239 Note that option 4 is the same as option 3, with the following amendments:

- Introduction of simplifications[35]
    i. Where according to the undertaking's assessment the spread duration of the assets exceeds the duration of the liabilities and the volume of fixed income compares to the volume of the best estimate, the application ratio can be set to 1; or
    ii. Where appropriate duration information is available to estimate the asset-liability duration mismatch this can be used instead of recalculating the spread duration of the assets and the duration of the liabilities, the amount of fixed-income assets compared to the volume of best estimate (volume mismatch) can be approximated by the ratio MV(FI)/BE; or
    iii. Where undertakings can demonstrate that no asset-liability duration mismatch exists, thus the spread duration of the assets corresponds to the duration of the liabilities, it is sufficient to only account for the volume mismatch by means of the ratio MV(FI)/BE and
- In the calculation of the price value of a basis point (PVBP) of the fixed income investments of the undertaking, the undertaking shall only include those fixed income investments where it is significantly exposed to these investments' credit spread risks.
- In case where the PVBP of the best estimate becomes negative, the adjustment is set to zero.

[34] Please note that, within annex 2.9 of this document: The option to use an undertaking-specific VA is referred to as option 1, and the option to use an overshooting factor is referred to as option 4.

[35] This proposal implies, that the factor is simplified based on the specific situation of the undertaking. The factor intends to correct for duration and volume mismatch, both of which is reflected in the prescribed formula based on the price value of a basis point.

2.240 The first amendment aims for a more proportionate calculation of the application ratio. The second amendment aims to reflect that the VA should only correct spread exaggerations to which the undertakings are exposed. The third amendment ensures that the VA is set to zero in the special case where the application of the VA would not work as intended.

2.241 The preferred option is option 4 – proportionate overshooting factor. EIOPA has followed this option as part of its recommendation for a combined overall design of the VA.

2.242 Choosing this option will address overshooting effects of the VA where they stem from a duration or volume mismatch between the fixed income investments of the undertaking and the impact of the VA on the undertaking's best estimate provisions, whilst allowing for a more proportionate calculation than under option 3. Whereas option 2 is expected to more comprehensively limit overshooting effects, EIOPA considers that an introduction of this option would lead to an undue level of complexity in the calculation of the VA, and may also create adverse risk management incentives.

Application of VA does not take into account illiquidity characteristics of liabilities

2.243 EIOPA has assessed the following policy options to address this issue:

- **Option 1**: no change
- **Option 2: Application of a an illiquidity factor –** an adjustment that takes into account the illiquidity features of liabilities by means of an application ratio derived from minimum available cash flows after the application of the standard formula shocks
- **Option 3: Application of an illiquidity factor** as under option 2, but **on basis of a "bucketing approach**" to facilitate the calculation of the factor

2.244 A detailed description of options 2 and 3 can be found in annex 2.9.[36]

2.245 The preferred option is option 3 – introduction of an illiquidity factor based on a bucketing approach. EIOPA has followed this option as part of its recommendation for a combined overall design of the VA.

2.246 This option allows to reflect the illiquidity characteristics of the undertaking's insurance liabilities in the calculation of the VA, thereby contributing to one the main objectives of the VA as identified by EIOPA.

[36] Please note that, within annex 2.9 of this document, the technical details of the illiquidity factor are described in subsection "option 5 - adjustment accounting for the illiquidity of liabilities". The calculation of the illiquidity factor under option 2 in paragraph. 2.243 corresponds to the calculation under "Approach A" in this subsection. The calculation of the illiquidity factor under option 3 in paragraph. 2.243 corresponds to the calculation under "Approach B" in this subsection.

Compared to option 2, option 3 allows for a less complex and more proportionate calculation of the factor.

Misestimation of risk correction of VA

2.247 EIOPA has assessed the following policy options to address this issue:

- **Option 1:** no change
- **Option 2:** Amend the risk-correction to the spread so that it is decoupled from the fundamental spread, and instead calculated as a fixed percentage of the spread.
- **Option 3:** Amend risk-correction as in option 2, but allow for a higher impact of the VA when spreads are high

2.248 For a description of option 2, we refer to annex 2.9[37]

2.249 As a consequence of the results of the information request supporting the consultation in autumn 2019, this option was amended to allow for a higher impact of the VA when spreads exceed their long term average. Under this amended option (option 3), the risk correction is determined as described in the following paragraphs.

2.250 For government bonds issued by EEA countries, the risk correction is determined as

$$RC = 30\% \cdot \min(S^{+}, LTAS^{+}) + 20\% \cdot \max(S^{+} - LTAS^{+}, 0)$$

where

- S denotes the average spread of government bonds in the respective sub-class[38] of government bonds in the representative portfolio;
- $S^{+} = \max(S, 0)$ is the maximum of S and zero;
- $LTAS$ denotes the long-term average spread of government bonds in the respective sub-class of government bonds in the representative portfolio; and
- $LTAS^{+} = \max(LTAS, 0)$ is the maximum of the long-term average spread and zero.

2.251 For other fixed income investments in the representative portfolio, the risk correction is determined as

$$RC = 50\% \cdot min(S^{+}, LTAS^{+}) + 40\% \cdot max(S^{+} - LTAS^{+}, 0)$$

[37] See subsection "Option 6 – risk correction calculated as a percentage of the spread" in annex 2.9

[38] Cf. section 8 in the technical documentation of the methodology to derive EIOPA's risk-free interest rate term structures

where

- S denotes the average spread of fixed income investments in the respective sub-class[39] within the representative portfolio;
- $S^+ = \max(S,0)$ is the maximum of S and zero;
- $LTAS$ denotes the long-term average spread of fixed-income investments in the respective sub-class within the representative portfolio; and
- $LTAS^+ = \max(LTAS,0)$ is the maximum of the long-term average spread and zero.

2.252 The preferred option is option 3. EIOPA has followed this option as part of its recommendation for a combined overall design of the VA. This option ensures that all risks contained in the spread are captured, whilst ensuring that the VA is still effective as a countercyclical measure. Option 1 does not appear appropriate since the risk correction under this option would not respond to changes in credit risk. The VA under option 2 may not be sufficiently effective as a countercyclical measure in times of high spreads.

VA almost always positive

2.253 EIOPA has assessed the following policy options to address this issue:

- **Option 1:** no change
- **Option 2: Own Funds Buffer:** Introduce an own funds buffer approach

2.254 A description of option 2 is contained in annex 2.28 of this document.

2.255 The preferred option is not to make a change because of possible interplay issues between the own funds buffer and the VA and because of the risk of inconsistent application of the buffer across countries. EIOPA has followed this option as part of its recommendation for a combined overall design of the VA.

Underlying assumptions of VA unclear

2.256 EIOPA has assessed the following policy options to address this issue:

- **Option 1**: no change
- **Option 2: Split into permanent and macro VA:** Split the VA into a permanent VA reflecting the long-term illiquid nature of insurance cash flows and its implications on undertaking's investments decisions; and a macro-economic VA that would only exist when spreads are wide in particular during a financial crisis that affects the bond market. The macro-economic VA would mitigate the effect of temporary

[39] Cf. section 8 in the technical documentation of the methodology to derive EIOPA’s risk-free interest rate term structures

exaggerations of bond spreads, thereby contributing to avoid pro-cyclical behaviour of undertakings.

2.257 The preferred option is option 2 – Split the VA into a permanent VA and a macro VA. EIOPA has followed this option as part of its recommendation for a combined overall design of the VA.

2.258 In addition to the design changes of the VA, EIOPA considers that the objectives of the VA should be further clarified to ensure a common understanding that allows a consistent application of the measure as well as effective supervision thereof (see also deficiency 6 in this respect).

2.259 EIOPA considers that the VA is based on the following underlying assumptions (see also objectives of the VA in section 2.4.5.1):

- The undertaking holds spread sensitive assets and is exposed to changes in credit spreads.
- The VA mitigates the effect resulting from exaggerations of credit spreads. Such exaggerations relate to the portion of the spread that is not attributable to a realistic assessment of expected losses or unexpected credit or other risk of the assets.
- The implementation of the VA does not give rise to undue overshooting effects. Overshooting effects occur where the impact of exaggerations of credit spreads on the asset side is overcompensated by the impact of the VA on the liability side.
- The VA reflects the degree of illiquidity of the undertaking’s insurance liabilities to which it is applied. The illiquidity of the liability corresponds to the degree of predictability and stability of the liability cash flows.
- Undertaking’s liabilities are sufficiently illiquid to ensure that the undertaking is not exposed to the risk of forced sale of its spread sensitive assets, but is able to hold on to those assets during market fluctuations.
- The VA corresponds to a portion of the spread observed on a portfolio of fixed-income assets.
- The portfolio of fixed-income assets on which the calculation of the VA is based allows for the decomposition of the spreads contained in the assets of the portfolio into a portion that is attributable to a realistic assessment of expected losses or unexpected credit or other risk of the assets, and the remaining portion.
- The portion of the spread that the VA corresponds to is contained in the remaining portion of the spreads and can be regarded as risk-free.

2.260 Note that these assumptions summarize the general principles and motivation that underpin the concept of the VA. EIOPA considers that transparency on these assumptions supports a consistent level of supervision of the application of the VA.

Deficiencies in the methodology for the country specific increase

2.261 EIOPA has assessed the following policy options to address this issue:

- **Option 1**: no change
- **Option 2: Improved country-specific methodology:** Amend the trigger and the calculation of country-specific increase of the VA
- **Option 3: Replace country-specific increase**: Replace country-specific increase by VA component based on comparison of current and average spreads

2.262 A description of option 2 and 3 is contained in annex 2.9 of this document.[40]

2.263 The preferred option is option 2 – Amend the trigger and the calculation of country-specific increase of the VA. EIOPA has followed this option as part of its recommendation for a combined overall design of the VA.

2.264 This option mitigates cliff edge effects for undertakings located in countries experiencing a crisis, and is expected to improve the efficiency of the risk management process. Option 3 is expected to have only temporary effects, which may limit its efficiency in situations where differences between the country and the currency spreads persist over longer time periods.

2.4.5.2.2. Combination of preferred options

2.265 On basis of the preferred options envisaged above, EIOPA proposes the following VA design.

2.266 The VA is split into two additive components, a permanent VA and a macroeconomic VA, as follows:

$$VA^i = VA^i_{perm} + VA^i_{macro,j}$$

where *i* denotes the undertaking and j the country of location. VA^i_{perm} denotes the permanent VA for undertaking *i* and $VA^i_{macro,j}$ the macro VA for undertaking *i* located in country j.

2.267 The macroeconomic VA takes the form of an improved country-specific increase, as referred to in paragraph 2.263. This macroeconomic VA would be added to the permanent component in crisis situations affecting one or more countries.

2.268 In order to address the identified deficiencies, both the permanent and the macroeconomic components should be calculated taking into account the general application ratio, an application ratio designed to mitigate overshooting effects (cf. option 4 in paragraph 2.237 above) and an

[40] For a description of option 2, see subsection "Option 7 – Amend the trigger and the calculation of country-specific increase of the VA" in annex 2.9. A description of option 3 is included in subsection "Option 8 – Clearer split of the VA between its function as a crisis and a permanent tool".

application ratio reflecting illiquidity features of the liabilities (cf. option 3 in paragraph 2.243). Moreover, a change of the methodology for the calculation of the risk correction is suggested, according to option 3 presented in paragraph 2.247.

2.269 This combination gives rise to the need of adjusting the technical features of some of the options envisaged above. In particular the combination of the application ratio addressing overshooting effects and the improved country-specific methodology should be consistently amended (cf. the description of the relevant options in annex 2.29).

2.4.5.2.3. Assessment of the functioning of the current and new design of the VA

2.270 EIOPA has assessed the functioning of the current and envisaged new design of the VA by, among others:

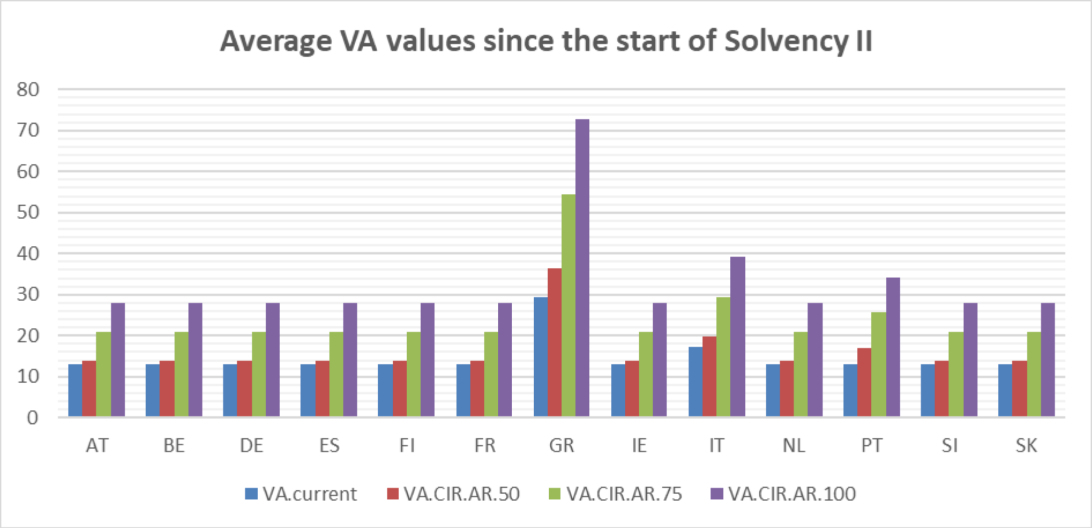
- An analysis of the development of spread and VA values during 2020[41];
- Identifying cases of an "overshooting" impact of the VA during the first half of 2020[42];
- Comparing simulated VA values under the current and the envisaged new design of the time period from January 2007 to September 2020[43];
- An analysis of the effects of the new VA design on the triggering of the macro VA[44]; and
- An analysis of the effectiveness of the current and new currency VA in terms of compensation.[45]

2.271 The analysis of the spread and VA data during 2020 indicate that the proposed VA is better responsive to the increase of volatility in credit spreads than the current VA, and on average leads to a value of the VA which is significantly higher than under the current design. Where the new design of the VA leads to lower values than for the current VA, this is the case where the combined impact of the application ratios is low. In such cases, a lower value of the VA is considered appropriate since low values of the application ratios indicate a low degree of illiquidity of the best estimate, or a risk of "overshooting" effects.

2.272 Similar findings were derived in the comparison of simulated VA values during the time period 2007 to 2020. The different levels between the

[41] See annex 2.20
[42] See annex 2.21 and 2.26
[43] See annex 2.22 and 2.23
[44] See annex 2.24
[45] See annex 2.25

current VA and the proposed new VA are illustrated in the following diagram, which summarises the average VA values since the start of Solvency II for all countries that use a euro VA:

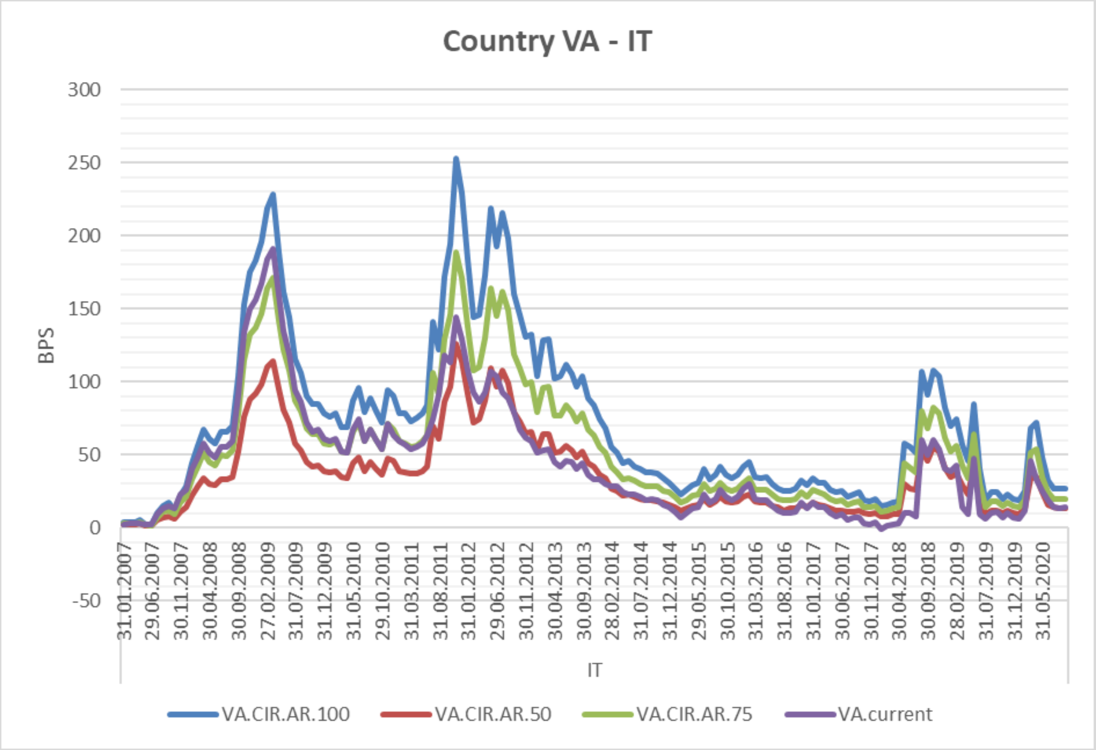


2.273 In this diagram, the curve with the label "VA.current" refers to the values of the VA under the current design. VA values for the new envisaged design of the VA are labelled "VA.CIR.AR.50", "VA.CIR.AR.75" and "VA.CIR.AR.100" corresponding to the assumed level of the combined impact of the application ratios.[46]

2.274 The improved responsiveness of the proposed new design of the VA is illustrated by the following diagram, which shows the simulated development of the VA under the current and the new envisaged design for Italy during the time period 2007 to 2020:[47]

[46] See annex 2.22 for details

[47] See also annex 2.22 for details and further examples



2.275 The analysis of the effects of the new VA design on the triggering of the macro VA revealed that the proposed new risk correction methodology will improve the activation of the macro VA in those countries that experienced severe crises in the past years. In the current calculation of the VA, the "memory" of these past crises is incorporated in the risk correction, which is calculated as a long term average of past spread data. This leads to an increase of the risk correction for these countries. In turn, this effect reduces the risk corrected country spread for these countries, potentially preventing the triggering of the macro VA. The new risk correction methodology, which is a percentage of the current spread, does not have this drawback, improving the responsiveness of the VA to the increase of volatility in credit spreads.

2.276 The analysis of the VA during 2020 also identified severe cases of "overshooting" effects of the current VA in the first quarter of this year. In more than 10% of cases[48], the VA effects were so strong that they overcompensated all other losses that the undertakings incurred, leading to an actual increase of the own funds in the first quarter of 2020.

2.277 The envisaged new design of the VA is intended to better target the impact of the VA and to limit such overshooting effects. EIOPAs findings suggest that the proposed VA would indeed be effective in this regard: for most of the identified undertakings which experienced an "overshooting" of the current VA, the envisaged new VA design would lead to a smaller change

[48] See annex 2.21 for details. The whole sample consisted of 139 undertakings, with an aggregated value of technical provisions of 4.030 billion Euro, which represents a market coverage of 68% of all VA users.

of the VA in Q1 2020 compared to the current VA, thereby reducing any such overshooting effects.

2.278 EIOPA underlines that this effect results from the combination of all new proposed components of the VA design:

- the application factor for overshooting, which limits the impact of the VA where the sensitivity of the fixed income assets of the undertaking towards changes in spreads is lower than the sensitivity of technical provisions towards changes in the VA;
- the application ratio for illiquidity, which reflects the degree of illiquidity of the liabilities; and
- the more risk-sensitive design of the risk correction.

Changes in any one of these components, as well as of the general application ratio[49], could lead to the risk that the identified overshooting effects persist or are even amplified.

2.4.6. General application ratio

2.4.6.1. Relevant legal provisions

2.279 Article 77d (3) of the Solvency II Directive prescribes that the VA shall correspond to 65% of the risk-corrected currency spread.

2.280 For the purposes of this analysis, we shall refer to this factor as the 'general application ratio' (GAR).

2.4.6.2. Previous advice

2.281 In its technical findings on the Long-Term Guarantees Assessment (LTGA), EIOPA recommended to introduce a volatility adjustment mechanism (Volatility Balancer – VB). EIOPA set out the following view on the risks associated with the VB:

"The main risk associated to the implementation of the measure is certainly an overestimation of the "artificial volatility" affecting spreads. The total spread between the yield of an asset and the risk-free rate includes in fact many components. The current calibration of the CCP only recognizes the credit risk connected with the probability of default, the volatility of this probability and the cost of downgrades. Beyond credit risk, the spread also encompasses crucial information such as management expense risk, taxes or costs of market imperfections. In addition, since the "buy-and-hold" principle is not a prerequisite to earn the Volatility Balancer and given that insurance liabilities are not required to be illiquid, the liquidity risk is a component of the spread to consider for the calibration. Therefore the calculated spread,

[49] See section 2.4.6

*which currently only excludes the portion linked to default risk (based on CCP methodology), woul*d need to be adjusted to account for other objective market parameters of the spread."

2.282 On basis of this assessment, EIOPA advised that the calculated spread for the VB should be adjusted to account for risks associated with the implementation of the adjustment. This adjustment should be achieved by introducing an application ratio of 20%, which has the effect that there is not a full application of the determined spread, but only a 20% application.

2.283 In recommending such an application ratio, EIOPA intended to capture the risks arising from the volatility adjustment directly through the calibration of this adjustment, rather than via an adjustment of the SCR, to avoid non-linear effects that may largely offset in some cases the benefit of the measure.[50]

2.284 EIOPA considered the value of 20% as a good starting point for further calibration work on the Volatility Balancer. It was calibrated to ensure that the Volatility Balancer (with an application ratio of 20%) would have a similar impact on the SCR coverage ratios of insurers as at year end 2011 than the previously tested CCP mechanism to which a dedicated capital charge was attached.

2.285 As part of the political agreement prior to the introduction of Solvency II, the application factor proposed by EIOPA was kept, however its value was increased to 65%.

2.4.6.3. Identification of the issue

2.286 The calibration of the GAR has a direct impact on the level of the calculated VA, and hence on the efficient functioning of the VA. Where the GAR is set too high, this could contribute to overshooting effects and bears the risk of underreserving as the liabilities may be valued too low if the VA is set too high. On the other hand, where the GAR is set overly prudent, this could impede the functioning of the VA as a mechanism to prevent pro-cyclical behaviour on financial markets and to mitigate the effect of exaggerations of bond spreads. EIOPA has therefore considered whether the current GAR factor of 65% should be changed, and if yes by which amount.

2.4.6.4. Analysis

2.4.6.4.1. Role of GAR

2.287 In line with its previous findings in context of the LTGA, EIOPA considers that the VA should continue to be subject to a GAR in order to account for the risks inherent in the VA.

[50] The design of the predecessor of the VA, the Countercyclical Premium (CCP), included an additional SCR sub-module which measured the impact of a reduction of the CCP to zero on the insurer's basic own funds.

2.288 These risks include:

a) The risk that undertakings cannot actually earn the VA;

b) The limitation that the VA is applied equally to a wide range of liabilities, regardless of whether the undertaking is actually exposed to bond spread exaggerations and whether or not the liabilities are sufficient illiquid to withstand forced sales and prevent realizing losses due to these bond spread exaggerations; and

c) the risk of misstatement of the determination of the VA that occurs due to unavoidable estimation uncertainty with respect to the measurement of exaggerations of bond spreads and the identification of risk-free portions of these spreads.

2.289 To expand on a), an insurer may not be able to earn the VA since, e.g.:

- its actual investments deviate from the reference portfolio;
- a potentially too low risk-correction has been applied;
- the VA is applied to a duration of liabilities that exceeds the duration of the fixed income assets;
- its investments include floating interest rate bonds, callable bonds, mortgages, and other assets with non-fixed cash flows or with embedded options;
- the composition of the investment portfolio of the insurer can change over time, and it may not be possible for the insurer to earn the VA with the changed portfolio;
- where the VA applies to products with future premiums, the insurer is exposed to reinvestment risk, and it may not be possible for the insurer to invest future premiums in assets that earn the same amount as past premiums; and
- the VA is applied to products with surrender rights, so the exercise of policyholder surrender options could lead to forced sales.

2.4.6.4.2. Impact of changes to VA design on calibration of GAR

2.290 EIOPA expects that the envisaged new design of the VA will affect some of the risks associated with the VA. In particular:

1) The introduction of a **proportionate overshooting factor** is expected to reduce the risk of overshooting arising from differences between undertakings' duration of assets and liabilities and their exposures;

2) The application of an **illiquidity factor** will cause the VA to vary depending on how illiquid an undertaking's liabilities are and thereby reduces the risk of applying the VA without being able to withstand forced sales and the realization of losses due to bond spread exaggerations; and

3) The proposed amendment to the **risk correction** will allow for better capturing unexpected credit and other risks, thereby reducing the risk that the risk correction is too low.

2.4.6.4.3. Policy options considered

2.291 In view of the analysis above, EIOPA has considered the following policy options on the determination of the GAR:

- **Option 1:** No change (i.e. keep the GAR at 65%)
- **Option 2:** Increase the GAR to 100%
- **Option 3:** Increase the GAR to 85%

2.4.6.4.4. Assessment of options

2.292 As set out in paragraph 2.287, EIOPA considers that the VA should continue to be subject to a GAR in order to account for the risks inherent in the VA. Whereas the risks associated with the current design of the VA are expected to be mitigated, to some extent, by the proposed improved design of the VA, this can only lead to a reduction but not to an elimination of the risks.

2.293 For example:

- the risk of misstatement of the determination of the VA that occurs due to unavoidable estimation uncertainty remains under any design of the VA; this risk can be substantial especially in times of crises where spreads may increase excessively, and the identification of the risk-free portion of the spread may be subject to material estimation uncertainty;
- some of the risks mentioned in paragraph 2.289 that could prevent an insurer from earning the VA, e.g. a change of the insurer's investment portfolio over time, cannot be mitigated by the options for an improved VA design; and
- the proposed new design of the VA introduces additional inherent model risk, and cannot fully eliminate the risks which they intend to address.

2.294 Therefore, option 2 (setting the GAR to 100%), which would not allow to address risks associated with the VA, does not appear appropriate.

2.295 EIOPA expects that some of the risks that the GAR should address are mitigated by the proposed new design of the VA. Therefore, option 1 (i.e. keep the GAR at 65%), may lead to a GAR which is overly prudent.

2.296 However, the additional complexity that would be introduced by a more sophisticated VA design could also lead to additional risks and uncertainties in the quantification of the VA. Moreover, EIOPA notes that the current level of the GAR is already significantly higher than the previous EIOPAs recommendation of a value of 20%. Therefore, EIOPA considers that the GAR should only slightly increase.

2.297 Therefore, the preferred option is option 3 (increase of the GAR to 85%).

2.4.7. Dynamic VA for the standard formula

2.4.7.1. Identification of the issue

2.298 As at year end 2018, 192 insurance and reinsurance undertakings calculate their SCR with an approved internal model. 62 of these undertakings apply the dynamic VA, i.e. their internal models take account of the possible change of the VA during the following 12 months. Such an approach is currently not possible in the SCR standard formula, where the spread risk sub-module does not take account of VA changes.

2.299 The application of a dynamic VA has a significant impact on the SCR. As reported in the LTG report 2018, at the end of 2017 the average SCR reduction caused by the dynamic VA was 25%. In contrast, where the standard formula was applied to derive the SCR, the VA caused on average a reduction of the capital requirement by 1%.

2.300 These differences give rise to the concern that there is no level playing field between undertakings that use internal model and undertakings that use the standard formula because their spread risk is treated systematically different in the SCR calculation.

2.301 Furthermore, where the VA is interpreted as an inherent component of the valuation of technical provisions accounting for the illiquidity of liabilities (cf. option 5) an inconsistency between valuation and risk measurement arises, where the dynamics of the VA are not adequately reflected in the risk measurement. Under such an interpretation of the VA, the application of a dynamic VA in the SCR would be consistent. Not reflecting a dynamic VA in the SCR would in contrast raise inconsistency between the valuation and risk measurement. This particularly holds for the measurement of spread risk, as changes in market spreads would have an impact on the VA and thus on the value of technical provisions and own funds, thus on the final risk taken into account.

2.4.7.2. Analysis

2.302 The following option has been identified to address the issue:

- Allow for the dynamic VA in the SCR standard formula

2.303 Under this option, the stress scenario of the spread risk sub-module would be modified to take into account the VA changes resulting from the spread stress. For this purpose a stressed VA would be provided by EIOPA. The stressed VA would reflect spread widening of government bonds only to the extent that the standard formula does so. Undertakings would need to recalculate the value of technical provisions impacted by a change in the size of the VA due to the stress.

2.304 This concept may also require an addition to the current design of the SCR standard formula as the insurer would be exposed to another risk, the risk of technical provisions increasing as a consequence of the VA decreasing. This could be solved by adding another scenario of spreads decreasing in the spread risk sub-module. This would ensure that undertakings are exposed to an additional risk charge in case of a mismatch between the undertaking's credit risk exposure on the asset side and the sensitivity of the liabilities to changes in the VA.[51]

2.305 In case the design of the VA is changed to include undertaking-specific elements (undertaking-specific VA, application ratios for overshooting or illiquidity), then undertakings would calculate the VA based on input data from EIOPA (stressed spreads for the undertaking-specific VA, VA before application ratios).

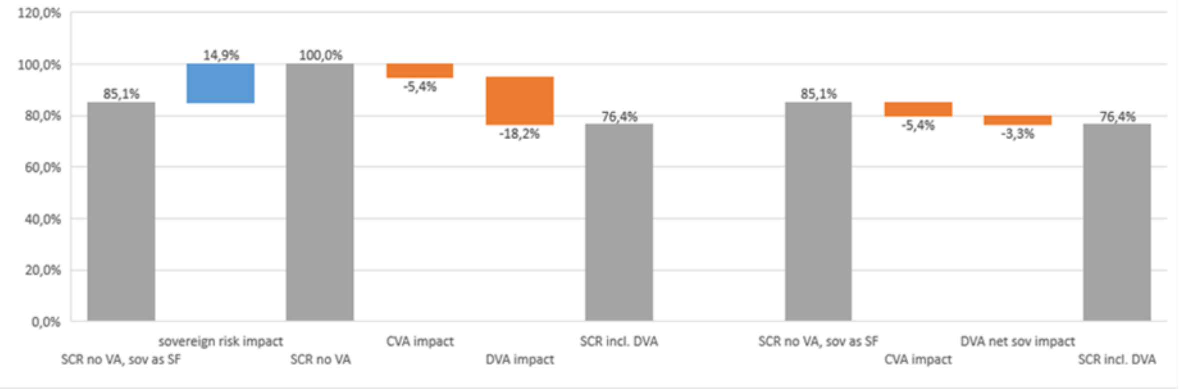
2.306 Undertakings that apply the VA and derive the SCR for spread risk with the standard formula would have the choice to apply the dynamic VA or calculate the capital requirement for spread risk as it is currently done.

2.307 Another possibility is to apply the dynamic VA in a more indirect way: the spread risk charges would be reduced based on the effective application ratio of an undertaking. For example, if an undertaking specific application ratio would reflect illiquidity of the liabilities as well as duration relation of assets and liabilities and would amount to 50 percent and the risk-correction would be 50 percent, the impact of parallel credit spread changes would be potentially approximately compensated by 25 percent. This 25 percent could be used as a reduction for the credit spread charges. It would require further analysis to ascertain that this approach captures the impact that the VA has in the spread risk scenarios of the SCR standard formula.

2.308 EIOPA has further analysed the impact of the dynamic VA on capital requirements. The analysis took into account that internal models capture the full credit risk from government bonds[52] while the standard formula assigns a zero credit risk charge to EEA government bonds that are denominated in local currency. The following diagram illustrates the impact of including government bond risks, of the VA without dynamic modelling (CVA) and the impact of dynamic modelling of the VA (DVA) on the SCR. The figures relate to the average impact for a representative sample of internal models that apply the dynamic VA and the reference date of 31 December 2018. The net effect of including government bond risks and applying the dynamic VA is a reduction of the SCR by 3.3%:

[51] E.g. for undertakings with long term liabilities and only a small proportion of spread-sensitive assets.

[52] See EIOPA Opinion on the preparation for Internal Model applications of 14 April 2015, https://www.eiopa.europa.eu/content/preparation-internal-model-applications.



2.309 Please note that effects shown are effects on the total SCR and thus including diversification effects.

2.310 The level of the reduction does not support the concern that the dynamic VA creates a level playing field issue with regard to the standard formula. On the contrary, the figures indicate that allowing for a dynamic VA in the standard formula while keeping a zero risk charge for government bonds might create an uneven playing field in favour of standard formula users. The impact on single undertaking level is further analysed in the section on the DVA in internal models (see section 2.5) and confirms the conclusion in general.

2.311 Furthermore, it should be taken into account that the charges for credit spread risk in the SCR standard formula have been significantly reduced compared to the initial calibration proposed by CEIOPS. If the standard formula would be based on this original calibration, the advantage of applying the DVA in internal models would be larger. One could argue that the reduction of the spread risk charges compared to the CEIOPS advice already takes into account the DVA to some extent.

2.312 Apart from that, a comparison between internal models and the standard formula needs to take into account that internal models are governed by strong regulatory requirements to ensure and justify appropriateness of the approach taken (in particular Articles 223 to 247 of the Delegated Regulation). Such requirements do currently not apply to standard formula users.

2.313 On the other hand, the calibration of spread risk of internal model users and standard formula users is not directly comparable. A comparison would need to acknowledge that the credit spread charges for the standard formula depart from earlier CEIOPS advice and also the diversity of calibration and modelling approaches for internal model users.

2.314 It is not mandatory to jointly consider the allowance for government bond spread risks and the modelling of a dynamic VA. Some internal modes that cover spread risk only apply a constant VA. The question of whether to recognize a dynamic VA can also be considered to be first of all a conceptual one that goes hand in hand with the objectives the VA is targeted towards. As these objectives do not vary between internal model or standard formula users - as the VA is first of all an adjustment to the valuation - the question of whether the VA should be conceptually transferred to risk measurement should be answered independently from how the SCR is calculated. Therefore, it can be argued that where a dynamic VA is included in internal models, it should also be possible to apply it in the standard formula in case the VA targets to reflect the illiquidity in the valuation.

2.315 If the VA intends to mitigate the impact of bond spread exaggerations and the reduction of pro-cyclical investment behaviour (objectives 1 and 2 of the VA), it is not beneficial that those targets are reflected in a reduction of the capital requirements. On the contrary, it would provide a double benefit by reducing both the own funds and the SCR. It is unlikely that the dynamic VA contributes to preventing pro-cyclical behaviour because it permanently lowers the capital requirement for spread risk. It can therefore rather be considered as having a negative consequence for pro-cyclical behaviour as undertakings are less incentivised to increase buffers in good times (as DVA reduces capital requirements already in good times).

2.316 The option would have the following advantages and disadvantages:

Advantages	**Disadvantages**
Provides for consistent treatment of the VA in internal models and the SCR standard formula.	Might create an uneven playing field in favour of standard formula users as long as government bond risks are not fully captured in the standard formula.
Ensures consistency between the risk measurement in the SCR and the derivation of technical provisions and own funds. The spread risk SCR captures the reduction of exposure to spread risk due to illiquidity and duration of liabilities.	The spread risk SCR does not reflect anymore the full risk of spread widening as observed in financial markets.
Encourages the investments in corporate bonds and loans.	May reduce the level of policyholder protection where capital requirements are reduced.
	Lower capital requirements for spread risk may incentivise undertakings to hold more corporate bonds of lower credit quality.
	Increases the complexity of the SCR calculations for undertakings that apply the dynamic VA
	Discourages the investment in equity

2.317 EIOPA holds the view that the disadvantages of the option clearly outweigh the advantages of the option, in particular as it effectively not improves the level playing field between users of the standard formula and users of internal models.

2.4.8. Approval to use the VA

2.4.8.1. Identification of the issue

2.318 The Solvency II Directive includes a Member State option to require supervisory approval to use the VA (Article 77d(1). EIOPA analysed for the LTG report 2016 the application of that Member State option. Accordingly nine countries require approval to use the VA (DE, DK, EE, HR, IE, PL, PT, RO, SI). In four of these countries undertakings do not use the VA (EE, HR, PL, SI). In 17 countries where the VA is used by undertakings no approval is required (AT, BE, BG, CY, CZ, ES, FI, FR, GR, HU, IT, LI, LU, NL, NO, SE, SK).

2.319 Article 77d(1) does not provide a level playing field because depending on the country of authorisation undertakings need to or do not need to request approval to use the VA. This might constitute an unequal treatment between undertakings of different jurisdictions. In particular, undertakings may incur different costs when they apply the VA because in some jurisdictions they incur the costs of the approval process and in others not.

2.320 Furthermore, an undertaking that does not receive approval by is supervisory authority to use the VA could still do so if it was authorised in a country that does not require approval. These differences may be mitigated because the supervisory review process in countries without VA approval can also result in disallowing undertakings to use the VA where it is found inappropriate.

2.4.8.2. Analysis

2.321 The following policy options to address this issue have been identified:

- Require supervisory approval to use the VA in all Member States
- Do not require supervisory approval to use the VA in all Member States
- Require supervisory approval to use the VA in all Member States for new users.

2.322 To require supervisory approval ensures that NSAs have up to date information on the use of the VA in their market. NSAs can subject the use of the VA to conditions. Such conditions could include in particular that the processes and data for calculating the VA are appropriate and the underlying assumptions of the VA are met. More detailed guidance should be developed by EIOPA with respect to the conditions for approval/withdrawal of the VA in order to promote supervisory consistency.

2.323 Preventing that undertakings do not use the VA without complying with such conditions could help to ensure that undertakings use appropriate discount rates to value their insurance liabilities and thus set up adequate technical provisions. This would contribute to policyholder protection. Supervision would be more effective because NSAs have more insight into the use of the VA by their undertakings.

2.324 On the other hand, if no supervisory approval was requested, then NSAs and undertakings would not incur the costs for the approval process.

2.325 In comparison, no change is not the preferred option because it does not provide a level playing field across countries. If the supervisory approval is only requested with respect to new VA users, the costs for supervisory authorities and undertakings would be limited and a level playing field would be established for the future.

2.326 However, in order to avoid that the grandfathering provisions (no approval for undertakings already applying the VA) result in unfair situations, some safeguards would be needed. First, a prior cut date should be established so as to avoid a cliff effect encouraging new VA users before the legal change is adopted in those Member States where the VA is currently not subject to supervisory approval. In addition, with respect to the current VA users in those Member States, the supervisory authority should still able to request them to stop using the VA when the use of the measure is not deemed appropriate anymore; that supervisory power should be recognised more explicitly in the regulation.

2.5. Dynamic volatility adjustment in internal models

2.5.1. Extract from the call for advice

3.6. Dynamic modelling of the Volatility adjustment

EIOPA is asked to assess whether the modelling of the DVA by internal model users sets disincentives for insurance and reinsurance undertakings' investment and risk management strategies, and whether the existence of diverging practices in this regard can be detrimental to the level playing field. In this context, EIOPA is asked to assess the appropriateness of this dynamic modelling in internal models in light of the assumptions underlying the volatility adjustment. In case that EIOPA advises to maintain this dynamic modelling in internal models, it should also advise on criteria to improve harmonisation of the modelling.

2.5.2. Previous advice

2.327 EIOPA did not provide advice on this topic so far but issued the 'Opinion on the supervisory assessment of internal models including a dynamic volatility adjustment' ('DVA'), EIOPA-BoS-17/366, 'DVA opinion' in the following.

2.5.3. Relevant legal provisions

2.328 The DVA in internal models is governed especially by the regulatory requirements on internal models. These especially are Articles 112 – 127 of the Solvency II Directive and Articles 222 – 246 of the Delegated Regulation for single undertakings and the respective Articles for groups. Furthermore, more general requirements on governance including risk management and on disclosure to supervisors and public are relevant.

2.329 Of specific importance in the DVA context are the requirements of the 'statistical quality standards' (SQS) of Article 121 of the Solvency II Directive, including the consistency with the methods used to calculate technical provisions, but also the ability to rank risks mentioned in Article 232 of the Delegated Regulation. At the same time the requirements on use test of Article 120 of the Solvency II Directive and its specification in the Delegated Regulation have to be complied with, including a 'fit to the business' requirement (Article 224 of the Delegated Regulation) and integration in risk management (Article 226 of the Delegated Regulation). Of a more general importance is the coverage of all material risks (Article 233 of the Delegated Regulation).

2.330 The frame is set by the regulation of the volatility adjustment, especially Articles 77d and 44 of the Solvency II Directive and Articles 49 – 51, 278 of the Delegated Regulation.

2.5.4. Other regulatory background

2.331 Connections exist in a natural way to the review of the volatility adjustment (VA) itself, but there is no connection visible to regulatory changes beyond the review of Solvency II.

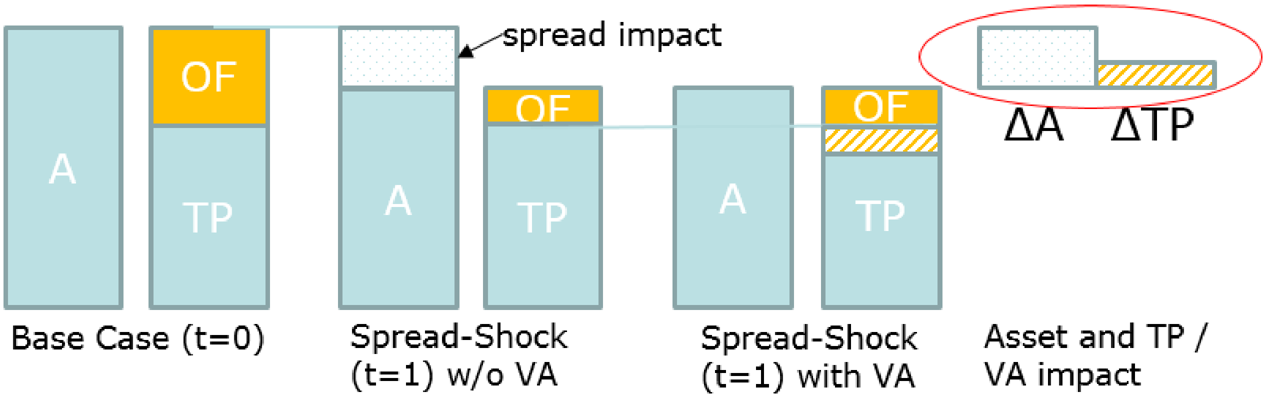
2.5.5. Identification of the issue

Dynamic volatility adjustment in internal models

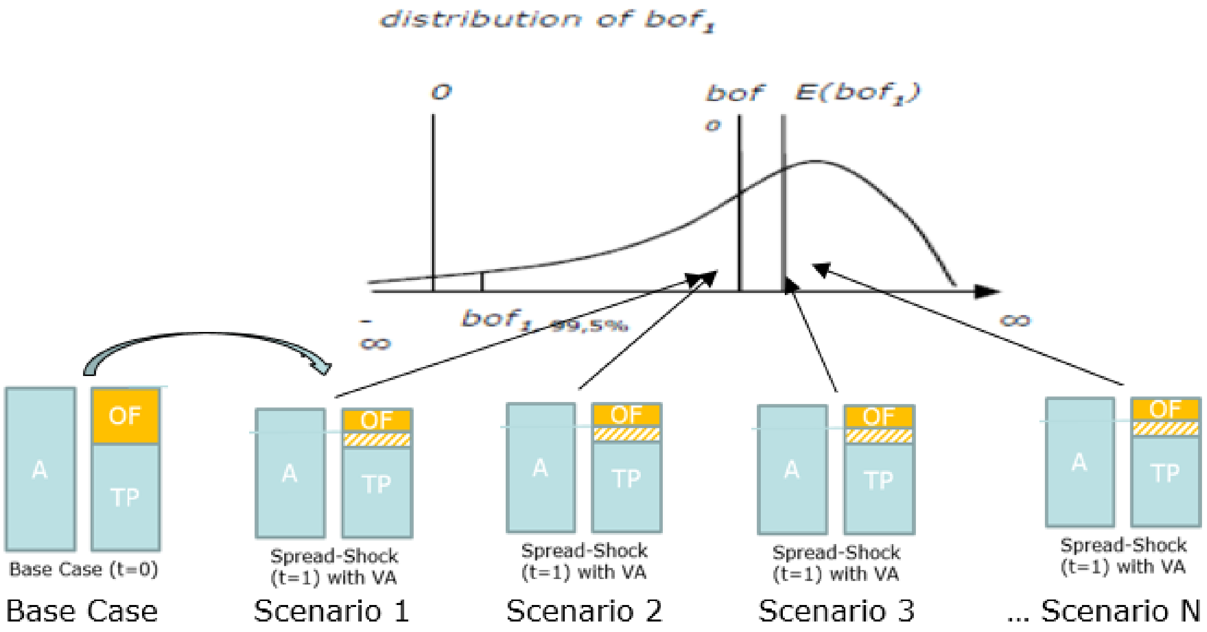
2.332 The volatility adjustment (VA) was introduced as one of the 'long-term guarantee' (LTG) measures to mitigate the impact of exaggeration of bonds spreads by adjusting the risk free rates ('RFR') to calculate the technical provisions. As internal models are required to generate a probability distribution forecast that determines changes in basic own funds to calculate the SCR consistently with the methods to calculate the technical provisions (TP), some internal model users implemented so called 'dynamic volatility adjustment' (DVA) approaches that take the VA into account in the SCR by allowing the VA to move in line with the modelled credit spreads during the 1-year forecast of basic own funds. Some other models keep the VA constant (CVA) as in the standard formula.

2.333 The idea of DVA approaches could be illustrated as follows:

2.334 Under the VA, changes in asset values (ΔA) are (partly) compensated by a TP adjustment (ΔTP):


A
OF
TP
spread impact
A
OF
TP
A
OF
TP
ΔA
ΔTP
Base Case (t=0)
Spread-Shock (t=1) w/o VA
Spread-Shock (t=1) with VA
Asset and TP / VA impact

2.335 In a generic view, this effect is anticipated in DVA approaches in the scenarios simulated to determine the SCR:


distribution of bof1
0
bof0
E(bof1)
bof1 99,5%
-∞
∞
A
OF
TP
Base Case (t=0)
Base Case
A
OF
TP
Spread-Shock (t=1) with VA
Scenario 1
A
OF
TP
Spread-Shock (t=1) with VA
Scenario 2
A
OF
TP
Spread-Shock (t=1) with VA
Scenario 3
A
OF
TP
Spread-Shock (t=1) with VA
... Scenario N

2.336 One of the key questions addressed under the key words 'overshooting' and 'undershooting' (see section 2.4.5.1), is whether the relation of the impact on assets and the TP adjustment are sensible.

2.337 The need and desire to remove risk management disincentives led to the implementation of so called 'holistic approaches' deviating from replication of the EIOPA VA methodology and in the EIOPA DVA opinion to the introduction of the so called 'prudency principle', under which undertakings using a holistic approach shall demonstrate that their SCR is at least as high as if replicating the EIOPA VA methodology ('direct approach').

Issues identified

2.338 Relevant issues as identified in EIOPA's DVA opinion and underlined and exemplified in the call for advice are:

1. Potential disincentives for risk and investment management.
2. Impacts on the level playing field, especially by the existence of different modelling approaches.
3. Appropriateness in the context of the underlying assumptions of the volatility adjustment.

2.339 The call for advice is asking EIOPA to provide advice on

4. whether to maintain the DVA
5. if 'yes', criteria to improve harmonisation of the modelling

2.5.6. Analysis and conclusions

2.5.6.1. Approach to the analysis

2.340 The analysis was performed in four phases, each supported by an information request.

2.341 The first phase took into view the functioning of current DVA approaches and impacts from these approaches on the SCR including under stressed conditions. For this purpose a questionnaire was issued in March 2019 based on year-end 2018. The results and conclusions of this analysis are documented in the "Consultation Paper on the Opinion on the 2020 review of Solvency II", EIOPA-BoS-19/465, "consultation paper" in the following and in EIOPA's "Report on insurers' asset and liability management in relation to the illiquidity of their liabilities", EIOPA-BoS-19-593, "ALM-Report" in the following.

2.342 The second phase is associated with the consultation of EIOPA's draft opinion and the testing of the two approaches to the VA presented there.

2.343 The third phase is associated with the "Holistic Impact Assessment" ("HIA"), based on year-end 2019 and the impact assessment based on the proposal for a new VA regime in the context of the DVA.

2.344 The fourth phase is associated with the review of the concepts in light of the COVID-19 crisis and the "Complementary Information Request" ("CIR"), based on Q2 2020.

2.345 Results from the first phase of the analysis with few exception will not be cited but only referred to. The following analysis is focussed on the additional insights gained from phases two, three and four. While the first phase also covered effects on group level, the other phases focussed on the solos perspective and took in view groups only with cumulative effects from the solos.

2.346 Each information request covered more than 90% of DVA users in terms of SCR, and covered all approaches and undertakings from all groups using a DVA.

2.5.6.2. Use of the DVA and modelling approaches observed

2.347 At year-end 2019 as at year-end 2018, the same number of 63 undertakings are using an internal model for solo-SCR calculation purposes including a DVA, but seven undertakings dropped out due to merger & acquisition and for seven undertakings a DVA was used the first time.

2.348 All DVA undertakings belong to nine insurance groups (eight at year-end 2018), in each of which the approach to the DVA is homogeneous, i.e. nine DVA approaches are observed in the market. Five of these approaches could be classified as 'direct approaches', i.e. with the ambition to replicate the EIOPA VA methodology. Those five approaches cover 41 solo undertakings, partly including margins of prudency related to the concrete model setup. Four DVA approaches could be classified as 'holistic', i.e. deviate from closely modelling the EIOPA VA methodology with the aim to solve undesirable risk management incentives. These holistic approaches cover 22 undertakings and differ motivated by risk management and risk profile analysis. Details on the modelling approaches can be found in the consultation paper and the ALM-Report. Compared to year-end 2018, there is one new DVA approach, which is a direct approach without margins of prudency.

2.349 Irrespective of the approach chosen, models were only approved if all credit risks were modelled, including sovereign risk.

2.350 Although the number of DVA users compared to the total number of insurance undertakings falling under Solvency II is small (2%), the portion in terms of volume of assets and technical provisions and SCR is relevant (more than 15%).

2.351 With respect to the use of DVA by type of business (life, non-life, composite and reinsurance) or by country, the following table provides an overview per year-end 2019 and 2018 (in brackets):

Country	**Groups**	**Solo undertakings**				
		Life	**Non-Life**	**Composite**	**Reinsurance**	**Total**
AT	1 (0)	2 (2)	1 (1)	2 (1)	1 (0)	6 (4)
BE	0 (0)	0 (0)	2 (2)	1 (1)	0 (0)	3 (3)
CZ	0 (0)	0 (0)	0 (0)	1 (1)	0 (0)	1 (1)
DE	2 (2)	10 (11)	12 (11)	0 (0)	4 (2)	26 (24)
FR	1 (1)	6 (6)	5 (7)	1 (1)	1 (1)	13 (15)
IE	0 (0)	0 (0)	1 (1)	0 (0)	2 (1)	3 (2)
IT	1 (1)	1 (1)	0 (0)	1 (1)	0 (0)	2 (2)
NL	3 (3)	4 (6)	4 (5)	0	1 (1)	9 (12)
UK	1 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Total	**9 (8)**	**23 (26)**	**25 (27)**	**6 (5)**	**9 (5)**	**63 (63)**

2.5.6.3. Analysis of the identified issues

2.352 This subsection presents the analysis of the identified potential issues as described above and COM's requests in the Call for Advice (see section 2.5.5):

1. Potential disincentives for risk and investment management
2. Impacts on the level playing field, especially by the existence of different modelling approaches
3. Appropriateness in the context of the VA underlying assumptions
4. Whether to maintain the DVA
5. if 'yes', criteria to improve harmonisation of the modelling.

2.5.6.3.1. Disincentives for risk & investment management

2.353 The analysis of the first phase came to the conclusions that the DVA does not introduce disincentives itself but transports potential deficiencies from VA[53] in the valuation into the SCR and amplifies them. This is especially true for undertakings suffering from 'overshooting' for which direct modelling approaches for DVA could distort sound risk management.

2.354 The Call for Advice does not explicitly mention specific disincentives, but from the DVA opinion as well as from the questionnaire to NSAs and undertakings, the main concern is the incentive to investment in riskier assets for the sole purpose of lowering the SCR. This would also be considered as the main driver for putting in place investment strategies that could trigger pro-cyclical behaviour in a stressed situation. NSAs especially mentioned potential pronounced cases of an inversion of risk ranking if the DVA would replicate the EIOPA VA methodology ('direct approach'), i.e. without DVA the internal model would indicate a widening of credit spreads to be the relevant risk, while with DVA a tightening of credit spreads would be indicated. Other concerns mentioned were: increasing the appetite for credit spread risk by nearly eliminating credit spread risk of a given asset portfolios in the internal model due to a DVA as well as limited sensitivity if additional credit spread is taken in the portfolio.

[53] Key sources of VA 'overshooting' (see subsection 2.4.5.1) and consequently SCR issues are the mismatch of credit spread sensitivity of assets and liabilities (incl. volume and duration mismatches), allocation mismatches compared to the VA reference portfolio (incl. sector, e.g. sovereign and corporate, and credit quality step) and the fact that the current VA risk correction could underestimate expected losses or unexpected credit risk (e.g. migration, default) or other risks of the assets, especially in extreme economic environments and for certain assets as it relies on a 30-year-Long-Term-Average-Spread. The latter and the former can cause DVA models not to be 'risk sensitive', i.e. not sufficiently measure risks and not sufficiently support risk ranking. Also, 'undershooting' could be caused, e.g. if the actual portfolio and VA reference portfolio have structural differences regarding government bonds.

2.355 The need and desire to remove risk management disincentives led to the implementation of 'holistic approaches' deviating from replication of the EIOPA VA methodology and further, in the EIOPA DVA opinion, to the introduction of the so called 'prudency principle', under which undertakings using a holistic approach shall demonstrate that their SCR is at least as high as if replicating the EIOPA VA methodology.

2.356 This prudency principle is an important measure but does not solve all issues and does not seem to work properly especially in pronounced cases[54].

2.357 However, model outcome is not mechanically transposed to risk and investment decisions. There currently is no indication that DVA users invest materially differently from local market practice or near to EIOPA VA reference portfolios.

2.358 This is also confirmed by the analysis of phase four covering effects from the COVID-19 crisis, specifically participants answers to qualitative questions raised in the CIR:

2.359 Overall, the existence of overshooting and undershooting of the VA in the solvency II balance sheet was confirmed, but neither forced sale of assets nor changes in risk or investment management or in risk appetite were reported.

2.360 The participants did not report any revisions of risk or their investment management policies or practices, but some took targeted measures or used opportunities in line with their policies. No change in risk appetite was reported.

2.361 The participants confirmed to not have experienced any forced sale of assets.

2.362 Three participants actively confirmed to have observed overshooting in the balance sheet during the crisis, while ten reclaimed undershooting in general or specifically in the crisis. 24 undertakings either considered over- or undershooting as not material or did not observe any.

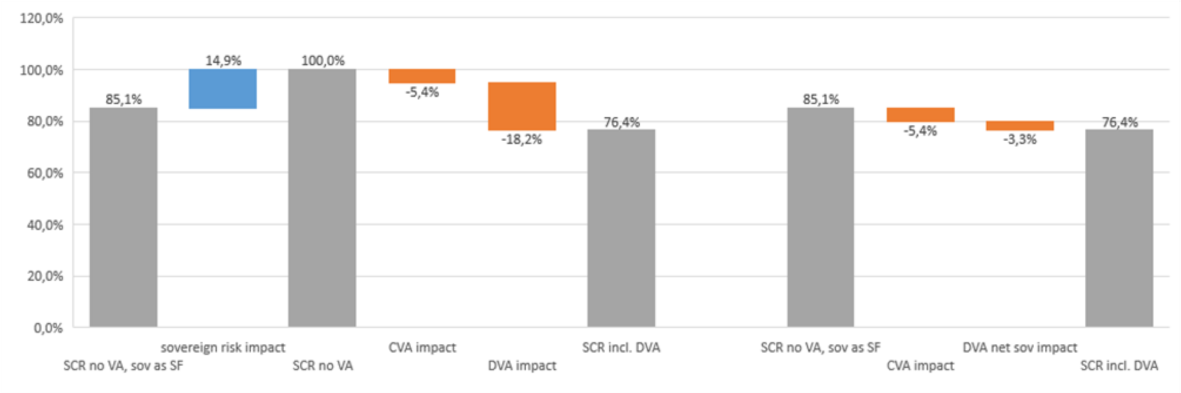
2.363 The analysis of the three overshooting cases confirmed that these were caused by duration mismatches of assets and liabilities and by higher credit quality of assets compared to the VA reference portfolio.

2.5.6.3.2. Impacts on the level playing field

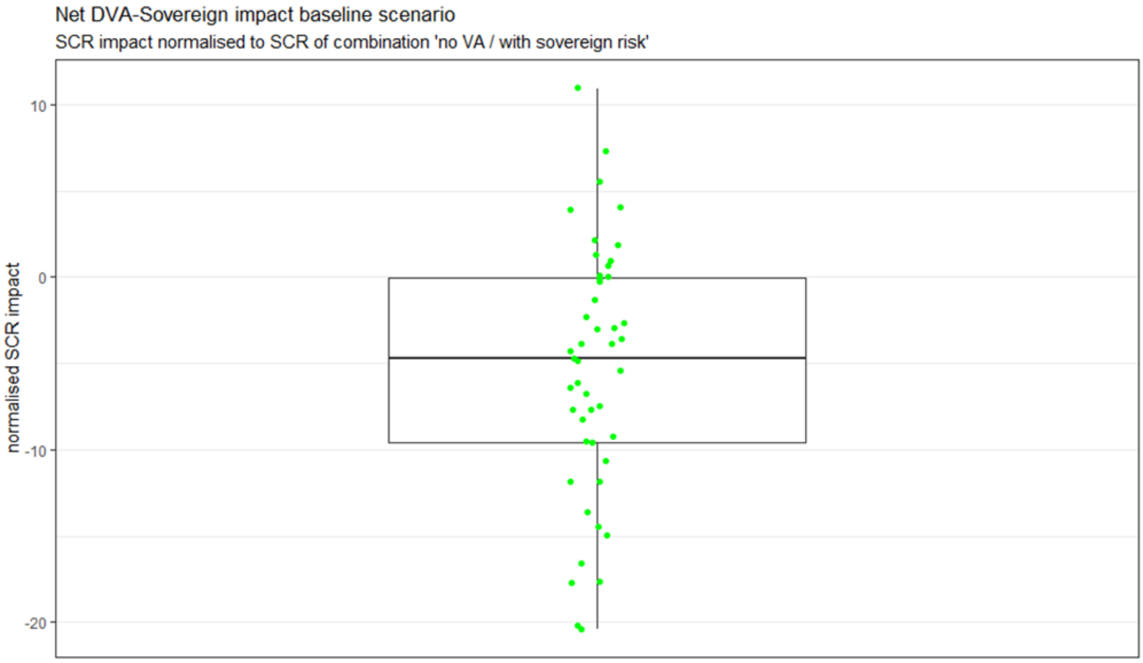
2.364 The analysis in the first phase confirmed that on average, implementing a DVA in internal models has only a limited impact compared with constant VA in standard formula or internal models, if not enforcing modelling of sovereign exposures.

[54] E.g. in the situation of an inversion of the risk ranking under a replication of the EIOPA VA methodology, the prudency principle could introduce a floor of 0 or one derived from a risk of spread tightening, although the undertaking is exposed to spread widening without DVA.

2.365 One way of evaluating the impact of the introduction of DVA models to the market, followed in phase one, is to consider the 'DVA net sov' impact, i.e. the difference between CVA and DVA but subtracting the initial increase of the SCR by introducing sovereign risk also for exposures exempted in the standard formula. This impact on weighted average was -3.3% relative to the SCR without VA:



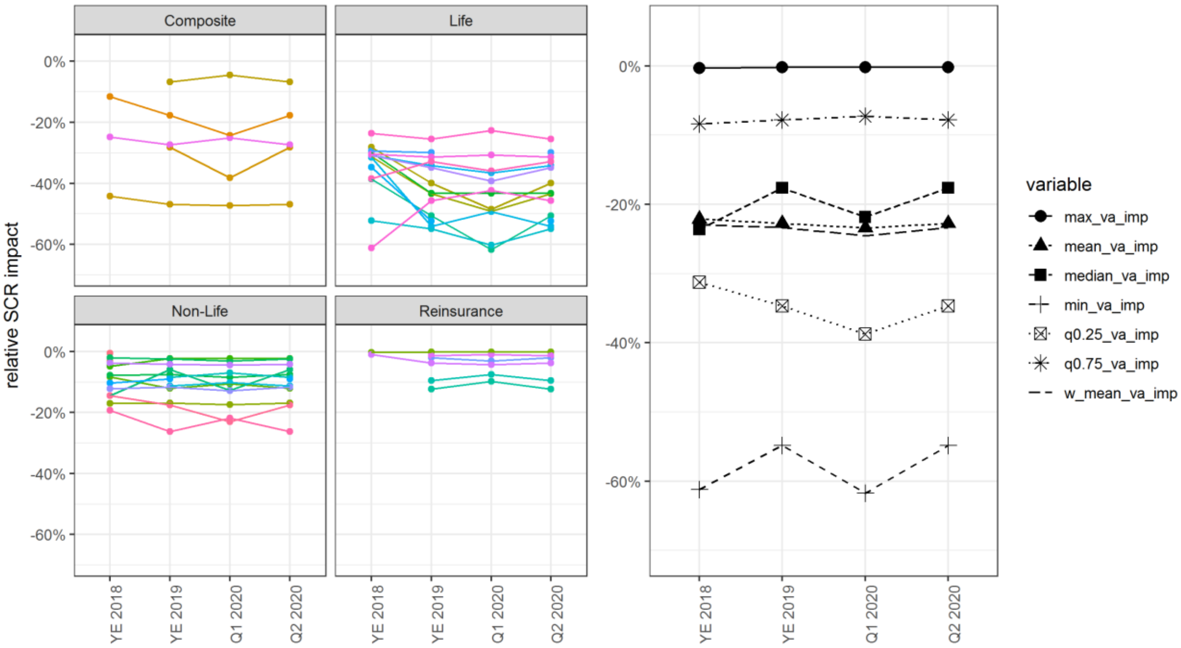
The median was -4.7%, i.e. value for which the net impact is smaller for 50% of the sample, and the 25% quantile was -9.5%, which means that for 75% of the sample the net impact is less reduction:



2.366 To limit the effort for participants, the analysis of the decomposition of the DVA effects was not repeated. But with the CIR, data on the effect on the SCR of the switching on of the VA was also collected for Q1 2020 to assess this impact also at a second key date during the COVID-19 crisis.

2.367 The following figure shows the relative reduction of the SCR for year-end 2018, year-end 2019 (HIA) as well as for Q1 2020 and Q2 2020 (CIR) in the form of 'parallel line plots' in a split by business type and basic statistics for the sample[55]:

Relative reduction of SCR by switching on VA: YE 2018, YE 2019, Q1 2020, Q2 2020



2.368 In the right part of the plot the triangles show the mean reduction of the SCR by the VA (not only DVA but also constant VA effects), which is essentially not impacted and is roughly -20% across the key dates. The left parts, using one colour for each undertaking, shows that there is variation in the sample, but also on solo level with few exceptions the differences are mild. In some cases the reduction is stronger in times of higher spreads, but there are not only few exceptions, which confirms the analysis under spread variations and presented in the ALM-report.

2.369 Furthermore, the EIOPA DVA opinion serves as a first safeguard against diverging DVA approaches achieving more benefit than the direct modelling of the EIOPA VA, and limiting the potential for detriment to level playing field. However, the opinion does not provide guidance as to which corrections should be made if direct modelling is not feasible due to overshooting. This can result in a lack of level playing field, and in those cases also high effort for supervisors and undertakings, especially in the approval but also the on-going supervision of the appropriateness of those internal models.

2.370 Consequently, supervisors would prefer to see known potential disincentives introduced by the VA and amplified by the DVA to be 'solved at source', i.e. in the VA.

[55] Please note that not all participants provided data for all key dates with the consequence that not all lines are across all four key dates. Please also note the reduction is shown as percentage compared to the SCR without VA and with negative sign. I.e. the strongest reductions are shown in the lower parts of the plots and the "max_va_imp" shows the lowest reduction, while "min_va_imp" shows the strongest reduction.

2.371 This would be expected to also open the way for a uniform view of supervisors on the DVA as concept. Furthermore, supervisory effort could be limited and supervisory convergence supported.

2.372 A judgment on level-playing field can only be made with a comprehensive view on the model (not only the DVA) and on the connection with risk profiles. It is therefore naturally complex. However, the analysis performed did not show systematic differences that would immediately suggest a breach of the level playing field by the DVA, neither in relative impacts between approaches, nor between the groups of direct or holistic approaches.

2.5.6.3.3. Appropriateness in the context of the VA underlying assumptions

2.373 As laid out in the section on VA deficiencies (see section 2.4.5.1) the assumptions underlying the current VA are considered to be unclear. This lack of clarity also impacts the supervisory approach to the DVA, which essentially requires the underlying assumptions to be satisfied also in stressed scenarios as described in the DVA opinion. Consequently, the assessment of the appropriateness of the DVA in the context of the VA underlying assumptions focussed on the mitigation of stresses on credit spread, i.e. the impact on the SCR under the perspective whether this mitigation is 'overshooting', with conclusions as described in this section.

2.5.6.3.4. Maintaining the DVA

2.374 Regarding whether the DVA should be maintained, in the consultation paper EIOPA advised as follows:

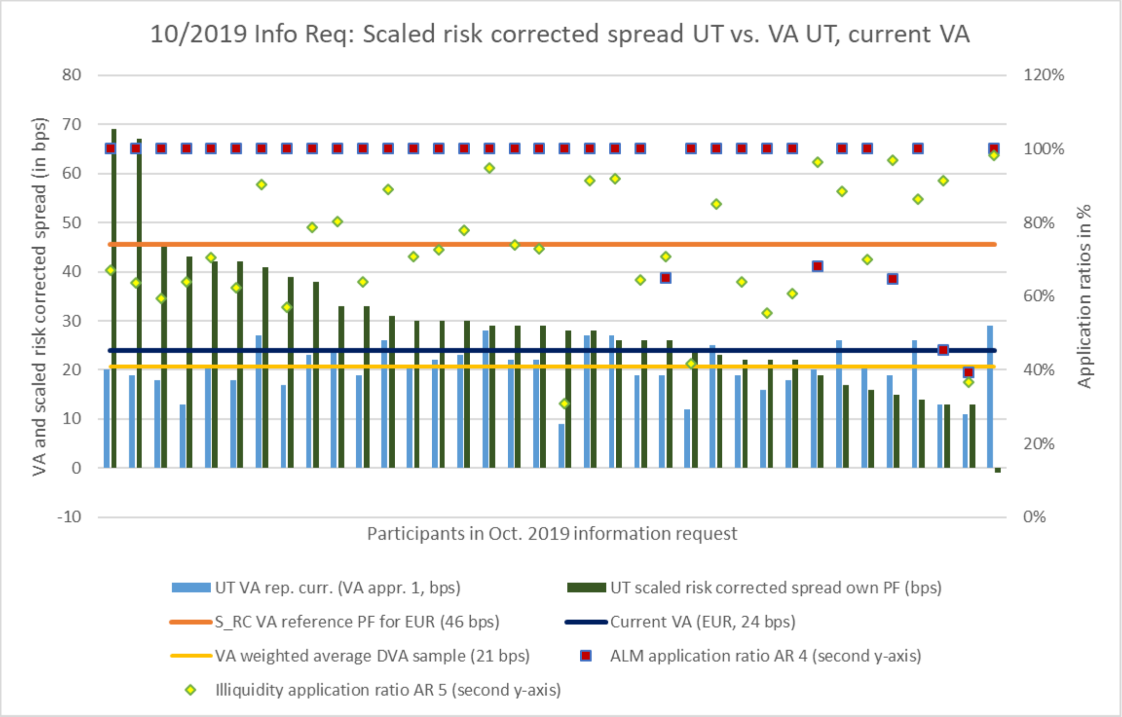
1. The DVA could be maintained, if disincentives are solved in the VA ('at source'). This could open the way for more harmonization, as solving at source would allow more insurers to directly model the EIOPA VA methodology with acceptable outcomes and would avoid unintended risk management incentives. Depending on the concrete future design of the VA, this approach to internal models might potentially need to be supported in regulation.
2. If no or partial VA solution would be introduced, measures (in regulation) are needed. Such measures would have the ambition to avoid disincentives and ensure that the DVA is risk sensitive and protect the level playing field. This might impact the use of 'direct approaches' as well as the design of 'holistic approaches'.

2.375 But with the VA regime introduced in section 2.4.5.2.2 not all VA deficiencies are going to be solved at source. This especially is the case for 'quality overshooting', caused by a potential structural difference between VA reference portfolio and undertaking portfolio, for example by a mismatch of sector and credit quality steps (CQS) leading to lower credit spreads and credit spread risk in the own portfolio than in the relevant VA reference portfolio.

2.376 This conclusion is evidenced by data collected in phase two (consultation), three (HIA) and four (CIR), including the confirmed cases of 'quality overshooting' in participants balance sheets during the COVID-19 crisis in the first half year of 2020 (see paragraph 2.362).

2.377 Especially for the 'scaled risk corrected spread', "S_RCS", in the following, (see annex 2.9, paragraphs A.199-A.204) of the undertakings' own fixed income portfolio was inspected for DVA users and compared with the S_RCS for the VA reference portfolio for the currency EUR.

2.378 With initial concept of the revised risk correction, phase two indicated that for 90% of the DVA sample S_RCS on the own portfolio (dark green bar) was lower than S_RCS of the VA reference portfolio (orange line), for 50% it would have been less than 2/3 and for 75% less than 85% of S_RCS of the reference portfolio:

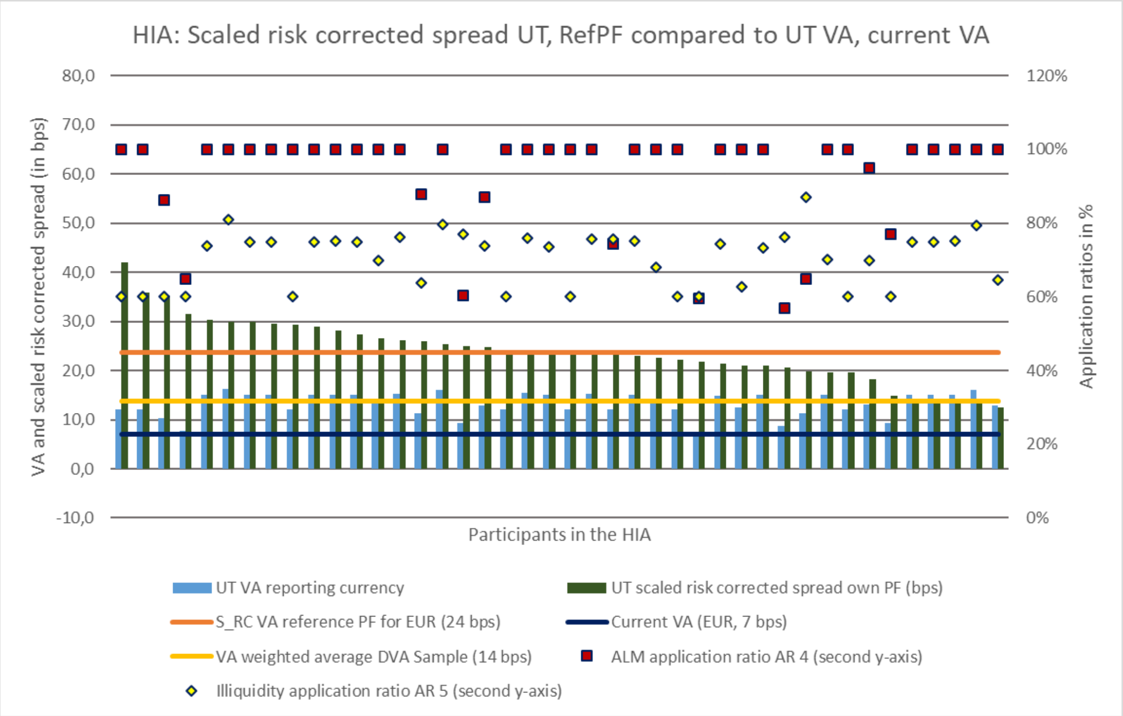


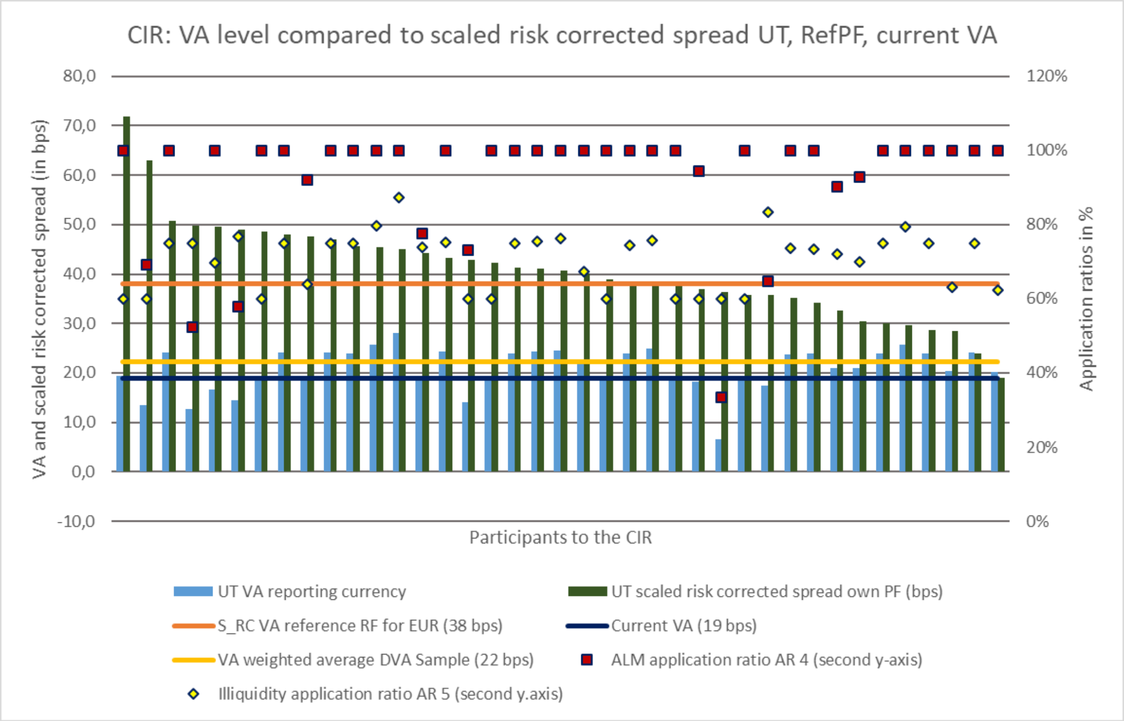
To note: The algorithms for the risk corrected spread on the reference portfolio and on undertakings own portfolios were different, but an analysis for the DVA sample showed that the results would not have been materially different, if the same algorithm would have been applied.

The graphic additionally shows the VA based on the reference portfolio (light blue bar) and the weighted average VA on the DVA sample (yellow line) as well as the current VA (dark blue line). Furthermore on the right y-axis the values of the application ratio for overshooting (AR_4) (red squares) and the application ratio for illiquidity (AR_5) (yellow diamonds) are shown in %-points. Please note that these are according to the concepts presented in the consultation paper (see background document impact assessment, section 2.3.3).

2.379 HIA and CIR under the concept of the risk correction as presented in section 2.4.5.2.2 confirmed that the issue is still relevant for some of the DVA users in the sample but that there is no systematic difference to the sample of VA users. The following plots in bps show the VA based on the reference portfolio (light blue bar) compared to the scaled risk corrected spreads on the undertakings' own portfolio (dark green bar).

As additional information, the scaled risk corrected spread on the reference portfolio (orange line) and the weighted average VA on the DVA sample (yellow line) as well as the current VA (dark blue line) are shown. Furthermore on a second y-axis the values of the application ratio for overshooting (AR_4) (red squares) and the application ration for illiquidity (AR_5) (yellow diamonds) are shown in %-points:





Under the HIA there are five cases, in which the VA based on the reference portfolio is higher than the risk corrected spread on the undertakings own portfolio, but with a positive difference lower than 3 bps. For the CIR there are two such cases with a maximum difference of 1 bps.

The analysis of single cases confirmed that the scaled risk corrected spread is not significant stand-alone (see paragraph 2.362) and has to be seen in connection with duration aspects as reflected in the application ratio on overshooting (AR$_4$). But conversely durations were also not significant stand-alone (see also paragraph 2.363).

2.380 To counteract potential quality overshooting, EIOPA advises to maintain the DVA only if the current 'DVA prudency principle' is kept and enhanced and this enhanced requirement is introduced into the regulation:

If an undertaking applies the DVA, it should demonstrate that the SCR according to the DVA approach chosen is at least as high as the maximum of:

1. The SCR if replicating the VA methodology implemented by EIOPA according to Article 77e (1) (c) of the Solvency II Directive based on the relevant VA currency reference portfolios ('direct DVA(RefPF)')
2. The SCR if replicating the VA methodology implemented by EIOPA according to Article 77e (1) (c) of the Solvency II Directive based on the undertaking's own asset portfolio (direct DVA(own PF)') in appropriate granularity reflecting the undertaking's own portfolio.

This enhanced 'DVA prudency principle' should apply to any DVA approach, including direct DVA approaches.

EIOPA would advise to introduce this at the level of the Solvency II Directive in the section on the volatility adjustment. Reference should be made to the regulatory requirements on internal models.

2.381 It is expected that the enhanced 'DVA prudency principle' will materially contribute to avoid disincentives for risk and investment management. But its proper functioning is also depending on the introduction of all components of the proposed new VA regime. Next to the risk correction this also concerns the application ratio on overshooting (AR_4), which addresses volume and duration mismatch, without which the scaling factor would not be acceptable. Furthermore, for the overall balance the introduction of application ratio on illiquidity (AR_5) and a general application ratio (GAR) well below 100% are necessary. If any of these components would not be implemented, additional measures would be needed or the DVA could not be maintained.

2.382 EIOPA also analysed potential limitations of the enhanced 'DVA prudency principle'. First, one should note that the enhanced 'DVA prudency principle' does not address undershooting, but is a measure to target overshooting. Furthermore, while it does not impair risk ranking, by limiting overshooting it at the same time reduces the reward for investment in assets with lesser credit risk than the VA reference portfolio. Concerns were raised that this might also give incentives for a convergence to the VA reference portfolio or disincentives to invest in bonds with good credit quality steps. The risk ranking is however preserved. Besides, without the enhancement, some observed practical cases show that a proper risk ranking might not be obtained. EIOPA overall acknowledges that the enhanced 'DVA prudency principle' might be a partial solution, but as the risk ranking is preserved, the risk that it provides incentives for a convergence to the VA reference portfolio or disincentives to invest in bonds with good credit quality steps is deemed to be limited. Furthermore, concerns were raised that the enhanced prudency principle might impair the objectives of internal models to properly address the risk profile and ensure a calibration according to the calibration standards. With respect to these concerns, EIOPA would like to underline that, due to the remaining deficiencies in the VA concept, measures need to be taken to especially address potential disincentives, inversion of risk ranking and elimination of spread risk – indeed for the purposes of properly addressing the risk profile and ensuring calibration according to the calibration standards. Also, the assumptions underlying the VA application need to be satisfied under stressed scenarios as well. Finally, although introducing a certain additional complexity and additional effort for undertakings, the measure is considered to be crucial if the DVA should be maintained.

2.383 EIOPA would like to mention the following aspects, which are considered to be covered by the existing regulatory requirements for internal models, but are intended to be explicitly addressed by guidelines:

1. There should be no disincentives for risk and investment management, especially no 'overshooting'.

2. DVA benefit should be risk sensitive, reflecting the risks present in assets and liabilities covered. In particular, there should be no undue reduction and less than full elimination of credit spread SCR, and the DVA benefit should reflect expected losses, unexpected credit risk (esp. migration & default) and other risk of the assets.

3. Internal models including a DVA can only be approved if all credit risks are modelled, including sovereign risk.

4. Any DVA approach has to appropriately reflect the variation of any of the components of the implemented VA algorithm over the forecasting period. This especially includes application ratios and the decomposition of reference portfolios and own portfolio. Simplifications need to be assessed and judged in the specific setting of risk profile and modelling approach.

5. The modelling of spreads used for the purpose of the DVA should be consistent to the approach to spreads used for market and credit risk, including data. The modelling should be granular enough to capture the dynamics of the undertaking's own portfolio as well as the dynamics of the VA reference portfolio for the relevant currencies.

2.384 EIOPA also assessed the question if the enhanced 'DVA prudency principle' should be introduced into regulation or be kept on the level of a supervisory opinion or guideline. In its conclusion EIOPA took into account especially the following: (1) importance for the objective to address disincentives and especially overshooting; (2) effort connected with this measures; (3) existing requirements on internal models on the level of the Solvency II Directive, especially Article 121 (2) of the Solvency II Directive on the consistency with methods used to calculate the technical provisions, the requirements of Article 120 of the Solvency II Directive on the use in risk management and decision making. Weighing these and from a systematic point of view, implementation on the level of the Solvency II directive is preferred, also to support the supervisory work.

2.5.6.3.5. Criteria to improve the harmonisation of the modelling

2.385 As laid out in EIOPA's DVA opinion, a DVA in internal models has to be assessed from a holistic point of view combining requirements on modelling and appropriateness for use. If all observed VA deficiencies would have been solved at source, in general a direct implementation from supervisors' point of view is natural and easier to assess. It would usually allow to directly comply with consistency of methods in technical provisions and internal model (Article 121 of the Solvency II Directive) and use test (Article 120 of the Solvency II Directive).

2.386 But, not all deficiencies, at least under the perspective 'quality overshooting', are solved at source. However, it is expected that the enhanced 'DVA prudency principle' (see paragraph 2.382) will materially contribute to avoid disincentives for risk and investment management.

Consequently, EIOPA expects that it will lead to a certain convergence of approaches and only in rare cases a need for a holistic approach should remain. Nevertheless, based on current knowledge a necessity in exceptional cases cannot not fully be excluded. Thus to level consistency and risk orientation as required by the use test, holistic approaches might be accepted if a substantial need for them to avoid undesirable risk and investment management incentives is evidenced.

2.387 No further adjustment of regulation is considered to be necessary but EIOPA identified certain aspects that are considered worth to be addressed by guidelines like risk sensitivity, coverage of risks, consistency of spread modelling in DVA and credit spread risk as well as the variation of components of the VA algorithm over the projection horizon and simplifications in that context (see paragraph 2.361). While other aspects like margins included in the models are more specific and subjects of supervisory practice.

2.388 Like the appropriateness of DVA approaches in general after the introduction of changes to Solvency II following the 2020 review, the usefulness and necessity of margins is a specific aspect subject to supervisory practice which has to be reassessed on a case-by-case basis. Margins or portions of margins that relate to VA deficiencies might be removed – depending on the final changes to the VA and the implementation of the enhanced DVA prudency principle. Margins or portions of margins that relate to weaknesses or simplifications in the model, including the variation of components of the VA algorithm over the projection horizon, might need either to stay at a similar level or increase or be set up for the first time, as for example aspects of the new VA concept could only be implemented with simplifications.

2.6. Transitional measures on the risk-free interest rates and on technical provisions

2.6.1. Extract from the call for advice

3.3. Transitional measures

Title VI Chapter I of the Solvency II Directive lays down a number of transitional provisions. EIOPA is asked to assess the ongoing appropriateness of the transitional provisions in terms of policyholder protection and level-playing field. This assessment should, where applicable, also assess whether the ongoing possibility for companies to newly apply for the transitional measures should continue. EIOPA may prioritise its work on the different transitional measures, provided that the advice states the reason for doing so. However, EIOPA's assessment should cover at least the transitional measures referred to in Articles 308b (12) and (13), Article 308c and Article 308d of the Solvency II Directive.

2.6.2. Previous advice

2.389 In its technical findings on the long-term guarantees assessment of 2013 EIOPA supported the inclusion of transitionals on risk-free interest rates and on technical provisions in Solvency II. (See pages 115 to 116 of the findings).

2.6.3. Relevant legal provisions

2.390 The transitionals are set out in Articles 308c, 308d and 308e of the Solvency II Directive. Further relevant are Article 38(1)(d) of that Directive on capital add-ons in relation to the transitionals and Article 45(2a) of that Directive on the treatment of the measures in the own risk and solvency assessment. Article 278 of the Delegated Regulation provides further specification on the imposition of capital add-ons in relation to the transitionals.

2.6.4. Identification of the issue

Predominant application of the transitionals by undertakings without capital gap

2.391 According to recital 61 of the Omnibus II Directive the objectives of the transitionals on the risk-free interest rates and on technical provisions are as follows:

- allow for a smooth transition to Solvency II,
- avoid market disruption and limiting interferences with existing products as well as ensuring the availability of insurance products,
- encourage undertakings to move towards compliance with the Solvency II requirements as soon as possible.

2.392 At the end of 2017, 168 insurance and reinsurance undertakings from the EEA applied the transitionals. The vast majority of those undertakings, 139 of them, meet the SCR without the transitionals. These undertakings have, without the transitionals, a gap of eligible own funds to meet their SCR of EUR 7bn. For undertakings from EEA30 countries the gap is EUR 1bn. The size of the gap is in contrast to the overall amount of own funds of EUR 85bn that the transitionals create.

2.393 Accordingly, a shortage of own funds is not the typical reason to apply the transitionals. Indeed, the undertakings that apply the measures cover a broad span of solvency positions. For example, about 53 users of the transitional on technical provisions have an SCR ratio above 200% without that measure.

2.394 The application of the transitionals does not appear to be much targeted. At EEA level they create about nine times as much own funds as is needed to meet the SCR. This gives rise to the question whether all undertakings that apply the transitionals need it achieve a smooth transition to Solvency II.

Some undertakings may simply apply the measures to boost their solvency ratio.

2.395 In any case, the broad use of the transitionals by undertakings without a gap of own funds contradicts the objective to encourage undertakings to move towards compliance with the Solvency II requirements as soon as possible. Because these undertakings already now would be able to comply with the Solvency II requirements without the transitionals.

2.396 On average, the transitional on technical provisions increases the SCR ratio by 76 percentage points. The impact differs significantly across countries; the highest average national increases are 244 percentage points (DE), 163 percentage points (BE) and 128 percentage points (FR).

2.397 The negative consequences of unnecessary application of the transitionals are as follows:

- The technical provisions are not valued according to Solvency II principles. They are lower than their transfer value and hence usually insufficient to run off or transfer the insurance liabilities. As these technical provisions are used to determine the regulatory solvency position of the undertakings, this solvency position does not reflect the real economic situation of the undertakings.
- The distorted solvency position may provide an incentive to undertakings to take higher risks than without the transitional and impairs their efficient supervision.
- There is an unlevel playing field between undertakings that do and undertakings that do not apply the transitionals because the solvency position of the undertakings that apply the measures, all other things equal, appears to be better. This unlevel playing field can distort the competition between those undertakings.

2.398 EIOPA asked NSAs why in their market undertakings apply the transitionals while they have an SCR ratio without the transitional significantly above 100%. The main reasons provided by NSAs were:

- Adjusting the transitional deduction of the transitional on technical provisions can provide a smoothing effect that allows for a more stable investment policy over time.
- SCR ratios are very volatile, for example regarding interest rate changes, and currently high SCR ratios without the transitionals might therefore deteriorate quickly.
- Undertakings applied for the transitionals when their solvency position was significantly lower than currently.
- The transitional increases the SCR ratio.
- The use of the transitionals is a precautionary measure in case undertakings face unexpected situations where they could have solvency needs.

- Where within an insurance group some undertakings are in need of the transitionals, the application of the transitionals to the other undertakings of the group ensures a consistent approach.

2.399 One of the reasons for undertakings to use the transitionals despite of sufficient own funds without the transitional is apparently that their solvency position might deteriorate in the future. In such a case the undertakings would depend on the transitionals in order to meet solvency requirements in the future. The current framework does not support the supervision and management of these dependencies. While undertakings that do not meet the SCR without the transitionals need, in accordance with Article 308e of the Solvency II Directive, to have a phasing-in plan that sets out the measures they intend to take to overcome their dependency on the measures, undertakings that depend on the transitional while they currently meet the SCR without the measures do not need to make a phasing-in plan. The NSA may not be informed about the measures that an undertaking intends to take to remove its dependency on the transitional. Furthermore, the NSA may not have a legal basis to withdraw the transitional in case the undertaking does not take efficient measures to overcome the dependency.

Approval of transitionals after 1 January 2016

2.400 EIOPA assessed the practice of NSAs regarding new applications in the LTG report 2016. EIOPA requested information on whether NSA would allow undertakings to start using the transitional measure at a later date than 1 January 2016, whether they would allow undertakings to exit from the transitional measure before 2032 and whether they would allow undertaking to reapply for the transitional after exiting.

2.401 Of the NSAs that had responded, eight agreed that they would allow undertakings to apply at a later date, while four would not allow that. Most NSAs agreed that they would allow undertakings to exit the transitional measure earlier than 2032. Several NSAs also agreed that they would allow undertakings to reapply after exiting.

2.402 The report shows that there is no consistent approach in the approval of new applications after 1 January 2016. The approval of applications for transitionals after that date gives rise to the question whether that approach is in line with the fundamental idea of a transitional to smooth introduction of new requirements.

Application of a capital add-on

2.403 Recital 61 of the Omnibus II Directive states that the objectives of the transitionals include to allow for a smooth transition to Solvency II and encourage undertakings to move towards compliance with the Solvency II requirements as soon as possible. Article 308e provides that undertakings that are unable to cover their SCR without the transitionals shall submit a phasing-in plan to their NSA and regularly report about the progress made.

NSAs are required to revoke the approval for those transitional measures where they determine that it is unrealistic that the undertaking will meet the SCR at the end of the transition period.

2.404 Article 37 of the Solvency II Directive furthermore allows NSAs to set a capital add on where the risk profile deviates significantly from the assumptions underlying the transitional measures. The interaction between these two provisions was however seen as benefiting further clarification in which cases a capital add on would be adequate rather than a revocation.

2.6.5. Analysis

Policy issue 1: Predominant application of the transitionals by undertakings without capital gap

2.405 The following policy options to address this issue have been identified:

- 1.1 Restrict the use of transitionals
- 1.2 Limit impact of transitionals for undertakings without capital gap
- 1.3 Strengthen disclosure on transitionals
- 1.4 Extend use of phasing-in plans to all undertakings depending on the transitionals

2.406 The options can be adopted separately on in combination.

1.1 Restrict the use of the transitionals

2.407 Articles 308c and 308d do not set out any conditions for the application of the transitionals that relate to the undertaking’s need for the transitional. This could be corrected by introducing a requirement that restricts the application of the transitionals to undertakings that need the transitional to ensure a smooth transition to Solvency II. The requirement should be principle based. According to the requirement, undertakings should demonstrate:

- That there would be negative consequences in case they do not apply the transitional, in particular with regard to existing and new insurance products.
- That the application of the transitional would mitigate those negative consequences.

2.408 Where the demonstration of the undertaking is not convincing, the NSA should not approve the use of the transitional. During the transitional period the undertaking should regularly update the demonstration. In case the need for the transitional cannot be demonstrated anymore, the NSA should revoke the approval. This rule should also apply in case the transitional was approved before introduction of the new requirement.

2.409 The option ensures that undertakings that are not in need of the transitional have to comply with the requirements of Solvency II, specifically to set up market-consistent technical provisions.

2.410 The option would improve the level playing field between undertakings that are not in need of the transitional. It would not improve the level playing field between those undertakings and undertaking that are in need of the transitional.

1.2 Limit impact of transitionals for undertakings without capital gap

2.411 The impact of the transitionals could be limited in order to mitigate the distortion of the regulatory solvency position introduced by the transitional and the resulting detriment to the level playing field. To this end the transitional deduction of an undertaking would be capped so that its SCR ratio does not exceed the following amount:

$$\max(100\%, \textit{SCR ratio without transitional})$$

2.412 For undertakings that do not comply with the SCR with the transitionals, no change should be made.

2.413 Consequently, as long as undertakings meet their SCR without the transitional the transitional would have no impact on their own funds and SCR ratio. When undertakings do not meet their SCR anymore without their transitionals, their SCR ratio would be 100%.

2.414 Under this approach all undertakings that do not comply with the SCR without the transitional would have the same SCR ratio. Only the solvency position without the transitional would inform about differences between these undertakings. This does however not appear to be a loss of information because also currently a meaningful comparison of the solvency positions of undertakings on the basis of the transitional is hardly possible.

2.415 The option would significantly improve the level playing field. For most users of the transitionals it would currently not have an impact on their solvency position anymore, hence ensuring equal treatment with the undertakings that do not apply the transitionals. For undertakings that do not comply with the SCR without the transitional the impact of the transitional the distortion introduced by the transitional is minimised.

2.416 A proportionate implementation of the option would be achieved by allowing for approximations in the calculation of the cap.

2.417 One of the downsides of the option is that for undertakings that do not comply with the SCR without transitional but comply with the SCR with the transitional, it is not visible anymore how close they are to breaching the SCR with the transitional because their SCR ratio is 100%. This issue could be addressed by requiring that also the SCR ratio before cap, as today, is calculated and disclosed.

2.418 A variant of this option is to set the SCR ratio at the maximum of 150% and the SCR ratio without the transitional. This would reflect that insurance and reinsurance undertakings typically aim for an SCR ratio that is a significantly higher than 100%. Whereas the maximum of 100% indicates an SCR breach for undertakings reporting an SCR ratio of 100%, a maximum of 150% does not provide information on whether or not there is an SCR breach without the transitional; there is no distinction between no SCR breach when the ratio without the transitional is between 100% and 150% and when there is an SCR breach.

1.3 Strengthen the disclosure on transitionals

2.419 In order to mitigate the impact the issues outlined above, the disclosure on the use of the transitional could be strengthened as follows:

- The SFCR addressing other users than policyholders should set out the reasons for the use of the transitional. In case the undertaking does not comply with the SCR without the transitional, this fact would be sufficient reason. Where undertakings comply with the SCR without the transitional other reasons should be provided.
- The SFCR addressing other users than policyholders should include an assessment of the dependency of the undertaking on the transitional. In case of a dependency, the undertaking should describe the measures it has taken and is planning to take providing a prospect to remove the dependency by the end of the transitional period.

1.4 Extend the requirement of phasing-in plans to all undertakings depending on the transitionals

2.420 In order to support the supervision and management of dependencies on the transitional, also undertakings that comply with their SCR without transitionals should, mutatis mutandis, fall under Article 308e of the Solvency II Directive with the following consequences:

- Undertakings should inform their NSA about any dependencies on the transitionals.
- Undertakings should take the necessary measures to ensure removal of the dependencies at the end of the transitional period.
- Undertakings should make a phasing-in plan setting out the planned measures to remove the dependencies at the end of the transitional period and submit it to their NSA.
- Undertakings should submit annually a report to their NSA setting out the measures taken and the progress made to remove the dependencies at the end of the transitional period. NSAs should revoke the approval for the application of the transitional where that progress report shows that removal of the dependencies at the end of the transitional period is unrealistic.

Policy issue 2: Approval of transitionals after 1 January 2016

2.421 The following options for addressing the issue have been identified:

- 2.1 Allow new approvals for the transitionals
- 2.2 Disallow new approvals for the transitionals
- 2.3 Allow new approvals for the transitionals only in specified cases, namely:
  - An undertaking newly falls under Solvency II because it has passed the thresholds of Article 4 of the Solvency II Directive
  - An undertaking transfers a portfolio that is subject to the transitional to another undertaking

2.1 Allow new approvals for the transitionals

2.422 Under this option all NSAs should allow undertakings to start or restart applying the transitionals from a date after 1 January 2016 onwards, provided the legal requirements currently set out in the Solvency II Directive are met. Thereby the option would improve the consistent application of the transitionals. It may however be considered at odds with the purpose of the transitionals to allow for a smooth transition to Solvency II (see recital 61 of the Omnibus II Directive). Because the undertaking would usually have already applied Solvency II for several years when they seek approval to use the transitional. The option may facilitate that undertakings to move away from compliance with the Solvency II requirements while the objective of the transitionals is to encourage undertakings to move towards compliance with the Solvency II requirements as soon as possible.

2.2 Disallow new approvals for the transitionals

2.423 Under this option the opposite approach is taken. NSAs would not approve new applications of the transitionals anymore, thereby also improving the consistent application of the transitionals. The option would be in line with the objective of the transitionals to allow for a smooth transition to Solvency II and to encourage undertakings to move towards compliance with the Solvency II requirements as soon as possible.

2.424 There could be a concern that the option does not contribute to a level playing field. Because undertakings that are not using the transitionals and are competing with other undertakings that do apply the transitionals cannot overcome this possible competitive disadvantage by also starting to apply the transitionals. However, it can be argued that extending the use of the transitional to undertakings not in need for it regarding their solvency position is not an appropriate measure to mitigate the level playing field issue the transitionals introduce. Furthermore if a ban of new applications was introduced, undertakings would usually be able to anticipate that and seek approval before the ban is applicable.

2.425 The option could result in a level playing field issue with regard to undertakings that were active before 1 January 2016 but become subject to Solvency II only in the future, for example because they until then they were excluded from Solvency II on the basis of Article 4 of the Solvency II Directive. These undertakings had not the opportunity to apply for the use of the transitional from 1 January 2016. Another case were denying approval after 1 January 2016 may not be justified is where insurance portfolios to which the transitionals are applied are transferred to another undertaking. Without new approval by its NSA that undertakings would not be able to apply the transitional to the transferred portfolio. This might be an obstacle to transferring insurance portfolios. Such a transfer may however be in the interest of policyholders, for example when the original undertaking has an insufficient solvency position.

2.3 Allow new approvals for the transitionals only in specified cases

2.426 This option has the same characteristics as the option describe before, but avoids the issues explained that the end of that option, by allowing new approvals only when an undertaking newly falls under Solvency II because it has passed the thresholds of Article 4 of the Solvency II Directive or when an undertaking transfers a portfolio that is subject to the transitional to another undertaking.

2.427 COVID 19 may potentially have a relevant negative impact on insurers' solvency position. The transitionals were identified as one of the measures of the current regulatory framework allowing for flexible reaction in case of deterioration of undertakings' financial position. EIOPA therefore considered extending the use of the transitionals and increasing its impact. In practice, new applications are currently being reviewed and approved by some member states. This supervisory practice may therefore be seen as conflicting with option 3 which only reflected new applications/approvals in case of transfers of portfolios or for undertakings newly falling under Solvency II. A questionnaire to NSAs on the magnitude of these new approvals has been prepared and shared with NSAs to collect information on the current market practice on new applications/approvals of the transitionals. The feedback was gathered by 5th June 2020. A summary of the feedback is presented below.

Feedback from NSA questionnaire on late applications

2.428 On the legislation / supervisory framework for approval of the use of the transitional measures beyond day 1 of Solvency II, only 6 member states (19,3%) answered that there is no such framework currently in place (Cyprus, Malta, Portugal, Luxembourg, Bulgaria and Iceland). Thus, for the vast majority of countries, a late approval of transitional measures is allowed for in their national legislation/regulatory framework.

2.429 However, most of those 25 countries do not yet observe or expect to receive late applications since March 2020. Only two countries, Germany and Italy, do so. Germany identified two cases of late applications on the transitional on technical provisions (TTP). Italy expects late applications on the transitional measures but not too many as the transitional measures were not considered very effective. In Italy, no applications have been received so far.

2.430 The feedback from NSAs in the questionnaire outlined only limited amount of new applications thus need to change option 3 is limited. EIOPA therefore did not amend option 3 in view of the experience gathered in 2020.

Policy issue 3: Application of a capital add on

2.431 The interaction of a revocation of the approval for the transitionals and the application of a capital add on requires further clarification to ensure supervisory convergence on that matter.

2.432 It is considered sensible to revoke an approval for the transitionals where the phasing-in plan provided by the undertaking is unrealistic and the NSA does not believe it can be made realistic so as to ensure that undertakings will be able to ensure compliance with the SCR.

2.433 However, there may also be cases where a phasing-in plan provided by the undertaking is unrealistic, but the NSA believes a different phasing-in plan would be realistic and therefore requires an update of the phasing-in plan. In such case the NSA still considers that the undertaking will be able to ensure compliance with the SCR at the end of the transitional period. The same holds in a situation where a phasing-in plan becomes unrealistic as the future turns out different from expected (e.g. measures planned not as effective as considered etc.). Also in this situation, NSAs may require an update of the phasing-in plan. In these cases, EIOPA considers it sensible to allow the application of a temporary capital add-on according to Article 37 of the Solvency II Directive. A revocation is not immediately required then. Article 37 of the Solvency II Directive could be clarified in that respect.

Comparison of options

Policy issue 1 - Predominant application of the transitionals by undertakings without capital gap

2.434 The preferred policy option for this policy issue is to strengthen disclosure on transitionals (Option 1.4) because it improves transparency on the transitionals which will be for the benefit for policyholders, supervisory authorities an stakeholders that need to assess the financial position of insurance and reinsurance undertakings (for example investors, analysts, rating agencies and journalists). At the same time, the option is compared to Options 1.2, 1.3 and 1.5 the least intrusive change to the current framework for the transitionals.

Policy issue 2 - Approval of transitionals after 1 January 2016

2.435 The preferred policy option for this policy issue is to allow new approvals for the transitionals only in specified cases[56] because, compared to the other options, it best contributes most effectively and efficiently contributes to a consistent application of the transitional provisions and a market-consistent technical provisions.

Policy issue 3 – Approval of a capital add on

2.436 The preferred policy option for this policy issue is to clarify the application of a capital add-on for the transitionals because, compared to the other options, it best contributes to effectively and efficiently applying the transitional provisions.

2.7. Risk-management provisions on LTG measures

2.7.1. Extract from the call for advice

2.437 The Solvency II Directive requires a review of the long-term guarantees measures (LTG) and the measures on equity risk until 1 January 2021. As part of this review, EIOPA reports annually on the impact of the application of the LTG measures and the measures on equity risk to the European Parliament, the Council and the Commission. The call for advice highlights specific areas of interest with respect to the extrapolation, matching and volatility adjustment as well as transitional measures (cf. 3.1. to 3.3. of the call for advice).

2.438 Although risk management is not specifically addressed in the call for advice, the pillar II provisions on the LTG measures are subject to the overall LTG review and impacted by potential modifications on the design of the measures in pillar I.

2.7.2. Relevant legal provisions

2.439 The Solvency II Directive includes explicit requirements on risk management with regard to the LTG measures in Articles 44 and 45, including the following requirements:

- to have a liquidity plan for undertakings applying the MA or the VA (Article 44(2)),
- to carry out an assessment of the sensitivity of technical provisions regarding the assumptions underlying extrapolation, VA and MA (Articles 44(2a)(a), (b) and (c)),

[56] In simple cases, the most favourable option should be clear from an analysis of the costs and benefits.

- to identify and report the potential measures to restore compliance where the reduction of the MA or the VA to zero would result in non-compliance with the SCR (Article 44(2a)),
- to include in the written risk management policy a policy on the criteria for the application of the VA (Article 44(2a)),
- to assess compliance with capital requirements with and without the LTG measures in the own risk and solvency assessment (Article 45(2a)).

2.7.3. Identification of the issue

2.440 EIOPA has already, specifically in the course of the LTG report 2018, assessed the adequacy of the risk management requirements connected to the LTG measures. The LTG report 2018 included a thematic focus pointing out areas where improvements to the risk management requirements can be made. These findings were based on feedback from NSAs on their experience in supervisory practice. The issues outlined are identified on that basis.

Issue I: Role of liquidity plan for the VA

2.441 The Solvency II Directive requires undertakings using the VA to set up a liquidity plan projecting the incoming and outgoing cash flows in relation to the assets and liabilities subject to the VA.

2.442 Although there is a clear benefit of proper liquidity planning, it is not clear from the legal provisions what particularly is expected from this specific liquidity plan, what additional insights the liquidity plan should give and which role it should play with respect to the application of the VA.

2.443 Furthermore, the provisions do not clarify, whether and how the analysis on the liquidity plan should be documented to allow readily sharing of analysis with NSAs.

2.444 In practice, although it could be observed that undertakings installed liquidity management as part of their risk-management, the analysis performed for the LTG report 2018 has identified that undertakings did not introduce changes to their already installed liquidity management systems due to the application of the VA. Neither could it be observed that a separate liquidity planning was set up only due to the application of the VA.

2.445 The specific requirements on the liquidity plan for VA users therefore does not provide additional evidence that the application of the VA is appropriate for an undertaking.

Issue II: Sensitivity analysis for the VA

2.446 The Solvency II Directive requires undertakings using the VA to regularly assess the sensitivity of their technical provisions and eligible own funds to the assumptions underlying the calculation of the VA and to submit this assessment annually to the supervisory authority as part of the regulatory supervisory reporting. Though, in practice, it has been observed that only a small share of undertakings reported these assessments.

2.447 One reason that identified for this was that the assumptions underlying the measures are not sufficiently clear. This lead to uncertainty for undertakings what was expected in order to fulfil the requirement (cf. also section on VA and the respective deficiency identified there).

2.448 Furthermore, the role and additional benefit of this sensitivity analysis was seen as not sufficiently clear to allow sensible performance of this analysis. Also the role of the sensitivity analysis and interlink with ALM was identified to be weak.

2.449 Finally, there was not sufficient clarity on how these sensitivities should be reported, either in an ad-hoc reporting as part of the risk management requirements or in a regular quantitative reporting.

Issue III: Forced sale of assets for the MA and VA

2.450 The Solvency II Directive requires undertakings using the VA to regularly assess the possible effect of a forced sale of assets on their eligible own funds and the impact of a reduction of the VA to zero and to submit this assessment annually to the supervisory authority as part of the regulatory supervisory reporting.

2.451 In practice, it has been observed that the majority of VA users did not report on the analysis of forced sale of assets. The reason identified was that this requirement is not understood, in particular it is not clear which situations should be analysed and how these interlink with the determination or functioning of the VA and how the assessment relates to ALM requirements. Furthermore, it was not seen as providing additional insight compared to what is already provided in the standard liquidity management processes where situations requiring an early liquidation of assets are reflected.

2.452 In the case of MA, the requirements stated in the regulation impede forced sales given the cash-flow matching and the "hold to maturity" principle. The insurance contracts cannot include options for the policy holder or only a surrender option where the surrender value does not exceed the value of the assets. Therefore, in the case of surrender, the forced sales cannot produce losses for the undertaking. For this reason, MA users did not make a report on forced sales or merely declared that forced sales (surrenders) cannot cause them losses.

Issue IV: Policy on risk management for the VA

2.453 The Solvency II Directive requires undertakings using the VA to include a policy on the criteria for the application of the VA in their written policy on risk management. It is not clear what is exactly expected in relation to this requirement. In practice, it has been observed that NSA's experience is limited on this point. The policy on the criteria for the application of the VA are considered relevant for some NSAs, but the contents observed varies (some undertakings describe motivation for the application of VA, other criteria for when the VA is applied, others analysis performed in respect of VA).

Issue V: Analysis of measures restoring compliance for the MA and VA

2.454 The supervisory assessment of the financial position of an undertaking takes into account the impact of the LTG measures on that position. If the removal of MA, VA and the transitional measures well as a applying more economic extrapolation would result in non-compliance with the SCR, then this situation may give rise to supervisory concerns about the sustainability of the undertaking's position. The current regulation provides in safeguards for the measures in order to address such concerns. However these safeguards relate to some of the measures and only on a standalone basis, but not where a combination of these measures could give rise to concerns regarding the financial position of an undertaking.

2.455 Where the reduction of the MA or VA to zero would result in non-compliance with the SCR, the Solvency II Directive requires undertakings to submit an analysis of the measures it could apply in such a situation to re-establish the level of eligible own funds covering the SCR or to reduce its risk profile to restore compliance with the SCR. The current regulation also requires a sensitivity analysis to the extrapolation method, but no specific scenario as is the case for MA, VA and the transitional measures, i.e. full removal of the measures.

2.456 No similar assessment has to be made for the transitionals or in case a more market-consistent extrapolation of the term structure results in non-compliance with the SCR.

2.457 Furthermore, for this provision for the MA and VA, it is unclear whether an immediate notification is required or if a reference to the situation in the regular supervisory reporting is sufficient.

2.458 A more consistent and comprehensive approach to assessing the impact of the measures and the resulting supervisory response appears necessary.

2.7.4. Analysis

Issue I: Role of liquidity plan for the VA

2.459 The following policy options have been identified to address the lack of clear role of the provisions on liquidity planning for the VA:

- **Option 1:** No change
- **Option 2**: Delete the requirement
- **Option 3:** Clarify and strengthen the requirement

2.460 The second option suggests to delete the specific requirement to set up a (separate/specific) liquidity plan where the VA is applied.

2.461 The third option suggests to clarify and strengthen the requirement as follows: The requirement would no longer suggest to set up another liquidity plan specifically for VA business but it should be clarified that undertakings applying the VA should fall under the requirement to establish a liquidity risk management plan as proposed in section 11.4.9. In that case the liquidity risk management plan should take into account the use of the VA and in particular analyse whether the liquidity planning indicates any liquidity constraints which are not consistent with the use of the VA for example where they result in forced sale of assets and thereby endanger that the VA can be earned.

Issue II: Sensitivity analysis for the VA

2.462 The following policy options have been identified to address the deficiencies on the requirements for the sensitivity analysis on the VA:

- **Option 1:** No change
- **Option 2:** To include the requirement in the own risk and solvency assessment
- **Option 3**: To change the requirement to refer to sensitivities with respect to different economic (spread) situations instead of referring to the assumptions underlying the measures including clarification how these sensitivities should be reported

2.463 The second option would imply that the requirement to calculate sensitivities on the assumptions underlying the VA would remain but would be placed in the assessment around the own risk and solvency assessment instead of the risk management requirements. The reporting of that analysis would then automatically be clarified and included in the own risk and solvency assessment.

2.464 The third option implies a redrafting of the requirement to not referring to the assumptions underlying the measures but ask undertakings to perform sensitivity calculations on different economic situations impacting the size of the VA. Under that option the requirement would stay within the risk management requirements and would be reported in the RSR.

Issue III: Forced sale of assets for the MA and VA

2.465 The following policy option has been identified to address the deficiencies on the requirements for the assessment of forced sale of assets for the VA:

- **Option 1:** No change
- **Option 2**: Delete the requirement for the VA

Issue IV: Policy on risk management for the VA

2.466 The following policy option has been identified to address the deficiencies on the policy on risk management related to the VA:

- **Option 1:** No change
- **Option 2:** Delete the requirement for the VA
- **Option 3:** Clarify that the policy on risk management should include the use of the VA

2.467 The third option would clarify that the policy expected where the VA is applied should not focus on the criteria for the application of the VA but would make this requirement more general in requiring, that the policy on risk management should reflect on the use of the VA.

Issue V: Analysis of measures restoring compliance for the MA and VA

2.468 The following policy options have been identified to address the deficiencies on the analysis of measures restoring compliance for the MA and VA:

- **Option 1**: No change
- **Option 2**: Keep the requirement as it is and add clarification in the regulation that an ad-hoc notification is required
- **Option 3**: Allow NSAs to assess the sustainability of the solvency position

2.469 The second option suggests to keep the requirement as it is but add a clarification in the regulation that in the case of non-compliance with the SCR where the VA is reduced to zero an ad-hoc notification to NSAs is required (thus it is not sufficient to report on that situation in the regular supervisory reporting). This clarification should also include that undertakings need to keep NSAs updated, in case of change of situation or update of the measures considered.

2.470 The third option suggests to replace the requirement so as to ensure that policyholder protection is strengthened where a deteriorating financial situation is identified due to the use of the LTG measures which might lead to a potential non-compliance with capital requirements in the future. This to make sure that undertakings are actually able to earn the MA, VA and differences with the Solvency II risk-free rates and market risk-free rates as well as make up the transitional measure.

2.471 This option foresees that – as part of the assessment of continuance compliance as referred to in Article 45(1)(b) of the Solvency II Directive - an assessment is made as to whether with the application of the LTG measures there will be a progressive and structural (i.e. non-cyclical or temporary) deterioration of the financial condition of the insurance or reinsurance undertaking which bears a significant risk to result in non-compliance with capital requirements in the future.

2.472 In case where undertakings identify a progressive and structural deterioration bearing a significant risk of breach of capital requirements in the future, supervisors would first require undertakings to take preventive measures. This is expected to include a prudent dividend policy (see also section 12.3.4.2 in this respect).

2.473 Where the supervisor has requested the undertaking to demonstrate that any planned voluntary capital distribution does not further increase the risk of future breaches of capital requirements, and where the undertaking has not provided this demonstration, or the supervisor considers that the demonstration is insufficient, the supervisor should have the power to limit planned voluntary capital distributions of the undertaking.

2.474 Supervisors should only use the power to limit capital distributions in exceptional circumstances and in the case where it is necessary to ensure continuous compliance with the SCR.

2.475 The measure should be regularly reviewed and should be removed as soon as the underlying conditions that motivated the measure are over.

2.476 This proposal is complementing supervisors' power to revoke the approval for voluntary LTG measures and would provide an additional possibility for supervisors to react in a forward-looking manner in particular in cases where no approval of the measures applies or in case of mandatory LTG measures.

2.477 Next to that, it is suggested to reflect a variation of the extrapolation that results from a reduction of the convergence parameters as referred to in Article 77 (2) of the Solvency II Directive by 50 percent as part of the ORSA. The current regulation already requires to report this assessment.

2.478 The existing provision to provide an analysis of measures in case the removal of the MA or VA would result in non-compliance with the SCR would be deleted.

2.8. Disclosure on LTG measures

2.8.1 Extract from the call for advice

> ***3.15. Reporting and disclosure***
>
> *EIOPA is asked to assess, taking into account stakeholders' feedback to the Commission public consultation on fitness check on supervisory reporting:*
>
> - *the ongoing appropriateness of the requirements related to reporting and disclosure, in light of supervisors' and other stakeholders' experience;*
> - *whether the volume, frequency and deadlines of supervisory reporting and public disclosure are appropriate and proportionate, and whether the existing exemption requirements are sufficient to ensure proportionate application to small undertakings.*

2.8.2 Relevant legal provisions

2.479 Solvency II requires insurance and reinsurance undertakings that apply the MA, VA, TRFR or TTP to publicly disclose information on them, in particular about their financial position without application of the measures. These requirements are mainly set down in Article 296(2)(d) to (g) of the Delegated Regulation. The main tool for public disclosure regarding the LTG measures is the annual Solvency and financial condition report (SFCR) released by the individual undertakings.

2.8.3 Identification of the issues

2.480 EIOPA has already, specifically for the LTG report 2017, assessed the adequacy of the public disclosure on the LTG measures. The LTG report 2017 contained a thematic focus on public disclosure of LTG measures, based on the views and perceptions of the NSAs as well as those raised in a stakeholder workshop on public disclosure with analysts, rating agencies, consumer protection bodies and journalists. Several key findings of this report were:

- NSAs were generally satisfied with the completeness of the information disclosed, but several cases of incomplete information and a general picture of inconsistent level of detail were uncovered.
- Especially regarding qualitative information, the level of detail provided by the undertakings varied considerably, with many failing to provide a comprehensive qualitative context.
- The stakeholders were interested in more detailed and easily accessible quantitative information on the impact of the LTG measures and the SCR with and without the measures as well as the impact of sensitivity calculations regarding extrapolation.

2.481 The IMF country report 18/230[57], referencing to the LTG report 2017, has picked up the topic of public disclosure and contains the following item:

53. Public disclosures *on the use of LTG measures and transitionals should be improved.*

2.482 While quantitative information (SCR before and after the use of LTG measures and transitionals) is disclosed in the SFCR, an evaluation by EIOPA reveals that the summary of the SFCR often leaves out a discussion of those measures, especially in countries where the use of such measures is more widespread. It is therefore recommended that EIOPA develops more detailed guidelines on how insurers should also qualitatively discuss the use of LTG measures and transitionals in the summary of the SFCR.

2.483 Based on the sources referenced above, a list of distinct issues and points for improvement related to public disclosure of LTG-measures in the SFCR

[57] https://www.imf.org/en/Publications/CR/Issues/2018/07/19/Euro-Area-Policies-Financial-Sector-Assessment-Program-Technical-Note-Insurance-Investment-46104

was drawn up. Some of the identified issues can be solved via additional guidance in guidelines (i.e. lacking descriptions of motivation, application and impact in SFCR; qualitative information specific to the MA and the transitionals; and lacking information regarding risk management implications). The following analysis is focused on those identified issues could be addressed via changes in the Solvency II Directive or the Delegated Regulation.

Lack of qualitative information

Issue 1: Poor reflection of the LTG measures in the SFCR summary

2.484 The summary part of the SFCR does not regularly outline information on the use of the measures (in particular for VA users) nor the impact of the measures.

Affects: Voluntary measures (VA, MA, transitionals)

Insufficient quantitative information

Issue 2: Insufficient quantification of the impact on SCR and MCR

2.485 Stakeholders outlined interest in transparently displaying the impact of the measures on the SCR ratio and MCR ratio (instead of seeing SCR/MCR and eligible own funds in isolation).

Affects: Voluntary measures (VA, MA, transitionals)

Results of sensitivity analysis not included

Issue 3: No impact calculations regarding extrapolation of risk-free interest rates provided

2.486 Stakeholders outlined interest in transparently displaying the impact of sensitivity analyses, in particular the UFR extrapolation was addressed.

Affects: Extrapolation

2.8.4 Analysis

2.487 In this section, EIOPA analyses whether there is a need to amend the current disclosure requirements in the Solvency II Directive and the Delegated Regulation applicable with respect to the LTG measures and extrapolation to address the identified deficiencies.

2.488 The main options considered to address these deficiencies are listed in the table below.

Policy issue	**Options**
1. Qualitative information	1.1 No change

	1.2 Prescribe minimum criteria
2. Quantitative information	2.1 No change 2.2 Extend SFCR template with impact of LTG measures on SCR and MCR
3. Sensitivity of undertakings to changes to the application of the extrapolation	3.1 No change 3.2 Prescribe disclosure regarding sensitivity analysis 3.3 Prescribe reporting regarding sensitivity analysis

Options regarding lack of qualitative information

2.489 The following policy options have been identified to address the lack of qualitative information in the SFCR in view of the poor reflection of the LTG measures in the SFCR summary, EIOPA has considered the prescription of minimum criteria for disclosure of qualitative information in the summary. Nevertheless, it should be noted that a new structure for the SFCR is proposed, with no summary, instead a distinction is made between the SFCR part addressed to policyholders and the part addressed to other users (e.g. professional public). The part addressed to policyholders should include the ratio of the SCR and MCR coverage at the end of the reporting period and last reporting period (with transitionals and LTG measures). Information on the use and the impact of the measures should be included in in the section of the SFCR addressed to other users.

Options regarding insufficient quantitative information

2.490 The following policy option has been identified to address the lack of quantitative information in the SFCR on the impact on SCR and MCR:

- Extend SFCR template with impact of LTG measures on SCR and MCR
  This option entails an addition to sheet S.22.01 of the SFCR template, extending it by fields that display the impact of removing the LTG measures on SCR and MCR (see annex 2.15 for proposed template amendments).

2.491 This option represents a small change to the template, introducing additional fields. The impact on SCR and MCR ratios can be derived from other SFCR fields, but directly including them makes the information much more accessible. Because of their importance the numbers are known by the undertakings, therefore not much additional effort would be needed to include them in the reporting template.

Options regarding sensitivity analysis

2.492 The following policy options have been identified to address the lack of sensitivity information in the SFCR regarding the extrapolation.

- Prescribe disclosure of specific sensitivities on extrapolation

- Prescribe reporting (without disclosure) of specific sensitivities on extrapolation
- Prescribe disclosure of specific sensitivities on extrapolation but only for those undertakings with long-term liabilities.

2.493 Considering the alternative extrapolation method the specific sensitivity analysis would refer to the impact of a change of the convergence parameter of the extrapolation method to 5%. In accordance with the proportionality principle, the disclosure requirement can be limited to those undertakings with long-term liabilities since those are the undertakings for which the results of the sensitivity analysis can be material.

2.9. Long-term and strategic equity investments

2.9.1 Extract from the call for advice

> ***3.5. Capital Market Union aspects***
>
> *EIOPA is asked to continue its analysis on the treatment of long-term investments under Solvency II. In particular, EIOPA is asked to assess whether the methods, assumptions and standard parameters underlying the calculation of the market risk module with the standard formula appropriately reflect the long-term nature of the insurance business, in particular equity risk and spread risk. To this end, EIOPA is asked to:*
>
> - *identify the characteristics of insurance business and liabilities that enable insurers to hold their investments for the long term; and*
> - *where appropriate, advise on revised methods, assumptions and standard parameters for the purpose of calculating the market risk module, reflecting insurers' behaviour as long-term investors.*
>
> *With regard to equity, EIOPA is also asked to conduct a comprehensive review of the equity risk sub-module, and in particular to assess the appropriateness of the design and calibration of the duration-based equity risk sub-module, of strategic equity investments, of long-term equity investments and of the symmetric adjustment.*

2.9.2 Previous advice

"Standard" equity type 1 and type 2

2.494 EIOPA's predecessor, CEIOPS, advised the European Commission on the "standard" equity risk for type 1 and type 2 equities in January 2010[58].

[58] CEIOPS Advice for L2 Implementing Measures on SII: Equity risk sub-module

Background information to the technical analysis were provided in the Solvency II Calibration Paper in April 2010[59]. The underlying assumptions of the standard formula for the SCR calculation were presented in July 2014[60].

Duration-based equity risk sub module

2.495 CEIOPS advised the European Commission on the calibration of the duration based equity risk sub module (DBER) in January 2010[61]. Background information to the technical analysis was provided in the Solvency II Calibration Paper in April 2010[62]. The underlying assumptions of the standard formula for the SCR calculation were presented in July 2014[63].

2.496 CEIOPS assessed the risk of long-term equity holding on the basis of the assumption of an average duration of liabilities exceeding an average of 12 years, as set in Article 304 of the Solvency II Directive. The duration approach according to Article 304, results in an equity risk charge set at 22 percent. To be noted that the equity risk charge equals to the absolute floor set for the purpose of prudence and in order to be consistent with the calibration of the property risk sub-module.

Strategic equity investments

2.497 In February 2018[64], EIOPA has provided information on the application of the criteria of the Delegated Regulation for the identification of strategic equity investments by insurance and reinsurance undertakings as well as by NSAs, in EIOPA's Second set of Advice on the Delegated Regulation review.

2.498 EIOPA has not provided, to date, advice on the strategic equity investments referred to in article 169 to 171 of the Delegated Regulation.

Infrastructure investments

2.499 In September 2015[65], EIOPA advised on the identification and calibration of infrastructure investment risk categories.

2.500 In June 2016[66], EIOPA provided further advice on the identification and calibration of other infrastructure investment risk categories, i.e. infrastructure corporates.

[59] Solvency II Calibration Paper, April 2010

[60] The underlying assumptions in the standard formula for the SCR Calculation, July 2014

[61] CEIOPS Advice for L2 Implementing Measures on SII: Equity risk sub-module

[62] Solvency II Calibration Paper, April 2010

[63] The underlying assumptions in the standard formula for the SCR Calculation, July 2014

[64] EIOPA's second set of advice on the Delegated regulation review, February 2018

[65] Infrastructure finance advice, September 2015

[66] Infrastructure corporates final advice, June 2016

Unlisted equity

2.501 In February 2018, EIOPA advised the European Commission on unlisted equity in EIOPA’s Second set of Advice on the Delegated Regulation review. In particular, EIOPA provided criteria applicable to portfolio of equity from the European Economic Area which are not listed, in order to identify those instruments which could benefit from the same risk factor as listed equity.

Long-term equity investments

2.502 EIOPA has not provided, to date, advice on the Long-term equity investments referred to in article 171a of the Delegated Regulation.

2.9.3 Relevant legal provisions

“Standard” equity type 1 and type 2

2.503 The equity risk sub-module is set in point (b) of Article 105(5) of the Solvency II Directive.

2.504 General provisions and capital requirements for type 1 and type 2 equities are set in Article 168 and Article 169 of the Delegated Regulation. The ”standard” capital requirement for equity type 1 results from a decrease of 39 percent and the symmetric adjustment as referred to in Article 172 of this Regulation. Respectively, the “standard” capital requirement for equity type 2 results from a decrease of 49 percent and the symmetric adjustment as referred to in Article 172 of this Regulation.

Duration-based equity risk sub module

2.505 The duration-based equity risk sub-module is set out in Article 304 of the Solvency II Directive.

2.506 Article 304 of the Solvency II Directive sets criteria under which Member States may authorise life insurance undertakings to apply a duration based equity risk sub-module. When an undertaking has received a supervisory approval, the Article 170 in Delegated Regulation prescribes that undertakings benefits from a reduced capital charge of 22 percent in replacement to the “standard” equity risk charges for type 1 and type 2 equities.

2.507 The recital 58 of the Delegated Regulation outlines the assumption that the typical holding period of equity investment referred to in Article 304 of Directive 2009/138/EC is consistent with the average duration of liabilities pursuant to Article 304 of Directive 2009/138/EC. According to the Solvency II Directive, the average duration of those liabilities is exceeding an average of 12 years.

Strategic equity investments

2.508 Article 111 (m) of the Solvency II Directive outlines that the reduced calibration should reflect the "likely reduction in the volatility of the value of those related undertakings arising from the strategic nature of those investments and the influence exercised by the participating undertaking on those related undertakings".

2.509 The Delegated Regulation –with particular reference to Article 169 and Article 171 – sets out a reduced risk charge of 22 percent for strategic equity investments, provided that they satisfy criteria.

2.510 Recital 57 of the Delegated Regulation gives further background on the motivation of the treatment of strategic equity investments.

2.511 EIOPA has also developed guidelines[67] on this topic.

Infrastructure investments

2.512 The Delegated Regulation – with reference to Article 168, sets out specific risk factors for infrastructure investment, provided that criteria are met.

2.513 In September 2015[68], the Commission adopted an amendment to the Delegated Regulation, based on EIOPA's advice. In June 2017[69], the Commission adopted an amendment to the Delegated Regulation based on EIOPA's advice. The Delegated Regulation –with reference to Article 164b and Article 261a, sets out specific risk factors for qualifying infrastructure corporate investments, provided that criteria are met.

Unlisted equity

2.514 Unlisted equities, other than strategic equity investments and investments in qualifying infrastructure fall into the type 2 equities category as defined in Article 168(3) of the Delegated Regulation. The capital requirement for these type 2 equities is set out in Article 169(2)(b) of the Delegated Regulation.

2.515 In March 2019[70], the Commission adopted an amendment to the Delegated Regulation based on EIOPA's advice. It sets that qualifying unlisted equity portfolios are considered as type 1 equities, when all the requirements set in Article 168a are met.

[67] Guidelines on treatment of related undertakings, including participations

[68] Amendment to Delegated Regulation, 30 September 2015

[69] Amendment to Delegated Regulation, 8 June 2017

[70] Amendment to Delegated Regulation, 8 March 2019

2.516 Together with the amendments to the Delegated Regulation, the European Commission published a staff working document[71] to explain and justify the changes introduced with regard to unlisted equity.

Long term equity investments

2.517 In March 2019[72], the Commission adopted an amendment to the Delegated Regulation, which includes the Article 171a in respect of the treatment of long-term equity.

2.518 Article 171a sets out a reduced risk charge of 22 percent when conditions are met. The reduced risk charge has been proposed by the European Commission. This treatment is explained in recital 26.

2.519 Together with the amendments to the Delegated Regulation, the European Commission published a staff working document[73] to explain and justify the changes introduced with regard to long-term equity investments.

2.520 Also, a reference to the Article 171a is included in the Article 169(1) and Article 169(2). Consequently, long-term equity investments type 1 and type 2 benefits from a diversification within the standard equity risk sub-module as to Article 168(4).

2.9.4 Calibration of the equity risks

2.9.4.1 Identification of the issue

2.521 Some of the actual equity risk charges used in the standard Formula differ from the calibration performed by EIOPA/CEIOPS. The table below compares Standard formula's stress to the calibration figures.

Equity sub-module	standard formula's stress	EIOPA/CEIOPS calibration
« Standard » type 1	39 percent	45 percent
« Standard » type 2	49 percent	55 percent
Infrastructure project	30 percent	[30 percent-39 percent][74]
Infrastructure corporate	36 percent	36 percent[75]
Qualifying unlisted equity portfolios	39 percent	39 percent[76]
Strategic equity	22 percent	-

[71] Commission Staff Working Document

[72] Amendment to Delegated Regulation, 8 March 2019

[73] Commission Staff Working Document

[74] Infrastructure finance advice, September 2015

[75] Infrastructure corporates final advice, June 2016

[76] EIOPA's second set of advice on the Delegated regulation review, February 2018

DBER	22 percent	22 percent
LTE	22 percent	-

2.522 For the risk charges for which EIOPA/CEIOPS has advised a calibration in the past (type 1, type 2, infrastructure project, infrastructure corporate, qualifying unlisted equity portfolios and duration based equity risk sub-module), EIOPA considers that those results are relevant.

2.523 As to the strategic equity investment, the calibration of 22 percent is motivated by the criterion that the value of the equity is likely to be materially less volatile, in accordance with Article 171(a) of Commission Delegated Regulation 2015/35. The calibration of the 1-year VaR for a strategic equity is not easy to assess as there is no common equity index for such investments and the group of strategic equity is diverse. To date, EIOPA has not identified evidence to support the calibration of strategic equity. As strategic equity provisions are based on a 1 year time horizon rather than a long term horizon, the analysis performed for the long term equity cannot be taken as a basis.

2.524 The recently introduced long-term equity investments allows for a capital charge of 22 percent if requirements, which are set out in Article 171a Delegated Regulation, are met. The lower capital charge is based on the following justification:

- Reference is made to a DNB[77] study that concludes that under the assumption of mean reversion investment risk is lower over longer investment periods.
- S&P500 returns over 1, 5 and 10 years periods (page 12) are compared.
- The 22 percent capital charge is based on CEIOPS' advice of 2010 on the duration-based equity risk sub-module[78].

2.525 In a staff working document[79], the European Commission explained that the design of the capital charge for long-term equity investments is based on a time horizon of 10 years.

2.9.4.2 Analysis

Consideration of long time holding period

2.526 The argument presented by industry stakeholders is that illiquid liabilities allow undertakings to invest in equity for a longer time horizon, which directly reduces the risk of losses, and this justifies a reduced capital stress. This

[77] DNB Working Paper (No. 343 / April 2012) – Mean Reversion in Stock Prices: Implications for Long-Term Investors.

[78] CEIOPS Advice for L2 Implementing Measures on SII: Equity risk sub-module

[79] Commission Staff Working Document

argument is predicated on the assumption that equity markets will recover some, or all, of their short-term losses within a certain period of time.

2.527 Articles 101(3) and 104(4) of the Solvency II Directive require a calibration based on a 1-year time horizon. On one hand, the choice of a longer time horizon may technically be justified under certain conditions. On the other hand, insurers trade equities. Based on the three years observation with Solvency II reporting being in place, EIOPA estimated[80] that the average equity-holding period is 4,8 years. In response to the Call for Information from the European Commission on asset liability management[81], EIOPA reported about the characteristics that enable insurers to hold equity for the long term in December 2019[82].

2.528 Equity markets may generally be expected to provide positive returns. However, they are subject to significant levels of volatility and have generated large losses over short durations. If investment over a longer term may be expected to reduce the risk of losses, or their amount, a detailed analysis based on historical data series had not been performed to date in the context of Solvency II.

2.529 Besides, Solvency II measures risk in terms of the fluctuations of basic own funds over a period of twelve months. These own funds are determined on the basis of market (consistent) valuations. Using other measures of risk could mean that changes in the level of own funds are not fully captured. If the difference in the measured risk and the investment volumes were material this could result in non-compliance with the requirement of Article 101(3) of the Solvency II Directive.

2.530 Once the market value of assets falls below the market value of technical provisions, it is no longer possible for the undertaking to fulfil its guarantees to policyholders with sufficient certainty. The undertaking would require additional own funds, e.g. generated by returns on assets in excess of the risk-free rate to restore solvency. However, such expected returns over the risk-free rate always involve a degree of risk-taking, i.e. it is not possible to earn risk-free returns exceeding the market risk-free rates, irrespective of the time horizon. This means that there is a possibility that excess returns restore the insurer’s solvency position, but there is also chance that the solvency further deteriorates.

Empirical results for long-time horizon

2.531 To investigate whether there are sufficient grounds to justify a reduced capital stress in Solvency II rules in this area (as currently for the duration based equity sub module and newly introduced for the long term equity

[80] Details on the methodology: Request for Feedback on Methodological Considerations regarding Illiquid Liabilities

[81] Request to EIOPA for information, April 2018

[82] Report on insurers’ asset and liability management in relation to the illiquidity of their liabilities

investment), EIOPA undertook an investigation to determine the Value at Risk (VAR) over extended investment durations. However, as the Solvency II calibrations are performed only on a 1-year loss basis, judgement was needed on how to extend such an analysis for multi-year durations.

Methodology

2.532 The empirical approach takes into account historical yearly investment durations from 1 to 10 years, and applies the following methodology.

- Use of empirical data vs. model projections. Note that the current calculation of the equity capital charge for the purpose of Article 304 of the Delegated Regulation was not based on historical data but on model projections.
- Use of excess return based on minimum value vs. anniversary date. The original CEIOPS calibration[83] considered the change in index value on investment anniversary dates only, rather than throughout the period of 12 months. As undertakings are not restricted to only disposing of investment on anniversaries, the excess return based on the minimum value within the relevant year is also calculated (i.e. the lowest index value between month 0 and 12; between month 13 and 24; between month 25 and 36; and so on).
- Use of the return is in excess of risk free investments, to correspond with the evolution of technical provisions over the investment duration. This step is to ensure that the equity analysis included not only the loss on the equity investment, but also the unwinding of the discount rate over that duration, which is reflected in the technical provisions. The results are based on 10 years rates (hypothesis of 10 years liability duration).
- The 0.5th percentile is then calculated for each 12 month duration period, consistent with the Solvency II Value-at-Risk measure calibration to a 99.5 percent confidence level. This determines the Solvency II compatible empirical VaR for each duration.

Data

2.533 The original CEIOPS equity calibration was based on data from the MSCI World Price Return index, however a Total Return index would be considered more appropriate for longer investment time horizon, to adequately allow for the impact of dividends.

2.534 Additionally, the CEIOPS calibration only considered the equity value at risk in isolation and did not make allowance for risk free rates. This was an explicit assumption and this was documented in the Solvency II calibration paper[84] in 2010. However, while the return on a risk free investment would

[83] Solvency II Calibration Paper, April 2010

[84] See paragraph 3.68 of the Solvency II Calibration Paper, April 2010

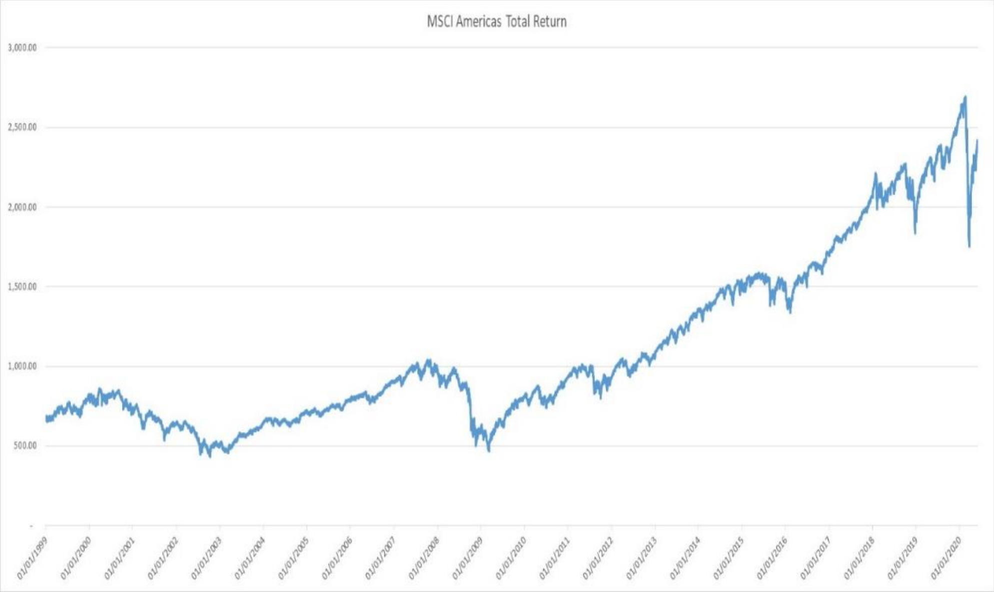
not be expected to be material when determining the 1 year Solvency II VAR, when the investment duration is extended to multiple years, the discount factors applied to cashflows would be material. The use of the return, in excess of the risk free investment, ensures that the equity investment not only recoups any losses in the index, but also earns the assumed risk free rate used in discounting the liabilities.

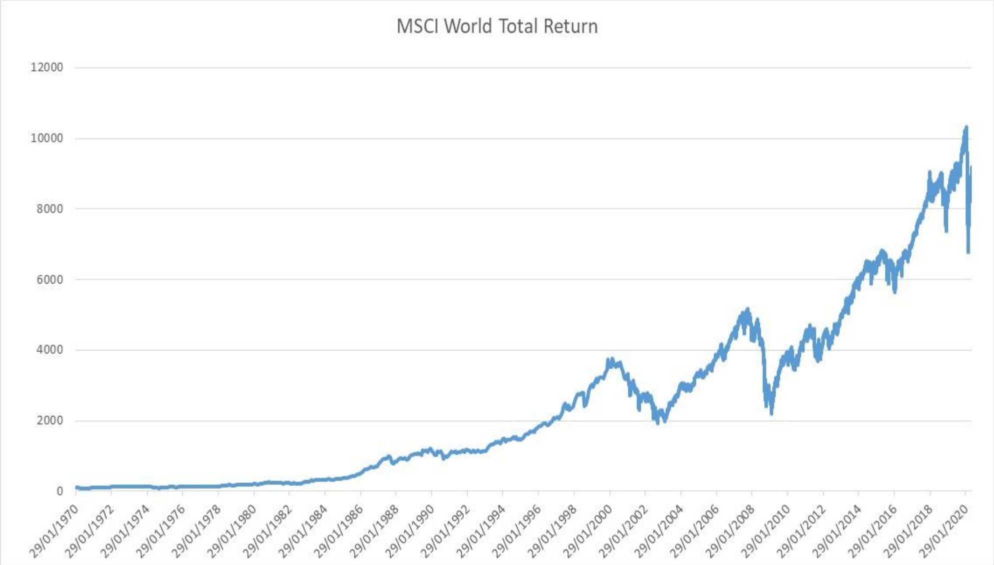
2.535 In article 171(a) of the amended Delegated Regulation on long term equity, it is said that long term equity investment covers best estimate liabilities and that undertakings should be able to hold those equities for at least 10 years on an on-going case and under stressed conditions. Accordingly, it can be assumed that the long term equities will back liabilities with a duration of 10 years. From that perspective, undertakings have to cover their accrued liabilities at 10 years risk free rates. The excess return is consequently calculated based on 10 years risk free rates.

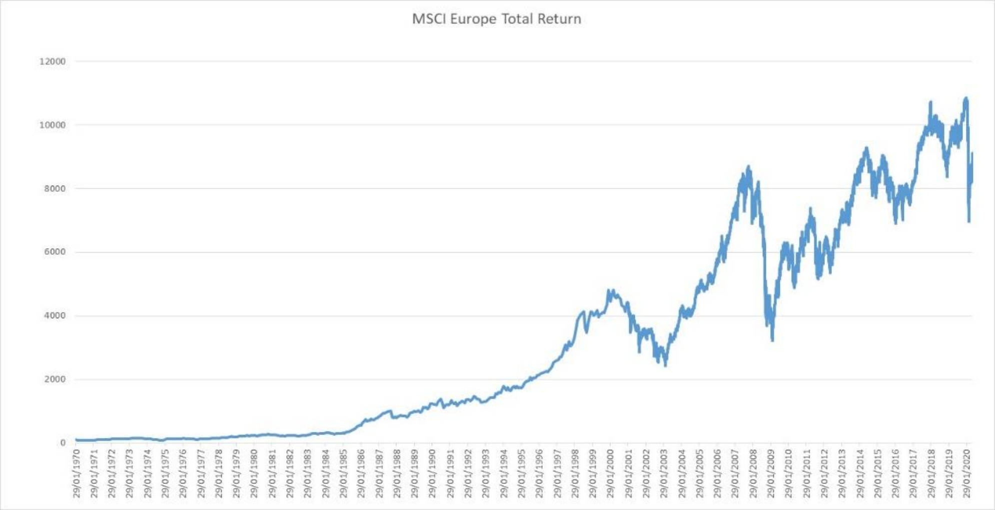
Table 1

Ticker	Description	First data point	Last data point
M2WO	MSCI World Total Return Index	31/12/1969	29/05/2020
M2AM	MSCI America Total Return Index	31/12/1998	29/05/2020
M2EU	MSCI Europe Total Return Index	30/01/1970	29/05/2020

2.536 For reference, the total return indexes are shown in the charts below.







Source of underlying market data: Refinitiv

2.537 The major financial crisis happened in 2008 – i.e. 10 years ago. A significant caveat must be highlighted in relation to the data, in particular at longer durations. While the data itself is not of concern, as the start point for the indices was 1970, this limits the amount of independent data series as the investment duration increases. To illustrate, for a 10 years investment duration, the data only provides 5 complete and independent data series for MSCI Europe Total Return Index.

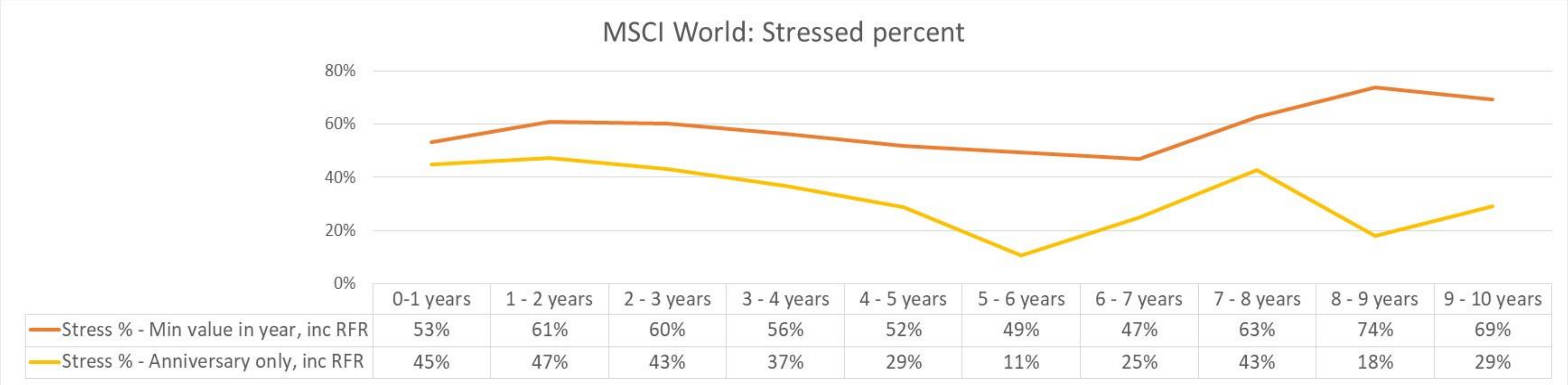
Results

2.538 When considering the excess return over the 10 years risk free rate, the MSCI Europe data indicated empirical values at risk of between 67 and 38 percent for investment durations between 1 and 10 years. Significantly, when considering a 10-year investment duration, there is no clear decreasing trend in the risk with regard to extending the time horizon. Similar analysis was also performed on the MSCI World Total Return index, and the MSCI AC Americas Total return index. These analyses are illustrated in the below charts and tables.

2.539 Based on these results, it is not possible to corroborate the assertion that investment for a longer duration justifies a lower capital charge. In fact, the data actually supports an increase in capital requirements, as the Solvency II calibration only considers losses over a 12 month period, whereas sustained losses can be experienced over multiple years.

2.540 For clarity, the below are the empirical values at risk rather than the normalised values, which are used as the ultimate stresses in Solvency II. The charts illustrate the actual losses that would have been experienced in practice.

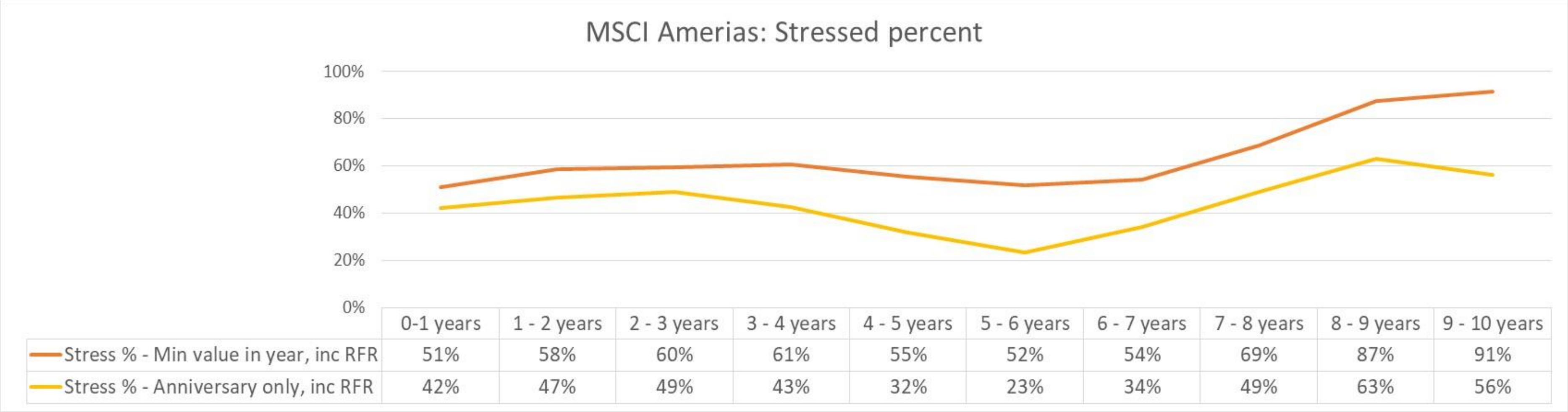
MSCI World Total Return Index: empirical results



	0-1 years	1 - 2 years	2 - 3 years	3 - 4 years	4 - 5 years	5 - 6 years	6 - 7 years	7 - 8 years	8 - 9 years	9 - 10 years
Stress % - Min value in year, inc RFR	53%	61%	60%	56%	52%	49%	47%	63%	74%	69%
Stress % - Anniversary only, inc RFR	45%	47%	43%	37%	29%	11%	25%	43%	18%	29%

Source of underlying market data: Refinitiv

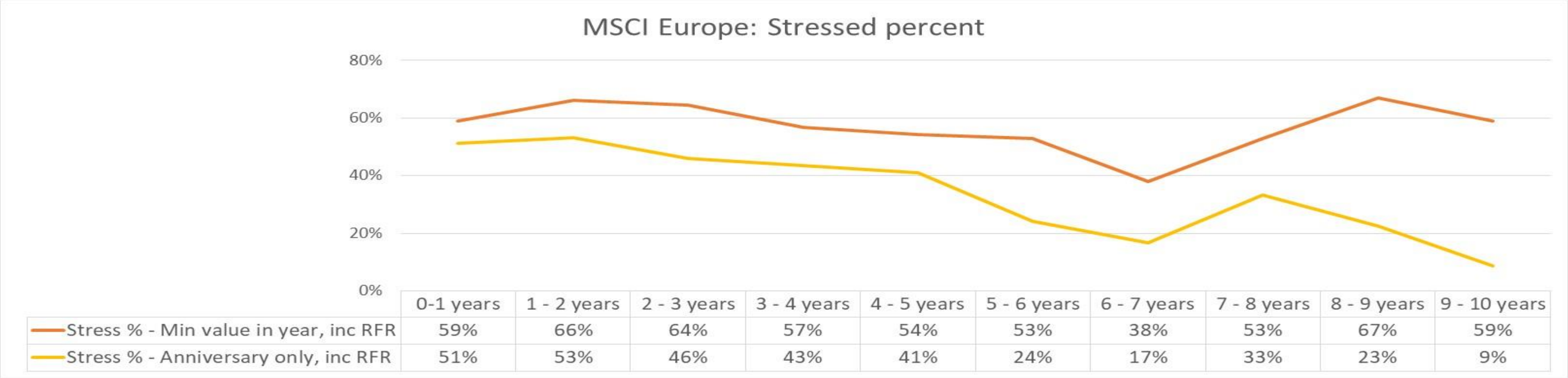
MSCI Americas Total Return Index: empirical results



	0-1 years	1 - 2 years	2 - 3 years	3 - 4 years	4 - 5 years	5 - 6 years	6 - 7 years	7 - 8 years	8 - 9 years	9 - 10 years
Stress % - Min value in year, inc RFR	51%	58%	60%	61%	55%	52%	54%	69%	87%	91%
Stress % - Anniversary only, inc RFR	42%	47%	49%	43%	32%	23%	34%	49%	63%	56%

Source of underlying market data: Refinitiv

MSCI Europe Total Return Index: empirical results



	0-1 years	1 - 2 years	2 - 3 years	3 - 4 years	4 - 5 years	5 - 6 years	6 - 7 years	7 - 8 years	8 - 9 years	9 - 10 years
Stress % - Min value in year, inc RFR	59%	66%	64%	57%	54%	53%	38%	53%	67%	59%
Stress % - Anniversary only, inc RFR	51%	53%	46%	43%	41%	24%	17%	33%	23%	9%

Source of underlying market data: Refinitiv

2.9.5 Design of the duration-based equity risk sub-module

2.9.5.1 Identification of the issue

2.541 The standard formula for the SCR includes an equity risk sub-module that captures the risk stemming from changes in the level of equity market prices. The equity risk sub-module is based on risk scenarios that envisage a fall in equity market prices of 39 percent or 49 percent, depending on the type of equity.

2.542 Instead of that equity risk sub-module, undertakings can use a duration-based equity risk sub-module (DBER) that is, with regard to certain equity investments, based on a risk scenario that envisages a fall in equity market prices of 22 percent. The DBER can be applied by life insurance undertakings that provide certain occupational retirement provisions, or retirement benefits, and meet further requirements – in particular, that the average duration of the undertaking's liabilities exceeds an average of 12 years and that the undertaking is able to hold equity investments at least for 12 years.

2.543 The possibility to apply the DBER is a Member State option of the Solvency II Directive (Article 304(1)). The application of the DBER by an insurance undertaking is subject to supervisory approval.

2.544 One undertaking in France is using the DBER as at 31 December 2017. According to the information disclosed by the undertaking in its Solvency and Financial Condition Report, removing the DBER would reduce the SCR ratio by 20 points from a ratio of 159 percent with the DBER (but without TTP and VA) to a ratio of 139 percent without the DBER. Removing the measure would reduce the MCR ratio by 41 points from a ratio of 350 percent with the DBER (but without TTP and VA) to a ratio of 309 percent without the measure.

2.545 In the LTG report 2016, 11 NSAs reported that the DBER is not implemented in their national legislation. The NSAs of the other countries provided the following explanations why the DBER is not applied:

- The products in the national market do not meet the criteria of Article 304 of the Solvency II Directive;
- Undertakings are not or not very active in the pension market;
- There is no need or no interest for this sub-module;
- There is not yet an incentive to apply the DBER because the equity transitional of Article 308b(13) of the Solvency II Directive currently lowers the capital requirement for equity investments, but more applications may follow in the course of the phasing out of that transitional measure.

2.9.5.2 Analysis

2.546 According to the Commission staff working document[85], the set-up of the Long-term equity asset class (LTE) is an extension of the reduced capital charge (22 percent) applicable to the DBER to long term investment in equity of EEA meeting certain criteria.

2.547 Although the DBER and the LTE aim to capture the risks of long-term equity over a longer time horizon; the criteria and application are different. The adequacy of keeping two separate treatment is a critical element of the framework, in view of the complexity induced. Having two separate risk sub-modules targeting the same risks – namely those of long-term equity exposures – is considered as unnecessary and intended to be addressed.

Considered options

2.548 EIOPA identified the following options:

- **Option 1:** No change
- **Option 2:** Phase out

Under Option 2, the use of the duration based equity risk sub module is phased out. As such, new approvals to use the duration based equity risk sub module should not be granted anymore. The following table outlines the pros and cons related to option 2 compared to the status quo.

Pro	Con
Both, LTE and DBER target the risks associated to long term equity exposures so it is ensured that similar risks are treated similarly in the future when the DBER is phased out.	
Reduce complexity	

Comparison of options

2.549 To phase out the approved use of the DBER and not granting new approvals to use the DBER anymore presents the advantage to ensure that similar risks –i.e. those related to long term equity exposures, are treated similarly in the future.

[85] See p.10, paragraph 3 of Commission Staff Working Document

2.550 As such, it reduces the unnecessary complexity of the prudential framework and improve the effective and efficient supervision of undertakings and groups.

2.551 Therefore, the preferred policy option for this policy issue is Option 2.

2.9.6 Design of the strategic equity risk treatment

2.9.6.1 Identification of the issue

2.552 The standard formula for the SCR includes an equity risk sub-module that captures the risk stemming from changes in the level of equity market prices. The equity risk sub-module is based on risk scenarios that envisage a fall in equity market prices of 39 percent or 49 percent, depending on the type of equity. Providing that these investments are of a strategic nature, undertakings can use risk scenarios that envisage a fall in equity market prices of 22 percent.

2.553 The criteria for being considered as strategic are set in the article 171 of the Delegated Regulation.

2.554 During the SCR Review, stakeholders identified critical elements of the framework. In particular:

- The approach for evaluating strategic participations based on lower volatility was not considered appropriate. Therefore, the criterion in Article 171 (a) - requiring the demonstration of lower volatility in the next 12 months - is considered to be very difficult to be applied in practice because it seems to be in contradiction with the long-term horizon associated with the nature of strategic participations;
- The minimum ownership and control threshold of 20 percent for an investment to qualify it as a strategic participation is considered too high. This requirement is deemed to be unnecessary restrictive, particularly when considered alongside the other Article 171 criteria such as strategy to hold and ability to hold for a long period.

2.555 The majority of NSAs mentioned that it is difficult to demonstrate that the criterion in Article 171(a) about lower volatility is met, particularly for unlisted equity investments.

2.556 Some NSAs mentioned that they experienced in their supervision that undertakings did apply the provisions for strategic equity also to investments that are not in related undertakings. Reason for that was identified to be the difficult reading of the Solvency II Directive in that respect as the title and first sentence of Article 171 Delegated Regulation is not referring to participations but to equity investments.

2.557 In addition, NSAs consider that there might be some cases in which equity could qualify for both strategic equity and long-term equity investment. This issue is analysed in section 2.9.7.

2.9.6.2 Analysis

Policy issue I: Criterion of lower volatility

2.558 According to Article 171 (a), in order to qualify an equity investment as "strategic", the insurer must demonstrate that the equity investment is likely to be materially less volatile for the following 12 months than the value of other equities over the same period. This is a result of both the nature of the investment and the influence exercised by the participating undertaking in the related undertaking.

2.559 The introduction of a lower capital charge for strategic equity is based on the underlying assumption that the volatility of the respective investments over a 1-year time horizon is likely to be materially lower compared to the "standard" type 1 or type 2 equity. To hold up to this underlying fundamentals, it is not sufficient to demonstrate that the investment under consideration relates to a related undertaking (minimum ownership and control threshold of 20 percent). Rather, the criteria of lower volatility is key to motivate the reduction in capital charge. NSAs therefore shared the view that the criteria of lower volatility cannot be deleted.

2.560 The lower capital requirements for strategic participations are justified if their risks are lower. As such, there is a requirement to demonstrate that the volatility of the value of the strategic participations is lower than that of other equities.

2.561 A well-diversified portfolio of strategic participations with a beta lower than one has a lower volatility than the typical average diversified, 'market', portfolio of equities. The question is then, which beta would justify a reduction of the capital requirements from 39 and 49 percent to 22 percent. Also, in case there is no well-diversified portfolio of strategic participations what 'residual risk' is acceptable to allow for this reduction?

2.562 In its second set of Advice to the European Commission on specific items in the Delegated Regulation[86], EIOPA proposed a beta method as a requirement for unlisted equity to qualify for the lower capital requirement of 39 percent for type 1 equities instead of the 49 percent for type 2 equities. If the beta for the unlisted equity was below the ratio of 39 over 49 percent, i.e. 0.7960, in that advice the risk was considered to be sufficiently low to allow the type 1 equity capital charge rather than the type 2. The formula for this beta is as follows:

[86] EIOPA's second set of advice on the Delegated regulation review, February 2018

*0.9478 – 0.0034*AvgGrossMargin + 0.0139*TotalDebt/AvgCFO – 0.0015*AvgReturn on Common Equity*

2.563 In line with that advice, a 22 percent capital charge for strategic participations with a beta below 0.5641 (22 percent over 39 percent) for a portfolio of type 1 strategic equities and a beta below 0.4590 (22 percent over 49 percent) for a portfolio of type 2 strategic equities would also be justified.

2.564 In this advice, EIOPA considered that the lower capital requirements for unlisted equity is only appropriate in case of well-diversified portfolios. Rather than requiring a diversified portfolio of strategic participations, the other requirements for strategic participations should ensure that the 'residual risks' from non-diversified portfolio of strategic participations does not invalidate the 22 percent capital charge.

2.565 The advice also required that companies, strategic participations, should be established in the EU or EEA with a majority of revenues from EEA or OECD countries. It should have been larger than a Small- Sized Enterprise as defined by the Commission Recommendation (2003/361/EC) in the last three years.

Considered options

2.566 With respect to point (a) of Article 171 of the Delegated Regulation **-** criterion of lower volatility - EIOPA identified the following options:

- **Option 1:** No change
- **Option 2:** Deletion of the criterion
- **Option 3:** Clarify the requirement and add the beta method as an optional method
- **Option 4:** Clarify the requirement by providing the beta method as the mandatory method
- **Option 5:** No change, but clarify the requirement and add the beta method as an optional method via additional guidance issued by EIOPA

2.567 The following tables outline the pros and cons of the options compared to the status quo.

Option 2: Deletion of the criterion

Pro	Con
Reduces complexity for undertakings as well as supervisors	Criterion is key to motivate the lower capital charge so the deletion has negative consequence on the risk sensitivity of the

	SCR standard formula (potentially negatively affecting policyholder protection).

Option 3: Clarify the requirement by providing the beta method as an optional method

Pro	Con
Improves understanding of the requirement in providing an exemplary method and by that reinforces the criterion which is key to motivate the lower capital charge.	The inclusion of the beta method (although as optional) in the legal text could in principle make it a benchmark, limiting the use of other methods.
Attenuates the difficult supervision of the criteria by providing a standard method.	
Consistent with EIOPA advice on unlisted equity	
Leaves flexibility to insurance undertakings	

Option 4: Clarify the requirement by providing the beta method as the mandatory method.

Pro	Con
Improves understanding of the requirement by that reinforces the criterion which is key to motivate the lower capital charge.	The inclusion of the beta method would limit the use of other methods already used by undertakings and NSAs, imposing additional costs.
Attenuates the difficult supervision of the	

criteria by providing a standard method.	
Consistent with EIOPA advice on unlisted equity.	

Option 5: No change, but clarify the requirement and add the beta method as an optional method via additional guidance issued by EIOPA

Pro	Con
Improves understanding of the requirement by that reinforces the criterion which is key to motivate the lower capital charge.	
Attenuates the difficult supervision of the criteria by providing a standard method.	
Consistent with EIOPA advice on unlisted equity.	
Leaves flexibility to insurance undertakings	

Comparison of options

2.568 Options 3 reinforces the requirement by providing an additional method to demonstrate the lower volatility, while option 4 strengthens the requirement by providing a mandatory method to demonstrate the lower volatility requirement. In combination with option 1 or 3, further clarification how to perform the required volatility assessment can either be included in the regulation directly or in additional guidance. This clarification can be based on the supervisory experience made so far, e.g. undertakings demonstrated the lower volatility by comparing financial statements or historical returns with those of competitors or in case of listed equity with a benchmark index. Furthermore, the beta method as described is suggested. In option 3 this method would be specified as one optional method to assess lower volatility of the investment while in option 4 this would become the mandatory method to apply. Finally, in option 5 it is proposed to add the beta method as an optional method without changing the legal text, but via additional guidance issued by EIOPA.

2.569 The preferred policy option for this policy issue is to strengthen the volatility criterion by proposing an optional method that can be used for that purpose without limiting the use of other methods (Option 1.5) because it improves the requirement which will be for the benefit for policyholders, supervisory authorities and stakeholders that need to assess that criterion. This is preferred to Option 4 because this leaves flexibility to undertakings, and to option 3 because this would impose it as a benchmark method.

Policy Issue II: Control threshold of 20 percent

2.570 NSAs further reflected on the need to keep the threshold of 20 percent. Reason to keep the threshold of 20 percent was considered to be the influence the participating undertaking has on the related undertaking which can materially influence the volatility of the related undertaking's own funds. Also the underlying idea of strategic equity investments as being investments of strategic nature (according to point (b) of Article 171 Delegated Regulation) are considered reasons to keep the 20 percent threshold.

2.571 NSAs consider that the reference to participating and related undertakings in Article 171 (a) of the Delegated regulation going along with Article 212 of the Solvency II Directive could be further clarified to avoid misunderstandings and ensure that the provision is consistently applied to investments where the minimum ownership and control threshold exceeds 20 percent.

Considered options

2.572 With respect to point (a) of Article 171 of the Delegated Regulation **–** control threshold of 20 percent - EIOPA identified the following options:

- **Option 1:** No change
- **Option 2:** No change, but add clarification of the scope of application
- **Option 3:** Deletion
- **Option 4:** Reduction to 5 or 10 percent

2.573 The following tables outline the pros and cons of the options compared to the status quo.

Option 2: No change, but add clarification of the scope of application

Pro	Con
Improves understanding of the requirement; by that reinforces the criterion which is key to	

motivate the lower capital charge**.**	

Option 3: Deletion

Pro	**Con**
Reduces complexity for undertakings as well as supervisors	The criterion on the influence is key to motivate the lower capital charge. The deletion thus endangers risk sensitivity of the SCR standard formula (potentially negatively affecting policyholder protection)

Option 4: Reduction to 5 or 10 percent

Pro	**Con**
	Endangers risk sensitivity of the SCR standard formula (potentially negatively affecting policyholder protection)

Comparison of options

2.574 Option 2 is to do not change but clarify the scope of application, in particular that it applies to participating and relating undertakings. This option preserves the current level of capital requirements and thereby compared to the other options, best contributes to keep the current level of policyholder protection. Indeed, option 3 and 4 would endangers risk sensitivity of the SCR standard formula and potentially negatively affect policyholder protection. Therefore, the preferred policy option for this policy issue is to keep that requirement but clarify the scope of application.

2.9.7 Design of the long-term equity risk treatment

2.9.7.1 Identification of the issue

Separate identification and management

2.575 The Delegated Regulation prescribes that a sub-set of equity investments may be treated as long-term equity (and then benefit from a risk charge of 22 percent), if it is included in a portfolio of assets which is assigned to cover the best estimate, which is identified, managed and organised separately from the other activities of the undertaking and cannot be used to cover losses arising from other activities of the undertaking.

2.576 Similar to the regulation in the context of the Matching Adjustment (MA), the assigned portfolio of assets (including the sub-set of equity) is not identified as a ring-fenced fund.

2.577 However, some of the current criteria can be deemed overly restrictive and potentially lead to the interpretation that the allocation of equity to LTE should lead to the establishment of ring fenced funds.

Holding period criteria

2.578 The Delegated Regulation currently prescribes that the average holding period of equity investments in the sub-set exceeds 5 years, or where the average holding period of the sub-set is lower than 5 years, the insurance or reinsurance undertaking does not sell any equity investments within the sub-set until the average holding period exceeds 5 years.

2.579 Furthermore, it is required that the solvency and liquidity position of the insurance or reinsurance undertaking, as well as its strategies, processes and reporting procedures with respect to asset-liability management, are such as to ensure, on an ongoing basis and under stressed conditions, that it is able to avoid forced sales of each equity investments within the sub-set for at least 10 years.

2.580 These criteria are deemed to constitute material impediments to the practical use of the LTE category, given in particular the fact that they are applicable to each individual equity held in the portfolio.

Diversification between LTE and other risks

2.581 As previously mentioned, there are similarities between the regulation in the context of the MA and LTE.

2.582 However, in contrast to the MA where explicit diversification limitations are reflected, the regulation does not provide further specification on diversification for LTE.

2.583 The sub-set of equity which can benefit from the specific risk charge of 22 percent is considered to be included in an assigned portfolio of assets which is identified, managed and organised separately. Similar to the MA regulation, this assigned portfolio covers the best estimate – in the content of the LTE the portfolio covers businesses clearly identified. However, the business in scope (assigned portfolio of assets and liabilities) can be/or become profitable, thus own funds are present or created. As the assets backing these profits are not formally part of the assigned portfolio of assets (only covering the best estimate), the question arises whether these can be used to cover losses arising in other parts of the undertakings, thus providing for diversification effects.

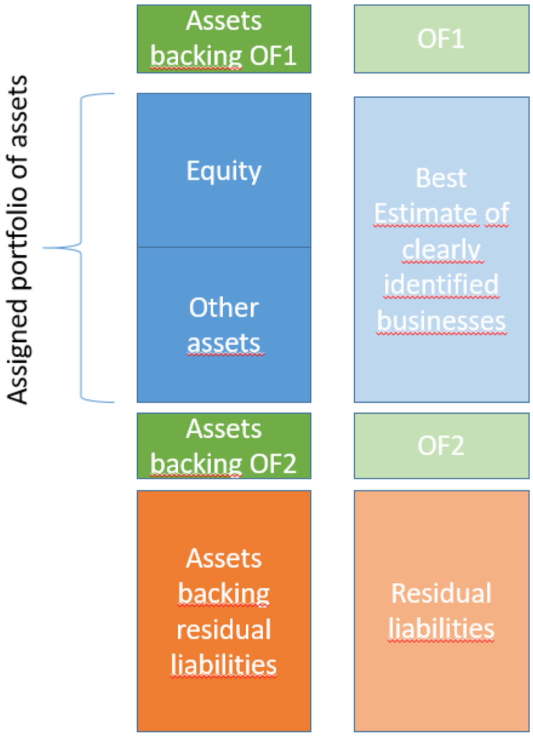
2.584 For example, in the context of the MA it was discussed whether a 1 year-VAR 99,5 percent-mortality shock creating losses in the non-MA business can be compensated by gains in the MA portfolio.

2.585 Even though the requirements on the assigned portfolio of assets are similar for MA and LTE, the situation in the context of LTE is quite different from the context of the MA because the risk metrics are not aligned between the LTE and the other risk modules. This is the case, as the LTE risk submodule is based on a VAR over a time-period different from 1 year.

2.586 So the question arises, whether the risk charge for LTE can be diversified with the other risks in the assigned portfolio of assets and liabilities as well as whether the risk charge for the assigned portfolio can be diversified with the risks in the rest of the undertaking.

2.587 Let's consider the example of an undertaking where the assigned portfolio makes up 50 percent of the business and the assigned portfolio of assets consists of equity and property (other assets in the below chart).

Illustrative chart


Assets backing OF1
OF1
Assigned portfolio of assets
Equity
Other assets
Best Estimate of clearly identified businesses
Assets backing OF2
OF2
Assets backing residual liabilities
Residual liabilities

2.588 How the risk charge for the equity in scope of LTE can be aggregated with the property risk of the assigned portfolio and how the risks of the assigned portfolio of assets can be diversified with the market risks of the rest of the assets backing the residual liabilities are unclear. Indeed, a 10-year VAR and a 1-year VAR cannot be aggregated via the existing correlation matrices. The reason is that the existing correlation matrices were calibrated on a one-year time horizon with an emphasis of measuring the dependence of the individual risks in the tail. It is theoretically unclear how the joint distribution of two individual risks with different time horizons looks like.

2.589 From a prudential point of view, the use of the existing correlations could be justified if there is credible evidence that a multiple year equity risk shows a lower degree of dependence with other financial risks than a one-year equity risk. In that circumstance, one could argue that the existing correlations are conservative estimates for a mixed equity risk, which includes long-term equity investments.

2.590 From an economic point of view, one could then argue that a longer-term equity investment would be less affected by short-term financial market fluctuations implying that the overall dependence between equity and other shorter-term financial risks would decrease.

2.591 However if such credible evidence cannot be found, then it is hard to justify the appropriateness of a one-year tail correlation on a multiple year risk.

2.592 It is therefore necessary to clarify how the LTE risk module fits into the overall SCR calculation, whether diversification effects can be recognized within the assigned portfolio of assets and liabilities and beyond, in particular in view of the existing structure of the standard formula which only recognizes the aggregation of risks via the correlation matrices.

Diversified LTE portfolios

2.593 The current regulation on LTE does not require LTE portfolios to be well-diversified. The question is whether or not a 22 percent capital charge for a single, just a few, or, only similar, equities is justified. Risks of well-diversified equity portfolios are generally lower than those of single or non-diversified equity portfolios.

Potential overlap with existing provisions

2.594 Potential overlap with the duration based equity risk sub module is treated in the section 2.9.5. In addition, NSAs consider that there might be some cases in which equity could qualify for both strategic equity and long-term equity investment. However, the motivation for lower capital charges for both categories and thus the nature of the risks of the equity investments are different (reduced short term volatility vs. consideration of long-term equity risks).

2.9.7.2 Analysis

Policy issue I: Separate identification and management

2.595 Criteria 1.b) of the current Delegated Regulation specifies that the a sub-set of equity investments may be treated as long-term equity investments if the insurance or reinsurance undertaking demonstrates that the sub-set of equity investment is included within a portfolio of assets which is assigned to cover the best estimate of a portfolio of insurance or reinsurance obligations corresponding to one or several clearly identified businesses, and the undertaking maintains that assignment over the lifetime of the obligations.

2.596 The reference to the "lifetime of the obligations" is deemed problematic as in many instances the lifetime of the contracts exceeds the lifetime of the corresponding Solvency II obligations. This means that assets are typically held longer than what is recognized in technical provisions, e.g. in case of 1-year non-life or life contracts with typically high renewal rates.

2.597 It is therefore not clear, how this provision should work in practice and what it is targeting. Thus, insurers indeed can experience that the eligibility criteria are not satisfied from a year to another.

2.598 What is considered important is that there is no switch in allocation of LTE between liabilities.

2.599 In addition to this, two elements of requirement 1.c) can lead to an understanding that LTE can only be applied very restrictively.

2.600 In particular, the reference to a separate organisation is generally interpreted as requiring an additional burden for the undertaking in requiring a strict separation of teams managing the assets.

2.601 It is considered that a separated identification and management should be sufficient, i.e. the LTE should be identified and be managed within a separate fund/account, it is not necessary though to have a separate team of people managing those investments.

2.602 What is considered important is that insurers are able to hold their equity long-term and commit themselves to do so – which should be reflected in the investment policy.

2.603 It should therefore be sufficient to safeguard these requirements by disallowing insurers to apply LTE for the next 3 years, where they breach those requirements. This could be achieved through the strengthening of requirement 1.e).

Considered options

2.604 EIOPA considered the following options:

- **Option 1:** No change
- **Option 2:** Modify the wording of 1.b), 1 c) and 1.e) as follows:

  1.b) the sub-set of equity investment is included within a portfolio of assets which is assigned to cover the best estimate of a portfolio of insurance or reinsurance obligations corresponding to one or several clearly identified businesses, and the undertaking maintains that assignment ~~over the lifetime of the obligations~~;

  1.c) ~~the portfolio of insurance or reinsurance obligations, and~~ the assigned portfolio of assets referred to in point (b) are identified~~,~~ and managed ~~and organised~~ separately from the other activities of the undertaking ~~and the assigned portfolio of assets cannot be used to cover losses arising from other activities of the undertaking~~;

  1.e) A policy for long term investment management is set up for each long-term equity portfolio and reflects undertaking's commitment to hold the global exposure to equity in the sub-set of equity investment for a period that exceeds 5 years on average. The AMSB of the undertaking has signed off these investment management policies and these policies are frequently reviewed against the actual management of the portfolios.

2.605 Under Option 2, the current criteria are clarified in order to avoid overly restricting the use of the LTE model.

Pro	Con
Criteria are not overly restrictive	Criteria could be too broadly interpreted, which might lead to lower capital requirements for equities which are not fit for this module.

Comparison of options

2.606 The preferred policy option for this policy issue is Option 2. It is considered sufficient to safeguard the requirements through the proposed strengthening of criterion 1.e).

Policy issue II: Holding period criteria

2.607 The current criteria which requires insurance and reinsurance undertakings to prove that they are able to avoid forced sales of each equity investments within the defined sub-set of equities for at least 10 years can prove operationally burdensome.

2.608 A less operationally burdensome way of fulfilling the objective of the LTE category, is to ensure that undertakings can hold on to the selected equity portfolios for a long term. It is therefore deemed appropriate to exclude from criterion 1.a) the requirement to identify the holding period of each individual equity investment.

2.609 For life (re)insurance, this can be achieved by requiring that LTE can only be held against a particular homogeneous risk groups (HRGs) of the life insurance and reinsurance liabilities in case it belongs to categories I or II as defined for the purpose of the calculation of the VA and the Macaulay duration of the liabilities in this HRG exceeds 10 years. The long term nature of the liabilities should enable sufficient stability in the future cash flows, enabling the undertakings to hold their equity during periods of market turbulence and therefore be less exposed to the risk of forced sales in particularly adverse situations.

2.610 For non-life (re)insurance, a sufficient liquidity buffer should be in place for the portfolio of non-life insurance and reinsurance liabilities and the assigned portfolio of assets.

2.611 The revised criteria has the potential to lead to a wider use of LTE, in particular for jurisdictions where the sum of Category I and II liabilities includes most of the total life insurance and reinsurance liabilities. It is therefore deemed appropriate to modify the existing criterion 1.d). To achieve the stated objective of ensuring a prudentially sound application of the LTE framework, it is necessary to introduce a proportionality limit between the equity assets and the eligible liabilities, to avoid the potential abuse of the framework by undertakings, which could be an issue in particular where there is no specific allocation of assets to specific liabilities (for example through the artificial allocation of disproportionate amounts of equity to back eligible liability portfolios).

2.612 EIOPA considered the following options:

- **Option 1:** No change
- **Option 2:** Modify the wording of 1 a) and 1 g) and replace 1.d) by new criterion 2.

  1.a) The sub-set of equity investments is clearly identified.
  1. g) Where undertakings can demonstrate that either
  i. particular homogeneous risk groups (HRGs) of the life insurance and reinsurance liabilities belongs to categories I or II as defined for the purpose of the calculation of the VA and the Macaulay duration of the liabilities in this HRG exceeds 10 years or

  ii. a sufficient liquidity buffer is in place for the portfolio of non-life insurance and reinsurance liabilities and the assigned portfolio of assets;

  2. The proportion of equity backing life technical provisions that is assigned to the LTE category does not exceed the proportion of life technical provisions compliant with the criteria specified in number 1 on the total life technical provisions of the insurance or reinsurance undertaking;

2.613 Under Option 2, the current criteria are clarified in order to avoid overly restricting the use of the LTE model.

Pro	Con
Criteria are not overly restrictive with a clearer link between LTE and long term illiquid liabilities	Criteria could be too restrictive and applied at a level of granularity which makes it impractical.

Comparison of options

2.614 The preferred policy option for this policy issue is Option 2.

Policy issue III: Diversification between LTE and other risks

2.615 To analyse the dependence between long-term equity investments and other short-term financial risks, the empirical correlation between long-term equity returns and other short-term financial market returns has been calculated. The following data sets with daily observations have been used as proxies for the financial market risks. Note that similar data sets have been used in the calibration of the financial market correlations.

- The MSCI World equity index as an equity risk proxy
- The EUR 10 year interest rate swap data as a proxy of interest rate risk
- The spreads to gilts on UK AA rated 10 year corporate bonds as a proxy for spread risk
- EUR/USD exchange rates as a proxy for currency risk.

2.616 The overlapping data period for all data sets ranges from 04/2002 until 31/05/2019.

2.617 Note that the analysis performed in this section is not conclusive to set any correlation factors for the standard formula as tail correlations are used for that purpose. Therefore, results shown here cannot be directly compared to the correlation parameters currently used. However, the analysis can provide first insight in the correlation of long-term compared to short-term risks.

2.618 To perform the empirical analysis, overlapping relative percentage changes have been calculated for each data set.

2.619 To analyse the dependence of long-term equity with other financial market risks, the overlapping 10-year relative percentage rate for the MSCI World index has been calculated. Accordingly, this calculation leads to daily overlapping 10-year returns from 04/2012 until 05/2019 including 1846 observation points. For the other financial risks (including one-year equity risk) annual overlapping relative percentage rate changes have been calculated with a total data period which coincides with the 10-year return calculation.

2.620 In a first step, the annual returns for the short-term financial risks were calibrated for the same data period from 04/2012 until 05/2019 and an empirical correlation coefficient has been calculated between the long-term equity returns and the other short-term financial risks. For comparison reasons, the same empirical correlation coefficient has been calculated between the one-year equity risk (with one–year overlapping returns) and the other short-term financial risks. The results are shown in the table below.

2.621 The table displays the empirical correlation coefficients between long-term equity returns and other short-term financial market risks (second column) and empirical correlation coefficients between the one-year equity returns with other short-term financial market risks (third column). The data period of overlapping returns ranges from 04/2012 until 05/2019.

Correlation	Long-term equity risk	One-Year Equity risk
Long-term equity risk	1	-0.005
Interest rate risk	-0.25	0.39
Spread risk	-0.33	-0.68
Currency risk	-0.1	0.53

2.622 From this first analysis, one can observe that long-term equity returns seem to be uncorrelated with the one-year equity returns. Moreover, one can observe that the long-term equity returns have a negative correlation with all short-term financial market returns. For the interest rate risk and the currency risk, the empirical correlation between the one-year equity returns is much more conservative than the empirical correlation for long-term equity returns. However, this result does not hold for the empirical correlation with relative annual credit spread changes.

2.623 It is worthwhile to note that while the long-term equity returns include data from the financial market crisis in 2008-2009, the annual relative percentage changes for the other short-term risks does not include data from the crisis (here data from 2011 enters into the calculation).

2.624 In the next step, the relative percentage rate changes for the short-term risks are calculated from 2003 on and the length of the data period is chosen such that it coincides with the data period used for the calculation of the long-term equity returns (i.e. the length of the data period contains 1846 observations). The objective is to include financial crises data into the annual relative percentage rate changes and to have a better comparison between one-year empirical correlation coefficients and the correlation coefficients with long-term equity risk. The empirical correlation coefficients of the second analysis are shown in the table below.

2.625 The table displays the empirical correlation coefficients between the one-year equity returns with other short-term financial market risks. The data period of overlapping returns ranges from 04/2003 until 05/2009.

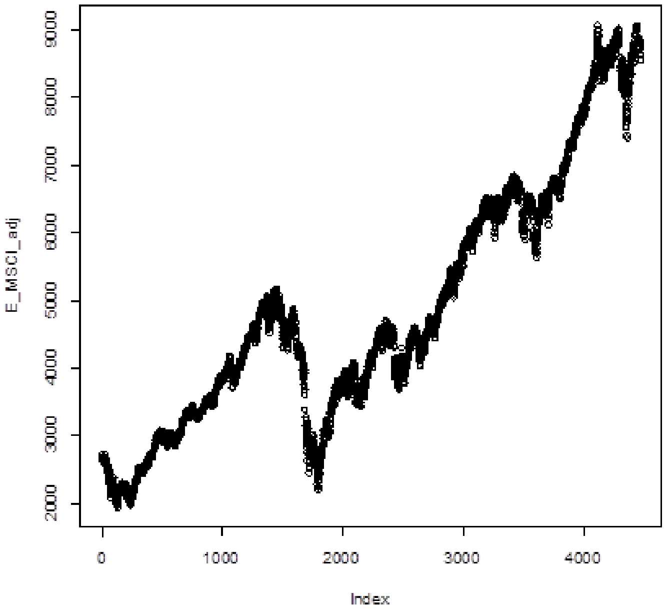
Correlation	One-Year Equity risk
Long-term equity risk	0.54
Interest rate risk	0.38
Spread risk	-0.38
Currency risk	0.435

2.626 From this table, one can observe that the correlation between short and long-term equity returns is significantly positive. Moreover, the empirical correlation for the credit spread changes and one-year equity returns is similar to the empirical correlation with long-term equity returns.

2.627 Note that the performed calculation of the 10-year annual overlapping equity returns from 2012 until 2019 results in solely positive returns. Then, it leads to the negative correlations with the other short-term financial risks. This can be seen from the figure below showing the development of the MSCI World Index from 04/2002 until 05/2019.

2.628 Accordingly, as negative long-term 10-year overlapping returns have not been observed and the 10-year time window does not result in a sufficiently large returns series (see above 1846 observations only), it seems sensible to perform the same analysis with a shorter long-term time window and thus a much larger return series, in order to get a better picture of the correlation between longer-term equity returns and other short-term financial risks.

MSCI World equity index from 04/2002 until 05/2019,



Source of underlying market data: Refinitiv

2.629 For the same concerns on potential diversification restrictions between long-term and short-term risks, CEIOPS advised in its L2 advice[87] to add up the equity capital requirements calculated according to Article 304 and Article 105, acknowledging that the DBER did not fit into the 1-year VaR perspective of Article 105.

[87] CEIOPS' Advice for L2 Implementing Measures on SII: Equity risk sub-module

Considered options

2.630 The following options to clarify the treatment of diversification in the context of LTE are identified:

- **Option 1:** No change
- **Option 2:** No diversification between LTE and other equity risks
- **Option 3:** No diversification between LTE and other risks

2.631 Option 1: No change

2.632 This option would imply that no diversification limitations would be set for LTE, LTE would then be treated as sub-class of type 1/type 2 equities, not mirroring the different time horizon of the different provisions.

2.633 This option could be prudentially justified but would require further statistical analysis as mentioned above to ensure the solution is prudent. The option implies that the LTE would be treated similar to the current equity risk sub-modules, simply adding up the different requirements for equity risk and jointly aggregating them via the existing correlation matrices with the other market risks.

Pro	**Con**
Simple for undertakings to apply as structure is aligned to the current standard formula structure	May result in accounting for unjustified diversification effects between short-term and long-term risks
	Inconsistent treatment with infrastructure spread risk

2.634 Option 2: No diversification between LTE and other equity risks

2.635 This option would imply that diversification of LTE would be partly limited as the LTE equity risk charge would be added up to the type 1 and type 2 equity charge and no diversification with short-term equity risks would apply.

Pro	**Con**
Recognising that diversification between short term and long term equity risk may be different	Conceptual inconsistency in the BSCR remains as the long-term equity risk is diversified with other short-term risks (in particular market

	risks) which may result in accounting for unjustified diversification effects
Consistent treatment with infrastructure spread risk	
Consistent with the advice on DBER	

2.636 Option 3: Do not diversify LTE with 1 year short term risk

2.637 This option suggests to explicitly allow for the different time horizon in the calibration of the LTE risk module by including a separate treatment for LTE. Under this option, LTE would be a separate risk charge that would be added to the BSCR (similar to operational risk).

2.638 This option implies that the LTE would be treated separately from the existing short-term risk measures and no diversification with these short-term risks is recognized.

Pro	**Con**
Transparent and separate treatment of short-term and long-term risks allows clear interpretation of the SCR	May be overly prudent because no diversification effects are recognized
	Inconsistent treatment with infrastructure spread risk

Comparison of options

2.639 CEIOPS' previous advice on DBER recommended to acknowledge a different treatment for long term horizon's correlation. DBER should be isolated in a long-term submodule added up with the result of the diversification between Type 1 and Type 2. Conclusions drawn for DBER could be applicable to LTE because diversification between short term and long term equity risk is different from diversification between short term risks: This is option 2. Therefore, the current diversification of LTE with other equity risks –i.e. option 1, might be questioned.

2.640 Option 3 is to do not diversify with 1-year short term risks (similarly to operational risk). This would allow a clear interpretation of the SCR through transparent and separate treatment of short-term and long-term risks.

However, it may be overly prudent and it would be inconsistent with the treatment of infrastructure spread risk.

2.641 During the consultation, EIOPA asked for feedback from stakeholders on this issue in particular on evidence that allows to assess the adequacy of the options identified. While ideas on how to assess that matter were provided no clear evidence was shared that allows for a final conclusion on that matter. Therefore, at this stage, EIOPA does not intend to put specific advice on this issue.

Policy issue IV: Diversified LTE portfolios

2.642 The analysis above as well as the analysis on equity risks over longer horizons are based on well-diversified portfolios or indices of equities. The appropriateness of a 22 percent capital charge for a single equity or not well-diversified portfolio of equities cannot be derived from those analyses. The requirement that only EEA equities are eligible for inclusion in LTE portfolios does not prevent a portfolio to be well-diversified; within the EEA sufficient possibilities for diversification exist.

Considered options

2.643 EIOPA considered the following options:

- **Option 1:** No change
- **Option 2:** Only diversified portfolios are eligible

2.644 Under Option 2, only well-diversified equity portfolios are eligible for the lower capital requirements of LTE portfolios. It would be up to the undertakings to demonstrate sufficient diversification of their LTE equity portfolios.

Pro	Con
No lower capital requirement for not well-diversified equity portfolios for which it is not demonstrated that those contain lower risks that justify a lower capital requirement	Possibly a smaller part of equity investments become eligible for the lower capital requirement, although most insurance undertakings already invest in a diversified way in equities

Comparison of options

2.645 The preferred policy option for this policy issue is to require LTE portfolios to be diversified because those are generally less risky. This is consistent with the basis of analysis used to calibrate the capital charge of the LTE.

Policy Issue V: Participations

2.646 Potential overlap with long-term equity investments is detailed below. In practice[88], in 50 percent of the cases, the average holding period of investments in strategic equity exceeds 10 years. Strategic investments may therefore also qualify for the long term equity risk sub-module. The use of strategic equity varies greatly among the different countries and can be as high as 15 percent of the total investments. The European average is 3 percent. The relevance of potential overlap between the two modules therefore varies by country.

Criteria	strategic equity	LTE
Equity	• Type 1 and type 2 equities • Likely to be materially less volatile over the following 12 months as a result of both the nature of the investment and the influence exercised by the participating undertaking in the related undertaking • Strategic nature – incl. clear strategy and ability to hold for long period, durable link (20 percent threshold) • Where the insurance or reinsurance participating company is part of a group, the consistency of such strategy with the main policies guiding or limiting the actions of the group	• Listed and unlisted equities of companies in the EEA • No risk of fire-sale over the next 10 years • Average holding period of equity in the sub-set exceeds 5 years
Liabilities		• Technical provisions that backed long-term portfolio, provided that they do not exceed 50 percent of the balance sheet • All undertakings, all business • Identified, managed, organised separately, cannot be used to cover losses from other activities
ALM	Consistency of the strategy referred above with the main policies guiding or	The written policies reflect the intention to hold the portfolio on average for 5

[88] See EIOPA's second set of advice to the European Commission on specific items in the Delegated Regulation.

	limiting the actions of the undertakings	years, and are compatible with the requirement to be able to avoid fire-sale over the next 10 years
Supervisory approval	No	No

2.647 The objective of the strategic equity asset category is to capture the risk of strategic investments over a 1-year horizon when the volatility of those investments are demonstrated to be materially less volatile.

2.648 This objective of the strategic Equity is different from the one of the LTE (and DBER) disposition in that it is the recognition of a lower volatility over 1 year horizon (as opposed to the multi-year time horizons). However, to apply strategic equity risk charge, the strategy to hold and the existence of a durable link count.

2.649 Companies can be tempted to reclassify strategic participations as long term equities to increase the average holding period of long-term equities. If a parent insurer classifies its subsidiaries as long-term equities, because of their size and their long-lasting holding, it is quite likely that the rest of the equity portfolio can be traded every day and meet the average holding period.

2.650 A final assessment in quantitative terms of any overlap is hard to perform as LTE has just been introduced. However, it is considered sensible to exclude participations from the scope of the LTE to avoid reclassification of strategic participations to meet the targets for LTE.

Considered options

2.651 EIOPA considered the following options:

- **Option 1:** No change
- **Option 2:** Exclude participations from LTE

2.652 Under option 2, the following text would be added at the bottom of the Article 171a: "(5) Participations shall be excluded from the sub-set of equity investments."

Comparison of options

2.653 The preferred policy option for this policy issue is to participations from the scope of LTE because it is considered more prudent. Indeed, one could consider that because of their size and inherent strategy to hold on the long term, participations would counterbalance a trading strategy for the rest of the LTE portfolio.

2.10. Symmetric adjustment to the equity risk charge

2.10.1 Extract from the call for advice

> ***3.5. Capital Markets Union aspects***
>
> *[…]*
>
> *With regard to equity, EIOPA is also asked to conduct a comprehensive review of the equity risk sub-module, and in particular to assess the appropriateness of the design and calibration of the duration-based equity risk sub-module, of strategic equity investments, of long-term equity investments and of the symmetric adjustment.*

2.10.2 Relevant legal provisions

2.654 The symmetric adjustment mechanism is introduced in Article 106 of the Solvency II Directive: "the equity risk sub-module calculated in accordance with the standard formula shall include a symmetric adjustment to the equity capital charge applied to cover the risk arising from changes in the level of equity prices."

2.655 The calculation of the symmetric adjustment is presented in Article 172 of the Delegated Regulation.

2.656 The composition of the equity index and its calculation is detailed in Commission Implementing Regulation (EU) 2015/2016[89]. See also annex 2.17 for the composition of the current equity index.

2.10.3 Identification of the issues

Policy issue 1: ongoing appropriateness of the composition of the equity index for the calculation of the symmetric adjustment

2.657 The composition of the equity index for the calculation of the symmetric adjustment was decided in 2015. Since then the composition of equity investments of insurance and reinsurance undertakings may have changed. A significant mismatch between the insurer's assets and the equity index may distort the effect of the measure.

Policy issue 2: width of the corridor (+/-10%) to the adjustment

2.658 The objective of the measure is to dampen the volatility of own funds of (re)insurance undertakings resulting from changes in equity prices, thereby in particular reducing the risk of procyclical investment behaviour of the

[89] Commission Implementing Regulation (EU) 2015/2016 of 11 November 2015 laying down the implementing technical standards with regard to the equity index for the symmetric adjustment of the standard equity capital charge in accordance with Directive 2009/138/EC of the European Parliament and of the Council

undertakings (fire sales). In a financial crisis, an increase of the amplitude of the SA would have the effect of reducing the equity risk module shock coefficients, which would lead to lower capital requirements. During periods of market exuberance the increase of the amplitude would result in higher capital requirements thus increasing the residence with regard to future downturns.

2.659 In particular, as observed during the COVID 19 pandemic peak, the drop in equity indices may potentially have a relevant negative impact on insurers' solvency position. The SA was identified as one of the measures of the current regulatory framework allowing for flexible reaction in case of deterioration of undertakings' financial position. EIOPA therefore further assessed the performance of such a measure to the equity risk charge since the beginning of the year, in particular with regard to the 10% corridor to the adjustment.

2.10.4 Analysis

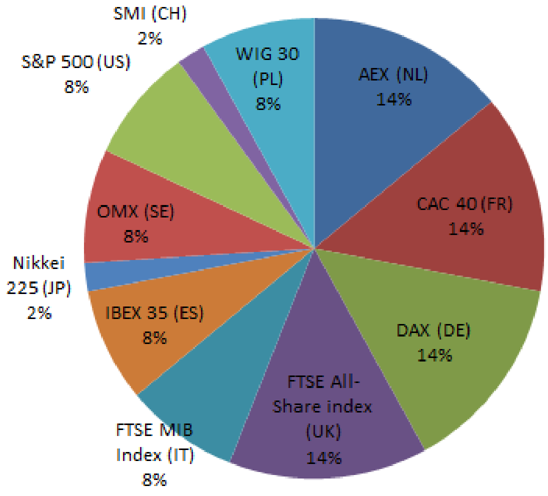
2.10.4.1 Policy issue 1: ongoing appropriateness of the composition of the equity index for the calculation of the symmetric adjustment

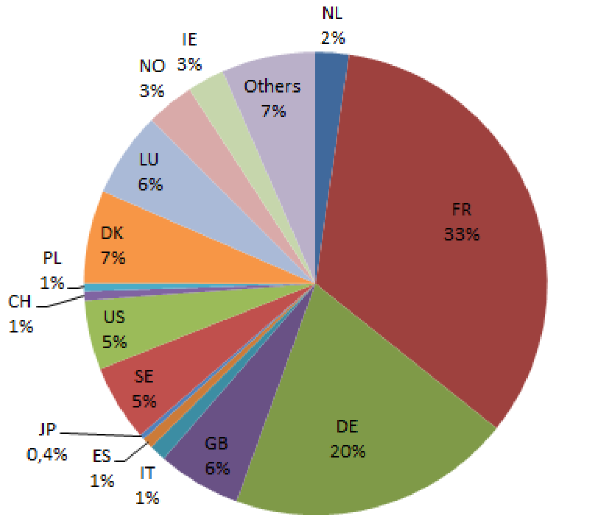
2.660 The first step of the analysis was to clearly identify if any mismatch between the relevant equity investments of undertakings (reference portfolio) and the equity index. For this purpose the weights of each country in the equity index and in the reference portfolio were compared.

2.661 The reference portfolio was constructed from data of the list of assets template and the look-through template of undertakings' regular reporting to supervisors. The data cover equity investments other than for unit und index linked insurance and other than strategic participations. The reference date of the data was 31 December 2017. This data analysis is coherent with the survey carried out in 2013 among NSA's to construct the current equity index.

2.662 Two perspectives have been considered when computing the weights of each country in the reference portfolio: "absolute amounts" and "relative weights" (see annex 2.19 for more details).

2.663 The result of such comparison is presented below. Firstly, the weights of each country in the EIOPA index are compared with the "absolute amounts" weights in the reference portfolio.

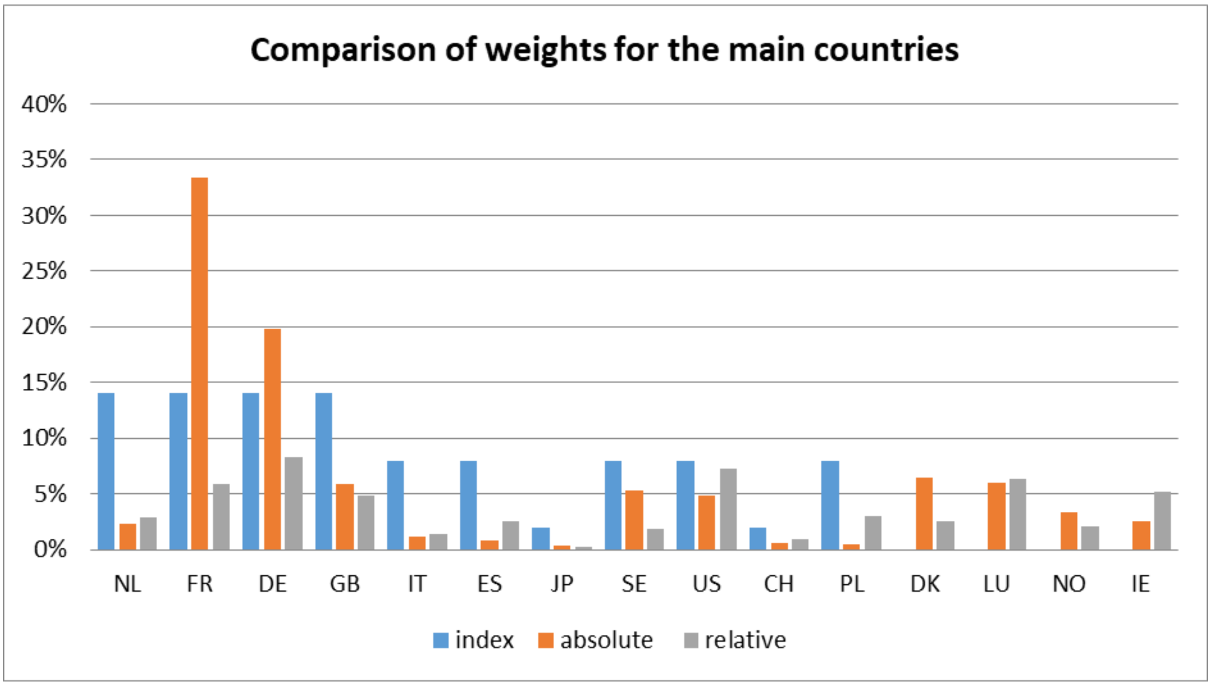

Composition of EIOPA index


Reference portfolio (absolute amounts)

2.664 The index weights do not match the equity investment distribution. Indeed:

- The weights for the two main national indices (CAC40 and DAX) seem underestimated in the current index for the symmetric adjustment.
- For all the other indices (FTSE MIB, IBEX, OMX, S&P) the weights seem to be overestimated in current index.
- Finally, some indices with relevant share are not included in current index for the symmetric adjustment (DK, LU). For LU, the relevant share could be explained by data issues in relation to investment funds. Undertakings may have reported the issuing country of investment funds instead of the issuing country of the equity included in the fund.

2.665 When considering on top the "relative weights" perspective for the reference portfolio (see below), some indices such as IBEX 35 (ES) or WIG30 (PL) become much more important, that could explain their weight in the current equity index.



2.666 At the time, a combined approach (i.e. using both "absolute amounts" and "relative weights") was used by EIOPA to construct the index. More precisely, the combined approach chooses equity indices with a high weight based on one or both measures. Then, the selected indices were allocated in three categories. Each member of a category has the same weight (14%, 8% or 2%) – See annex 2.17 for more details.

2.667 The following table sets out the results for the reference portfolio in relation to the countries currently included in the index. It is noted that applying the combined approach includes some expert judgements.

Country	Equity index	Absolute amounts	Relative weights	Comments
NL	14%	2,31%	2,85%	Both weights relatively high
FR	14%	33,43%	5,88%	Both weights high
DE	14%	19,80%	8,32%	Both weights high
GB	14%	5,83%	4,80%	Both weights high
IT	8%	1,16%	1,34%	Both weights relatively high
ES	8%	0,77%	2,58%	« Relative weight » relatively high
SE	8%	5,33%	1,81%	Both weights relatively high
US	8%	4,86%	7,24%	Both weights high
PL	8%	0,53%	3,04%	« Relative weight » relatively high
JP	2%	0,35%	0,23%	Both weights not negligible
CH	2%	0,64%	0,90%	Both weights not negligible

2.668 In order to assess the need for changes to the current equity index the relevance of the composition for the behaviour of the index was analysed. Because if the indices included in the current index would behave in a very similar manner in a crisis situation, the choice of weights would have less relevance for the functioning of the symmetric adjustment.

2.669 For this purpose an analysis was conducted to study the correlations between the different indices in a crisis situation. The "crisis period" that was retained is 2007-2009.

2.670 The correlations obtained are presented in the table below:

Correlations between equity indices on log returns

	EIOPA	CAC	DAXK	FTSEMIB	AEX	WIG30	IBEX	OMX	SMI	ASX	NKY	SPX
EIOPA	100%	97,4%	92,5%	97,5%	94,1%	68,1%	95,0%	87,9%	88,8%	93,9%	44,0%	59,2%
CAC	97,4%	100%	92,1%	92,9%	95,1%	64,2%	92,4%	87,5%	88,4%	94,5%	38,0%	58,3%
DAXK	92,5%	92,1%	100%	86,6%	88,4%	63,7%	86,2%	83,9%	82,0%	88,1%	35,4%	62,7%
FTSE MIB	97,5%	92,9%	86,6%	100%	90,2%	61,4%	89,4%	83,0%	83,8%	88,3%	38,4%	54,6%
AEX	94,1%	95,1%	88,4%	90,2%	100%	63,7%	88,6%	85,1%	84,9%	92,5%	36,1%	59,1%
WIG30	68,1%	64,2%	63,7%	61,4%	63,7%	100%	63,8%	61,8%	59,1%	63,9%	34,4%	39,0%
IBEX	95,0%	92,4%	86,2%	89,4%	88,6%	63,8%	100%	83,9%	85,1%	89,0%	38,0%	55,6%
OMX	87,9%	87,5%	83,9%	83,0%	85,1%	61,8%	83,9%	100%	78,8%	85,5%	34,6%	53,9%
SMI	88,8%	88,4%	82,0%	83,8%	84,9%	59,1%	85,1%	78,8%	100%	87,5%	39,0%	54,0%
ASX	93,9%	94,5%	88,1%	88,3%	92,5%	63,9%	89,0%	85,5%	87,5%	100%	39,9%	55,7%
NKY	44,0%	38,0%	35,4%	38,4%	36,1%	34,4%	38,0%	34,6%	39,0%	39,9%	100%	11,0%
SPX	59,2%	58,3%	62,7%	54,6%	59,1%	39,0%	55,6%	53,9%	54,0%	55,7%	11,0%	100%

2.671 From the results, some indices such as Nikkei 225 (NKY), S&P 500 (SPX) and WIG30 appear less correlated to others indices during crisis period.

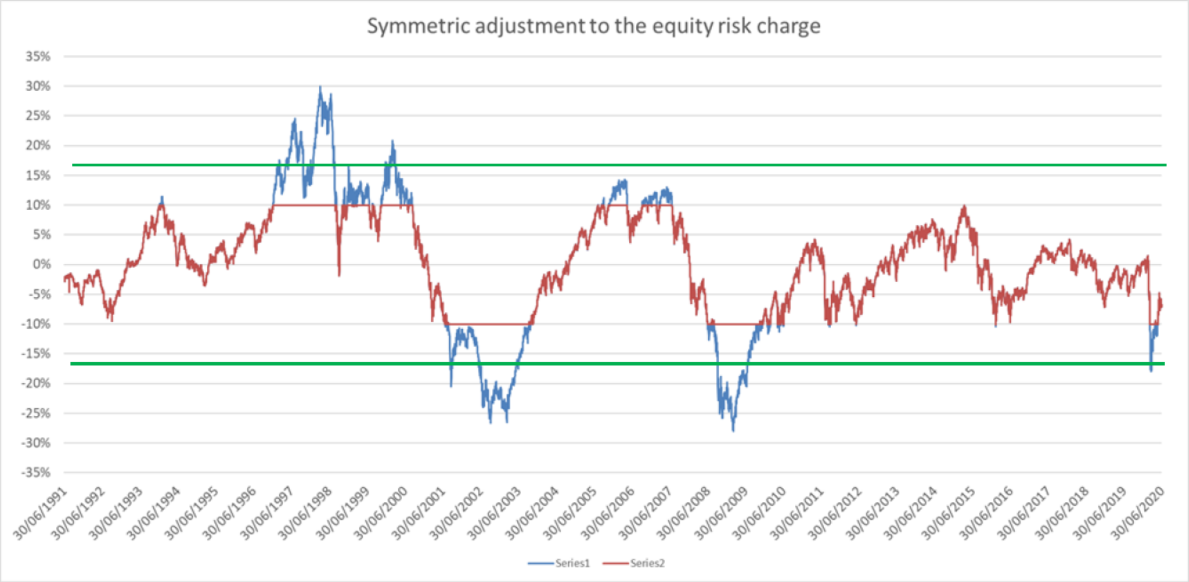
2.672 However, given the high overall level of correlation among the main stock markets in Europe, updating or changing the weights of the current equity index does not appear to be a first priority.

Policy issue 2: width of the corridor (+/-10%) to the adjustment

2.673 From the beginning of the year up to the end of April 2020 equity indices considered in the calculation of the SA lost about 18,63%, which translates into a raw SA (i.e. value of the adjustment before the application of the corridor of +/-10%) of 10,40%. However, in March and April such a loss reached peaks of -35% (raw SA around 20%). Since 9 March, the SA has always been -10% (except on 29 April when it was -9.39%) because of the corridor (final shocks: equity type 1: 29%; equity type 2: 39%; qualifying infrastructure equity: 22.3%; qualifying infrastructure corporate equity: 26.8%).

2.674 From 25th May on, the SA never hit the lower boundary again: it has always been higher than -10%.

2.675 The following diagram shows the development of the SA since 1991. The green lines represent an alternative corridor (+/-17%). The corridor would have resulted in a higher SA during the period of increasing equity prices from 1997 to 2000: SA would have been equal to its maximum almost without interruption from May 1997 to August 1988 and from February 2000 to March 2000. It would have result in lower SA during the equity downturns 2001 to 2003 and 2009 to 2010: SA would have been equal almost continuously to -17% from June 2002 to June 2003 and from October 2008 to July 2009. In those situations, the corridor would have limited the SA.



2.676 At the end of March and April 2020 the binding symmetric adjustment was at 10%, with the proposed wider corridor it would have been at -13,07% and - 10,26% respectively. At the end of May, SA was at -8.45% and decreased further down to -6.72% at the end of June. In mid-July it reached -5.68%.

2.677 SCR would, compared to a zero adjustment, decrease on average by 3.9% if the symmetric adjustment would have been -17% and increase by 4.2% if the symmetric adjustment would have been +17% at the end of 2019. The impact is approximately symmetric.

2.678 EIOPA analysed some specific cases of non-life undertakings with high share of equity investments where the SCR ratio improved during the downturn of equity markets in Q1 2020. The analysis could not confirm that the SA caused the improvement, at least not fully. At least partly, the improvements were due to changes in the investment or liability portfolio of the undertakings. Furthermore, it was noted that the capital surplus of all undertaking decreased during Q1 2020. Where undertakings have an SCR ratio significantly above 100%, a loss in equity value and the resulting decrease of the equity risk SCR can result in an increase of the SCR ratio, even without the application of the SA.

2.679 The analysis showed the need of additional transparency on the impact of the SA, at least for supervisors.

2.11. Transitional measure on equity risk

2.11.1. Extract from the call for advice

> ***3.3. Transitional measures***
>
> *Title VI Chapter I of the Solvency II Directive lays down a number of transitional provisions. EIOPA is asked to assess the ongoing appropriateness of the transitional provisions in terms of policyholder protection and level-playing field. This assessment should, where applicable, also assess whether the ongoing possibility for companies to newly apply for the transitional measures should continue. EIOPA may prioritise its work on the different transitional measures, provided that the advice states the reason for doing so. However, EIOPA's assessment should cover at least the transitional measures referred to in Articles 308b (12) and (13), Article 308c and Article 308d of the Solvency II Directive.*

2.11.2. Previous advice

2.680 EIOPA has not provided advice on the transitional referred to in Article 308b(13) of the Solvency II Directive.

2.11.3. Relevant legal provisions

2.681 The transitional on equity risk is set out in Article 308b(13) of the Solvency II Directive. Article 173 of the Delegated Regulation included criteria for the application of the transitional. Commission Implementing Regulation (EU) 2016/1630 sets out procedures for the application of the transitional.

2.11.4. Identification of the issue

2.682 The equity transitional allows insurance and reinsurance undertakings to use reduced risk parameters for the calculation of the equity risk sub-module of the SCR standard formula. During the first year of Solvency II, the standard risk parameters (39% for type 1 equity and 49% for type 2 equity) are replaced by a risk factor of 22%. Over a transitional period of seven years that risks factor is increased at least linearly at the end of each year, reaching the respective standard parameter in 2023. The reduced risk parameter applies to equities that the undertaking purchased on or before 1 January 2016.

2.683 For the LTG report 2017 EIOPA carried out an information request to insurance and reinsurance undertakings and collected data on the calculation of the equity risk sub-module for the reference date of 31 December 2016. The sample consisted of 231 undertakings with high equity risk. 56 of undertakings applied the equity transitional.

2.684 In 2019 EIOPA carried out an information request to NSAs on the use and impact of the equity transitional. With regard to the use of the transitional, NSAs reported the following information:

- In 15 countries the equity transitional is not used.
- In four countries it is not widely used (IE, IT, NO, SE)
- For three countries a share of undertakings applying the transitional was reported, ranging from 13% to about 25% (GR, PT, SI)
- Three NSAs (ES, FI, FR) report that the equity transitional is used in their national market but have no information about how common the use is.
- For four countries (BE, BG, DE, UK) NSAs have no information about the use of the transitional.

2.685 At the end of 2018 the reduced risk parameters were at least 29.3% instead of 39% for type 1 equity and 33.6% instead of 49% for type 2 equity. Eight NSAs, including those three where a material use of the transitional was reported, stated that the impact of the transitional on the SCR is immaterial (ES, FR, GR, IT, NO, PT, SE, SI). Another NSA pointed out that the capital requirement for equity is not material for the majority of its undertakings (DE). Two NSAs were able to quantify the impact. One of them reported an impact of the transitionals on the SCR ratio between 1.1 and 2.2 percentage points (NO). The other NSA stated that the transitional reduces the SCR by up to 3.9% (PT). No NSA reported a material impact of the transitional.

2.686 No NSA observed a negative impact of the transitional on policyholder protection or the level playing field.

2.687 NSAs do not expect that without the equity transition the investment behaviour of undertakings would be different. Only one NSA believes there could be a slight difference (FI).

2.688 No NSAs reported an issue with the application of Commission Implementing Regulation (EU) 2016/1630.

2.689 At this stage, taking all the available evidence into account, there are no indications for an issue with the transitional.

2.12. Extension of the recovery period

2.12.1. Extract from the call for advice

2.690 The extension of the recovery period in case of non-compliance with the Solvency Capital Requirement is one of the LTG measures and consequently it is covered in the Commission's call for advice, where it seeks technical advice on LTG measures and measures on equity risk.

2.12.2. Previous advice

2.691 CEIOPS submitted on the 29 January 2010 its advice to the Commission on the extension of the recovery period[90] as part of a third set of Advice on Solvency II Level 2 implementing measures.

2.12.3. Relevant legal provisions

2.692 The extension of the recovery period is regulated in Article 138(4) of the Solvency II Directive, Articles 288 and 289 of the Delegated Regulation and EIOPA Guidelines on the extension of the recovery period in exceptional adverse situations.

2.12.4. Identification of the issue

2.693 To date EIOPA has not received a request to declare an exceptional adverse situation. The absence of NSAs requests to EIOPA to declare an exceptional adverse situation can be mainly explained by the limited number of undertakings breaching the SCR and the negligible market share of those undertakings.

2.694 Despite the lack of practical experience, EIOPA considers that the correct use of this measure may have a positive impact on markets and undertakings[91]. It could avoid the potential negative impact of certain collective behaviours (e.g. a large number of companies looking for funding in the market at the same time) and it would provide insurers with additional time to mitigate the negative impacts of volatility reflected in the Solvency II balance sheet and to avoid procyclical behaviour such as fire sales.

2.695 The ESRB developed an internal procedure related to its consultative role under Article 138 of the Solvency II Directive. In this internal procedure, the

[90] See https://eiopa.europa.eu/CEIOPS-Archive/Documents/Advices/CEIOPS-L2-Advice-Extension-of-recovery-period-Pillar-II-dampener.pdf

[91] See pages 30-33 of EIOPA's paper on "Solvency II tools with macroprudential impact (https://eiopa.europa.eu/Publications/Reports/Solvency%20II%20tools%20with%20macroprudential%20impact.pdf)

ESRB has foreseen the possibility of a request for consultation either from EIOPA or from national supervisory authorities[92].

2.696 In this respect it should be noted that the declaration of an exceptional adverse situation refers to the market and is based in macroprudential considerations while the decision to grant an extension of the recovery period refers to an individual undertaking and is mainly based on its specific circumstances.

2.697 The factors and criteria established in Article 289 of the Solvency II Delegated Regulation for the NSAs to decide on an extension of the period and determining its length for a given insurance or reinsurance undertaking are specific to the undertaking. A deep knowledge of the undertakings specific circumstances would be needed (e.g. the means available to the undertaking to re-establish compliance with the SCR and the existence of a realistic recovery plan, the causes and the degree of non-compliance with the SCR, the composition of own funds held by the undertaking, the composition of the assets, the nature and duration of technical provisions and other liabilities, etc.)

2.698 Taking into account the responsibility of the ESRB for the macroprudential oversight of the financial system within the UE and, in particular, the ESRB task of "cooperating closely with all the other parties to the ESFS; where appropriate, providing the ESAs with the information on systemic risks required for the performance of their tasks", consultation is deemed relevant in order to assess the factors and criteria referred in Article 288 of the Solvency II Delegated Regulation; these factors and criteria relate to the conditions of the financial markets by the time when EIOPA is considering the existence of an adverse financial situation as well as the potential impact and negative effects in the financial markets of the possible subsequent decisions by supervisory authorities to extend the recovery period and the actions to be adopted by the affected undertakings to re-establish compliance with the Solvency Capital requirement within the provided recovery period.

2.12.5. Analysis

2.699 In view of the description above, EIOPA has considered the need to clarify in the text of the Solvency II Directive the role of the ESRB with respect to the extension of the recovery period.

2.700 Two options are being considered:

1. No change, i.e. maintain the current wording, which allows for different interpretations regarding the possibility to consult ESRB.
2. Clarify the role of the ESRB, i.e. ESRB to be consulted, where appropriate, before the declaration of an exceptional adverse situation.

[92] See page 39 of ESRB annual report 2017 (https://www.esrb.europa.eu/pub/pdf/ar/2018/esrb.ar2017.en.pdf)

2.701 Under the current wording, the uncertainty would remain, since supervisors may doubt on whether they are expected to consult the ESRB or not. The consultation to ESRB by one or several NSAs on the specific decision to extend the recovery period for each undertaking affected would result in a delay of the decision and an increase of the burden as well as the liability risk for ESRB.

2.702 Consequently, EIOPA considers that a clarification of the role of ESRB would be beneficial for the efficiency of the process. Where appropriate, ESRB would be consulted by EIOPA in an earlier stage of the process (i.e. before declaring an exceptional adverse situation) and could provide high valuable input for the assessment of the criteria in Article 288 of the Delegated Regulation in particular as regards the EU financial market.

3. Technical provisions

3.1 Best estimate

3.1 All relevant divergent practices on best estimate calculation identified are included in this Opinion. In particular, for some topics (mainly contract boundaries, the definition of expected profits in future premiums and the expense assumptions in case of run-off business) EIOPA propose to introduce some changes to the legal framework (Solvency II Directive or its Delegated Regulation) and they are included in the current section.

3.2 For other topics EIOPA is of the view that more convergence can be achieved using EIOPA's convergence tools (e.g. guidelines). Those topics, for which no amendment to the legal framework is proposed, are described in the Annex 3.1.

3.3 The impact assessment for the topics related to best estimate valuation is based mainly on the data from the information request performed by EIOPA. However, the sample of undertakings that answered to the request does not cover all the jurisdictions and the representativeness for some markets may be low. This does not prevent from reaching general conclusions in most of the cases, but the assessment at national level should be read with caution, since more jurisdictions could be impacted apart from those highlighted in this chapter.

3.1.1 Extract from the call for advice

> ***3.17. Best Estimate***
>
> *EIOPA is asked to report on divergent supervisory practices with regard to the calculation of the best estimate, and to provide quantitative information on their impacts, in particular with regard to the following items:*
>
> *the use of economic scenario generators for the purpose of calculating the best estimate of life obligations;*
>
> *the application of the definition of contract boundaries;*
>
> *the application of future management actions including those in the context of highly profitable scenarios and those linked to "lapses/surrenders";*
>
> *the treatment and evaluation of expenses, investment costs and the valuation of options and guarantees.*
>
> *Where this analysis would point towards the identification of flaws or significant supervisory divergences, EIOPA is asked to advice on how these could be remedied.*

3.1.2 Previous advice

3.4 CEIOPS submitted its advice to the Commission on Technical Provisions as part of a third set of Advice on Solvency II Level 2 implementing measures. The advice on Technical Provisions included, among others, Segmentation for the calculation of technical provisions; Treatment of future premiums; Assumptions about future management actions; Actuarial and statistical methodologies to calculate the best estimate, and Standard for data quality.

3.1.3 Economic Scenario Generator (ESG)

3.1.3.1 Relevant legal provisions

3.5 Article 22(3) of the Delegated Regulation establishes three requirements that undertaking should meet when using simulation methods for the valuation of their technical provisions in Solvency II.

3.6 Recital 15 of the Delegated Regulation clarifies the principle of the use of simulation for the valuation of option and guarantees.

3.1.3.2 Other regulatory background

3.7 Other regulatory background considered for the advice:

i. EIOPA Guidelines on Technical Provisions: Guidelines 55 to 60.

3.1.3.3 Identification of the issue

3.8 All divergent practices on Economic Scenario Generators are included in the Annex 3.1.

3.1.4 Contract boundaries

3.9 Several contract boundary issues and divergent practices described and analysed in sections 3.1.4 and 3.1.5 and in the Annex 3.1 are closely interrelated. This relation has been identified making references between issues in the text of the advice. However, to have a full understanding of each issue it is recommended to review all of them to ensure an adequate background of the analysis performed.

3.1.4.1 Relevant legal provisions

3.10 Article 18 of the Delegated Regulation establishes the rules to determine the boundaries of a contract in Solvency II.

3.11 Article 1(46) of the Delegated Regulation includes the definition of Expected Profits In Future Premiums (EPFIP).

3.12 Article 70(2) of the Delegated Regulation establishes the relation between EPIFP and the Reconciliation reserve.

3.13 Article 260(2)(3) and(4) of the Delegated Regulation establishes the rules for the calculation of EPIFP.

3.14 Articles 295(5) and 309(6) of the Delegated Regulation, establish some requirements in relation to the liquidity risk and the EPIFP.

3.15 Recitals 9 and 10 of the Delegated Regulation.

3.1.4.2 Other regulatory background

3.16 Other regulatory background considered for the advice:

i. EIOPA Guidelines on Contract Boundaries.

ii. EIOPA Guidelines on Technical Provisions. Guidelines 76 and 77.

iii. IFRS 17 Insurance Contracts.

3.1.4.3 Identification of the issue

3.17 EIOPA has identified some divergent practices among Member States. Most of these discrepancies are due to different interpretations of the current regulatory framework, in some cases due to a lack of granularity in the regulation.

3.18 Some concerns on the current definition of Expected Profits In Future Premiums (EPIFP) have also been identified. Due to the tight relation between contract boundaries and EPIFP, the issue on its definition has been addressed under the section for Contract Boundaries.

3.19 The following sections reflect some of the issues that have been identified (exception to Article 18(3), expected profits in future premiums calculation and the definition of other expected profits) although additional divergent practices not leading to amendments in the legislative framework can be found in the Annex 3.1.

3.1.4.3.1 Policy issue 1. Exception of Article 18(3)

3.20 The third paragraph of Article 18(3) of the Delegated Regulation establishes an exception that allows the extension of contract boundaries for contracts where an individual risk assessment has been performed at inception, the undertaking cannot repeat it and the undertaking only has a unilateral right to amend the premiums or the benefits payable under the contract in such a way that the premiums fully reflect the risks at portfolio level. However, in some cases the paragraph has not been interpreted as such an exception, but as an obligation for the undertakings to "assess at the level of the contract whether the premiums fully reflect the risk".

3.21 Even when the paragraph has been interpreted as introducing an exception, different practices have been identified:

i. In some cases it has been considered that the "assessment cannot be repeated" shall be interpreted as a legal/contractual restriction, i.e. the undertaking does not have the right to repeat the individual risk assessment.

ii. In other cases, it has been considered that the "assessment cannot be repeated" shall be interpreted as any kind of restriction, e.g. a technical restriction not allowing to collect the relevant data for the analysis.

3.22 Some NSAs also question the nature of the exception. It allows a long extension of contract boundaries which usually leads to significant increases of the own funds, but the undertaking still has the full right to amend the premiums so the contract fully reflects the risks.

3.1.4.3.2 Policy issue 2. Expected Profits In Future Premiums (EPIFP)

3.1.4.3.2.1 Policy issue 2.1. Calculation of EPIFP

3.23 Expected Profits In Future Premiums (EPIFP) reflects the profit embedded in future premiums and it is sometimes seen as the impact of future premium in the own funds (Article 70(2) of the Delegated Regulation). However, the current definition of EPIFP does not reflect the real impact of future premiums in own funds for three reasons:

1. EPIFP are calculated without fully considering loss-making policies. Article 260(4) of the Delegated Regulation states that loss-making policies can be offset only against profit-making policies within the same homogeneous risk group. However, compensation between different homogeneous risk groups is not allowed.
2. EPIFP are calculated without taking into consideration the impact of reinsurance and special purpose vehicles (SPVs) as technical provisions without a risk margin are calculated gross of reinsurance and SPVs.
3. EPIFP are calculated before taxes. However, the final impact on own funds of the future premiums should take into account taxation of these future profits: the recognition of lower technical provisions leads to lower deferred tax assets/higher deferred tax liabilities in the Solvency II Balance sheet.

3.24 Moreover, regarding the identification of homogeneous risk groups, Article 260(3) of the Delegated Regulation states:

"The calculation of the expected profit included in future premiums shall be carried out separately for the homogeneous risk groups used in the calculation of the technical provisions, provided that the insurance and reinsurance obligations are also homogeneous in relation to the expected profit included in future premiums.", The requirement underlined in some cases has been interpreted as homogeneous risk groups cannot contain loss-making and profit-making policies, while in other cases it has been considered that homogeneous risk group can still be homogeneous even if there are loss-making and profit-making policies included.

3.1.4.3.2.2 Policy issue 2.2. Other expected profits

3.25 Some EIOPA Members have identified other sources of future profits related to future cash inflows that may represent a significant amount of the own funds. The main example are the profits included in the future fees and charges for servicing and management of funds that the undertaking will charge to policyholders of unit-linked products. These profits are quite similar to EPIFP, since they are embedded future cash inflows and/or charges to policyholders. However, the contribution of these future charges and fees to the own funds remains generally unexplored.

3.1.4.4 Analysis

3.1.4.4.1 Policy issue 1. Exception of Article 18(3)

3.1.4.4.1.1 Policy issue 3.1. Drafting of the third paragraph of Article 18(3)

3.26 Although most Members have no doubts on the right interpretation of the third paragraph of Article 18(3) of the Delegated Regulation, i.e. an exception to the previous paragraph, in some jurisdictions it has been interpreted as an obligation to perform an assessment at contract level. Therefore, EIOPA considers that it could be beneficial to amend the Delegated Regulation to avoid misinterpretations of this paragraph.

3.1.4.4.1.2 Policy issue 1.2. Exception of the third paragraph of Article 18(3)

3.27 The use of the exception established in the third paragraph of Article 18(3) of the Delegated Regulation allows the extension of contract boundaries in some cases for several years or even decades. This usually leads to include a significant amount of future profits in the best estimate, thus increasing the own funds of the undertaking. Besides, in this situation the undertaking still has the unilateral right to amend the premium or the benefits so the premium fully reflects the risks at portfolio level.

3.28 Three options have been considered:

- **Option 1**: No change, i.e. maintain the current wording.

- **Option 2**: Clarify that the exception established in the third paragraph of Article 18(3) is to be applied only when the undertaking does not have the right to perform again the individual risk assessment.
- **Option 3**: Deletion of the third paragraph of Article 18(3).

3.29 This exception leads to a situation where two contracts issued by two different undertakings that have the same right to amend the premiums or benefits at portfolio level, may have a very different treatment. If one undertaking performed an individual risk assessment at inception and the other did not, contract boundaries would be significantly different even if the undertaking has the same rights at the valuation date.

3.30 However, the exception is justified by the different economic situation at the revision date. At inception, the undertaking performed an individual risk assessment and thus established a premium that individually fully reflects the risks. However, at the revision date, if the undertaking does not have the right to perform an individual risk reassessment and only has the right to amend the premiums or benefits at portfolio level, new risks could arise, for example, anti-selection.

3.31 In general terms, contract boundaries are extended while the undertaking is still covering a risk, i.e. until the date where the undertaking has the unilateral right to terminate the contract, reject the premiums or amend the premiums or benefits so they fully reflect the risks of the contract. Therefore, in the situation described above, the undertaking is still assuming some risks (e.g. anti-selection), which justifies the extension of contract boundaries.

3.32 Going back to the comparison between two contracts, for the contract without an initial individual risk assessment, the amendment at portfolio level does not imply any new risk because the risk was not individually assessed at inception. However, for the contract with an initial individual risk assessment, amending the premium or benefits at portfolio level would create some new risks like the anti-selection risk mentioned before.

3.33 Nevertheless, this would only be the case where the individual risk assessment provides information that may have a significant impact on the assumptions underlying best estimate valuation. For more information on this, please see the Divergent practices on the individual risk assessment in the Annex 3.1.

3.34 Therefore, EIOPA considers that, for undertakings that perform an initial individual risk assessment that cannot be repeated and have the right to amend premiums or benefits so the premium fully reflects the risk at portfolio level, the economic situation will be different at the valuation date compared to the inception of the contract. Thus, it is reasonable that the Delegated Regulation considers this particular situation in Article 18(3).

3.35 However, due to the big impact of the exception in some jurisdictions, consistent application of the exception is necessary to guarantee the level playing field. Different interpretations of "that assessment cannot be repeated" have been identified, i.e. whether technical constraints are enough or only legal/contractual constraints would justify the use of the exception. EIOPA considers that to guarantee the level playing field, a clear criteria should be established for the application of this exception. Therefore, the exception should be limited to situations where a contractual/legal constraint exists, i.e. Option 2.

3.36 8.6% of the undertakings in the sample reported to apply the exception, however the average best estimate affected is below 1% of total best estimate in the sample. In Cyprus, Spain and especially in Estonia it was reported to be more significant (around 5% of the best estimate). In these cases, the impact on the own funds, measured as the EPIFP of these contracts, also was reported to be significant, in particular for Estonia (almost 10% of the own funds), although at individual level some other countries, mainly Spain, Belgium and France, also reported cases with relevant impact for a few undertakings (up to 40% of the own funds in Spain and 10% in France and Belgium). However, the proposed clarification would not affect most of the undertakings since most of the restrictions reported are based on contractual/legal rights, so the impact would be limited even in the jurisdictions where the simplification is used more often.

3.1.4.4.2 Policy issue 2. Calculation of Expected Profits In Future Premiums (EPIFP)

3.1.4.4.2.1 Policy issue 2.1. Calculation of EPFIP

3.37 Three options are being considered:

- **Option 1**: No change, i.e. maintain current wording.
- **Option 2**: Include all future losses in EPIFP.
- **Option 3**: Include all future losses and the impact of reinsurance in EPIFP.
- **Option 4**: Include all future losses, impact of reinsurance and impact of taxation in EPIFP.

3.38 According to Article 70(2) of the Delegated Regulation:

"The excess of assets over liabilities referred to in paragraph 1 includes the amount that corresponds to the expected profit included in future premiums set out in paragraph 2 of Article 260".

3.39 Article 70 of the Delegated Regulation defines the calculation of the Reconciliation Reserve, one of the main components of own funds. Therefore, it seems reasonable to expect that the concept of EPIFP, included in the excess of assets over liabilities, considers the whole impact on own funds of future premiums, and not only part of it.

3.40 For best estimate valuation purposes policies are usually grouped within homogeneous risk groups that can include profit-making and loss making-contracts for several reasons (profit sharing mechanisms, changes in the risk free rate etc.). Therefore, splitting profit-making and loss-making contracts into different homogeneous risk groups would not reflect how the business is actually managed. However, to ensure that EPIFP is closer to the real impact in the own funds, if a homogeneous risk group is loss-making in total, it should not be set to zero as several stakeholders are currently doing, but it should be included in EPIFP.

3.41 Since EPIFP are already calculated at homogeneous risk group level, identifying loss-making homogeneous risk groups would not add significant burden for the undertakings and it would be useful for NCAs. For this purpose, it is also proposed to identify positive and negative EPIFPs at homogeneous risk group level.

3.42 Additionally, EIOPA considers that to provide meaningful insights, EPIFP information should be available at least at Line of Business level.

3.43 Following a similar analysis, impact of reinsurance on EPIFP would be also a valuable separate information. However, the link of reinsurance contracts with the underlying direct insurance contracts may be complex in some cases, in particular for non-proportional reinsurance. Moreover, reasonably accurate proxies may be calculated with data currently available. Therefore, EIOPA considers that EPIFP should not include the impact of reinsurance, even if a proper consideration of the impact of future premiums in the own funds should also take into account the impact of reinsurance.

3.44 Finally, future profits will probably give rise to higher deferred tax liabilities, thus reducing the increase of own funds due to that expected profits. However, these future liabilities may allow the recognition of deferred tax assets that would have not been recognized otherwise. Conversely, future losses may also lead to the recognition of deferred tax assets, thus mitigating the decrease in own funds due to expected losses. However, the undertaking may not have enough future taxable profits to recognize the deferred tax assets.

3.45 Therefore, EIOPA believes that considering taxation of future profits does not always lead to a more accurate estimate of the impact on own funds. Besides, it would probably lead to more complex calculation and less comparable figures. As a consequence, EIOPA’s preferred option is Option 2.

3.1.4.4.2.2 Policy issue 2.2. Other future profits

3.46 Two options have been considered:

- **Option 1**: No change
- **Option 2**: Add the notion of expected profits in future fees for servicing and management of funds to the Delegated Regulation.

3.47 EIOPA considers that future profits embedded in future fees for servicing and managing funds are quite similar in nature to EPFIP and could have a significant impact on technical provisions of unit-linked and index-linked products and the own funds of the undertaking. Therefore, a calculation of the expected profits in future fees for servicing and managing funds would provide valuable information completing current available EPIFP.

3.48 From one side, if this new notion of future profits from servicing and management of funds does not exclude the part included in future premiums, there would exist an overlap with EPIFP. From the other side, excluding this part of the profits would make the calculation more complex. However, EIOPA believes that, even if the first simple approach is chosen and there is an overlap with EPIFP, the information provided would be very valuable. Therefore, EIOPA's preferred option is Option 2.

3.49 To avoid undue burden in the calculation and considering the limited impact of reinsurance on these cash flows, calculation could be limited to amounts gross of reinsurance both including future profits and future losses altogether.

3.1.5 Future Management Actions (FMA)

3.1.5.1 Relevant legal provisions

3.50 Article 23 of the Delegated Regulation establishes the rules to the establishment of the assumptions regarding future management actions in the case of technical provisions calculation in Solvency II.

3.1.5.2 Other regulatory background

3.51 Other regulatory background considered for the advice:

- EIOPA Guidelines on Technical Provisions: Guidelines 38 to 40.

3.1.5.3 Identification of the issue

3.1.5.3.1 Policy issue 1. Definition of future management actions

3.52 The lack of a definition of future management actions has caused different interpretations on the application of Article 23 of the Delegated Regulation and its requirements, including the scope of the comprehensive plan approved by the administrative, management or supervisory body of the insurance or reinsurance undertaking.

3.53 The main difference identified among undertakings and Members States is the link between future management actions and the business plan of the undertaking. In some cases, it has been interpreted that any actions already foreseen in the business plan should not be considered as future management actions and, therefore, they are not affected by the requirements of Article 23. In other cases, it has been considered that being part of the business plan is not relevant for the identification of future management actions, so there may be future management actions included in the business plan.

3.1.5.4 Analysis

3.1.5.4.1 Definition of future management actions

3.54 Future management actions can be understood as something purely reactive, therefore not including any action already planned by the undertaking. Alternatively, future management action can be seen as a broader concept including any management actions that the undertaking expects to take in the future in response to future events.

3.55 Therefore, two options have been considered:

- **Option 1**: No change, i.e. maintain the current situation.
- **Option 2**: Add future management actions definition in Article 1 of the Delegated Regulation.

3.56 EIOPA believes that including future management actions in the business plan, does not affect its nature and, therefore, it is not a relevant criteria to determine whether it should be considered a future management action as described in Article 23. Therefore, adding a definition for future management actions in the Delegated Regulation without making any reference to the business plan could help to clarify the scope of the future management actions subject to the requirements listed in Article 23 without creating a substantial change in the calculation of technical provisions. This means that EIOPA's preferred option is Option 2.

3.57 As future management actions are also mentioned in Articles 83, 126, 206, 207, 209 and 236 of the Delegated Regulation that relate to the calculation of the Solvency Capital Requirement, a common definition in Article 1 might be also helpful to ensure a consistent approach.

3.1.6 Expenses

3.58 Although in the call for advice issued by the Commission expenses and valuation of options and guarantees are under the same bullet point, due to the different nature of both topics EIOPA will address them in different sections.

3.1.6.1 Relevant legal provisions

3.59 Article 78 of the Solvency II Directive establishes the expenses to be considered when calculating technical provisions.

3.60 Article 31 of the Delegated Regulation further clarifies the expenses that should be taken into account in the calculations of the best estimate in Solvency II.

3.61 Article 7 of the Delegated Regulation establishes the going concern principle.

3.1.6.2 Other regulatory background

3.62 Other regulatory background considered for the advice:

- EIOPA Guidelines on Technical Provisions: Guidelines 26 to 34, 69 and 71, and Technical Annexes I and II.

3.1.6.3 Identification of the issue

3.1.6.3.1 Policy issue 1: New business

3.63 EIOPA has identified divergent practices on the assumptions on new business for expenses allocation during cash flow projection. According to Article 31(4) of the Delegated Regulation, expenses shall be projected assuming that new business will be written. However, in some cases it has been considered that this assumption is not adequate, for example where the undertaking is not writing any new business. In cases like this one, sometimes realistic assumptions on new business have been used to allocate expenses.

3.1.6.3.2 Policy issue 2: Drafting amendment

3.64 Currently, the second paragraph of Article 31(1) of the Delegated Regulation reads as follows:
"The expenses referred to in points (a) to (d) shall take into account overhead expenses incurred in servicing insurance and reinsurance obligations."

3.65 The word "incurred" is past tense. Some Members raised some concerns this could be interpreted as the projection should be based only on past experience, i.e. not allowing projections considering expected changes in future expenses.

3.1.6.4 Analysis

3.1.6.4.1.1 Policy issue 1. New business

3.66 New business, meaning business outside the contract boundaries, is not included in the projection of cash flows for best estimate valuation. However, assumptions on new business have an indirect impact on best estimate valuation, for example through the allocation of expenses. Future expenses shall be allocated to all future business: existing business (i.e. within the contract boundaries) and new business. As a consequence, the amount of new business has an impact on the expenses allocated to existing business and thus to the amount of expenses projected for best estimate valuation.

3.67 Therefore, the following options have been considered:

- **Option 1**: Hard going-concern principle (no change): Going-concern principle interpreted in line with Article 31(4) of the Delegated Regulation, i.e. new business should be assumed in all cases. No amendments needed in this case.
- **Option 2**: Soft going-concern principle. Going-concern principle interpreted as "business as usual", i.e. new business should not be assumed in al cases, only following realistic assumptions. Article 31 of the Delegated Regulation should be amended in this case.

3.68 The assumptions on new business are usually considered to be mainly regulated in Article 7 (going-concern principle) and Article 31(4) of the Delegated Regulation. However, in other regulatory frameworks, like accounting, the going-concern principle is usually interpreted as the undertaking will keep pursuing "business as usual", meaning that, for example, valuation of best estimate should not assume the transfer of a portfolio of obligations to project future cash flows. Therefore, under this interpretation, Article 7 of the Delegated Regulation would not affect assumptions on new business and, indeed, this interpretation perfectly fits current drafting of the Article.

3.69 However, Article 31(4) of the Delegated Regulation requires that new business is assumed in all cases. Although this Article only affects assumptions on expenses, it has conditioned in some cases the interpretation of Article 7 of the Delegated Regulation, leading to interpret the going-concern principle as a requirement to assume that new business will be written. Therefore, since Article 7 is not limited to expenses, this issue has also an impact on other assumptions, like future management actions (for more information, please see the Divergent practices on Future Management Actions in annex 3.1).

3.70 Assuming that new business will come when this is not the real expectation leads to a non-realistic valuation of the best estimate which is also less prudent because a higher amount of expenses are allocated to future business (that will never come) and thus out of the best estimate. Q&A 1037 already addresses this issue recommending that realistic assumptions should be used to project future expenses.

3.71 On the other side, it may be considered that assuming that there will be no new business makes the valuation depart from transfer value. If the portfolio is transferred to a different undertaking, the ceding undertaking would probably expect new business and thus valuate the best estimate considering that new business will come.

3.72 However, in practical terms, during a portfolio transfer the ceding undertaking would probably consider its own expenses for the valuation. So, in the end, the real transfer value depends on the business model of the ceding undertaking itself, being the expectations of new business part of it. Therefore, although in theory assuming that no new business will be underwritten may depart from transfer value, in practical terms this may not be the case or, at least, there will be the same room for differences than for other assumptions on expenses. This means that EIOPA's preferred option is Option 2.

3.73 EIOPA does not expect this amendment to have a significant impact since it only reflects a clarification in the Delegated Regulation following an already published Q&A (Q&A 1037).

3.1.6.4.1.2 Policy issue 2: Drafting amendment

3.74 EIOPA considers that under Solvency II principles, projections should take into account expected evolution of the assumptions. Therefore, the second paragraph of Article 31(1) of the Delegated Regulation should be interpreted taking into consideration assumptions on expected future expenses and not only past expenses. However, amending the drafting would make the interpretation more straightforward.

3.1.7 Valuation of Options and Guarantees

3.1.7.1 Relevant legal provisions

3.75 Article 26 of the Delegated Regulation establishes the requirements for the modelling of policyholder behaviour.

3.76 Article 30 of the Delegated Regulation establishes the uncertainties that cash-flow projections shall take into account.

3.77 Article 32 of the Delegated Regulation establishes additional requirements for the valuation of options and guarantees.

3.78 Article 34 of the Delegated Regulation establishes the requirements for the best estimate calculation methods.

3.79 Recitals (15) and (16) of the Delegated Regulation remind the stochastic nature of the valuation of options and guarantees and recalls that simulation methods may lead to more accurate calculations.

3.1.7.2 Other regulatory background

3.80 Other regulatory background considered for the advice:

i. EIOPA Guidelines on Technical Provisions: Guidelines 36, 37, 39, 46 53 and 54.

3.1.7.3 Identification of the issue

3.1.7.3.1 Policy issue 1. Dynamic policyholder behaviour modelling

3.81 According to Article 26 of the Delegated Regulation, when determining the likelihood that policyholders will exercise contractual options, undertakings shall take into consideration the impact of different circumstances like economic conditions. This modelling of policyholder behaviour will be referred as dynamic policyholder behaviour in this advice, while the term static policyholder behaviour will make reference to modelling of policyholder behaviour that does not take into account these changing circumstances, although it may take into account some of the characteristics of the policyholder/policy, like gender, age or policy age. Article 26 of the Delegated Regulation also allows to follow the static approach provided it can be justified with empirical evidence.

3.82 EIOPA has identified that the use of dynamic policyholder behaviour is highly dependent on the jurisdiction. In some Member States, dynamic modelling is the quite common for the main options (e.g. surrender option), while in other Member States modelling with only a static component is the usual approach. Among other reasons, undertakings following the static approach often justify it on the lack of data, mainly for extreme scenarios, instead of providing empirical evidence.

3.1.7.4 Analysis

3.1.7.4.1 Policy issue 1. Dynamic policyholder behaviour

3.83 Three options have been considered:

- **Option 1**: No change in the Delegated Regulation.
- **Option 2**: Amend the Delegated Regulation to include a simplified dynamic lapse modelling.
- **Option 3**: Amend the Delegated Regulation to accept static policyholder behaviour modelling when there is lack of data for extreme scenarios.

3.84 The likelihood that policyholders will exercise an option depends on various aspects, some of which are exogenous and some endogenous to the undertaking and/or the contract. Such aspects may include the level of guarantees, the contract return in respect of a benchmark, the existence of lapse penalties or the fiscal and legal environment. Furthermore, the elasticity of the policyholder behaviour may also depend on the financial awareness (which drives the rational element of policyholder behaviour), the brand name and the sales channel among others.

3.85 Therefore, different levels of policyholder behaviour may be expected for different markets, types of client, types of product and types of distribution channel. In view of the above, the calculation of best estimate should explicitly take into account the possible dynamic behaviour of policyholders, who could rationally modify their propensity for the exercise of a certain contractual option in the different financial scenarios, unless (as stated by last paragraph of Article 26 of the Delegated Regulation) there is empirical evidence to demonstrate that there is no correlation between financial variables and policyholder behaviour.

3.86 The most commonly modelled dynamic policyholder behaviour relates to surrender options but several undertakings are still not performing any analysis due to the difficulties to establish the correlation between financial variables and policyholder behaviour. Probably the main difficulty is the lack of data and evidence in terms of the past reaction of policyholders to extreme financial conditions as the ones included in the set of stochastic scenarios.

3.87 In addition, there is a potential double counting effect while modelling dynamic policyholder behaviour. Lapse rates can be supposed to be made of two components:

— a static component which is independent of external factors, and can be interpreted as an irrational underlying policyholder's propensity to lapse (the unconditioned lapse rates); and

— a dynamic component which is dependent on a number of external factors, and can be interpreted as the "rational" policyholder's propensity to lapse, in view of an objective advantage (the conditioned lapse rates).

3.88 In defining the database to calibrate the unconditioned (static) lapse rate, undertakings have to use historical data to calibrate the hypothesis. However, doing so the conditions (dynamic) component is also embedded in the data unless they are able to discern which part of historical lapses reflect the rational component.

3.89 Since there will be always little or no evidence in terms of the experienced reaction of policyholders to extreme financial conditions as the ones included in the set of stochastic scenarios, the lack of this data cannot be considered alone to be a good reason to avoid dynamic policyholder behaviour modelling. Expert judgement or standardized approaches provided in some Member States are common solutions adopted by the undertakings following a dynamic approach.

3.90 EIOPA considers that the same level of harmonization could be achieved under the current provisions of the Delegated Regulation with additional guidance on the calibration of dynamic models provided by EIOPA, instead of having a common simplification or waiving the requirement to model dynamic policyholder behaviour. Through this guidance it should also be clarified that the lack of data for extreme scenarios is not a reason itself to not model dynamic policyholder behaviour. Therefore, EIOPA's preferred option is Option 1.

3.91 Currently, less than 40% of the undertakings apply dynamic policyholder modelling, although this percentage varies across jurisdictions from 0% up to 75%. Those undertakings using dynamic policyholder behaviour modelling apply it to a significant part of their best estimate, on average 60%. However, even if it affects a significant part of the best estimate, the undertakings in the sample estimated that the impact on the best estimate of including the dynamic component usually ranges from 0.05% to 0.3% of the best estimate for most of the jurisdictions. Therefore, the impact of this modelling seems to be low in general, even if it could be more relevant in some cases, in particular where combined with stochastic valuation and considering also the impact on the SCR.

3.2 Risk margin

3.2.1 Extract from the call for advice

> ***3.4. Risk margin***
>
> *EIOPA is asked to assess the appropriateness of the design of the risk margin, without challenging the approach based on the cost-of-capital. In particular, EIOPA should assess the ongoing appropriateness of:*
>
> *—The design of the risk margin, in light of the work current undertaken on the transfer value of liabilities, in the context of the Commission's Call for Information;*
>
> *—The assumptions regarding the asset mix of the receiving undertaking, in particular with regard to the assumption of risk-free investments. The assessment should take into account the potential interactions between the recognition of market risk and the use of the volatility adjustment and the matching adjustment in the risk margin calculation;*
>
> *—The use of a fixed cost of capital rate for all insurance and reinsurance undertakings;*
>
> *—The assumptions used to derive the cost of capital rate, including the absence of leverage and the derivation of the equity risk premium.*

3.2.2 Previous advice

3.92 CEIOPS provided advice on the risk margin for the level 2 implementing measures for Solvency II "Technical Provisions – Article 86(d) – Calculation of the Risk Margin" (CEIOPS-DOC-36/09)[93]. This included, amongst others, and assessment of

a) The assumptions underlying the reference undertaking

[93] https://register.eiopa.europa.eu/CEIOPS-Archive/Documents/Advices/CEIOPS-L2-Final-Advice-on-TP-Risk-Margin.pdf

b) The cost of capital rate

c) The general approach to calculating the risk margin

3.93 In February 2018 EIOPA published the Second set of Advice to the European Commission on specific items in the Solvency II Delegated Regulation, the "SCR Review"[94]. This included an analysis of the relative size of the risk margin in comparison with the best estimate, own funds and SCR, and an analysis of the methods and assumptions used in calculating of the Cost of Capital "CoC" rate.

3.94 EIOPA followed the same approach in calculating the CoC rate as that used by CEIOPS in its technical advice in 2009, in particular;

- The Cost of Capital is equal to the cost of equity
- The cost of equity is calculated with the capital asset pricing model (CAPM), which includes:
  - An equity risk premium, with represents the extra return that investors demand above a risk-free rate to invest in equities
  - A beta factor, which reflects the insurance sector stock performance compared to that of the wider market.
- The outcome is adjusted to allow for economic aspects not reflected in the CAPM estimation of the CoC.

3.95 In addition, there was an analysis of the use of both historical returns and dividend discount models to calculate the CoC rate. In view of the advantages and disadvantages of both models EIOPA suggested to use historic returns models to derive the equity risk premium. In particular these models ensure methodological consistency with the initial calibration of the CoC rate, stronger stability of the CoC rate over time and depend less on assumptions.

3.96 Overall EIOPA recommended that the CoC rate of 6% was not changed.

3.2.3 Relevant legal provisions

3.2.3.1 Solvency II Directive

3.97 Article 77, specifically in paragraphs 3 and 5, specifies the calculation of the risk margin. Recital 56 includes explanation on the reference undertaking that the risk margin calculation is based on.

3.98 The rate used in the determination of the cost of providing that amount of eligible own funds (Cost-of-Capital rate) shall be the same for all insurance and reinsurance undertakings and shall be reviewed periodically.

[94] https://register.eiopa.europa.eu/Publications/Consultations/EIOPA-18-075-EIOPA_Second_set_of_Advice_on_SII_DR_Review.pdf

3.99 The Cost-of-Capital rate used shall be equal to the additional rate, above the relevant risk-free interest rate, that an insurance or reinsurance undertaking would incur holding an amount of eligible own funds, as set out in Section 3, equal to the Solvency Capital Requirement necessary to support insurance and reinsurance obligations over the lifetime of those obligations.

3.2.3.2 Delegated Regulation

3.100 The calculation of the risk margin is described in Subsection 4 of the Delegated Regulation, Articles 37 to 39.

3.101 The formula to calculate the risk margin is set out in Article 37. Article 38 describes the assumptions about the reference undertaking that the risk margin calculation needs to be based on. According to Article 39 the Cost-of-Capital rate for the calculation is 6%.

3.2.3.3 Guidelines

3.102 In addition, while not a legal provision, the "Guidelines on the implementation of the long-term guarantee measures" are relevant. In particular, Guideline 2 – Interaction of the long-term guarantee measures with the risk margin calculations

3.103 For the purpose of calculating the risk margin in accordance with Article 38 of the Delegated Regulation, insurance and reinsurance undertakings that apply the matching adjustment, the volatility adjustment, the transitional measures on risk-free interest rates or the transitional measures on technical provisions should assume that the reference undertaking does not use any of these measures.

3.2.4 Identification of the issues

3.2.4.1 Overview of the risk margin calculation

3.104 The risk margin is a widely regarded concept in market consistent valuations in general. In Solvency II it acts as an addition to the best estimate of liabilities to ensure that the Technical Provisions are valued at a transfer value, i.e. the value that would need to be paid by an insurance or reinsurance undertaking to transfer its liabilities to another knowledgeable, willing party in an arm's length transaction.

3.105 The transfer value concept is important in Solvency II, as it ensures that undertakings' liabilities are sufficient to be taken on by another undertaking if required in times of stress.

3.106 There are a number of different approaches that could be used to calculate the risk margin ranging in complexity and market consistency, however from

QIS 5 onwards Solvency II has converged on the cost of capital approach. The general cost of capital approach is not within scope of this review.

3.107 In the cost of capital approach, the risk margin is calculated as the cost of raising sufficient capital to cover the SCR for unhedgable risks inherent in the business as this is run-off to maturity. The cost of capital rate (CoC rate) is set in Article 39 of the Delegated Regulation at 6%.

3.2.4.2 Issue I – Design of the risk margin and transfer value concept

3.108 For the calculation of the risk margin, it is assumed that the insurance undertaking transfers its liabilities to another undertaking. This transfer value concept is critical to the functioning of the risk margin, and there would be serious consequences for the functioning of the insurance market if the technical provisions were not sufficient to allow such transfers of books of business.

3.109 In Section 3.4 of the Call for Information of the European Commission issued in April 2018, EIOPA was asked to "collect information on the actual transfer of insurance liabilities between insurance and reinsurance undertakings. In particular, EIOPA is asked to compare the transfer values with the valuation of the transferred assets and liabilities".[95]

3.110 In comparing the actual transfer values with the Technical Provisions (which represent in Solvency II the transfer value of those liabilities), EIOPA assessed whether the size of the risk margin is appropriate. If it were observed that there are systematic differences between the two values, this would indicate that the risk margin is too small / large and the design of the risk margin may need to be modified.

3.2.4.3 Issue II – Assumptions underlying the reference undertaking

3.111 In the risk margin calculation, the reference undertaking is assumed to notionally take on the liabilities of the undertaking. The composition of this reference undertaking determines the transfer value, and as such, a number of assumptions on the composition of the reference undertaking have been set out in Article 38 of the Delegated Regulation.

3.112 The main assumption considered relevant for this review is the assumption that the reference undertaking de-risks its assets on transfer, and the knock on impact this assumption has on whether the reference undertaking uses the VA or MA.

[95] See https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190211-request-eiopa-technical-advice-review-solvency-2.pdf

3.113 This assumption was considered in light of any potential changes to either component as part of the 2020 review.

3.2.4.4 Issue III – Use of a fixed CoC rate

3.114 The CoC rate was reviewed in detail as part of the Second set of Advice to the European Commission on specific items in the Solvency II Delegated Regulation, and is fixed at 6% for all undertakings. It was not deemed necessary to repeat this analysis. Nevertheless, an assessment of the possibility to make the CoC rate dependent on the level of risk-free interest rates has been performed.

3.2.4.5 Issue IV – Assumptions used to derive the CoC rate

3.115 The call for advice asks EIOPA to assess the assumptions used to derive the CoC rate, including the absence of leverage and the derivation of the equity risk premium.

3.2.4.6 Issue V - Sensitivity of the risk margin to interest rate changes

3.116 The cost of capital approach used to calculate the risk margin is sensitive to changes in interest rates, in particular for long term liabilities such as annuities. This is a natural consequence of the risk margin calculation under the cost of capital approach, where interest rates feed into the calculation of the risk margin in two ways, in both the projection of the unhedgable risks, and in the discounting of these risks. For both components of the calculation a decrease in interest rates will increase the risk margin.

3.117 The European Systemic Risk Board (ESRB) published a report in August 2017[96] on the macroprudential consequences of the regulatory risk-free curve. This document references the sensitivity of the risk margin to changes in interest rates, in particular it states that the sensitivity of the risk margin to interest rates adds to the systemic impact of the risk-free rate. It also adds to balance sheet volatility due to changes in the risk-free rate. In addition, wrong estimates of the long end of the risk-free curve lead to overestimating or underestimating the risk margin and thereby to sector-wide biased levels of reserving.

3.118 In light of the above, there are concerns that the approach is “too sensitive” and that it is introducing unintended consequences for the insurance market (e.g. forcing undertakings to exit business with long term

[96] https://www.esrb.europa.eu/pub/pdf/reports/esrb.reports170817_regulatoryriskfreeyieltcurveproperties.en.pdf

guarantees, increase in longevity reinsurance to non-Solvency II jurisdictions) and is forcing undertakings to act in a pro-cyclical manner.

3.2.4.7 Issue VI – Dependence of risks over time in projection of future SCRs

3.119 Article 38(2) of the Commissioned Delegated Regulation states that:

"Over the lifetime of the insurance and reinsurance obligations, the Solvency Capital Requirement necessary to support the insurance and reinsurance obligations referred to in the first subparagraph of Article 77(5) of Directive 2009/138/EC shall be assumed to be equal to the Solvency Capital Requirement of the reference undertaking under the assumptions set out in paragraph 1."

3.120 Projecting these SCRs can be a difficult task and the EIOPA guidelines on the valuation of technical provisions discuss different approximations. A typical approach may be:

- Assume all variables (e.g. longevity) develop in a "central scenario" over the lifetime of the liabilities
- Assume that the projected SCR_t at time t can be derived from SCR_0 via an approximation, such as

$$SCR_t = SCR_{t-1} \cdot {}^{BE_t}\!/_{BE_{t-1}},$$

where the best estimate liability BE_t allows for the liability run-off.

3.121 In this "central scenario", an "average" emergence of risk would be assumed, and no shock events such as a mass lapse event or a 'cure for cancer' are taken into account. Hence there is no indication that SCR_t would be significantly different from SCR_{t-1}, other than in the run-off of liabilities.

3.122 This means that the current risk margin calculation does not take into account the dependence of risks over time. For example, if a non-repeatable risk crystallises in the time period between $t-1$ and t, it would still be accounted for in the calculation of the SCR requirement SCR_t at the end of this period, even though it could not occur again.

3.123 An economic approach to determine the projected future SCRs would have to take into account the dependence of risks over time. In case of a loss in one period, the SCRs in future periods might be expected to be lower. This effect may lead to an overestimation of the projected SCRs used in the calculation of the risk margin.[97]

[97] For a technical description of this issue see e.g. *A review of the risk margin – Solvency II and beyond*, Report from the Risk Margin Working Party, Institute and Faculty of Actuaries, 9 September 2019

3.2.5 Analysis

3.124 In this section, the individual issues identified above will be assessed further in view of their relevance.

3.2.5.1 Issue I – Design of the risk margin and transfer value concept

3.125 There are a number of complexities involved in the analysis of transfer values, particularly in relation to extracting the "noise" from the actual transfer values in order to compare with the technical provisions. There may be differences in the calculation approach used to determine the value of the liabilities, for example 'market risk-free rate' vs 'Solvency II risk-free rate', allowance for contract boundaries etc. In real transfers of liabilities, there are generally commercial terms to the transfer which are not relevant in Solvency II. Some examples of this are as follows; an undertaking may purchase a book of business at a discount to allow for future expected new business. An undertaking may place a value on the brand of the business they are acquiring, which is not allowed for in Solvency II. There may be tax effects or diversification benefits to the transaction which do not exist when the books of business are looked at in isolation. The list could go on, with each transaction likely to have specificities that may need to be removed or added to the transfer value to get a fair comparison.

Interpreting the transfer values data and implications for the risk margin design

3.126 The Call for Information asked for a comparison of the transfer value of liabilities with Technical Provisions. This has been analysed by comparing assets transferred[98] vs. technical provisions. Where technical provisions are lower than transfer values, this may indicate that either best estimate or risk margin are understated, or that the transfer price recognised that there was additional economic value not recognised in technical provisions for which the acquirer was willing to pay (perhaps the most obvious item in this category being goodwill).

3.127 The call for advice asked for an assessment of the appropriateness of the design of the risk margin in light of the ongoing work to address the call for information, without challenging the cost of capital approach. In order to hone in on the risk margin, EIOPA calculated for each transaction an "implied cost of capital" by comparing the difference of (assets – best estimate)/risk margin * 6%.

[98] Used as a measure of the value placed by the market on the transferring business. Henceforth referred to as the 'Assets'.

3.128 When interpreting the results obtained and what they mean for the risk margin design it is important to note some limitations in the implied cost of capital metric:

- Any difference between assets transferred and technical provisions could have a risen from a number of causes. Even where there are no extraneous economic value items being transferred (e.g. goodwill), transfer values greater than technical provisions could mean that either the best estimate liability is too low or the risk margin is too low (or both). A priori it is impossible to tell which case applies in each transaction, also keeping in mind that acquirers may have different views from sellers on the valuation basis (e.g. acquirers may consider that through superior customer management they will be able to experience greater retention and lower lapses, and therefore be willing to pay more for the business). The implied cost of capital metric is a simplification which implicitly assumes that the difference arises due to the risk margin.
- Transactions with low risk margin compared to the volume of business being transacted (e.g. small ratio risk margin/best estimate) can result in a large implied cost of capital, as the risk margin enters the calculation in the denumerator. Put another way, any discrepancy between assets transferred and best estimate will appear larger when the risk margin is small.

Data used and limitations

3.129 For this analysis EIOPA gathered data relating to 44 transfers from a wide range of EEA NSAs since 2016. The data was cleaned to remove any transfers with clear issues with the quantitative information (e.g. data not available). Forced sales were also excluded, as the aim of the analysis is to assess if technical provisions correspond to the specification in Article 75 of the Solvency II Directive that liabilities should be valued “at the amount for which they could be transferred, or settled, between knowledgeable willing parties in an arm’s length transaction”. The remaining 24 transactions, including transfers of open and closed books was the basis for our analysis.

3.130 As has been noted above, the implied cost of capital metric is sensitive to transactions with low risk margin. It is important to note that the size of the risk margin vs. TPs varies significantly depending on the type of business, e.g. pure unit-linked business without guarantees can have substantially lower risk margin compared to longer term annuity business. In fact, in the sample of open and closed books, the range of the ratio risk margin/technical provisions (RM/TP) was as high as 15.7% and as low as 0.4%. The majority of the transfers had ratios around of 5%. Unsurprisingly, some of the largest implied cost of capital figures were found in transactions of unit-linked business which had low risk margins relative to technical provisions. Ideally there would have been enough data to assess separately transactions with relatively high and low RM/TP, but the sample was not large enough to allow this analysis.

Results of the analysis

3.131 The dataset of open and closed books showed a consistent pattern of TPs being lower than assets (median of technical provisions/assets = 87%). This translated in implied CoC rates that were typically large (median 29%). However this pattern of low TPs may be explained by the existence of goodwill in most of these transactions, particularly those involving open books of business (17 out of 24). It is natural that acquirers will have paid additional amounts for the future profits expected from writing new business, and this may naturally result in TPs being typically lower than assets without any implications for the suitability of TPs in general or RM in particular. Likewise the presence of goodwill would bias upwards the implied cost of capital metric.

3.132 In order to attempt to exclude goodwill from the analysis EIOPA further cleaned this dataset to comprise only transfers of closed books of business. As a result, a further 17 transfers were removed, leaving 7 transfers in the dataset of closed books (3 Non-Life and 4 Life). It should be noted that closed books of business may also involve some goodwill, but this is likely to be much less than open books. It should also be noted that this dataset, comprised of only 7 transactions may be too small to draw any robust conclusions.

3.133 Analysis of the closed book dataset showed significant differences with the dataset of combined open and closed books, consistent with the hypothesis that the wider dataset’s results were skewed by the inclusion of goodwill. In particular, the closed book transfers generally had a balanced relationship between assets and technical provisions (Median of technical provisions/assets = 99.8%, with this ratio always between 97% and 105%). There was a range of values for the implied cost of capital, with a median of 6%, ranging from <3% on a transfer of Life annuity business and 46% on a transfer of unit-linked business that had the lowest RM/TP ratio of this dataset.

3.134 In summary:

- These results should be taken with care due to the limited number of transactions in the final data set.
- Nevertheless the results do not indicate a systematic miscalibration of the technical provisions compared to transfer values.
- Likewise there was no evidence of systematic over or under calibration of the risk margin.
- Regarding the calibration of the risk margin for different product types, there is insufficient data to draw any strong conclusions.

3.2.5.2 Issue II – Assumptions underlying the reference undertaking

3.135 The primary aim of this section is to investigate the assumption that the reference undertaking does not use the MA or VA, and the implication of this on the risk margin calculation.

Matching Adjustment

3.136 For the purpose of the risk margin calculation the reference undertaking is assumed to notionally take on the liabilities of the original undertaking. The risk margin then reflects the cost to the reference undertaking of holding capital in respect of the risks they have taken on. The reference undertaking is only subject to risks that cannot be replicated by marketable financial instruments, and as such the risk margin only needs to be held for the unhedgable risks of the original undertaking.

3.137 For all other risks, it is assumed that the reference undertaking de-risks their portfolio to minimise hedgeable risks, and as such, the risk margin does not need to be held for these risks. This is equivalent to assuming that the reference undertaking invests in risk-free assets.[99]

3.138 The calculation of the best estimate is based on a risk free interest rate term structure, which implies that the liabilities can be replicated with risk free assets available on deep, liquid and transparent markets. In order for the regime to be market consistent, the assumptions underlying the calculation of the best estimate should be the same as the assumptions underlying the risk margin.

3.139 Where the undertaking does not use the MA and VA, the implications of this are clear. The best estimate and the risk margin are calculated based on the risk-free interest rate term structure, and the assumption that the reference undertaking acts to minimise risk. However, where an undertaking uses the VA or MA, there are implications for the risk margin calculation.

3.140 First, we will consider an undertaking that applies the MA. An undertaking may apply the MA where they have liabilities that are well matched by a dedicated portfolio of assets. Where this is the case the undertaking can increase the risk free rate that is used to discount these liabilities by the difference between the yield on those MA assets and the risk free rate, minus a fundamental spread to account for the risk of default and downgrade. It reflects the fact that undertakings with strong matching between assets and liabilities can hold assets to maturity and therefore earn the additional yield over and above the risk free. Where the MA is used, the undertaking is no

[99] For the risk margin calculation it is assumed that all market risks are hedgeable and excluded from the risk margin calculation, even though some, for example long duration interest rate risk, may not be in practice.

longer using the risk-free rate to value its liabilities, which has consequences for the risk margin calculation.

3.141 Where the original undertaking uses the MA, one option would be to assume that the reference undertaking also uses the MA. In making this assumption there are two items that need to be considered. First is the implications on the unhedgable risks, and the second is in relation to the yield curve used to discount the projected unhedgable risks.

3.142 In the normal risk margin calculation unhedgable risks relate mainly to insurance risks and operational risks which cannot be hedged using market instruments. However, in assuming that the reference undertaking also uses the MA, it would follow that the reference undertaking needs to hold the assets in the underlying MA portfolio. By making this assumption it would follow that spread risk of the associated MA assets should also be allowed for in the Risk Margin calculation. This would ensure that there is consistency between the calculation of the Best Estimate and the Risk Margin.

3.143 Following on this train of logic, where the reference undertaking holds the MA assets, it no longer holds that the reference undertaking de-risks on transfer. The reference undertaking, in addition to the risks that cannot be hedged, will also be exposed to the credit risk arising from the MA assets. While in theory the reference undertaking could invest in credit default swaps to hedge the risk of defaults, the market for these instruments is not deep, liquid or transparent.

3.144 So if the MA were to be allowed in the risk margin calculation through the projected SCR, without a modification to allow for the credit risk in the MA portfolio, the unhedgable risks and as a result the risk margin, would be understated.

3.145 Where the undertaking applies the MA in its best estimate and SCR calculations, the current approach to the risk margin is for it to be calculated without the application of the MA. This assumes that the risky assets that make up the MA portfolio are not transferred to the reference undertaking and there is not allowance for spread risk in the risk margin calculation. In addition, the discounting of the future SCRs is performed with the basic risk-free rates only, without allowance for the MA.

3.146 While the current approach has the benefits that it is consistent with the underlying assumption that the reference undertaking de-risks on transfer, it could be argued that this approach introduces inconsistencies with the calculation of the best estimate (which does allow for the MA).

3.147 EIOPA has identified an alternative approach that would be more consistent, this is set out below;

— Approach 1: Allowance of MA in the risk margin

For each undertaking applying the MA, the best estimate and SCR are calculated based on the basic risk free rate plus the MA. This approach suggests to also extend the application of the MA to the risk margin. This assumes that the undertaking's risky assets that make up the MA portfolio are transferred to the reference undertaking. This implies that the risk margin includes the SCR for spread risk of the assets in the matching portfolio.

3.148 EIOPA has identified a second consistent approach, which would be to remove the MA entirely from the Solvency II regime, while keeping the current calculation of the risk margin unchanged. While this would ensure that the calculation of the best estimate and risk margin are consistent, it is going beyond the scope of the review of the risk margin and is not considered a viable option.

3.149 The pros and cons of this approach in comparison with the current approach are set out in the table below.

<table>
<tr><th colspan="2">Approach 1: Allowance for MA in both the risk margin and best estimate</th></tr>
<tr><th>Pros</th><th>Cons</th></tr>
<tr><td>Increased consistency between risk margin and best estimate / SCR calculation, as MA feeds into all aspects.</td><td>Not consistent with the assumption that the reference undertaking de-risks on transfer</td></tr>
<tr><td>Potentially more consistent with real transfers of liabilities, although the exact level of MA would depend on the investment decisions of the reference undertaking.</td><td>Increases the sensitivity of risk margin to changes in interest rates.</td></tr>
<tr><td></td><td>The effect of including the market risk from MA assets in the risk margin may negate the effectiveness of the MA in the overall technical provisions calculation, and may be inconsistent with the assumption that the undertaking can earn the MA free of risk.</td></tr>
<tr><td></td><td>Assumes that the reference undertaking gets regulatory approval to use the MA</td></tr>
</table>

3.150 If the risk margin is modified and Approach 1 is adopted, EIOPA has identified one further consideration, namely the relevant yield curve used to discount the future projected SCR components.

3.151 Where this particular issue is considered in isolation, EIOPA has identified two options:

— **Approach 1a**: The current approach. Basic risk-free interest rates without the MA are used.

— **Approach 1b**: Risk-free interest rates plus MA are used.

3.152 The pros and cons of approach 1a and 1b in comparison with the current approach are set out below.

Approach 1a: Basic Risk-free interest rates are used	
Pros	**Cons**
	Inconsistent with the projection of the unhedgeable risks, which include the spread risk arising from MA assets.

Approach 1b: Risk-free interest rates plus MA are used	
Pros	**Cons**
Increases consistency between the best estimate / SCR and risk margin in that the same discount rates are used.	Inconsistent with the assumption that the reference undertaking de-risks on transfer, therefore inconsistent with the non-allowance of spread risks in the reference undertaking.
Reduces the sensitivity of the risk margin to changes in interest rates for undertakings that have the highest current sensitivity	The cash-flows feeding into the risk margin are highly uncertain. As a result undertakings may not be able to earn a discount rate including the MA in practice and so the risk margin may be too low to ensure that technical provisions can be transferred
	Where undertakings have both MA and non-MA business, the risk margin would need to be calculated separately which introduces added complexity.
	No allowance for diversification is possible in the risk margin calculation between the MA and non-MA portfolios.
	It is not clear whether it would be possible for the reference undertaking to match the relevant cash flows with suitable assets, and what those assets would be.

	Reduces policyholder protection as transfer technical provisions may not be sufficient.

3.153 EIOPA also considered other possibilities, such as keeping the current approach (assuming the reference undertaking does not apply the MA) but allowing the discounting of projected future SCRs to include the MA. EIOPA concluded that such approaches would be inconsistent as discounting with MA could only be relevant in the situation where the reference undertaking itself is assumed to apply the MA, as set out in approach 1b above.

3.154 While maintaining the current approach does not resolve the issue in relation to consistency between best estimate and risk margin calculation, after weighing up the pros and cons of the possible options, EIOPA proposes that the current approach is maintained and no changes are made. The approach is consistent with the assumption that the reference undertaking de-risks on transfer and the use of the basic risk free rate counterbalances the non-recognition of spread risk in the risk margin. This approach does not require that market risks are included in the risk margin.

Volatility Adjustment

3.155 For the VA, different approaches to its design could be contemplated, inlcuding an approach based on own funds or a VA based on a reference portfolio. While the approaches are fundamentally different in nature, there is a great deal of similarity in the interaction of the measures with the risk margin, and indeed with the MA interaction with the risk margin.

3.156 Under both VA proposals, as with the MA, there are two aspects to the risk margin that need to be considered; the projection of unhedgable risks, and the rate that is used to calculate the present value.

VA based on own assets

3.157 There are some conceptual similarities between a VA based on own assets and the MA. In both instances, the benefit from the measure is related to the assets held by the undertaking. However the link between the actual asset holdings and the VA is much weaker. Requirements on using the measure (e.g. cashflow matching) and the types of eligible assets are much less onerous under the VA than the MA. It should also be noted that unlike the MA, there is no adjustment for the spread risk in the SCR calculation where the VA is used.

3.158 Therefore, while conceptually there may be similarities between the MA and VA based on own assets, the arguments for assuming the reference undertaking uses the VA, and so allowance for the VA in the risk margin calculation are naturally weaker, reflecting the weaker link between the assets and the liabilities.

VA based on reference portfolio

3.159 Unlike the VA based on own assets, under the VA based on the reference portfolio there is no direct link between the actual asset holdings of the undertaking and the measure, except in relation to the proportion of fixed income investments and duration information feeding into the application ratio. It is important to note that the undertaking is not required to invest in the reference portfolio in order to recognise the benefit from the VA.

Analysis - VA in the risk margin calculation

3.160 Where the undertaking applies the VA in its best estimate and SCR calculations, the current approach to the risk margin is for it to be calculated without the application of the VA. This assumes that the risky assets are not transferred to the reference undertaking and there is not allowance for spread risk arising from these assets in the risk margin calculation. In addition, the discounting of the future SCRs is performed with the basic risk-free rates only, without allowance for the VA.

3.161 Similar to the MA, EIOPA has identified one option in relation to allowance of the unhedgable risks in the risk margin calculation where the undertaking uses either VA option;

— **Approach 1**: Allowance of VA in the risk margin

For each undertaking applying the VA, the best estimate and SCR are calculated based on the basic risk free rate plus the VA. This approach suggests to also extend the application of the VA to the risk margin. This approach assumes that the reference undertaking invests in risky assets similar to the current investments of the undertaking, the risk margin includes the SCR for spread risk from these assets.

3.162 The pros and cons of this approach in comparison with the current approach are set out below.

Approach 1: Allowance for VA in both the risk margin and best estimate	
Pros	**Cons**
Increased consistency between risk margin and best estimate as the VA feeds into all aspects.	Not consistent with the assumption that the reference undertaking de-risks on transfer
	Increases the sensitivity of risk margin to changes in interest rates.
	The effect of including the market risk from VA assets in the risk margin negates the effectiveness of the VA in the overall technical provisions calculation and may be

	inconsistent with some justifications for VA (e.g. as a property of the liabilities irrespective of assets held).
	Assumes that the reference undertaking gets regulatory approval (where applicable) to use the VA

3.163 If the risk margin is modified and Approach 1 is adopted, EIOPA has identified one further consideration, namely the relevant yield curve used to discount the future projected SCR components.

3.164 Where this particular issue is considered in isolation, EIOPA has identified two options:

— **Approach 1a**: The current approach. Basic risk-free interest rates without the VA are used.

— **Approach 1b**: Risk-free interest rates plus VA are used.

3.165 The pros and cons of approach 1a and 1b in comparison with the current approach are set out below.

Approach 1a: Basic Risk-free interest rates are used	
Pros	**Cons**
	Inconsistent with the projection of the unhedgeable risks, which include the spread risk arising from VA assets.

Approach 1b: Risk-free interest rates plus VA are used	
Pros	**Cons**
Increases consistency between the best estimate / SCR and risk margin as the same discount rates are used.	Inconsistent with the assumption that the reference undertaking de-risks on transfer
Reduces the sensitivity of the risk margin to changes in interest rates.	The cash-flows feeding into the risk margin are highly uncertain. As a result undertakings may not be able to earn a discount rate including the VA in practice and so the risk margin may be too low to ensure that technical provisions can be transferred

3.166 Similar to the MA, EIOPA also considered the option to keep the current approach (assuming the reference undertaking does not apply the VA) but allowing the discounting of projected future SCRs to include the VA. EIOPA concluded that the arguments against such an approach are also valid for the VA.

3.167 Therefore, after weighing up the pros and cons of the possible options, the EIOPA proposes that the current approach is also maintained for the VA and no changes are made. The approach is consistent with the assumption that the reference undertaking de-risks on transfer and the use of the basic risk free rate counterbalances the non-recognition of spread risk in the risk margin.

3.2.5.3 Issue III –Use of a fixed CoC rate

3.168 In view of the possibility to make the CoC rate dependent on the level of risk-free interest rates, EIOPA analysed the sensitivity of the cost of equity to interest rates and set out the results in the Second set of Advice to the European Commission on specific items in the Solvency II Delegated Regulation. It was noted that the empirical and academic evidence to support a link between the equity risk premium and risk-free interest rates is mixed. In particular, in the early part of this century the relationship between equity returns and risk-free rates appears to be negative. EIOPA concluded that the decrease of interest rates since 2011 was not a convincing argument on its own to decrease the cost of capital.

3.2.5.4 Issue IV – Assumptions used to derive the CoC rate

3.169 EIOPA thoroughly reviewed the derivation of the CoC rate in 2017 and 2018 and set out the results in the Second set of Advice to the European Commission on specific items in the Solvency II Delegated Regulation. EIOPA concluded that the CoC rate was in the rage from 6.7% and 7.8% and commended on that basis not to change the legal provision prescribing a CoC rate for Solvency II of 6%.

3.170 Regarding the derivation of the equity premium EIOPA analysed five models, in particular the historical return model and the dividend discount model. EIOPA concluded that the historical return model should be used in particular because it ensures methodological consistency with the initial derivation of the CoC rate for Solvency II, stronger stability of the CoC rate over time and because it depends less on assumptions.[100]

3.171 Regarding the treatment of leverage in the derivation of the CoC rate EIOPA explained that a more granular modelling that removes leverage and capital in excess of the SCR would result in a higher CoC rate.[101]

3.172 EIOPA has no evidence or indications that the conclusions drawn in the 2018 are not valid anymore. Therefore, no additional analysis was carried out.

3.2.5.5 Issue V –Sensitivity of the risk margin to interest rate changes

3.173 Using the data from the extrapolation information request EIOPA has carried out an analysis of the sensitivity of the risk margin to changes in interest rates. This data covered a wide range of undertakings form 20 jurisdictions using either EUR or pegged currencies, and has been supplemented with data from undertakings in the UK derived from a separate sensitivity analysis. All of the data is as at year end 2018.

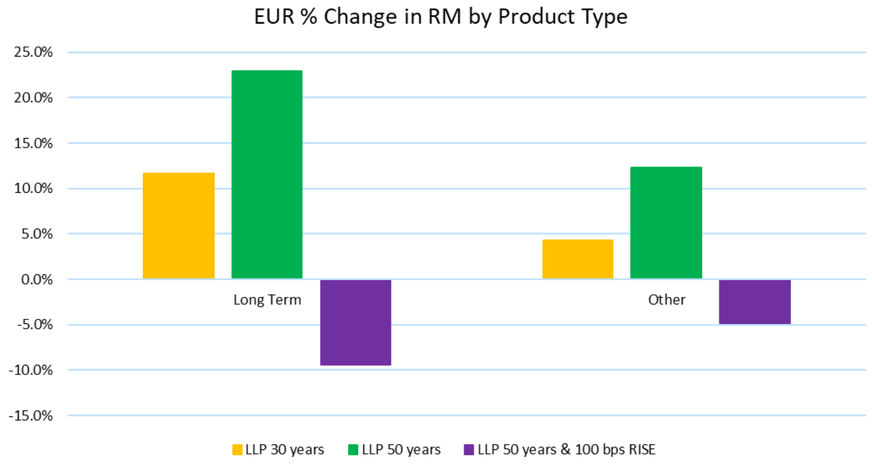
3.174 The analysis considered both the raw sensitivity of the risk margin as well as its sensitivity as a percentage of technical provisions (RM/SCR) and as a percentage of SCR (RM/SCR). All of these metrics were recalculated under the stresses changing the Last liquid point (LLP) for the EUR curve, and also under the interest rate sensitivity stress where the impact of a 100bps decrease in spreads is assessed. This last sensitivity is comparable to the sensitivity results from UK undertakings.

3.175 At national market level, an increase in the risk-free rate generally resulted in a decrease in the risk margin (this was the case in all but one of the EUR markets as well as in the UK).

3.176 The change in gross risk margin was amplified for EUR undertakings with liability duration greater than 10 years (“EUR long-term undertakings”). Likewise, UK undertakings with heavy exposure to MA business (assets in the MA portfolio > 75% of BEL) had the highest risk margin sensitivity. This can be seen in the below graphic for the EUR:

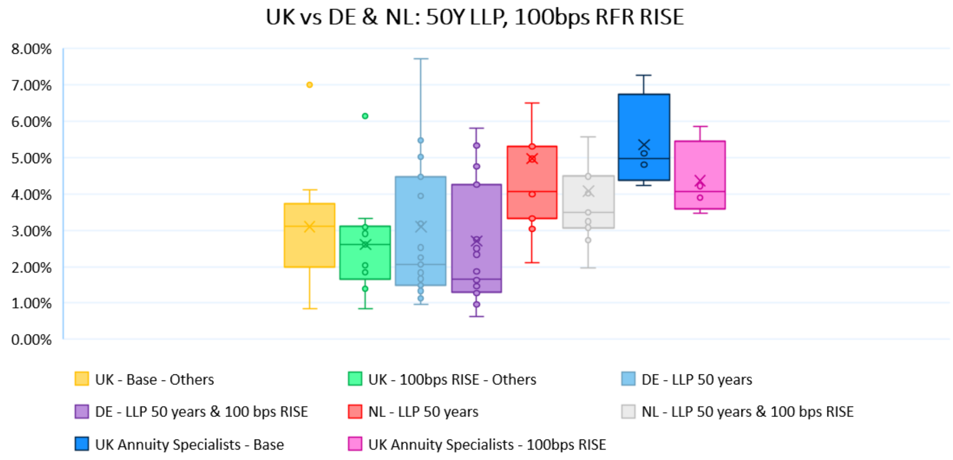
[100] See paragraphs 1946 to 1965 of the Second set of Advice to the European Commission on specific items in the Solvency II Delegated Regulation.

[101] See paragraphs 1968 to 1973 of the Second set of Advice to the European Commission on specific items in the Solvency II Delegated Regulation.



3.177 When assessing the interest rate sensitivity of RM/BEL and RM/SCR, it was apparent that this varied widely in different jurisdictions. For a number of EUR countries, these ratios were stable throughout the scenarios. Other EUR countries showed ratios that were sensitive to interest rate changes, as did the UK. In both the EUR and UK data, undertakings with long-term business (or with high MA exposure in the UK) had a higher average RM/BEL for all scenarios. There was a clear upwards trend in the UK data when spreads increased by 100bps (higher for undertakings with high MA exposure) but this trend was less obvious in the EUR data, particularly when viewed as an aggregate across all markets.

3.178 These variations are likely partly due to the prevalence of different products in different national markets. In the UK market in particular, undertakings with high MA exposure showed the highest interest rate sensitivity on all of the metrics. This is consistent with the current specification of the risk margin that increases for business with long-duration underwriting risk (both characteristics of MA business). While the UK market showed the highest sensitivity of RM/BEL and RM/SCR, there were other EUR national markets (e.g. NL) that showed similar levels of sensitivity, particularly for long-term business and especially in those scenarios that assumed a 50 year LLP for EUR (which was tested in order to have a like-for-like comparison, noting that LLP is 50 years for GBP). This can be seen in the below graphic, which includes data for the UK (split between annuity specialists and other firms), Germany and the Netherlands:



3.179 In the EUR markets mentioned above, the sensitivity of the risk margin to changes in interest rates was lower when assessed on a 20 year LLP. As can be observed in the above graphic, when the LLP was 50 years, the average Dutch risk margin relative to BEL dropped by 90bps when interest rates were increased by 100bps. Similarly the average reduction in the German market was 41bps. These compare with a reduction of 100bps for UK annuity specialists, and 50bps for other UK undertakings, calculated also on a 50 year LLP. However, when the EUR LLP was 20 years both the Dutch and German markets were considerably less sensitive to a change in interest rates: an interest rate increase of 100bps resulted in a reduction in the RM/BEL ratio of only 25 bps for the Dutch market, and 18 bps for the German market.

3.180 In summary the conclusions from this analysis were:

1. The risk margin's reaction to interest rate changes is generally as expected (e.g. risk margin decreases with an increase in interest rates).
2. The types of products in different jurisdictions are a significant factor when assessing interest rate sensitivity of the risk margin:
    i. When viewing the EUR market as a whole, there does not appear to be much interest rate sensitivity of RM/BEL or RM/SCR.
    ii. However this aggregated view masks differences in some EUR national markets. For some markets, those ratios are indeed sensitive to interest rates, likely reflecting the prevalence of different products in different jurisdictions.
    iii. This is consistent with the UK data where MA-focused undertakings had much higher sensitivity than other undertakings.
3. The key drivers of interest rate sensitivity of the risk margin appear to be the following:

i. Products with high underwriting risk have higher interest rate sensitivity.

ii. Long term business has higher interest rate sensitivity than shorter term business.

iii. The sensitivity to interest rates increases with an increase in the EUR LLP from 20 years.

3.2.5.6 Issue VI –Dependence of risks over time in projection of future SCRs

3.181 As outlined in section 3.2.4.7, an economic approach to determining the projected future SCRs used in the calculation of the risk margin would have to take into account the dependence of risks over time. This is not the case under the current calculation of the risk margin, which typically projects future SCRs along a "central scenario" which assumes an "average" emergence of risks.

3.182 EIOPA consider that if there were a more detailed calculation, asymmetries in the calculation suggest future SCRs may be lower than the central scenario estimate:

- For example, in a 'good' scenario there will be moderate lapses and future assumptions to mass lapse will not change (i.e. the central scenario). However in a 'bad' scenario, there is mass lapse and therefore it might be appropriate to lower future assumptions to mass lapse, as the remaining policyholders may be less prone to lapse. This means the SCR for mass lapse in future periods should reduce, thus giving a lower SCR projection.
- Similarly for longevity risk, in an extreme adverse scenario (such as a cure for cancer), an update to assumptions may likewise result in lower prospective risk outlook. This is due to the limitation to the human life expectancy which sets an upper bound on the longevity improvements but there is not the same lower bound on worsening mortality rates.

3.183 EIOPA notes that:

- Whereas the expectation that there is an asymmetry in the calculations appears plausible for some types of risk, it is less plausible for others, such as e.g. for expense risk.
- For some risks, although the crystallisation of a 'bad' scenario in one period could result in a lower prospective risk outlook, this effect may be only limited and be hard to quantify. For example, in the case of longevity risk, even if a cure for cancer was found, this does not rule out further significant longevity improvements in the future, for example in case of advances in the medical treatment in other areas such as e.g. heart diseases, or in case where changes in eating habits lead to a reduction of obesity.

- Such effects will highly depend on the characteristics of the risk profile of the insurer. For example, for an insurer which is heavily exposed to mass lapse risk, a more material effect can be expected than for an insurer which is mainly exposed to e.g. mortality risk.
- For some types of risk, an emergence of a risk in one period might also make further emergence of risk in future time periods more rather than less likely. For example, in the case of non-life underwriting risk, in a 'bad' scenario such as e.g. the confirmation of asbestos liabilities in a court verdict, the uncertainty in technical provisions may increase, leading to higher rather than lower future SCRs.[102]
- An exact quantifications of such effects is challenging since it would require a full stochastic projection of future SCRs throughout the whole lifetime of the insurance obligations.

3.184 Therefore, EIOPA considers that any amendment to the current design of the risk margin to allow for the effects described above should be kept simple and transparent, and should be based on a prudent calibration to avoid a systematic overestimation of the effects.

3.185 To achieve this, EIOPA suggests to use an approach as follows:

- As an input to the calculation, the undertaking projects future SCR_t as under the current calculation the risk margin
- To take into account the dependence of risks over time, the undertaking then determines adjusted future projected SCR'_t iteratively as follows:
  - $SCR'_0 = SCR_0$
  - For $t \geq 1$, $SCR'_t = \max(\lambda \cdot SCR'_{t-1} \cdot {}^{SCR_t}/_{SCR_{t-1}}, floor \cdot SCR_t)$,

  where the parameters *floor* and λ represent fixed percentage factors.

3.186 Note that the underlying rationale of the formula in paragraph 3.185 is as follows:

- For $t = 0$, SCR'_0 can be set equal to SCR_0 since no risks have emerged
- For $t \geq 1$, the adjusted future SCR'_t are estimated such that their relative increase in the interval [t-1, t] equals λ percent of the relative increase of the unadjusted projected SCRs SCR_t.
- Moreover, the formula ensures that the adjusted future SCR at time *t* is at least as high as $floor$ percent of the unadjusted projected SCR value at time *t*.

[s] see section 8 in "A review of the design of the Solvency II risk margin", AAE, December 2019

3.187 This means that the adjusted future SCRs SCR_t' are determined under the assumption that the emergence of risk during the interval [t-1,t] leads to an annual reduction of the SCR by the factor

$$\mu = 1 - \lambda,$$

relative to the development of the unadjusted projected SCRs.

3.188 The parameter $floor$ ensures that the reduction of the adjusted future projected SCRs is not excessive, i.e. can at most lead to a reduction of 1-$floor$ percent. The use of a floor parameter also reflects that for some risks such as e.g. expense risk, it does not appear plausible to assume that the emergence of risks generally leads to a reduction in the risk outlook for future periods.

3.189 Note that the formula in paragraph 3.185 can also be expressed in the following non-iterative way for calculating the adjusted future SCRs:

$$SCR_t' = \max(\lambda^t, floor) \cdot SCR_t \qquad (t \geq 0)$$

This shows that the annual reduction of the adjusted future SCRs accumulates over time. Relative to the unadjusted SCRs, the adjusted SCR decreases exponentially by the factor λ^t.

3.190 This means that, following this approach, the risk margin RM is calculated as follows:

$$RM = CoC\ (6\%) * \sum_{t \geq 0} \frac{\max(\boldsymbol{\lambda^t}, floor) * SCR_t}{(1 + r_{t+1})^{t+1}}$$

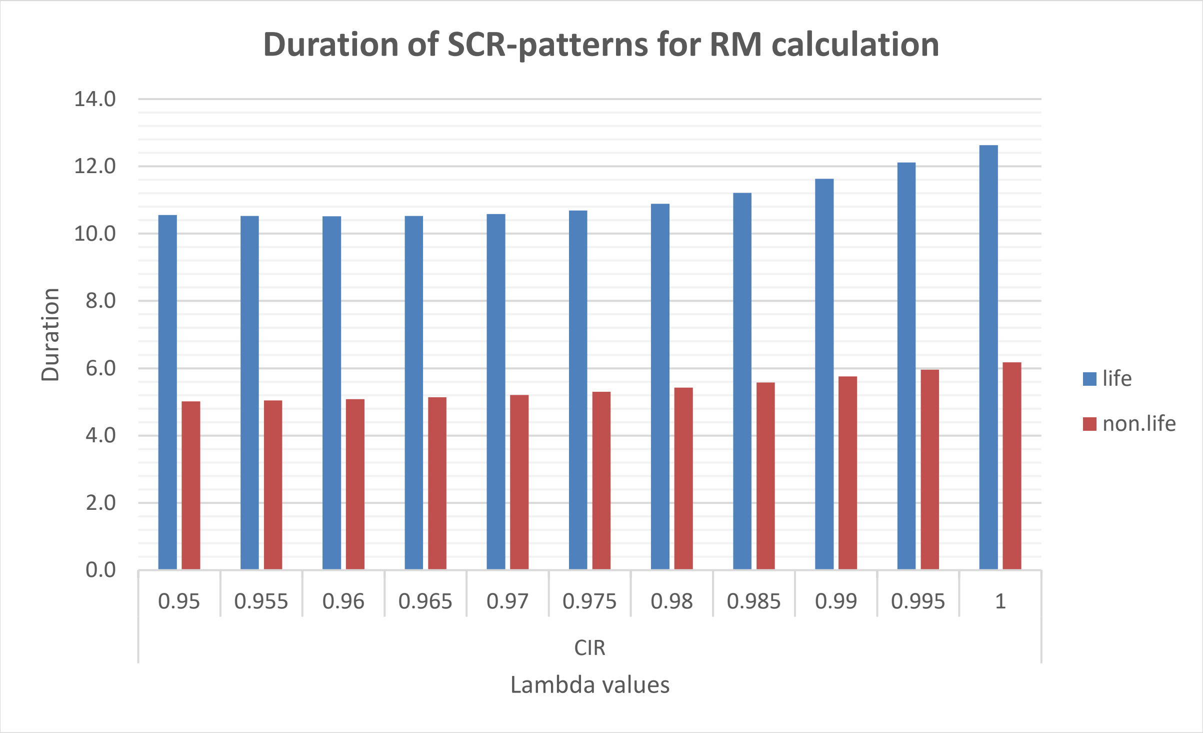
3.191 With the introduction of λ, the numerator decreases smoothly over time. As this reduction effect is exponential, long-term liabilities would benefit the most form the introduction of this new methodology, whereas short-term business would be less affected.

3.192 The effect of the lambda approach depends on the choice of the parameters λ and $floor$. Given the high degree of uncertainty in the quantification of the time dependency effects described above, EIOPA considers that:

- A standardised assumption on the average yearly reduction of the projected future SCRs to allow for the time dependency of risks should not exceed 2.5%. This means that the λ parameter should not be lower than 97.5%.
- The accumulated reduction of the projected future SCRs should not exceed 50%. This means that the $floor$ parameter should be set at that value.

EIOPA notes that the introduction of the lambda approach can lead to a substantial reduction in the size of the RM. The lambda approach also has an impact on the volatility of the risk margin, and therefore also addresses issue V as described above. EIOPA has therefore assessed the volatility of the risk margin for different calibrations of lambda.

3.193 The following graph outlines the changes in the duration of SCR-patterns in the risk margin calculations for different settings of lambda, differentiating life and non-life businesses.[103] Data submitted for both the Holistic Impact Assessment (in particular future SCR-patterns) and for the Complementary Information Request are used to give an estimation as at 30/06/2020.



3.194 The analysis shows that a Lambda of 99% has already a considerable effect on the duration of SCR pattern. One should also note that the effect of reducing the risk margin is not linear in terms of Lambda, with an inflection point at 97.5%: the duration appears to remain constant for lambdas below this level that acts as a threshold when it comes to the effectiveness of the new methodology.

3.195 In view of these findings, EIOPA concludes that a calibration of lambda of 97.5% provides a significant reduction in volatility for long-term business and would thus also be effective to address issue V.

3.196 Through the introduction of the lambda parameter, not only the volatility of the risk margin is considerably reduced but also its level. Nevertheless, the level of the risk margin was not observed to be too high in past

[103] All data relate to a floor parameter of 50%.

assessments of EIOPA (see also issue I on the transfer value). Such a calibration means that future SCRs receive a 22.4% reduction at year 10 and 39.7% at year 20, reaching its maximum reduction of 50% at year 28.

3.2.5.7 Conclusion

3.197 In light of the analysis carried out, EIOPA reached the following conclusion.

- Based on the transfer value analysis there is no indication that technical provisions are systematically under or over estimated. When looking at the transfers of closed books of business, which should not be biased by the inclusion of goodwill that is more prevalent in open books, there appears to be a balanced relationship between assets transferred and technical provisions. For this subset of transfers, the ratio of technical provisions over assets ranges from 97% - 105% with a median of 99.8%. However, this is not a strong conclusion given the small sample size of transfers.
- Further analysis has been performed on the assumptions underlying the reference undertaking, and in particular the consequences on the calculation if it is assumed that the reference undertaking uses the VA or MA. While different methods have been set out for how this could be done, EIOPA has concluded that on balance, the cons of making a change outweigh the pros, therefore EIOPA suggest that no change is made.
- EIOPA considers that the calculation of future SCRs should allow for the dependency of risks over time. EIOPA proposes that this dependency should be captured with a lambda approach as described above.
- The sensitivity of the risk margin to changes in interest rates is generally as expected, with the highest sensitivity for long term products. EIOPA notes that its proposal to introduce a floored, exponential and time dependent element λ into the risk margin formula will reduce the sensitivity of the risk margin for these products.
- EIOPA has not identified any reason to change the CoC rate, as this was reviewed in detail as part of the Second set of Advice to the European Commission on specific items in the Solvency II Delegated Regulation in 2018.

4. Own funds

4.1 Extract from the call for advice

> ***3.18. Own funds at solo level***
>
> *The Tiering structure of own funds in the Solvency II framework significantly differs from the one applicable to under Directive 2013/36/EU and Regulation (EU) No 575/2013.*
>
> *Therefore, EIOPA is asked to report and where appropriate to provide advice, on the following items:*
>
> - *whether the differences in the Tiering approaches between the insurance framework and the banking framework are justified by differences in the business models of the two sectors*[104]*;*
> - *the extent to which the Tiering structure of own funds in the Solvency II framework may generate undue volatility of own funds;*
> - *whether the availability criteria for own funds are sufficiently clear and appropriate;*
>
> *In addition, EIOPA is asked to assess whether the items currently included in Solvency II own funds are appropriately attributed to Tiers according to the characteristics of permanent availability and subordination.*

4.2 Tiering and ancillary own funds

4.2.1. Previous advice

Number of Tiers

4.1 In 2018 EIOPA provided its Second Set of Advice to the Commission on specific items in the Solvency II Delegated Regulation (EIOPA-BoS-18/075). Section 19 covers the Comparison of Own Funds in Insurance and Banking sectors. EIOPA was asked to:

4.2 “Compare eligible items between the frameworks and assess the differences in their classification, and for each of these differences, assess if they are justified by differences in the business model of the two sectors, by diverging elements in the determination of own funds requirements, or on other grounds”.

4.3 The main differences identified in the discussion paper related to differences between Additional Tier 1 in the banking regime and restricted Tier 1 (rT1) within the Delegated Regulation. Two topics in particular arose, namely the

[104] For instance, the banking regulation does not include Tier 3 own-funds and does not impose any upper limit on the amount of eligible Tier 2 own-fund items.

operation of the PLAM (Principal Loss Absorbency Mechanism) and the tax effect of rT1 on write down.

4.4 EIOPA responded that the features of rT1 capital should not be amended, and that the PLAM delivers quality of capital as the principal value absorbs losses when triggered, and that the primary objective of triggering a capital instrument is not to cure the breaches of regulatory capital.

4.5 EIOPAs advice in 2018 in relation to the PLAM, was to recommend that partial write down should be permissible where the mandatory trigger of 3 months SCR breach was reached, but only so long as the 75% SCR breach and MCR breach triggers occurred. It was recommended that as a minimum rT1 was to be written down on a straight line basis in such a way that 75% SCR breach the instrument would be written down in full. RT1 should be written down immediately in full if the MCR is breached.

4.6 Undertakings are required to recalculate their SCR coverage every three months until SCR compliance is restored, and apply a further write down on any worsening of SCR coverage after each subsequent 3-month period.

4.7 EIOPA recommended not to align the PLAM trigger with the banking regime, and instead to allow full recognition of the principal amount of rT1 instruments on issuance. However it allowed NSAs to apply an additional waiver from the requirement to write down or convert if the undertaking requests the waiver, and demonstrates that there is a high likelihood that the tax effect of the write down would weaken the solvency position of the undertaking, provided this is confirmed by the undertaking's statutory auditors and neither the 75% SCR mandatory trigger, no MCR have been breached.

4.8 EIOPA also recommended changes to bring Solvency II closer to the banking regime in relation to tax and regulatory calls.

4.9 The 20% limit on restricted Tier 1 items was examined, and EIOPA did not agree that the arguments provided by stakeholder justified the removal of the limit; any complexity arising from it was minimal. EIOPA advised the Commission to retain the 20% limit on rT1.

AOFs

4.10 No previous advice has been issued by EIOPA in relation to AOFs specifically.

4.2.2. Relevant legal provisions

Solvency II Directive

- Article 89 - Ancillary own funds
- Article 90 - Supervisory approval of ancillary own funds
- Article 93- Characteristics and features used to classify own funds into Tiers

- Article 94 - Main criteria for the classification into Tiers
- Article 95 - Classification of own funds into Tiers
- Article 96 - Classification of specific insurance own-fund items
- Article 97 - Delegated acts and regulatory technical standards
- Article 98 - Eligibility and limits applicable to Tiers 1, 2 and 3
- Article 99 - Delegated acts on the eligibility of own funds

Delegated Regulation

- Article 69 - Tier 1 — List of own-fund items
- Article 70 - Reconciliation Reserve
- Article 76 - Tier 3 Basic Own funds – List of Own funds items
- Article 77 - Tier 3 Basic Own funds – Features determining classification

Guidelines

- EIOPA Guidelines on classification of own funds
- EIOPA Guidelines on Ancillary Own Funds

4.2.3. Other regulatory background

Capital Requirements Regulation (CRR)

4.11 Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012. This regulation has recently been amended by Regulation (EU) 2019/876, with no significant change regarding own funds.

CRD V Package

4.12 The banking package introduces a binding leverage ratio requirement (i.e. a capital requirement independent from the riskiness of the exposures, as a backstop to risk-weighted capital requirements) for all institutions subject to the CRR. The leverage ratio requirement complements the current requirements in the CRD and the CRR to calculate the leverage ratio, to report it to supervisors and, since January 2015, to disclose it publicly.

4.13 The leverage ratio requirement is set at 3% of Tier 1 capital and institutions must meet in addition to/in parallel with their risk-based capital requirements. The 3% calibration is in line with the internationally-agreed level.

4.14 In relation to Own Funds, prudently valued software assets the value of which is not negatively affected by resolution, insolvency or liquidation of the institution are excluded from the scope of assets that need to be deducted[105].

Article 26 - Common Equity Tier 1 items

Article 36 - Deductions from Common Equity Tier 1 items

4.2.4. Identification of the issues

4.15 In the call for advice EIOPA is asked whether or not the different business models justify the two different capital Tiering approaches. This request is different from the scope of the European Commission's call for advice in 2017 (EIOPA-18-075) when EIOPA was specifically asked to compare own funds items which were shared by insurance and banking frameworks, but not treated similarly for the purposes of eligibility. EIOPA was asked for those eligible items to assess the differences in classification, and for each difference, to assess if the difference was justified by the differences in business model of the two sectors.

4.16 The key differences in Tiering approach between the Banking and Insurance frameworks could be summarized as follows:

- CRR sets out the minimum capital requirements to be met to cover credit, market and operational risk. Similar to an insurance undertaking, a credit institution must hold sufficient own funds to cover its risks, and to absorb losses.
- Own funds within the banking framework are segregated into two Tiers of capital, Tier 1 is specifically for going concern and Tier 2 is specifically required to be held in case of gone concern.
- Solvency II allows three Tiers of capital to be held as eligible towards the SCR and MCR calculation, all Tiers must be loss absorbing on a going concern as well as "gone concern" capacity.
- Within the banking framework, Tiering is calculated as a ratio of capital versus Risk Weighted Assets (assets held are assigned a weighting). The ratio is calculated on both Tier 1 and Tier 2.
- Within the insurance framework – own funds is the excess of assets over liabilities, classified into each Tier according to features, percentages imposed on each Tier, towards the SCR or MCR calculation.
- Banking regulation imposes minimum Common Equity Tier 1 (CET1) ratio, T1 ratio and total OF ratio. The main supervisory trigger is based on CET 1 ratio. In insurance, supervisory interventions are based on total own funds ratios (to cover the SCR and the MCR), but Solvency II imposes a minimum on uT1 and a maximum on other Tiers. The

[105] Cf. Article 1(18) of Regulation 2019/876.

supervisory trigger is based on two ratios: one is based on total OF to SCR ratio, the other on a subset of OF (excluding T3) to MCR.

- CRR imposes particular deductions on CET1, mainly current year losses, intangible assets and deferred tax. Regarding deferred tax assets that are dependent on future profitability, Article 48 of CRR provides for an exemption to their mandatory deduction; however, in any case, the maximum amount that can be included in own funds is limited to 10% of the amount of CET 1 items. Solvency II assesses the eligibility of each of the previously mentioned elements towards the own funds calculation. It provides for similar treatment of Intangible Assets (ITA), Tier 3 items – among which the net deferred tax assets – are allowable up to 15% of SCR, not allowable towards MCR. Within CRR deferred tax assets are deducted from Tier 1 calculations.

4.17 EIOPA asked NSAs in which cases an alignment of the SII Own funds Tiering and limits approach with the banking framework would be reasonable and what differences in the two business models justify the discrepancies.

4.18 Some NSAs are not in favour of an alignment of the SII Own funds Tiering with the banking framework while some NSAs consider it reasonable (for some of them in order to limit/remove T3 and AOFs items).

4.19 The differences in the Tiering approaches between the insurance framework and the banking framework are justified by differences in the business models of the two mainly due to:

- different types of risks
- different nature of the liabilities, assets, cash-flows: banks have short-term liabilities (current accounts and short term deposits) and longer term assets (loans) while in the insurance sector (particularly in life insurance) premiums are paid to support long term liabilities.
- inversion of the production cycle in insurance sector, and profit not recognized upfront
- characteristics of the insurance solvency framework: Solvency II is based on a holistic market consistent balance sheet approach where all assets and liabilities are valued at their market value and own funds are derived as excess of assets over liabilities. This is in contrast to the banking regulation which tends to use historic cost price and accrual accounting.
- Liquidity

4.20 It has been highlighted that the different terms of the business explain the existence of different requirements for permanence of capital (e.g. SII T2 own funds term - 10 years - vs Banking T2 own fund - 5 years). Specific items (calls for supplementary contribution considered as AOFs) are justified for mutual or mutual-type association with variable contributions, which are legal forms specific to the insurance sector.

4.21 Another aspect to consider is the different duration of the failure process: the faster process for banks justifies the higher proportion of their capital in Tier 1 (going concern) than the 50% of SII.

4.22 In this section, EIOPA assesses the possibility to remove Tier 3 own funds. As regards the upper limit on Tier 2 eligible own funds and on the treatment of ancillary own funds, the analysis is carried out in the next section (undue volatility).

4.23 It is not clear why the co-legislators introduced three Tiers for the insurance sector and only two for the banking one. One could argue though that the insurance framework introduces two capital requirements (the SCR and the MCR), with no real equivalent in the banking sector. Tier 3 triggers deferral of coupon payments only where the MCR is breached, not the SCR. On the other hand, the convergence between bank and insurance could theoretically help foster the depth of the debt capital markets for financial institutions. There is, however, no empirical evidence that insurance undertakings experience difficulties to access capital markets that are related to the depth of such markets.

4.24 Removing Tier 3 from Solvency II requires first to assess the main items that constitute this Tier, namely dated subordinated debt, net deferred tax assets and ancillary own funds.

Ancillary own funds

4.25 AOFs are classified as Tier 2 or Tier 3 depending on whether they convert into a Tier 1 or Tier 2 respectively once called.

4.26 The concept of AOFs does not exist in the banking framework. AOFs are committed, but unpaid lines of capital. They usually take the form of a letter of credit, from for example the parent to the subsidiary, but also other counterparties. To be eligible as AOF the capital needs to be callable by the recipient on demand. The underlying item must be a basic own fund item. Supervisors will assess, among several features, the economic substance of the AOF, the counterparty's ability and willingness to repay. Proposals for changes to Tiering could affect the treatment of AOFs.

4.27 As AOFs consist in "*items different from basic own funds items that can be called up to absorb losses and cease to form part of ancillary own-fund items where they have been paid in or called up*" (when they increase basic own funds), it would not be appropriate to give them the same classification as the basic own fund that they will become (or be uplifted to) when called up.

4.28 Therefore, if Tier 3 is deleted to align the number of Tiers with the banking regulation, it would be almost impossible to keep AOFs which are currently classified in Tier 3 as eligible own funds items, because it would give the item the same classification whether called or not. The impact of this removal would however be very limited as very few Tier 3 AOFs have been issued until now. In addition, as they are callable on demand, they can become Tier 2 basic own funds items if called.

4.29 Regarding AOFs currently classified in Tier 2, as they will become Tier 1 instruments or be uplifted Tier 1 when called they are not therefore affected by a potential removal of Tier 3 from the framework.

Net deferred tax assets

4.30 Deferred tax asset is only one aspect of the tax impact within the Solvency II framework and it is closely linked to the adjustment for loss absorbing capacity of deferred tax (LAC DT).

4.31 The treatment of net deferred tax assets cannot be apprehended in isolation, but should be considered more comprehensively as part of the broader recognition of tax effects under Solvency II. For instance, it would be inconsistent not to accept deferred tax assets as an eligible own fund item (as far as they increase the overall amount of excess of assets over liabilities), but in the meantime to take into account an adjustment to the solvency capital requirement which reflects the change in the after-shock amount of deferred tax asset/liabilities.

4.32 Under the current framework, net deferred tax assets are deducted from the excess of assets over liabilities (and are therefore excluded from the reconciliation reserve) but are reallocated to Tier 3 (for which an upper limit of 15% of the SCR is set). If the deferred tax asset would not be deemed eligible anymore, an amount equivalent to the deferred tax asset would be directly deducted from the excess of assets over liabilities to derive the reconciliation reserve.

4.33 This current rule (which classifies the net deferred tax assets in Tier 3) is already somehow inconsistent with the treatment of the adjustment for loss absorbing capacity of deferred taxes which directly reduces the solvency capital requirement. It means that the variation of deferred tax due to shock reduces the SCR, while the deferred tax asset in itself is not considered as Tier 1 but as Tier 3.

4.34 In addition, any amount of net deferred tax assets (deferred tax asset above deferred tax liabilities) must be justified by future profits. Where insurance undertakings fail to demonstrate the justification of net DTA by future profits (on the S2 Balance Sheet, so without any reference to SCR shocks), these DTAs should not be on the S2 Balance Sheet in the first place. Such demonstration should be to the satisfaction of national supervisors. National supervisors disallow net DTA positions that cannot be satisfactorily justified. This provides protection against unwarranted capital creation.

4.35 Given the market value nature of the S2 Balance Sheet, adverse developments (increase of technical reserves or decrease of asset positions) lead to an increase in DTA. In situations where large net DTL positions are currently present on S2 Balance Sheets, this DTA increase has limited effect.

In all other situations, the increase in DTA leads to the recognition of a net DTA position on the S2 Balance Sheet. The fact that this net DTA is included in Own Funds provides anticyclical element in the Solvency II framework. Given the passionate discussions around the pro-cyclical nature of Solvency II, this anticyclical element has significant value.

4.36 This also demonstrates again the link between the net deferred tax asset and the adjustment for loss absorbing capacity of deferred tax. As future profit cannot be used twice (for the justification of DTA and for the justification of LAC DT), the level of net deferred tax indirectly influences the level of the adjustment for loss absorbing capacity of deferred tax which must also be justified by future profit (after shock).

4.37 Furthermore, it was concluded during the 2018 EIOPA advice on the review of the Solvency II Delegated Regulation that DTAs and LAC DT were very complex topics to discuss as long as there is no harmonization of tax regimes and accounting regimes at European level. Any change to the current rules regarding the tax impact in Solvency II will affect differently the different Member States and may penalize Member States with a high tax rate and/or big difference between accounting and prudential valuation rules.

4.38 As a conclusion, on one hand, it seems not to be relevant to take a position regarding the deferred tax asset as eligible own funds without having a whole discussion about the tax affect in Solvency II including about the adjustment for loss absorbing effect in deferred tax, and on the other hand, the previous SCR review showed how difficult it was to reach a common view on this topic and the little appetite to do it. Weighing the various arguments (both for and against) changing Tier 3 Own Funds, EIOPA recommends keeping the current legislation without any changes on this point.

4.39 Even if Tier 3 was removed, DTAs should still in any case be recognized as an own fund item under Solvency II.

4.40 The banking framework allows for a limited recognition of deferred tax relying on future profitability (in any case, that amount cannot be greater than 10% of CET 1). However, such an approach would increase the volatility of the solvency position of the undertaking (the higher the amount of losses an insurer faces, the lower the eligible deferred taxes) which further discussed in the next sections.

4.41 Therefore, should Tier 3 be removed from Solvency II EIOPA, EIOPA would recommend reclassifying DTAs as Tier 2, possibly with a specific limit expressed as a percentage of the SCR (e.g. 15%) or of total own funds (e.g. one third of total eligible own funds, which is the current limit for Tier 3 own funds according to Article 98 of the Solvency II Directive).

Dated subordinated debt instruments

4.42 In addition to deferred tax asset and ancillary own funds, the current Tier 3 also include subordinated loans

4.43 The subordinated loans included in Tier 3 do not fulfil the conditions to be classified in Tier 1 or Tier 2 and are of lower quality (e.g. coupon payments are deferred only when the MCR is breached, not the SCR). While some features of Tier 3 subordinated debt (e.g. the original maturity of 5 years) are similar to the banking Tier 2 characteristics, the different nature of the business models and the longer-term characteristics of insurance risks do not justify further prudential convergence between the two sectors.

4.44 Therefore, if Tier 3 were to be removed, the only acceptable option would be to disallow the recognition of Tier 3 subordinated debt as an own fund item.

4.45 In the light of the above, the two following policy issues have been identified with respect to a possible full alignment with the banking framework:

Policy issue 1: Differences between the Solvency II own funds categorisation system and the banking framework

4.46 The majority of NSAs support no change to the Tiering structure from 3 to 2 categories, for the main reason that the banking and insurance frameworks are significantly different. Furthermore such a change would require the restructure of Tiering in terms of eligibility of items, and further in depth consideration of the features of Own Funds.

4.47 The possible change considered would consist in removing the Tier 3. Tier 3 AOFs and Tier 3 Subordinated debt would not be recognized as own fund items. However, DTAs would remain eligible up to a certain limit (e.g. 15% of the SCR). EIOPA does not support this change at this time.

4.2.5. Analysis

4.48 One option which was considered was the deletion of T3, with the consequence to change the Solvency II Directive accordingly and not to recognize any more the items now included in the list of Article 76 as eligible own funds.

4.49 NSAs were asked to express their concerns in case of a deletion of T3.

4.50 Some NSAs were not in favour of its deletion and others also expressed concerns related to the treatment of some items currently recognized as T3. Some NSAs prefer to keep the Tier 3 in order to include other items that might be declassified as proposed in this advice (see the options regarding EPIFP in the section below). For a few NSAs the most appropriate measure is to consider T3 items ineligible and in some countries T3 is not relevant.

4.51 The major concern if Tier 3 was removed is the non- recognition of Deferred Tax Assets (DTA) as an own-funds item. DTA are allowed on the balance sheet, they naturally have an impact on own funds as the assets and liabilities and they are closely linked to the adjustment for loss absorbing capacity of deferred tax (LAC DT). Moreover, with this option consideration should be given to a possible transitional period in relation to the item already included, as well as the future treatment of DTA.

4.52 A further option would be to absorb Tier 3 into Tier 2 and combine both Tiers, which would still leave the majority of firms with 100% SCR coverage (QRT data did not extend to firm level to assess this however the assumption is likely correct).

4.53 The combination of Tiers 2 and 3 would ensure that undertakings would retain their current capital structure, but would simplify and streamline the process. As Tier 3 makes up 1% of overall Own Funds, according to EIOPA QRT data (see table in the following section "*Evidence*"), this change would be quantitatively immaterial.

4.54 The survey showed that some NSAs see concerns with this option and consider it as not viable or prudent: it downgrades all T2 elements and a general weakening of OF, allows for a recognition of lower quality items up to 50% of the SCR (instead of the current 15%). Another NSA sees little benefit in any change of Tiering and one considers AOFs recognized in T3 not suitable for T2 level.

4.55 Some NSAs see no issues in moving T3 items in T2 but stricter requirements are needed or an increase of T1 limit, and 2 NSAs allows for moving DTA in T2.

4.56 However, as Tier 3 is made up of items which are of lower quality to Tier 2, the merger of the Tiers would likely reduce the overall quality.

4.57 One major concern was the differences in features between Tier 2 and 3 items. For example, Tier 3 instruments must be undated or hold an original maturity of 5 years, versus Tier 2 which must be undated or hold an original maturity of 10 years. Both Tier 2 and Tier 3 items can have limited incentive to redeem but Tier 2 not before 10 years. Tier 3 items distributions are deferred in case of an MCR breach, versus Tier 2 distributions deferred in case of an SCR breach.

4.58 Therefore, in order to merge Tier 3, consideration to changes in relation to the features of Own Fund items must be given. Improving the quality of T3 items up to T2 own funds, in practice, leads to the same effect of a removal of the T3 (first option above) Moreover, when considering the change of the features, the comparison with the banking sector should be taken into account: given that in banking the T2 own funds term is, at least, 5 years against the 10 years of the SII Tier 2 own funds term, the removal of the Tier 3 would not achieve the targeted alignment of the two sectors.

4.59 Another option is to retain Tier 3 items, and features, but to move Tier 3 to Tier 2, and limit the items to a % of Tier 2, which reflects the current status quo. The proposal is to limit T3 items (now rT2) to 20% of Tier 2, which is approximately reflective of the overall aggregate percentages within the EIOPA QRT data provided.

4.60 However, this option would not ensure the alignment with the banking sector.

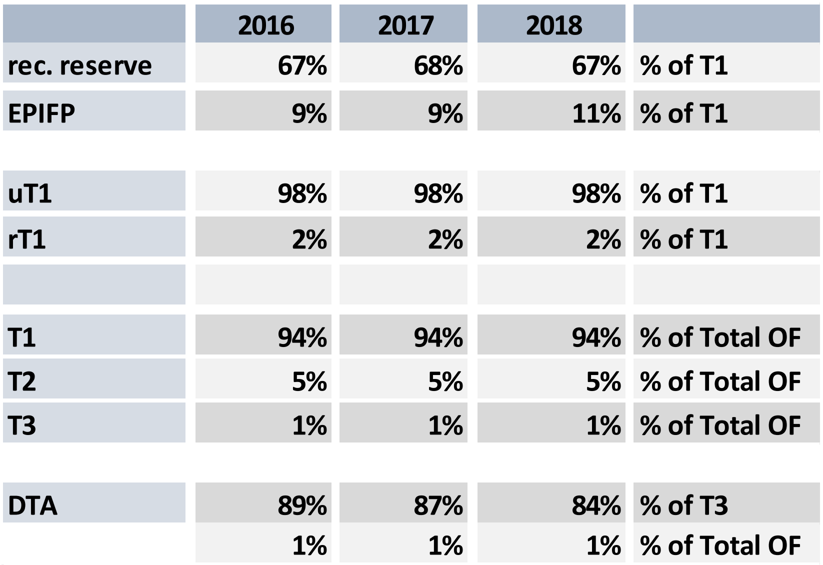
4.61 It was considered that if Tier 3 was to be removed from Solvency II, EIOPA would recommend reclassifying DTAs as Tier 2, possibly with a specific limit expressed as a percentage of the SCR (e.g. 15%) or of total own funds (e.g. one third of total eligible own funds, which is the current limit for Tier 3 own funds according to Article 98 of the Solvency II Directive).

4.62 However, it has been decided not to change the Tiering structure or limits.

Evidence

4.63 An analysis of EIOPA QRT data for 3 years 2016 to 2018 provides data in relation to the structure of own funds Tiering across all member states. The split between Tiers over the years 2016 – 2018 reported in Table 1 shows the materiality of each Tier, in the calculation of total own funds.

Table 1



	2016	2017	2018	
rec. reserve	67%	68%	67%	% of T1
EPIFP	9%	9%	11%	% of T1
uT1	98%	98%	98%	% of T1
rT1	2%	2%	2%	% of T1
T1	94%	94%	94%	% of Total OF
T2	5%	5%	5%	% of Total OF
T3	1%	1%	1%	% of Total OF
DTA	89%	87%	84%	% of T3
	1%	1%	1%	% of Total OF

4.64 Only 2% of total OFs is made up of rT1, 94% is made up of T1 and 5% of T2. T3 represents 1% of total OF.

4.65 Tier 3 has no material value towards the calculation of the SCR ratio on an aggregate basis, and is ineligible towards the MCR ratio.

4.3 Undue volatility

4.3.1. Previous advice

4.66 In relation to the Tiering limits, the previous advice of EIOPA related only to the 20% limit relative to unrestricted Tier 1 own funds:

> “*EIOPA advises the Commission to retain the 20% limit in order to protect the prudential quality of Tier 1 own funds necessary to deliver the adequate protection of policy holders and beneficiaries. EIOPA is of the view that it cannot support any regime in which hybrid instruments could represent all or the most significant part of Tier 1. If the 20% were removed, EIOPA believes that there are no changes to the features of hybrid instruments that would fully mitigate the resulting loss in capital quality*.”

4.67 This position resulted from the analysis of two options:

- To keep the limit unchanged
- or to delete the limit and to strengthen the quality of hybrid instruments

4.3.2. Relevant legal provisions

Solvency II Directive

Article 98 - Eligibility and limits applicable to Tiers 1, 2 and 3

Delegated Regulation

Article 82 - Eligibility and limits applicable to Tiers 1, 2 and 3

4.3.3. Identification of the issues

1.3.3.1. Policy issue 2: Undue volatility generated by the current Tiering limits – Change of the calculation basis of the limit for rT1

4.68 In the EIOPA survey to NSAs, the issue of pro-cyclicality was mentioned by 2 NSAs, however data from QRTs do not indicate any volatility of own funds.

4.69 Some pro-cyclical effect derives from the limit of restricted Tier 1 own funds items, expressed in percentage of the total Tier 1 own funds items instead of the SCR (like the other limits imposed by Article 82): as a consequence, any decrease in the amount of the unrestricted Tier 1 own funds items will also decrease the eligible amount of the restricted Tier 1 own funds items.

4.70 This means that in a stressed situation, when undertakings encounter difficulties that lead to a reduction of their unrestricted Tier 1 own funds items, they will also have to manage a potential reduction of the eligible Tier 1 restricted own funds items.

4.71 One could argue that this effect was intended to be justified by the goal to have a very high quality of Tier 1, but it can also be argued that this pro-cyclical effect (decrease of restricted Tier 1 in case of decrease of unrestricted Tier 1) unnecessarily affects the solvency of companies in times of crisis.

4.72 Some NSAs suggested to avoid this undesirable effect of the Tiering limit for Tier 1 items and that a possible solution would be to amend Article 82 the

Delegated Regulation to express the unrestricted Tier 1 limit in percentage of the solvency capital requirement.

4.73 In relation to the restricted Tier 1 own funds items, the options are the following:

- **Option 1**: No change to restricted Tier 1 limit.
- **Option 2**: Change the restricted Tier 1 limit and express it as a percentage of the SCR (20% of SCR, previously 20% of total amount of Tier 1 items) and increase the minimum limit for Tier 1 own funds items to 60%.

4.3.4. Analysis

20% (from Tier 1 own fund items) limit to restricted Tier 1

4.74 Neither procyclicality, nor the volatility in own funds is a desirable effect from the Solvency II framework. The current limit to restricted Tier 1 own funds items could potentially lead to a procyclical effect and increase the volatility of own funds.

4.75 One way to reduce this procyclical effect would be to express the unrestricted Tier 1 limit as a percentage of the solvency capital requirement.

4.76 During the previous call for advice, it was only envisaged to delete the 20% limit and the conclusion was that EIOPA would not support any regime in which hybrid instruments could represent all or the most significant part of Tier 1. As the only option envisaged to compensate the deletion of the 20% limit, EIOPA tried to find a way to increase the quality of hybrid instruments, but no satisfying solution was found in this direction.

4.77 Keeping in mind both objectives to reduce potential volatility in the own fund items and to preserve the total quality of Tier 1 own funds, some NSAs propose to express the upper limit of restricted Tier 1 own fund items as a percentage of the SCR, which will eliminates the procyclical effect of the current limit and at the same time to increase the minimal limit of Tier 1 own funds items.

4.78 In this way, the total amount of Tier 1 will never be mainly represented by restricted Tier 1 own funds items but the decrease in unrestricted Tier 1 items will not lead to a simultaneous decrease in the restricted Tier 1 own fund items.

4.79 It should be noted that this change in the limit will not affect the PLAM (Principal Loss Absorbing Mechanism).

4.80 Some NSAs consider current regulation suitable as it safeguards relevant quality of own funds classified as Tier 1 and they want to sustain restricted Tier 1 items as subset of unrestricted Tier 1, i.e. sustain 20% limit of restricted Tier 1 to unrestricted Tier 1.

4.81 At least one NSA considers it necessary that the impact of this change should be quantified prior to the final decision on this matter.

50 % (from the SCR) limit to Tier 2 +Tier 3 own fund items

4.82 Contrary to Solvency II, CRR does not impose an upper limit on the amount of Tier 2 items that may be eligible to meet capital requirements.

4.83 We know that the risk appetite of most of insurance companies leads to a higher level of solvency ratio than 100% which is the regulatory requirement

4.84 The current upper limit to Tier 2 +Tier 3 own fund items prevents companies from creating a buffer with Tier 2 +Tier 3 own funds with the unusual consequence that the requirements in term of Tiering is more severe for the buffer than for the compliance with SCR.

4.85 Indeed to cover the SCR up to 100 %, a company could have 50% of Tier 2 +Tier 3 items (Tier 2 +Tier 3 with the current regulation) but if this amount of 50 % of SCR is already reached, all the buffer must consists of Tier 1 items.

4.86 Some NSAs support the deletion of the upper limit to enable undertakings to have more than 50% of the Solvency Capital Requirement held as Tier 2 +Tier 3 eligible own funds. Other NSAs see such proposal as decreasing the quality of own funds to cover the Solvency Capital Requirement. In other words, EOF becomes less loss absorbing. In addition, removing the limit for T2 and T3 would give insurers the possibility to increase their leverage. This has as a negative direct effect that there are more coupon payments to make. This will lead to an increased pressure on the free cash flow. This weakens the policyholder protection. One has to bear in mind that according to Article 73(1)(g) coupons can only be deferred in case the SCR is below 100%.

4.87 Removing the 50% limit would allow companies with very different capital structures to display the same solvency position: own funds could consist mainly of Tier 2 and not of Tier 1 as it is the case under the current framework. On the other hand, a safeguard would remain: Article 98 of the Solvency II Directive requires the proportion of Tier 1 items in the eligible own funds to be higher than one third of the total amount of eligible own funds. However, the base for both limits is different. The 50% limit introduced in Delegated Regulation Article 82 is related to the SCR amount, while the one third limit in Directive Article 93 is related to the total amount of EOF. The latter has as disadvantage the procyclicality, which was considered to be solved with the introduction of Delegated Regulation Article 82 (procyclicality here would mean that if T1 decreases due to stress, also eligible T2 plus T3 decreases). If the 50% limit to SCR is removed it creates new reliance on Directive Article 93, which means that procyclicality is introduced again.

4.88 However the majority of NSAs were not in favour of this change and therefore EIOPA does not support this proposal.

4.4 Clarity of availability criteria

4.89 This section lays out options in relation to availability criteria, and specifically the concept of double leverage.

4.4.1. Previous advice

4.90 The questions from the Commission in the previous advice were:

- For those eligible items which are comparable between the banking framework and Delegated Regulation (EU) 2015/35, assess if the differences in their classification. For each of these differences, assess if they are justified by differences in the business model of the two sectors, by diverging elements in the determination of own funds requirements, or on other grounds.
- if the 20% limit for rT1 were removed, what modifications need to be applied to the eligibility criteria applicable to these items, in order to ensure that the criteria set out in Article 94 (1) continue to be fulfilled.

4.91 The analysis focused on the comparison across Tiers of own funds in insurance and banking sectors (uT1/CET1; rT1/AT1; T2 items106) and on the restricted Tier 1 financial instruments.

4.92 Specific issues were identified:

- Operation of the PLAM (Principal Loss Absorbency Mechanism)
- Tax effect of rT1 write-down
- Treatment of repayment or redemption in the first five years

4.93 The proposals have been taken into account by the EC with the amendment of Articles 71, 73, 77 of the Delegated Regulation.

4.4.2. Relevant legal provisions

Solvency II Directive

- Article 93 - Characteristics and features used to classify own funds into Tiers
- Article 94 - Main criteria for the classification into Tiers

Delegated Regulation

- Article 70(2) and (3) on the reconciliation reserve

[106] EIOPA Discussion Paper on the review of specific items in the Solvency II Delegated Regulation – EIOPA_CP_16/008_5 December 2016

- Article 71(1)(a) on subordination
- Article 71(1)(c) requiring that "the basic own fund item is immediately available to absorb losses"
- Article 71(1)(e) on principal loss absorbency mechanisms

EIOPA Guidelines on Classification of Own Funds

- Guideline 6: "In the case of an item referred to in Article 69 (a)(i), (ii), (iii), (v) and (b) of the Implementing Measures, undertakings should only consider an item as immediately available to absorb losses, if the item is paid in and there are no conditions or contingences in respect of its ability to absorb losses"

4.4.3. Other regulatory background

4.94 Relevant banking rules:

Capital Requirements Regulation (CRR): Regulation (EU) 575/2013 and Commission Delegated Regulation (EU) 241/2014.

Article 28 of CRR - Conditions to be met for the Capital instruments to be qualified as Common Equity Tier 1 instruments;

Article 52 of CRR - Conditions to be met for the Capital instruments to be qualified as Additional Tier 1 instruments;

Article 62 of CRR - Tier 2 instruments

4.4.4. Identification of the issues

4.95 For almost all the NSA (20) availability criteria are sufficiently clear and appropriate.

4.96 However, EIOPA deemed useful to conduct an analysis of the cases of undertakings with "double leverage ratio over 100%", where there could be concerns of own funds not meeting the features determining their classification.

4.97 "Double leverage" occurs when a parent entity in a group provides T1 capital support to a subsidiary which is financed by externally issued parental non-T1 capital. An area which may deserve attention from the supervisor is the case where the parent undertaking shows a ratio of the parent undertaking's T1 own funds investment in its subsidiaries compared to its own T1 items above 100%, that is, "excessive" double leverage.

4.98 In this situation, transactions which take place for the purposes of financing undertakings of the group may pose risks not only to the solvency position of the parent company but can also represent constraints for the financed undertakings.

4.99 The issue is addressed in EIOPA's advice on the use of other methods in accordance with Article 262 of the Solvency II Directive, see Chapter 9 on group supervision.

4.5 Correct attribution of items

4.100 This section contains options in relation to the appropriateness of the attribution of OFs items to Tiers, according to the characteristics of permanent availability and subordination.

4.5.1. Previous advice

4.101 The questions from the Commission in the previous advice were:

- For those eligible items which are comparable between the banking framework and Delegated Regulation (EU) 2015/35, assess if the differences in their classification. For each of these differences, assess if they are justified by differences in the business model of the two sectors, by diverging elements in the determination of own funds requirements, or on other grounds
- if the 20% limit for rT1 were removed, what modifications need to be applied to the eligibility criteria applicable to these items, in order to ensure that the criteria set out in Article 94 (1) continue to be fulfilled

4.102 The analysis focused on the comparison across Tiers of own funds in insurance and banking sectors (uT1/CET1; rT1/AT1; T2 items[107]) and on the restricted Tier 1 financial instruments.

4.103 Specific issues were identified:

- Operation of the PLAM (Principal Loss Absorbency Mechanism)
- Tax effect of rT1 write-down
- Treatment of repayment or redemption in the first five years

4.104 The proposals have been taken into account by the EC with the amendment of Articles 71, 73, 77 of the Delegated Regulation.

4.5.2. Relevant legal provisions

Solvency II Directive

- Article 93(1) on characteristics and features used to classify own funds into Tier 1.
- Article 94 - Main criteria for the classification into Tiers

[107] EIOPA Discussion Paper on the review of specific items in the Solvency II Delegated Regulation – EIOPA_CP_16/008_5 December 2016

Delegated Regulation

- Article 70(2) and (3) on the reconciliation reserve
- Article 71 on Tier 1 – Features determining classification, in particular paragraph 1(b) and (c).
- Article 260(2) and (3) on risk management areas

EIOPA Guidelines on Classification of Own Funds

- Guideline 6 *"In the case of an item referred to in Article 69 (a)(i), (ii), (iii), (v) and (b) of the Implementing Measures, undertakings should only consider an item as immediately available to absorb losses, if the item is paid in and there are no conditions or contingencies in respect of its ability to absorb losses"*

4.5.3. Other regulatory background

4.105 Relevant banking rules:

Capital Requirements Regulation (CRR): Regulation (EU) 575/2013 and Commission Delegated Regulation (EU) 241/2014;

Article 28 of CRR - Conditions to be met for the Capital instruments to be qualified as Common Equity Tier 1 instruments;

Article 52 of CRR - Conditions to be met for the Capital instruments to be qualified as Additional Tier 1 instruments;

Article 62 of CRR - Tier 2 instruments.

4.5.4. Identification of the issues

Policy issue 5: Attribution of EPIFPs to Tier 1

4.106 From the survey, no issue concerning the attribution of items into Tiers according to the characteristics of subordination has been highlighted by NSAs.

4.107 Some NSAs have raised the issue of incorrect attribution of own funds items to Tiers according to the characteristics of permanent availability mainly regarding the Reconciliation Reserve and in particular the item "Expected Profits in Future Premiums" (EPIFP) included in this Reserve.

4.108 EPIFP are part of the reconciliation reserve (RR), and thus considered as an unrestricted T1 item (Articles 69 and 70 of the Delegated Regulation).

4.109 This inclusion is the consequence of the nature of Reconciliation Reserve, whose calculation is based on the excess of asset over liabilities (after the deductions envisaged in Article 70), which implicitly takes into account the value of the profits on future premiums embedded in the technical provisions.

4.110 What has been questioned by the NSAs is whether EPIFP possess the feature of permanent availability to absorb losses on an on-going basis in order to be classified as uT1, that are own funds of the highest quality.

4.111 The concept of permanent availability to absorb losses is clearly stated in Articles 93 and 94 of the Solvency II Directive (for T1 items "to fully absorb losses on a going-concern basis, as well as in the case of winding-up (permanent availability)") as well as in the Delegated Regulation, where Article71 expressly includes the condition that "the basic own fund item is immediately available to absorb losses" as a feature that characterizes T1 items.

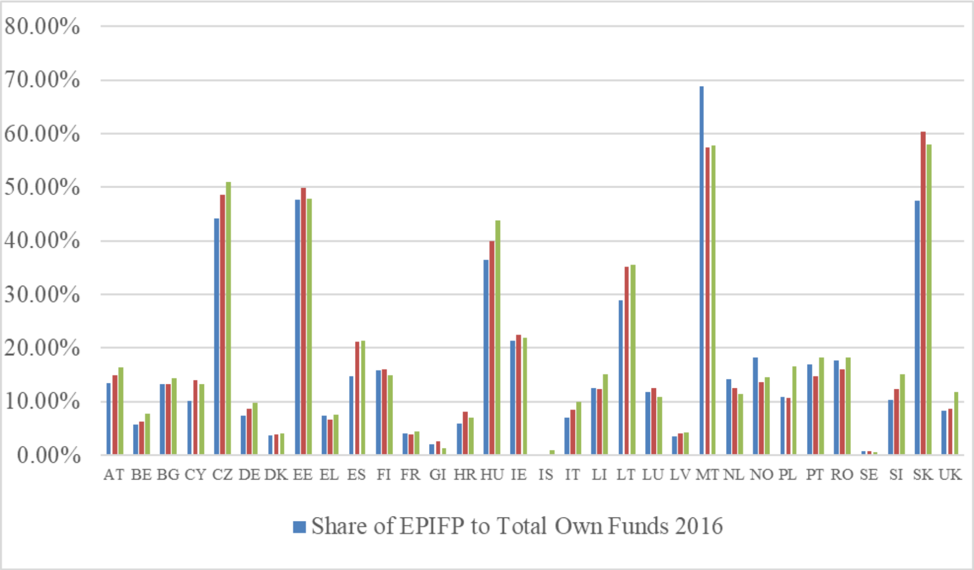
4.112 The issue arises for EPIFP since, according to Article 70(3), it is not possible to carry out a separate assessment of the single items included in the RR in order to verify the compliance with the features of Article 71 (Tier 1 items).

4.113 This issue is particularly important for those NSAs where the percentage of EPIFP on the total T1is on average very high, in some cases more than 50%, against an average percentage at EEA level of about 11%, as shown in the tables below. This could lower the quality level of the capital, and maybe the solvency position, of some insurers in those jurisdictions.

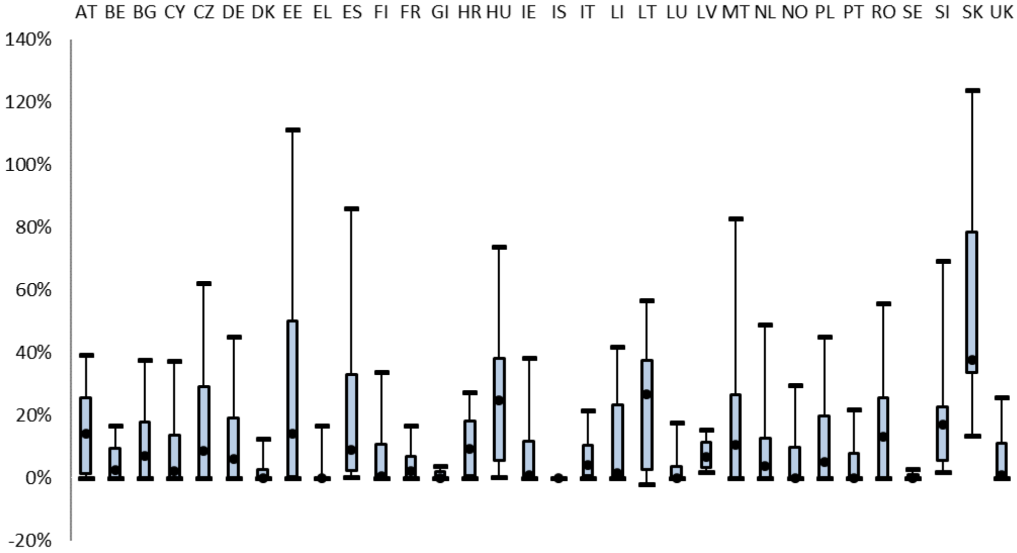
The table below show shares calculated on aggregated EU values:

	2016	2017	2017	
rec. reserve	66,91%	67,94%	66,79%	**% of T1**
rec. reserve	68,55%	69,37%	68,23%	**% of uT1**
EPIFP	8,73%	9,41%	10,59%	**% of T1**
EPIFP	8,94%	9,61%	10,82%	**% of uT1**
T1	92,81%	92,87%	92,79%	**% of Total OF**
uT1	90,60%	90,96%	90,83%	**% of Total OF**
T2	6,35%	6,43%	6,57%	**% of Total OF**
T3	0,84%	0,69%	0,65%	**% of Total OF**

4.114 The following graph shows the shares of EPIFP to total own funds calculated on aggregated values and per country:



4.115 The following graph shows the minimum, maximum, median, interquartile range and 10th and 90th percentile of the distribution of EPIFP in % of uT1.



4.5.5. Analysis

Nature of EPIFP and its calculation

4.116 EPIFP represents the present value of the future cash flow of the premiums of the existing business, considered within the technical provisions, that the undertaking is expected to receive in the future.

4.117 The information about the amount of EPIFP is required in the QRT (in template S.23.01) and to this end, Article 260 of the Delegated Regulation sets out the calculation of this item: it is the difference between the official calculation of the Best Estimate Liabilities (BEL) and the BEL calculated on the assumption that future premiums expected from existing contracts as on the date of calculation are not paid in. This calculation, made at the level of Homogeneous Risk Group (HRG), considers only HRG with positive amount of EPIFP, so no set off with negative HRG is allowed. This means that the final value of EPIFP indicated in the QRT cannot be negative.

4.118 Regarding the methods of this calculation, undertakings need to undertake preliminary classification of the portfolio (between contracts with future premiums and contracts without them) and aggregations (on the basis of the existence of the paid-up options), taking correctly into account the contract boundaries initially defined.

4.119 This process shows the complexity of the calculation and the experience gained so far highlighted different simplifications adopted by small/medium sized undertakings and divergent supervisory approaches of the NSAs. Moreover, the calculation provided by Article 260 is not directly linked with the BEL calculation.

4.120 Within the scope of the review of the Technical Provisions regulation carried out by EIOPA, a specific analysis has been done with the focus on the calculation of EPIFP[108] with the aim to improve its calculation and reporting to the NSAs. In the light of the assessment done, the following amendments and clarifications have been proposed:

1. to calculate separately the expected profit and loss included in future premiums (netting of profits and losses would not be allowed within homogeneous risk groups)
2. to adjust the reporting requirements accordingly so that expected profit and loss included in future premiums would be reported separately at least for lines of business
3. to introduce EPIFP net of reinsurance contracts and special purpose vehicles allowing for netting of profits and losses
4. to change the name of the EPIFP to reflect this new approach
5. to introduce calculation and reporting of the expected future profits from servicing and management of funds.

EPIFP as Own Funds

4.121 EPIFP are also relevant on the prospective of own funds since they are part of the reconciliation reserve (RR), an unrestricted T1 item listed in Article 69 of the Delegate Regulation.

[108] See the analysis on EPIFP in section 3.1.

4.122 What is arguable is whether EPIFP possess the features envisaged in order to be classified as uT1, that are own funds of the highest quality.

In particular:

1. Can EPIFP accelerate insolvency?

4.123 The basic own-fund item cannot include features which may cause the insolvency of the insurance or reinsurance undertaking or may accelerate the process of the undertaking becoming insolvent.

4.124 The value of EPIFP is highly dependent on the valuation method of technical provisions and assumptions.

4.125 Therefore, it can be argued that there is a risk of under-reserving which, as mentioned in the "Report of the Task Force on Expected Profits arising from Future Premiums"[109], is balanced with the value of EPIFP. There could be features that may cause the insolvency:

— the under reserving is not adequately represented by SCR standard formula;

— the risk calculated by standard formula is decreased by the diversification effect, but EPIFP is calculated per policy basis without diversification effect;

— the risk could be materialised in a LoB without sufficient EPIFP, in that case the loss will not be counterbalanced.

4.126 On the other hand, some Member States consider that high EPIFP reveals an underestimation of technical provisions only in the case where contract boundaries are badly applied.

4.127 Indeed, the calculation of EPIFP is directly linked to the rules applied in the calculation of the Best Estimate of Technical Provision and to the determination of contract boundaries. In such cases, a high level of EPIFP only reflects a problem if it results from the incorrect application of the valuation rules. In this case, the valuation rules applied must be corrected.

4.128 Furthermore, a high level of EPIFP in such cases is not an issue and does not automatically reveal an underestimation of the technical provision. In the opposite, some NSAs consider positive EPIFP is in itself good news for the company, because it indicates a positive (prospective) underwriting result of assumed profitable business.

[109] Extract from Report of the Task Force on Expected Profits arising from Future Premiums, 2011 (https://register.eiopa.europa.eu/Publications/Reports/EPIFP_Report.pdf)

4.129 However, it must be also noticed that the calculation of technical provision (i.e. cash-flows of Best Estimate of technical provision) is dependent on EIOPA Risk Free Rate. The setting of the Last Liquid Point (LLP) impacts the size of interest rates in the extrapolated part of the interest rate term structure. The extrapolated interest rates could significantly diverge from real market rates. The technical provision therefore may be underestimated because the interest rates for long term maturities may be discounted with too optimistic interest rates of extrapolated RFR.

2. Is EPIFP immediately available to absorb losses?

4.130 According some NSAs the EPIFP is immediately available to absorb losses, but with the limitation to underwriting risk connected to reserving risk. The increase in technical provisions could be counterbalanced by a partial or full reduction in the amount of EPIFP counted as own funds. Thus, the EPIFP could provide immediate loss absorbency. On the other hand, if cash is needed to face losses (for example financial losses which do not affect the level of technical provisions), the value of EPIFP would need to be materialized through the selling of the insurance portfolio or of a similar arrangement. In that case, where cash is needed to absorb losses, the EPIFP would not be immediately usable for that purpose. Additionally, buyers of the insurance portfolio may not be easy to find quickly, and the price of the portfolio may not be the same as whole future profit.

4.131 Thus, some NSAs think that EPIFP could not be considered as permanently and immediately available, particularly in stressed situations when the materialization of its value is most needed.

4.132 Loss absorbency capacity of EPIFP is closely linked to the level of granularity in their calculation. For example: to what extent EPIFP in one related undertaking could be used to absorb losses of another related undertaking; to what extent EPIFP in one line of business could be used to absorb losses in other LoBs or losses due to the materialization of other risks, such as operational risk, market risk.

4.133 On the other hand, permanence is generally linked to the fact the item has not to be paid back and is a long-term resource for the company.

4.134 Furthermore, some compare the reasoning that EPIFP is not available to immediately absorb losses because it cannot be directly transformed into cash, to capital gain related to real estate property which are not liquid asset. This means that questioning the possibility of selling insurance contracts in times of crisis would lead in the same way to question the possibility of selling some assets for which there is no liquid market.

3. Comparison of EPIFP and Contractual Service Margin according IFRS 17 Insurance Contracts

4.135 In Solvency II the EPIFP is part of own funds without any limits as it is Tier 1 capital based on the consideration that in case the undertaking will need to increase the amount of technical provisions it could be done by a partial or full reduction in the amount of EPIFP. The possible reduction is linked to the granularity of calculation of technical provision, so the reduction and the loss must occur in the same homogenous risk group.

4.136 Within the accounting framework a similar concept is the contractual service margin (hereafter referred as "CSM") introduced in IFRS 17 Insurance contract. The contractual service margin is a component of the asset (in case of future profits the technical provision would be negative and accounted as asset so CSM should be liability - see par. 38 of IFRS 17) or liability for the group of insurance contracts that represents the unearned profit the entity will recognise as it provides services in the future. The carrying amount of the CSM is at the end of the reporting period adjusted for the effect on profit, any new contracts accreted interest, effect of currency exchange and changes in fulfilment cash flows relating to future service. That means that CSM is not part of own funds and cannot offset losses other than relating to technical provisions of the group of insurance contracts.

4.137 Considered the purpose to ensure the quality of the undertakings' capital, taking into account the nature of EPIFP, these options have been identified:

Option 1 - **No changes in the OFs regulation**, amendment of Article 37 of the Solvency II Directive

4.138 The calculation of EPIFP is very dependent on the type and characteristics of the undertaking's portfolio. Thus, it is up to the supervisor - within its Supervisory Review Process - to monitor and assess the correctness of the EPIFP calculation and take appropriate actions (including capital add-on in case of incorrect or not consistent calculation) where material amounts are detected.

4.139 The risk of lack of consistency in supervisors' approaches regarding the calculation of the best estimate liabilities could be mitigated by the above mentioned proposals to improve the calculation of the EPIFP and to have a more detailed set of information to be provided to the supervisor. All these measures could indirectly decrease the volatility in the estimation of the EPIFP.

4.140 However, as to the add-on in case of incorrect calculation of technical provision or reasonable doubts regarding the expected future profits included in the technical provisions the wording of Article 37 of the Solvency II Directive should be amended in order to include explicitly the possibility of imposing capital add-on in case of high EPIFP to reflect the additional lapse risk associated with this amount.

Option 2 - **Limiting the recognition of EPIFP as uT1 own funds**

4.141 Fix a limit (15% to 20%) of the total EPIFP, as reported in QRT, to be recognized as uT1 and the remaining part as T2 or T3 items (depending on the outcome of the advice on Tiering approach, i.e. in case of T3 removal).

4.142 This option takes into account the limited possibility of the EPIFP to absorb losses "permanently and immediately" and would lead to a change in the reporting template.

4.143 Due to possible material impact on solvency position of insurance undertakings, there should be introduced transitional period for such change in order to diminish the immediate impact on some undertakings.

Option 3 - **Downgrade the Tiering of EPIFP**

4.144 To recognize EPIFP as own funds of Tier 2 or Tier 3, subject to the limits envisaged in Article 82 of the Delegated Regulation (depending on the outcome of the advice on Tiering approach, i.e. T3 removal, and on the possible removal of Tiering limits for T2 + T3).

4.145 Due to possible material impact on solvency position of insurance undertakings, there should be introduced a transitional period for such change in order to diminish the immediate impact on some undertakings.

4.146 Considering the objectives of the Solvency II review, the preferred policy option for this policy issue is option 5.1.

5. Solvency Capital Requirement standard formula

5.1. Interest rate risk

5.1.1. Extract from the call for advice

> ***3.7. Solvency Capital requirement standard formula***
>
> *a) Interest rate risk*
>
> *EIOPA is asked to assess whether the calibration of the interest rate risk sub-module with the standard formula adequately reflects the risks faced by insurers, taking into account the low interest rates environment, and in case this analysis points towards flaws, to advise on how these could be remedied. When making recommendations, EIOPA should ensure that any new calibration is appropriate for all currencies in the EEA, and should take into account the potential interactions with the parameters of the risk-free interest rate term structure.*

5.1.2. Previous advice

5.1 EIOPA reviewed the current calibration of the interest rate risk sub-module from 2017 to 2018 for its advice to the European Commission on the review of specific items in the Delegated Regulation.[110] Based on strong evidence EIOPA concluded that the current calibration severely underestimates the risk and advised to change the calibration. EIOPA suggested to model interest rate risk with a relative shift approach and set out a calibration proposal on that basis. In light of the material impact that the change of the calibration would have EIOPA suggested a gradual implementation.

5.1.3. Relevant legal provisions

5.2 The interest rate risk sub-module of the SCR standard formula is defined in Article 105(5a) of the Solvency II Directive and specified in Articles 165 to 167 of the Delegated Regulation. Article 103 of the Delegated Regulation sets out a simplified calculation for interest rate risk.

5.1.4. Identification of the issue

5.3 EIOPA reviewed the current calibration of the interest rate risk sub-module from 2017 to 2018. Strong evidence was gathered demonstrating that the

[110] See pages 125-162 of the second set of advice to the European Commission on the review of specific items in the Solvency II Delegated Regulation, https://register.eiopa.europa.eu/Publications/Consultations/EIOPA-18-075-EIOPA_Second_set_of_Advice_on_SII_DR_Review.pdf.

current approach for calculating capital requirements for interest rate risk leads to a severe under-estimation of the risks:

- The reality of interest rate movements which have been much stronger than those provided by the stresses in the Delegated Regulation.
- The fact that the current approach does not stress negative rates, although reality has proven that rates can continue to decrease.
- The way internal model users measure interest rate risk significantly deviates from the current standard formula.
- The impact assessment of proposals demonstrates that the risk is material and that current capital requirements are not sufficient.
- There is a wide agreement among stakeholders that the current approach has severe flaws.

5.4 The calibration set out in the Delegated Regulation was not changed when the European Commission amended that Regulation in 2019. In a letter to EIOPA the Director General of the Directorate General Financial Stability, Financial Services and Capital Markets Union of the European Commission acknowledged the necessity to address certain shortcomings in the current calibration and welcomed EIOPA's advice as a contribution to the understanding of those shortcomings. In terms of timing, he favoured revisiting the topic during the 2020 review of the Solvency II Directive where also other elements affecting insurers' exposure to interest rates will be reviewed.[111]

5.5 EIOPA upholds its view that the risk-free interest rate risk sub-module severely underestimates the risk.

5.6 In the review EIOPA thoroughly analysed several approaches to improve the calibration and recommended a relative shift approach because:

- it is a simple and transparent approach,
- the shifted approach is a purely data-driven approach,
- it is a risk-sensitive approach applicable to any yield environment,
- it can well cope with low and negative interest rates.[112]

5.7 EIOPA upholds its view that the relative shift approach is the most appropriate approach to model interest rate risk in the SCR standard formula.

5.8 For the purpose of this review EIOPA has further looked into the following aspects of the interest rate risk calibration:

[111] See https://register.eiopa.europa.eu/Publications/Other%20Documents/I-2019-030%20COM%20letter%20on%20review%20of%20SII%20implementing%20measures%20%28GBE%29.pdf.

[112] See pages 135-157 of the second set of advice to the European Commission on the review of specific items in the Solvency II Delegated Regulation.

- The calibration carried out in 2017/2018 was based on data from 1999 to 2016. By now, two additional years of data of 2017 and 2018 can be added to the time series. The additional data can be used to check whether the calibration approach produces materially different results.
- Historical data per currency was tested against the calibration proposal in order to assess the appropriateness of the calibration for all currencies.
- Because of the review of the extrapolation of the risk-free interest rate term structure the potential interactions with the parameters of the risk-free interest rate term structure were analysed. The analysis has focused on the last liquid point.
- After the public consultation of the advice from October 2019 to January 2020 the calibration was reviewed again based on date up to August 2020.
- The need of a floor to shocked interest rates.
- An alternative calibration for currencies with an earlier starting point for the extrapolation of risk-free interest rates.

5.1.5. Analysis

Prolongation of the time series

5.9 The calibration of the shock components was repeated on the basis of two years of additional data (2017, 2018) of the risk-free interest rates for the following EEA currencies:

- Euro (EUR)
- Hungarian forint (HUF)
- Polish zloty (PLN)
- Czech koruna (CZK)
- Swedish krona (SEK)
- Norwegian krone (NOK)
- Swiss franc (CHF)
- Romanian leu (RON)
- Croatian kuna (HRK)
- British pound (GBP)

5.10 On average, a relative change of 1% in the shock components up to the last liquid point of the euro (20 years) was observed. This difference was deemed negligible. Thus, EIOPA supports the results of the previous interest rate risk calibration proposal.

Backtesting

5.11 A backtesting of the proposed approach was carried out based on the additional data. There, the historical risk-free spot rates were compared to the shocked interest rate risk rates of the previous year. The shocks were based on the current interest rate risk calibration. If the risk-free spot rates were higher than the rates of the up shock or lower than the rates of the down shock, it was counted as a breach.

5.12 As the calibration should correspond to the 99.5 percentile of the distribution of relative interest rate changes for the up shock (or 0.5 percentile for the down shock), 5 breaches per 1000 observations would have been expected. As the number of observations is different for each currency, the number of expected breaches has been summarised in Table A. Table B and Table C show the number of breaches per currency and maturity for both shocks.

Table A - Number of Expected Breaches in the Backtesting

Currency	No. of Observations	No. of Expected Breaches
EUR	5214	26
HUF	4639	23
GBP	5213	26
SEK	5215	26
HRK	3103	16
CZK	5198	26
PLN	4702	24
CHF	5215	26
NOK	5215	26

Table B – Up Shock Breaches per Currency and Maturity

Currency	1Y	2Y	3Y	4Y	5Y	6Y	7Y	8Y	9Y	10Y	12Y	15Y
EUR	0	0	0	0	0	0	0	0	0	0	0	1
HUF	22	12	22	22	22	22	22	22	22	22	22	13
GBP	0	0	0	0	0	0	0	0	0	0	0	0
SEK	0	0	0	0	0	0	0	0	0	0	0	0
HRK	0	0	0	0	0	0	0	2	3	5	4	11
CZK	0	0	0	0	0	0	0	0	0	0	0	0
PLN	0	2	0	0	2	0	1	0	0	2	3	22
CHF	0	25	0	0	0	0	0	0	0	0	0	6
NOK	0	0	0	0	0	0	0	0	0	0	1	2

Currency	20Y	25Y	30Y	35Y	40Y	45Y	50Y	55Y	60Y
EUR	1	56	102	110	110	110	110	110	114
HUF	17	19	20	12	10	9	9	9	10
GBP	0	0	3	10	38	62	84	128	160
SEK	0	0	0	0	0	0	0	0	0
HRK	10	10	4	2	2	0	0	0	0
CZK	0	0	0	0	0	0	0	0	0
PLN	22	13	12	8	5	3	3	3	5
CHF	13	33	28	13	5	5	6	16	37
NOK	3	3	3	3	3	3	3	3	3

Table C- Down Shock Breaches per Currency and Maturity

Currency	1Y	2Y	3Y	4Y	5Y	6Y	7Y	8Y	9Y	10Y	12Y	15Y
EUR	25	25	25	25	25	25	25	25	25	25	25	25
HUF	0	0	45	58	36	35	35	35	21	15	15	17
GBP	115	51	20	0	1	10	36	32	17	7	1	0
SEK	138	99	72	80	73	79	87	75	69	46	0	0
HRK	0	0	0	0	0	0	0	0	0	0	0	0
CZK	0	0	0	0	0	0	0	0	0	0	2	3
PLN	0	2	0	18	19	33	61	47	22	18	16	11
CHF	0	66	128	90	55	76	104	102	99	100	89	64
NOK	0	0	0	0	0	0	0	0	0	0	0	0

Currency	20Y	25Y	30Y	35Y	40Y	45Y	50Y	55Y	60Y
EUR	25	4	0	1	1	1	1	1	2
HUF	2	4	9	9	10	11	13	20	22
GBP	0	0	13	53	73	100	148	176	193
SEK	0	0	0	0	0	0	0	0	0
HRK	0	0	0	0	0	0	0	0	0
CZK	0	0	0	0	0	0	0	0	0
PLN	3	2	2	2	2	2	2	2	2
CHF	35	50	20	1	0	0	0	0	0
NOK	0	0	0	0	0	0	0	0	0

Table D- Relative down shocks for the EUR and the SEK for maturities 1Y to 10Y

m	s_m^{down} EUR	s_m^{down} SEK
1	58%	65%
2	51%	55%
3	44%	47%
4	40%	42%
5	40%	42%
6	38%	42%
7	37%	41%
8	38%	41%
9	39%	41%
10	40%	41%

5.13 For the up-shocks, the number of breaches are in general within the expected range up to the end of the calibration at a maturity of 20Y. Affected by an excessive amount of breaches in the long end are the euro and the pound.

5.14 On the other hand, the down shock that was calibrated only on euro data and the breaches for the euro are thus in line with expectations. The pound, the Swedish krona and the Swiss franc show an excessive amount of breaches. They stem from consecutive observations of strong decreases in the interest rates. It is worthwhile to mention that the size of the underestimation for the mentioned currencies is mainly low, particularly for the SEK and the GBP. This can be seen in table D where the relative down shock factors $s_m^{down}(\theta_m)$ are calibrated with the SEK data for the maturities 1Y to 10Y. There one can observe that the shock factors are relatively close to the proposed shocks using EUR data for most maturities.

5.15 Overall, the proposed interest rate shocks show a satisfactory performance in the backtesting for most EEA currencies and maturities. The proposed calibration presents an important improvement of the current SCR interest rate shocks. At the same time, the new calibration is balanced and not overshooting its targets as can be seen in the backtesting results.

<ins>Interaction with the parameters of the risk-free interest rate term structure method</ins>

5.16 As the calibration method calculates the shocks solely on data per maturity, the shocks for revised calibrations based on an LLP of 30Y and 50Y retain the results of calibrations with a lower LLP. I.e. the shocks for maturities 1-20Y are the same for all three scenarios and the shocks for the maturities 21-30Y are identical for the LLP 30Y and LLP 50Y calibrations.

Maturity m	s_m^{up}	b_m^{up}	s_m^{down}	b_m^{down}
1	61%	2.14%	58%	1.16%
2	53%	1.86%	51%	0.99%
3	49%	1.72%	44%	0.83%
4	46%	1.61%	40%	0.74%
5	45%	1.58%	40%	0.71%
6	41%	1.44%	38%	0.67%
7	37%	1.30%	37%	0.63%
8	34%	1.19%	38%	0.62%
9	32%	1.12%	39%	0.61%
10	30%	1.05%	40%	0.61%
11	30%	1.05%	41%	0.60%
12	30%	1.05%	42%	0.60%
13	30%	1.05%	43%	0.59%
14	29%	1.02%	44%	0.58%
15	28%	0.98%	45%	0.57%
16	28%	0.98%	47%	0.56%
17	27%	0.95%	48%	0.55%
18	26%	0.91%	49%	0.54%
19	26%	0.91%	49%	0.52%
20	25%	0.88%	50%	0.50%

5.17 For the interest rate down scenario a change of the euro LLP needs naturally to be taken into account in the calibration of the shock components $s_m^{down}(\theta_m)$ and $b_m^{down}(\theta_m)$ since the calibration is based on euro data. For consistency reasons the shock components in the interest rate up scenario are also adjusted according to the new euro LLP.

5.18 The shock components $s_m(\theta_m)$ and $b_m(\theta_m)$ both depend on the maturity-dependent shift vector. As the shift-vector has only been calibrated on empirical data up to the maturity of 20 years, the shift vector θ needs to be extended for maturities beyond 20 years. The components of the shift vector θ are 3.5% from maturity 20 years onwards for the up-shock. For the down-shock, θ is interpolated linearly from 2% at the maturity of 1 year to 1% at the maturity of 20 years. From the maturities 21 years to 60 years θ is then linearly interpolated to 0%.

Calibration of the shock components

5.19 The relative shock component s_m is naturally calibrated up to the new LLP. Afterwards the relative shock components are phased out linearly until a 20% relative shock is reached for the 90 year maturity in any interest rate scenario.

That means if a LLP of 30 years is considered, then the relative shock factors are calibrated for maturities 1 year to 30 years and are phased out afterwards from 31Y until 90Y.

5.20 As the additive component $b_m^{up,down}$ is the product of the corresponding component of the shift vector and the relative shock component, it is phased out from the maturity LLP+1 to the maturity of 60 years and stays constant at 0% afterwards.

Results for the extended LLP 30 years and 50 years

5.21 The following shock components are derived for the maturities from 21 years to 30 years for a LLP of 30 ears. The shock components for maturities 1 year to 20 years remain as in the previous advice

Up and Down Shock components for LLP 30Y

Maturity m [years]	s_m^{down}	b_m^{down}	s_m^{up}	b_m^{up}
21	49%	0.49%	25%	0.87%
22	50%	0.49%	24%	0.85%
23	51%	0.48%	24%	0.82%
24	51%	0.48%	23%	0.80%
25	52%	0.47%	22%	0.78%
26	52%	0.46%	22%	0.76%
27	53%	0.45%	21%	0.74%
28	53%	0.44%	21%	0.72%
29	53%	0.42%	20%	0.70%
30	53%	0.41%	20%	0.69%

5.22 For the LLP 50 years the following shock components are derived for maturities 31 to 50 years.

Up and Down Shock components for LLP 50Y

Maturity m [years]	s_m^{down}	b_m^{down}	s_m^{up}	b_m^{up}
31	53%	0.40%	20%	0.70%
32	53%	0.39%	20%	0.71%
33	54%	0.37%	20%	0.71%
34	54%	0.36%	20%	0.71%

35	54%	0.35%	20%	0.71%
36	54%	0.34%	20%	0.72%
37	55%	0.33%	21%	0.72%
38	55%	0.32%	21%	0.72%
39	56%	0.31%	21%	0.73%
40	57%	0.30%	21%	0.73%
41	57%	0.29%	21%	0.74%
42	58%	0.28%	21%	0.74%
43	59%	0.27%	21%	0.75%
44	61%	0.26%	21%	0.75%
45	62%	0.25%	21%	0.75%
46	62%	0.23%	21%	0.75%
47	63%	0.22%	21%	0.75%
48	64%	0.21%	21%	0.74%
49	64%	0.19%	21%	0.74%
50	65%	0.18%	21%	0.73%

Alternative extrapolation method

5.23 The proposed interest rate calibration for the Smith-Wilson method with LLP of 20 years and the alternative extrapolation method with FSP of 20 years coincide. Theoretically differences could arise from interpolated rates before the LLP/FSP. In practice the Smith-Wilson interpolation and the interpolation of the alternative extrapolation method yield very similar results. In test calculations average differences of about 0.2bp were observed. In view of these small differences no recalibration of the interest rate risk for the alternative extrapolation method was carried out.

Review of the calibration based on interest developments until August 2020

5.24 In view of the interest rate development during 2019 and in the first half of 2020 during the outbreak of the Covid-19 pandemic, the calibration was reviewed. The revised calibration is in line with the consultation paper calibration for the first five tenors, but then starts to significantly deviate from it. Considering the 2019 and 2020 data leads to higher shocks for the longer tenors. The higher shocks for higher maturities are largely driven by the more extreme interest rate developments in the second half of 2019 (particularly August and September 2019) and the observed flattening of the risk-free curve in 2020.

5.25 In order to quantify the difference in the calibration the following table shows the shocked risk-free down EUR curves at 30 April 2020 with the current and the revised calibration. The shocked interest rate down curve is about 10 basis points higher with the new calibration than the calibration in the consultation paper for longer maturities.

5.26 The findings underline that the consulted calibration is not too prudent. For the sake of stability of the proposed calibration it is left unchanged compared to the consultation.

Floor to shocked interest rates

5.27 EIOPA analysed the suggestion of several stakeholders to introduce a floor to shocked interest rates. The proposed new design of the interest rate shocks includes an implicit floor at the level of the negative shift parameters, for example at maturity 1 year at -2%.

5.28 In order to asses the need for a higher, explicit floor, the interest rate history for maturities 1 to 10 years for EUR, JPY and CHF swap rates and for German government bonds until end of August 2020 was analysed. The lowest rates were observed for CHF swap rates, ranging from -1.217% for the maturity of 2 years to -1.131% for the maturity of 10 years. In view of these observations a floor to shocked interest rates of -1.25% could be introduced.

5.29 Basing the floor on the lowest observed interest rates does not ensure that the calibration with a floor is sufficient because in the future interest rates may drop below the lowest rates observed so far. During the last years, several times new minima rates were observed. Nevertheless, on order to prevent a possible overestimation of interest rate risk, in particular for short maturities, could be introduced. In case lower interest rates than the floor are observed the floor should be lowered.

5.30 The application of a floor in the interest rate risk sub-module to the standard formula should not be interpreted as an assumption that interest rates could not fall below that threshold. The application of the floor in the standard formula does not imply that such a floor can also be used in internal models to derive the SCR. Internal model users would have to justify the use and calibration of a floor in line with the requirements on internal models set out in the legal framework. The application of a floor in the standard formula should also not influence the calibration of stochastic scenarios in the valuation of technical provisions"

Alternative calibration for currencies with an earlier starting point for the extrapolation of risk-free interest rates

5.31 EIOPA has analysed an alternative calibration of the interest rate risk proposal for non-EUR currencies with a shorter FSP. The idea behind this calibration was to take currency-specifics better into account. In particular, for currencies with a FSP below 15 years, the shocks in 5.16 are only considered up to the 10Y maturity. Afterwards the shocks are derived via the linear interpolation procedure. The phasing-out works as the one for the EUR, it just starts earlier from the 11Y maturity on.

5.32 Affected currencies are the CZK, HRK, HUF, CHF, NOK, PLN, RON and SEK. The results from the HIA show that in NO, PL and SE the alternative calibration would significantly reduce the increase of the SCR.

5.33 While the alternative calibration would allow for a slightly more risk-sensitive interest rate risk calibration by taking currency-specifics better into account, it would also introduce potential level-playing field issues as currencies are treated differently.

Gradual implementation

5.34 EIOPA's advice on the interest rate risk calibration of 2018 included the suggestion to implement the changes gradually during a period of up to three years. EIOPA has revised the need of gradual implementation in view of the combined impact of the changes suggested for the 2020 review of Solvency II. Based on the significant impact of the updated calibration measured for end of 2019 and mid-2020, a phasing-in of the change appears necessary. A phasing-in period of 5 years appears appropriate.

5.35 The gradual implementation proposed is as follows:

- Only the downward shock is gradually implemented;
- The gradual implementation should not last longer than 5 years;
- When calculating the risk of a decrease in the term structure of interest rates for a given currency, undertakings should:
  - (i) Determine the decrease in basic risk-free interest rates on the basis of the current standard formula approach (i.e. on the basis of the current provisions of Article 167 of the Delegated Regulation);
  - (ii) Determine the decrease in basic risk-free interest rates on the basis of the shifted approach as specified above;
  - (iii) Calculate the loss in the basic own funds that would result from an instantaneous decrease in the basic risk-free interest rates determined, for each maturity:
    - ▪ as in (i) plus one fifth of the difference between (ii) and (i) the first year;
    - ▪ as in (i) plus two fifth of the difference between (ii) and (i) the second year; and
    - ▪ as in (i) plus three fifth of the difference between (ii) and (i) the third year;
    - ▪ as in (i) plus four fifth of the difference between (ii) and (i) the fourth year; and
    - ▪ as in (ii) the fifth year.

5.36 The preferred policy option for this policy issue is to update the calibration in line with empirical data because it will improve the protection of policyholders (risk-based capital requirements will increase resilience of the undertaking and improve its supervision), promote good risk management in the insurance industry (the capital requirements are more risk sensitive and the risk profile better captured) and will allow for more effective and efficient supervision (for the same reasons).

5.2. Spread risk

5.2.1. Extract from the call for advice

> ***3.5. Capital Market Union aspects***
>
> *EIOPA is asked to assess whether the methods, assumptions and standard parameters underlying the calculation of the market risk module with the standard formula appropriately reflect the long-term nature of the insurance business, in particular equity risk and spread risk. To this end, EIOPA is asked to:*
>
> *identify the characteristics of insurance business and liabilities that enable insurers to hold their investments for the long term; and*
>
> *where appropriate, advise on revised methods, assumptions and standard parameters for the purpose of calculating the market risk module, reflecting insurers' behaviour as long-term investors.*

5.2.2. Previous advice

5.37 EIOPA's predecessor, CEIOPS, advised the Commission on the calibration of the spread risk sub-module in January 2010[113] and subsequently in April 2010[114]. Both advices mentioned that "CEIOPS is considering developing risk factors that vary by spread duration to take into the non-linearity of spread risk across duration and credit rating." In June 2011, EIOPA provided the Commission with a proposal on the calibration of the risk factors for bonds and loans (incl. covered bonds) using the so-called 'kinked' approach as part of its comments on the draft Level 2 measures.[115]

5.38 EIOPA provided separate advice on various components of the spread risk sub-module, in particular the recalibration of spread risk charges for securitisations in December 2013[116], the identification and calibration of infrastructure investments in September 2015[117] and infrastructure corporate investments in June 2016[118], reducing reliance on external credit ratings and the treatment of exposures to

[113] CEIOPS, Level 2 Implementing Measures on Solvency II: SCR Standard Formula – Article 111b – Calibration of Market Risk Module, CEIOPS-DOC-66/10, 29 January 2010.

[114] CEIOPS, Solvency II Calibration Paper, CEIOPS-SEC-40-10, 15 April 2010.

[115] EIOPA, EIOPA comments on draft Level 2 measures (SEG 03 May 2011), EIOPA-11/057, 21 June 2011.

[116] EIOPA, Technical Report on Standard Formula Design and Calibration for Certain Long-Term Investments, EIOPA/13/513, 19 December 2013.

[117] EIOPA, Final Report on Consultation Paper no. 15/004 on the Call for Advice from the European Commission on the identification and calibration of infrastructure investment risk categories, EIOPA-BoS-15-223, 29 September 2015.

[118] EIOPA, Final Report on Consultation Paper no. 16/004 on the request to EIOPA for further technical advice on the identification and calibration of other infrastructure investment risk categories, i.e. infrastructure corporates, EIOPA-16-490, 30 June 2016.

regional governments and local authorities in October 2017[119] and the treatment of unrated debt in February 2018[120].

5.2.3. Relevant legal provisions

5.39 Article 105(5) of the Solvency II Directive prescribes that the SCR market risk module should include a capital requirement for spread risk capturing the sensitivity of the value of assets and liabilities to changes in the level or volatility of credit spreads over the risk-free interest rate term structure.

5.40 Articles 175 to 181 of the Delegated Regulation specify how the capital requirement for spread risk should be calculated, distinguishing capital requirements for (a) spread risk on bonds and loans, (b) spread risk on securitisation positions, and (c) spread risk on credit derivatives. Annex 5.1 provides a high-level overview of provision in the Delegated Regulating relating to more specific asset categories subject to the spread risk sub-module.

5.2.4. Identification of the issue

5.41 The capital requirement for spread risk is calculated using shocks to credit spreads with a 0.5% probability of occurrence within one year. This ensures that the market value of assets exceeds the market value of liabilities with 99.5% certainty within one year following a severe widening of credit spreads.

5.42 The issue is whether such an - often labelled 'short-term' - treatment of spread risk overestimates the capital requirement for spread risk in Solvency II, thereby discouraging long-term investments of insurance and reinsurance undertakings in bonds and loans of European companies. In that respect, it is often argued that short-term, so-called 'artificial', changes in credit spreads are not relevant risks for undertakings with long-term and illiquid liabilities

5.2.5. Analysis

5.2.5.1. Characteristics that enable undertakings to hold bonds for long term

5.43 In response to the Call for Information from the Commission on asset-liability management[121], EIOPA will report about the characteristics that enable undertakings to hold bonds for the long term in December 2019.

5.2.5.2. Market-consistency and 99.5% certainty within one year

[119] EIOPA, EIOPA's first set of advice to the European Commission on specific items in the Solvency II Delegated Regulation, EIOPA-BoS-17/280, 30 October 2017.

[120] EIOPA's second set of advice to the European Commission on specific items in the Solvency II Delegated Regulation, EIOPA-BoS-18/075, 28 February 2018.

[121] European Commission, Request to EIOPA for information related to Directive 2009/138/EC, Ref. Ares(2018)2252352, 27 April 2018.

5.44 The SCR spread risk sub-module aims to ensure – like the other SCR (sub-)modules – that the market value of assets exceeds the market value of liabilities with 99.5% certainty within one year. That is important because as long as the market value of assets exceeds the value of liabilities, sufficient funds are available to meet the obligations to the policyholders.

5.45 Once the market value of assets falls below the market value of technical provisions, it is no longer possible for the undertaking to fulfil its guarantees to policyholders with sufficient certainty. The undertaking would require additional own funds, e.g. generated by returns on assets in excess of the risk-free rate to restore solvency. However, such expected returns over the risk-free rate always involve a degree of risk-taking, i.e. it is not possible to earn risk-free returns exceeding the market risk-free rates, irrespective of the time horizon. This means that there is a possibility that excess returns restore the undertaking's solvency position, but there is also chance that the solvency further deteriorates.

5.46 For example, considering spread risk, if a severe widening of credit spreads results in a negative excess of assets over liabilities then the resulting higher yield on bonds and loans may restore the undertaking's solvency position over time. However, this is by no means a certainty since the bonds and loans are subject to default risk. Usually, also during economic downturns, default risk tends to be idiosyncratic, affecting a small portion of bonds and loans, which may not prevent undertakings from recovering from the higher spreads.

5.47 Systematic default events affecting substantial segments of the debt market, like US mortgage bonds during the last financial crisis, are 'low probability, high impact' (or 'fat tail') events. In other words, systematic debt crises are scarce but happen to manifest themselves at recurring intervals[122,123], and may prevent undertakings to recover from losses due to increase spreads. Finally, note that (cumulative) credit default risk increases with the holding period of the bonds or loans.[124]

5.2.5.3. Undertakings' investment allocations to bonds

5.48 Undertakings' current investment allocations to bonds do not provide immediate evidence that the SCR spread risk module is dis-incentivising such investments[125], though a deeper look into the composition of the corporate bonds with respect to credit quality may raise additional insights. On the contrary, at the end of 2018, undertakings allocated 61% of investment assets to bonds, excluding bond investments through collective investment undertakings. When collective

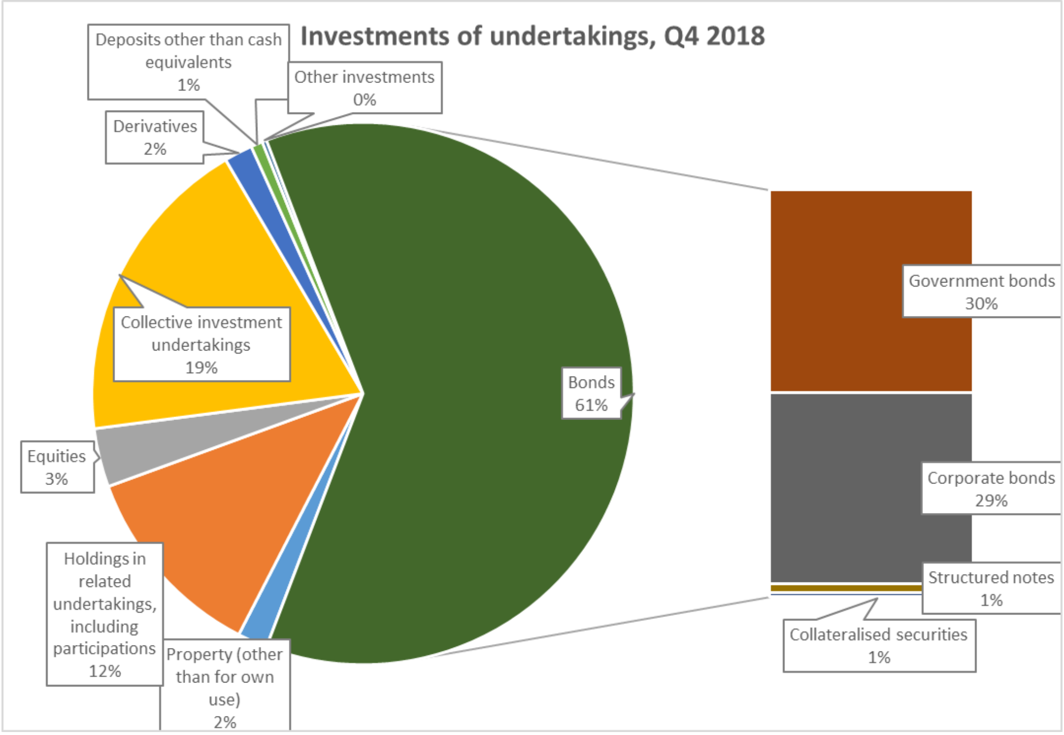
[122] See Carmen M. Reinhart & Kenneth S. Rogoff, This time is different – eight centuries of financial folly, Princeton University Press, 2009.

[123] The fact that a widening of credit spreads is only occasionally followed by a severe default event may nourish the perception that short-term credit spread volatility is 'artificial'.

[124] If the probability of default (PD) is identical and independently distributed over time then the cumulative default probability at year t equals $1 - (1 - PD)^t$.

[125] Acknowledging that EEA government bonds are excluded from the spread risk module in the standard formula.

investment funds are not taken into consideration, as much as 75% of investment assets is allocated to bonds.



Source: EIOPA

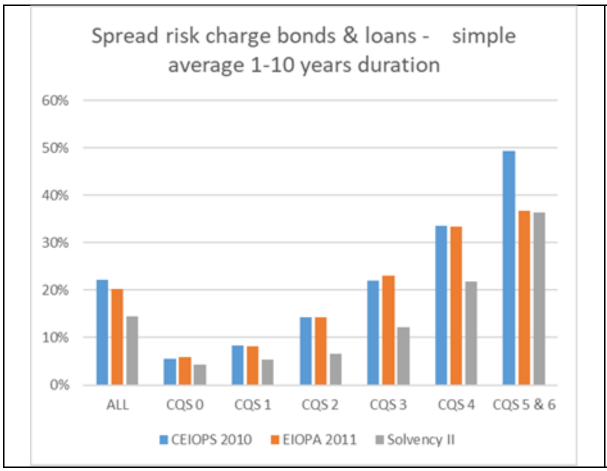
5.49 This may be the result of Solvency II promoting sound risk management and encouraging the minimisation of mismatch risk between assets and liabilities. However, there are also indications that the treatment of spread risk in Solvency II is incentivising investments in fixed income assets, in particular in government bonds as those are not included in the standard formula credit spread stress. A regulatory framework is incentivising investments in a specific asset category if it becomes relatively more attractive compared to its risks than another asset category. In that respect the following can be observed under the current Solvency II regulation:

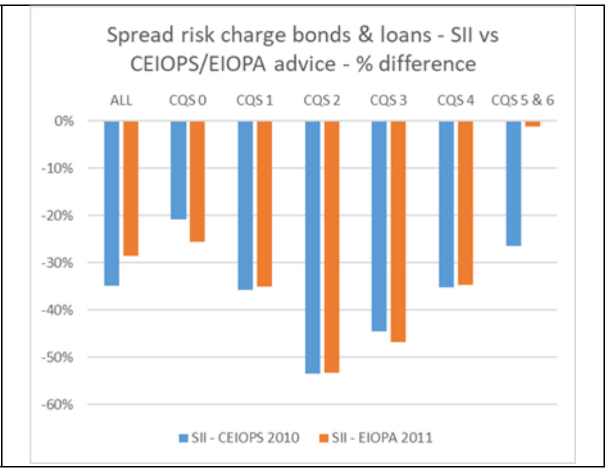
- Sovereign bonds: The zero capital charge for all EEA sovereign bonds, irrespective of their credit spreads and risks make them relatively more attractive than if the capital requirements would correspond to their actual risks. While the market valuation reflects the risks of riskier sovereigns, the VA dampens this effect. Overall, sovereign spread risks are therefore only partially reflected.
- Corporate bonds: Corporate bonds get a risk-based capital charge for spread risks and have as such become relatively less attractive than sovereign bonds. Solvency II calibrations for spread risk are lower than originally proposed by CEIOPS/EIOPA. As for government bonds, while the market valuation reflects the risks of riskier sovereigns, the VA dampens this effect. Overall, corporate spread risks are therefore not fully reflected.
- Equity: The capital requirements for equity have also decreased compared to the CEIOPS advice from 45 percent to 39 percent plus the symmetric

adjustment for equity risk. Market valuation for equity also reflects on undertakings' balance sheets. No additional volatility adjustment applies to equity.

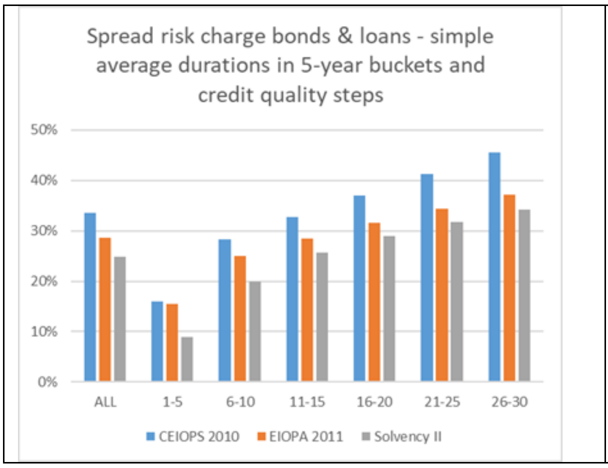
5.50 The left-hand chart below displays the spread risk charges on bonds and loans advised by CEIOPS in 2010 and by EIOPA in 2011 as well as the current Solvency II risk charges. The chart distinguishes the different credit quality steps (CQS) and the average of all CQSs. The size of the shown spread risk charges constitute the average for bonds and loans with 1 to 10 years duration, covering the vast majority of corporate bonds. Note that the CEIOPS and EIOPA calibrations yield very similar results in this duration range. The reason is that the 'kinked' approach used in the EIOPA proposal has the most substantial impact for durations exceeding 10 years (see annex 5.2).

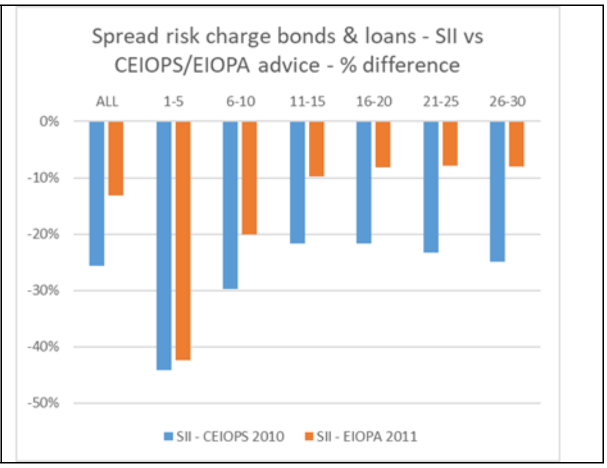
5.51 The current Solvency II spread risk charges appear relatively mild compared to the proposed calibrations. On average, the Solvency II spread risk charges are 30% lower than the advised calibrations in the duration range of one to ten years (see right-hand chart below).





5.52 The charts below show the spread risk charges on bonds and loans using a breakdown by five-year duration buckets, instead of by credit quality steps. It confirms that the kinked approach dampens the spread risk charges most at higher durations. I.e. the difference between the 2010 CEIOPS and 2011 EIOPA advice increases with the maturity of the bonds and loans (see left-hand chart). The current Solvency II calibrations are lower than the calibration recommended by EIOPA with the difference decreasing as the duration increases.





5.53 Bond investments may not only be incentivised by the mild spread risk charges, including the zero spread risk charges on Member States' government bonds, but also by the favourable treatment of spread risk in the valuation of the best estimate of technical provisions (volatility adjustments and matching adjustment).

5.54 The volatility adjustment to the basic risk-free interest rate is determined by multiplying the risk-corrected spread (currency spread minus fundamental spread) with the general application ratio[126], suggesting that this percentage of changes in credit spreads is due to 'artificial' volatility.

5.55 The danger of encouraging investments in fixed income assets is that it may increase investments in this category not justified by its actual risks and may unnecessarily reduce investments with a less favourable treatment compared to its actual risks. EIOPA does not consider it a solution to then decrease the capital requirements of other asset categories; such additional reductions may hamper the intended policyholder protection of Solvency II (see section 2.9.4).

5.2.5.4. Downgrades of corporate bonds against the background of COVID-19

5.56 The abrupt slowdown of the economic activity due to the COVID-19 pandemic was expected to have a strong effect in the credit quality of financial instruments such as corporate bonds, potentially leading to a substantial increase of downgrades and defaults. In case of materialization of a mass downgrade/default scenario, the impact on the solvency position of undertakings would likely be very strong, given

[126] Article 77d(3) of the Solvency II Directive.

their large corporate bond portfolios, also having potential implications for financial stability through undertakings' investment behaviour.[127]

5.57 EIOPA assessed corporate bond downgrades and its impacts on the spread and market risk concentrations SCR sub-modules, in particular with regard to any cliff-edge effects and incentives for pro-cyclical investment behaviour of undertakings, addressing the issue from different perspectives:

- Conceptual analysis of the spread and market risk concentration modules;
- Inspection of market information on downgrades and defaults;
- Impact on capital charges for spread risk and market risk concentration;
- Observed investment behaviour of undertakings.

The analysis performed as well as the conclusions obtained are briefly described below. The more detailed analysis can be found in annex 5.3.

Conceptual analysis of downgrades concerning spread and market risk concentrations sub-modules

5.58 EIOPA analysed the conceptual design and calibration of the spread and market risk concentration sub-modules, seeking to identify potential sources of cliff effects or pro-cyclical incentives. Based on the analysis performed, the design and calibration of the spread and market risk concentrations risk modules of the SCR standard formula seem justified and in line with a risk-based approach, taking into account the underlying target criteria of a 99.5% VaR over a 1-year time horizon. No evidence of excessive calibration was found.

5.59 Capital charges tend to increase as the credit quality of assets deteriorate, but this is a reflection of their increased level of risk. No evidence was found pointing to the existence of cliff edge effects or pro-cyclical incentives. Furthermore, it should be highlighted that the Solvency II framework already includes a range of tools and mechanisms aimed at mitigating potential pro-cyclical effects arising from a risk- and market-based solvency regime, like the volatility and matching adjustment.

Market information on downgrades and defaults

5.60 The general market movements concerning corporate bond downgrades and defaults were assessed. Based on the current evidence, it seems that a mass downgrade/default scenario has not materialised at this point in time. Although a significant increase in the number of bond downgrades and, to a lesser extent, the number of defaults could be observed in the early months following the start of

[127] The scenario analysis conducted by the ESRB estimates initial losses for the European insurance sector, which holds around one-third of the EUR 3,000bn EU corporate bond market, would range from EUR 69.0bn to EUR 96.5bn. The additional losses, resulting from forced sales throughout the financial sector, would lie between EUR 0.5bn and EUR 9.9bn. See ESRB, A system-wide scenario analysis of large-scale corporate bond downgrades – An ESRB technical note, July 2020: https://www.esrb.europa.eu/pub/pdf/system_wide_scenario_analysis_large_scale_corporate_bond_downgrades.en.pdf

the COVID-19 crisis, those figures have receded to much more moderate numbers in recent months.

Impact on capital charges using HIA and CIR data

5.61 The information gathered in the information requests may provide some indication of potential cliff-edge effects due to corporate bond downgrades in the spread or market risk concentration sub-modules.

5.62 Based on the information provided in the HIA and CIR, no specific evidence of the existence of cliff-edge effects in the spread and concentration risk modules due to downgrades of specific bonds can be identified. The increase in net spread risk charges can be explained by the impact of the low interest rate environment on the loss absorbing capacity of technical provisions. The gross figures do not give an indication of the market being exposed to cliff-edge effects which could potentially lead to pro-cyclical behaviour. Although for individual undertakings a high increase in spread or concentration risk could be observed in Q2 2020, this was the result of undertakings' changes in investment allocations rather than a consequence of the downgrading of bonds.

Investment behaviour of undertakings

5.63 The actual downgrading and trading activity in corporate bonds by undertakings was analysed, aiming to assess whether such trading is driven by bond downgrades and to identify potential pro-cyclical behaviour that could jeopardise financial stability.

5.64 The analysis of the trading behaviour of undertakings evidences a continued net buying of corporate bonds. This trend was interrupted in Q1 2020 but reinstated in Q2. Undertakings tend to sell both downgraded and upgraded bonds. This trend intensified during the crisis, but it was already present in previous years.

5.65 The sale of downgraded bonds may be triggered by capital requirements, reflecting a de-risking behaviour by undertakings, but it may also be due to other reasons, such as investment mandates constrained to specific rating classes. Sales of upgraded bonds are most likely driven by the intention to realise capital gains.

5.66 The magnitude of the observed selling movement remains largely contained within the portfolio of corporate bonds held by undertakings, without evidence that indicates substantial pro-cyclical effects triggered by the crisis. The effects appear to be manageable for the moment, especially where undertakings invest in well-diversified portfolios.

Conclusions

5.67 Based on the analysis of the collected evidence, EIOPA concludes that the downgrading of corporate bonds due to COVID-19 does not necessitate changes to the spread and market risk concentrations sub-modules. No evidence could be found supporting the existence of cliff-edge effects or procyclical incentives in the design and calibration of the spread risk and market risk concentrations sub-modules of the SCR standard formula.

5.68 Market data indicates that the crisis has so far not led to the materialisation of a severe downgrade scenario, and that undertakings do not seem to have changed their behaviour in relation to the buying and selling of downgraded/upgraded bonds. Impact assessment results also do not show evidence of significant changes in the weight of the related capital charges since the beginning of the crisis.

5.69 Finally, it is important to highlight that results of scenario-based calculations, estimating the macroprudential impact of mass downgrade scenarios in the insurance sector, usually focus exclusively on the asset impact, therefore not taking into account the range of Solvency II mitigating tools which are able to compensate for the losses in asset values through adjustments to the insurance liability valuation (e.g. the volatility adjustment or the matching adjustment).

5.2.5.5. Options

5.70 EIOPA identifies four options with the three non-no-change options being mutually exclusive:

Option 1: No change

5.71 Do not alter the current SCR spread risk sub-module.

Option 2: Long-term treatment of long-term investments in bonds and loans: avoidance of forced sales and reduced, long-term spread shocks

5.72 Analogous to the treatment of long-term equity investments in the SCR equity risk sub-module, in accordance with Article 171a of the Delegated Regulation (see section 2.9.), this option introduces a new category of 'long-term investments in bonds and loans' subject to lower, long-term stresses to the market value of bonds and loans due to an increase in credit spreads.

5.73 In order for a sub-set of bonds and loans to qualify as long-term investments, similar conditions as for long-term equity investments could be imposed to ensure that:

- the investments in bonds and loans and their holding period are well identified and are part of a portfolio of assets assigned to cover a portfolio of insurance or reinsurance obligations over the lifetime of these obligations;
- the portfolio of assets are identified, managed and organised separately from the other activities of the undertaking and cannot be used to cover losses arising from other activities;
- the portfolio of insurance or reinsurance obligations referred to in the second bullet only represents part of technical provisions;
- the bonds and loans are issued or closed by companies that have their head offices in countries that are members of the EEA;
- the average holding period of the investment in bonds and loans exceeds 5 years or no investments in bonds and loans are sold until the average holding period exceeds 5 years;

- the undertaking is able to avoid forced sales of each investment in bonds and loans for at least 10 years;
- the investment and risk-management policies of the undertaking are consistent with the average holding period exceeding 5 years and the avoidance of forced sales within at least 10 years;
- where bonds and loans are held within collective investment funds, the above conditions may be assessed at the level of the fund instead of the underlying assets;
- where bonds and loans are treated as long-term investments in bonds and loans, undertakings do not revert back to an approach that does not include long-term investments in bonds and loans.

5.74 An important difference between bonds and loans and equities is that bonds and loans usually have fixed time to maturity while equities can be held indefinitely. This distinction does not affect the relevance of the holding-period and forced-sales conditions (in the fifth and sixth bullet). An average holding period of 5 years implies that undertakings would have to include – at least on average over the lifetime of the insurance obligations – bonds and loans with a maturity exceeding 5 years in the sub-set of investments in bonds and loans. Also the avoidance of forced sales for at least 10 years can be applied to bonds and loans. However, if the sub-set contains bonds and loans with a maturity below 10 years – which is likely to be the case – then these bonds and loans will automatically mature within a 10-year timeframe.

5.75 The conditions leave ambiguity as to whether the holding period applies to individual assets or to asset classes or whether this depends on whether the assets are invested in directly or through investment funds.

5.76 The calibration of the lower spread shocks for the sub-set of investments in bonds and loans can take inspiration from the reduced risk charges for bonds and loans included in a portfolio subject to the matching adjustment:

CQS	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**unrated**
Reduction factor	27.5%	25%	20%	12.5%	0%	0%	0%	0%

5.77 This would allow for a reduction of the standard stresses for the sub-set of investments in bonds and loans where the bonds and loans dispose of an 'investment grade' credit assessment. Given that the requirements for the use of the matching adjustment are more restrictive, a lower reduction factor, i.e. 50 percent of the reduction for the matching adjustment, is considered appropriate for the sub-set of investments in bonds and loans.

Pros	**Cons**
Ensures a consistent treatment of long-term equity investments and	Deviates from fundamental idea behind SII that SCR should ensure that market value of asset exceeds

long-term investments in bonds and loans.	liabilities with 99.5% certainty within one year.
Encourages the allocation to bonds and loans of companies in the EEA, supporting the capital markets union (CMU) and the real economy.	Deviating from the market-consistent approach to the calculation of the spread risk charges diminishes incentives for proper risk-management.
	Setting capital requirements for spread risk below the value based on 99.5% certainty within one year reduces the strength of guarantees, undermining the protection of policyholders, also because there is no evidence to support that long-term credit risk is lower.
	Further encourages allocations to fixed income assets at the expense of other asset classes, like equities and real estate.
	Increases the burden on supervisory authorities, which have to review compliance with the conditions for treating bonds and loans as long-term investments.
	Increases the compliance costs of undertakings both directly and indirectly, due to the higher costs of supervision.

Option 3: Long-term treatment of long-term investments in bonds and loans: hold-to-maturity conditions and spread risk charge based on increase in fundamental spreads

5.78 Option 3 is the same as option 2 with the following two modifications:

1) The conditions relating to the average holding period and the avoidance of forced sales are replaced by the following:

- the average maturity of the investments in bonds and loans over the lifetime of the pension obligations exceeds 5 years;
- the solvency and liquidity position of the insurance or reinsurance undertaking, as well as its strategies, processes and reporting procedures with respect to asset-liability management, are such as to ensure, on an ongoing basis and under stressed conditions, that it is able to hold to maturity each investment in bonds and loans;

For the investments in bonds and loans to qualify as long-term investments, each investment in bond and loans has to be held until the bond or loan matures. Under option 2 voluntary sales would be possible as long as the average holding period exceeds 5 years. The rationale is that undertakings are not affected by changes in credit spreads when the bonds or loans are held to maturity, provided that there is no default event before the bonds or loans mature.

2) In line with this rationale, the spread risk charge for the sub-set of investments in bonds and loans is calculated by means of shocks to the risk-corrected spread, representing only losses due to expected downgrades and defaults. Similar to option 2, the calibration of the risk-corrected spread shocks can be based on the spread shocks applied to bonds and loans included in a matching portfolio, in accordance with Article 181 of the Delegated Regulation. As such, the spread shocks would be derived as a fixed percentage of the standard spread charges:

CQS	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**unrated**
% of standard stresses	72.5%	75%	80%	87.5%	100%	100%	100%	100%

5.79 Given that the requirements for the use of the matching adjustment are more restrictive, the higher fixed percentages are considered appropriate for the sub-set of investments in bonds and loans compared to the fixed percentage applied for the spread risk charge relating to matching adjustment portfolio.

Pros	**Cons**
Ensures a consistent treatment of long-term equity investments and long-term investments in bonds and loans.	Deviates from fundamental idea behind SII that SCR should ensure that the market value of asset exceeds liabilities with 99.5% certainty within one year.
Encourages the allocation to bonds and loans of companies in the EEA, supporting the capital markets union (CMU) and the real economy.	Deviating from the market-consistent approach to the calculation of the spread risk charges diminishes incentives for proper risk-management.
	Setting capital requirements for spread risk below the value based on 99.5% certainty within one year reduces the strength of guarantees, undermining the protection of policyholders, also because there is no evidence to support that long-term credit risk is lower.
	Further encourages allocations to fixed income assets at the expense of other asset classes, like equities and real estate, potentially resulting in a race to the bottom of capital charges for different asset classes.

	Increases the burden on supervisory authorities, which have to review compliance with the conditions for treating bonds and loans as long-term investments.
	Increases the compliance costs of undertakings both directly and indirectly, due to the higher costs of supervision.

Option 4: Reflection of a dynamic VA in the standard formula for bonds and loans covering illiquid/predictable liabilities

5.80 Where undertakings have illiquid liabilities and these are covered by bonds and loans, it can be argued that these investments carry lower spread risks as undertakings are less exposed to forced sales of bonds and loans.

5.81 Such argument can be extended to the calculation of the spread risk charge for bonds and loans by allowing undertakings, which make use of the volatility adjustment, to apply a dynamic VA in the spread risk sub-module for bonds and loans. This would be implemented by either allowing undertakings to apply a re-calculated VA after stress, implying a recalculation of technical provisions post stress or by reducing the spread risk factors directly (e.g. applying reduction factors equal to the general application ratio) to the calculated capital requirement for spread risk on bonds and loans. As this option is linked to the functioning and purpose of the VA, this option is not further developed in this section. For further details on a dynamic VA for the standard formula see section 2.4.7.

Evaluation of options

5.82 The aim of introducing a long-term treatment of fixed income assets in the SCR spread risk sub-module would be to support the capital market union (CMU) and the European economy. EIOPA doubts whether undertakings are dis-incentivised to invest in fixed income assets, considering that the overwhelming majority of undertakings' investments is already allocated to that asset category. On the one hand, this is a sign that Solvency II is successful, stimulating investments in asset classes that best match liabilities. On the other hand, Solvency II may already be over-incentivising fixed income investments, because of the allowance of adjustments in the valuation of the best estimate of technical provisions, the relatively mild calibration of the spread risk charges on bonds and loans and, last but not least, the zero spread risk charges on Member States' government bonds.

5.83 A long-term treatment would also be inconsistent with the fundamental principle underlying Solvency II that the SCR should ensure that the market value of assets exceeds the market value of liabilities with 99.5% certainty within one year. Relinquishing that principle diminishes incentives for proper risk management and reduces the certainty-level of guarantees offered to policyholders, jeopardising consumer protection. EIOPA also has no evidence that would support lower spread risk calibrations for long-term investments in bonds and loans.

5.3. Property risk

5.3.1. Relevant legal provisions

Solvency II Directive

5.84 Article 105(4)(c) defines the property risk sub-module of the SCR standard formula.

Delegated Regulation

5.85 Recital 61 and Article 174 specify the calculation of the property risk sub-module.

5.3.2. Identification of the issues

5.86 The current regulation sets in the standard formula a uniform shock of 25% for real estate risk across the European Union, even though real estate market behaviour may differ, sometimes significantly, from one Member State to another.

5.87 The current calibration was constrained by the availability of real estate annual return observations where the only source of deep and sufficiently frequent data was available for the UK market, market deemed to be the most volatile one in Europe and thus potentially not representative for this risk in other countries.

5.88 Therefore, several stakeholders are claiming this single shock is inappropriate in terms of risk sensitivity and excessively high for European markets other than the UK.

5.89 Another related criticism is the absence of recognition of diversification (both geographical and about the exposure or sectoral type – i.e. commercial vs residential) within real estate portfolios this single-shock approach implies.

5.3.3. Analysis

5.3.3.1. Considered policy options

5.90 Taking the aforementioned limitations into consideration, as well as the impending finalization of the Brexit process, EIOPA reviewed the calibration of the property risk capital charge in the Solvency II standard formula. The following policy options have been considered:

1. Status quo (no change);
2. Calibration of one single common shock not relying only on UK data: with other countries data depending on their availability.

5.3.3.2. MSCI and ECB indices

5.91 As a first step, EIOPA carried out an analysis of available property indices, to identify which data sources could be used for the purpose of the calibration work. Although the situation has improved compared to the original calibration, access to data continues to present important limitations. Indeed, in addition to the difficulty to obtain sufficiently long time series for all EEA countries, it is also difficult to find reliable information split by the type of exposure (commercial/residential).

5.92 EIOPA obtained data from two data sources: MSCI and ECB.

5.93 MSCI indices (Source: MSCI Real Estate, Global Intel): MSCI acquired the Investment Property Databank (IPD) in 2012. It produces valuation-based indices (VBI) and transaction-linked indices (TLI). The VBI indices are deemed to underestimate the volatility of prices because of smoothing and lagged phenomena in the estimation process (e.g. due to subjectivity in the estimation), in addition to the issue that valuation approaches may differ between countries. TLI indices are mainly affected by the issue that actual transactions are too infrequent to be used as a basis for reliable indices. To address this issue, MSCI created an interpolation method (hedonic regression) to generate quarterly and monthly data series from past transaction prices. Where information is missing, valuation values may be used instead of the actual transaction prices, which raises similar issues as for VBI indices. The second limitation is that the quality of the regression is largely dependent on the number of actual observations.

5.94 ECB indices: Real estate data is used by ECB for macro-economic, micro-prudential and systemic risk purposes. ECB publicly shares various real estate data through its Statistical Data Warehouse (ECB-SDW). Commercial property exposures from the ECB-SDW are only shared at euro area level, no breakdown at country level is freely available as parts of the data are coming from commercial data providers who contractually forbade its dissemination outside of the ECB. Therefore, it was not possible to use this series for this recalibration exercise. Residential property exposures, stemming from public and private sources, are available at both euro area and country levels. The data series chosen for the recalibration is designated by the acronym RESR (Real Estate Statistics – Residential property; the previous series RPP – Residential Property Prices – is discontinued since 2019). From this series, all residential property types, as well as all dwelling types, new and existing, were considered. The index reflects variations in transaction values.

5.95 EIOPA obtained MSCI data covering 17 countries, in most cases on an annual series. Lack of underlying volumes is the main justification for the absence of data for the remaining countries. ECB data was available for all the EEA countries except Iceland (i.e. 30 countries), in most cases on annual and quarterly series, and less often on bi-annual series.

5.96 Following the general Solvency II approach of calibrating annual shocks based on 99.5% quantiles, the 0.5% most negative annual return from indices is sought. However, the fact that for many countries data is available only from 1999 to 2019 at a quarterly frequency (i.e. 81 data points) or annual frequency (i.e. 21 data points) makes this approach impossible.

5.3.3.3. Ad-hoc information request

5.97 In addition to the analysis previously described, EIOPA also collected data on indirect real estate exposures through the ad-hoc information request launched in October 2019.

5.98 The request focused on exposures to indirectly held property assets (i.e. certain assets allocated to CIC 4 – Complementary Identification Code – which are subject to the property risk sub-module shock excluding direct property investments). Undertakings were requested to report the SII value of the exposures per country (EEA as well as non-EEA countries) where the property is located and per type (commercial or residential), only where the value of indirectly held property assets exceeded 20% of the overall value of property assets.

5.99 The analysis of the quantitative reporting templates (QRTs) using CIC codes indicated that indirect real estate exposures represent a much larger share of investments than direct exposures. At end-2018 and excluding undertakings headquartered in the UK, direct exposures amounted to EUR 141.7 billion whereas the indirect exposures represented EUR 622.3 billion. Unfortunately, from the QRT information it is not possible to split the exposure by country of location of the investment or by type of property (commercial or residential).

5.100 Through the October 2019 data collection, undertakings reported total indirect exposures of 52.2 billion EUR, which represented only 8.4% of the estimated universe. The vast majority of the indirect exposure reported (about 45 billion EUR) referred to commercial property. The geographical split of the sample of indirect exposures diverged materially from that observed for the direct exposures collected from the QRTs.

5.101 Because of those divergences and clear concerns regarding the representativeness of the sample data collected, no reliable revised calibration work could be made based on this data.

5.3.3.4. Property risk in light of Covid-19

5.102 The quarantine measures in response to the Covid-19 pandemic brought EU economic activity to a halt for several weeks, and despite actions taken by governments to address the negative effects, businesses viability is now tested. In particular, the OECD indicated in a study published in June 2020 that a 12% of SMEs are at risk of failure, because of Covid-19. Moreover, economists from the European Commission have projected during summer 2020 an economic contraction in EU of 8.3% for 2020, which is significantly greater than the figures calculated earlier during the year. Besides, growth in 2021 will be less robust than initially projected, which lead to a grey picture of the EU economy for the months to come.

5.103 In particular, the economic downturn will have an important effect on the unemployment levels across EU Member States. For the OECD, unemployment is projected to reach nearly 10% in OECD countries by the end of 2020, up from 5.3% at year-end 2019, and to go as high as 12% should a severe second pandemic wave hit. A jobs recovery is not expected until after 2021.

5.104 The impacts from Covid-19 are yet to be seen in a property market context as transactions generally follow a due diligence process and are not as liquid as the public stock exchange market. The property indexes are therefore not a reliable source yet to assess the impact of the pandemic on property values.

5.105 Nevertheless, whilst the costs of travel bans, supply chain disturbance and job loss are still developing, one can still try to set out considerations on the impact the pandemic may have on the property market.

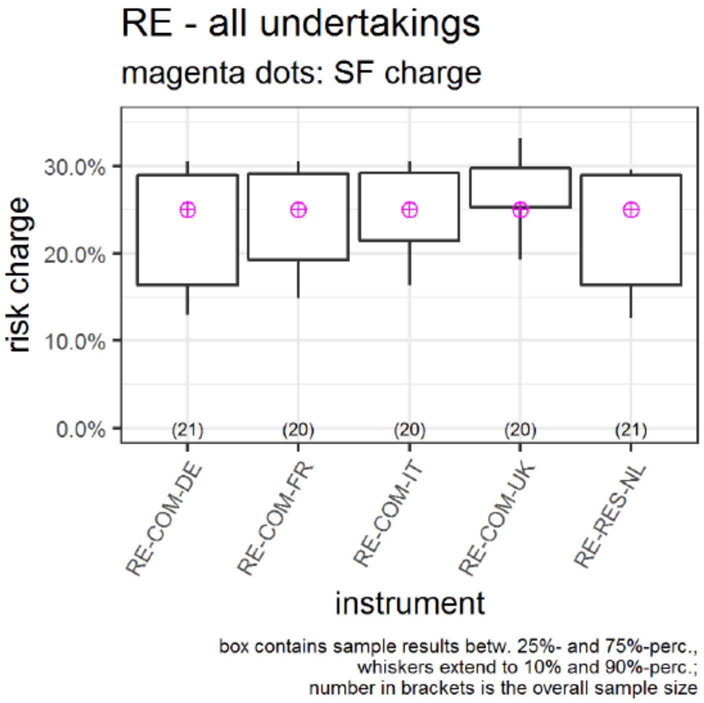
5.106 Concerning residential real estate, many academic studies over time have shown a clear link between population's unemployment fluctuations and residential property values' movements. A study published in 2018 managed to estimate that, when the unemployment rate increases from 5% to 8%, the housing price falls by 11 % and the sales volume falls by 5%. The forecasts published by the OECD indicate that a two-wave scenario could at least result, on average in the EU, in an increase of unemployment rate from 6.2% at end-2019 to 9.6% at end-2020. Therefore, one could expect a significant decrease of residential real estate values in the EU.

5.107 Concerning commercial real estate, the debate about the role of the office will most probably intensify. Moreover, the risk of business failures, when the government support safety net is removed, will be raised. This should lead to a rise in vacancy rates and rent corrections, which will affect commercial real estate values. Here also, the rise in unemployment should significantly influence the necessity and thus prices of commercial real estate.

5.3.3.5. Internal Model calibration

5.108 As part of the calibration work, EIOPA also assessed how Internal Model users calibrate Property risk for the calculation of the SCR. The latest available results refer to the YE2018 Comparative Study on Market and Credit Risk Modelling (EIOPA-19/634 from 19/12/2019).

5.109 The study indicates that internal model firms apply a relatively wide variation in risk charges for property risk when compared with other risks (e.g. equity). The analysis of the results considering all undertakings in the sample of the study suggests that the calibration of Property risk in the standard formula is appropriately reflecting the envisaged VaR 99.5% over 1-year time horizon, for different types of exposures.



5.4. Correlation matrices

5.4.1. Extract from the call for advice

> ***3.5. Capital Market Union aspects***
>
> *[…]*
>
> *As regards the correlation matrices, EIOPA is asked to assess the appropriateness of the structure of the (sub-) modules and the calibration of correlation parameters used in the Solvency Capital Requirement standard formula. Any advice to change the calibrations should be based on quantitative models and evidence. In particular, the correlations within market risk, as well as the correlation between lapse risk and the different market risks should take into account potential advice on market risk recalibrations.*

5.4.2. Previous advice

5.110 Not discussed in SCR Review, need to refer to CEIOPS advice in 2010.

5.4.3. Relevant legal provisions

Solvency II Directive

5.111 Annex IV, setting out the Calculation of the Basic Solvency Capital Requirement, includes the correlation matrix between risk modules.

Delegated Regulation

5.112 Set out correlation parameters between sub-modules within each risk module as referred to in the Solvency II Directive. In particular, correlation coefficients between market risk sub-modules which fall under market risk are defined in Article 164.

5.4.4. Identification of the issues

5.113 EIOPA has focused its analysis on the market risk correlations since here sufficient and representative market data to analyse the dependence structure is available. EIOPA has not analysed other correlations due to the scarce and inappropriate data availability.

5.4.4.1. Policy issue 1: Overall structure of the market risk correlations

5.114 EIOPA has assessed the overall structure of the market risk correlations following CEIOPS 2010 empirical model. The analysis shows that the empirically estimated market risk SCR is significantly higher than the theoretical SCR implied by the current market risk correlation structure. However, this underestimation seems mainly to be driven by the current underestimation of the interest rate risk than a systematic underestimation of the market risk correlation parameters.

5.4.4.2. Policy issue 2: Two-sided correlation parameter with interest rate risk

5.115 In the current regulation, there is a two-sided correlation with interest rate risk for the market risks equity, property and spread risk. The correlation parameter depends on the individual interest rate risk exposure. Specifically, it takes the value 0.5 if the undertaking is exposed to the interest rate down scenario and zero if it is exposed to the interest rate up scenario. CEIOPS justified the two-sided correlation with economic arguments and empirical data. While the two-sided correlation might increase the risk-sensitivity of the standard formula, it also introduces additional complexity and potentially some disincentives from the risk management point of view.

5.116 The appropriateness of the two-sided correlations and the corresponding correlation parameters have been assessed by analysing most recent relevant market risk data.

5.117 The empirical data clearly confirms the two-sided correlation for the interest rate and equity risks. For the interest rate and spread risks, the two-sided correlation can be confirmed too, particularly for the higher percentiles in the joint tail. Accordingly, there is sufficient evidence to keep the two-sided correlation structure in the market risk module.

5.4.4.3. Policy issue 3: Size of the correlation parameter between spread and interest rate down risks

5.118 The size of the correlation parameter between spread and interest down risks has been reassessed from the perspective that large interest rate decreases might not occur at the same point in time as large spread widening. Moreover the recalibration of the interest rate risk module motivates a reassessment of this correlation parameter as the relative weight between the interest rate and spread risks within the market risk module will change.

5.119 The performed empirical analysis provides evidence for a moderate tail correlation between interest rate down and spread risks.

5.4.5. Analysis

5.4.5.1. Policy issue 1: Overall structure of the market risk correlations

5.120 The overall structure of the market risk correlations is assessed by estimating the empirical model by CEIOPS 2010 with more recent financial market data. The general idea is to compare the diversification benefit of the empirical model with the diversification benefit, which is implied by the current market risk correlation matrix.

Estimating the diversification benefit for market risk

5.121 An average European firm with a standalone market risk SCR of 100 has the following composition of its market risks submodules according to EIOPA QRT data in 2018

Interest rate risk	10
Equity risk	37
Property risk	10
Spread risk	28
Currency risk	8
Concentration risk	7.

The empirical model

5.122 For this firm an empirical SCR is calculated by approximating its individual market risks with specific market risk proxies and then the empirical diversification benefit is calculated as

5.123 $$Div^{empirical} = 1 - \frac{SCR_{market}{}^{empirical}}{100} \qquad (1)$$

5.124 The following market risk proxies with daily observations are used to approximate the individual market risks. The proxies are similar to those used by CEIOPS. The main difference is that more EUR instead of UK data has been used.

Interest rate risk	**DEM/EUR 10Y swap data from 1987-2019**
Spread risk	Spreads to gilts on UK AA rated 10 year corporate bonds from 04/2002 until 05/2019
Equity risk	MSCI World Index from 1998 until 2019
Currency risk	EUR/USD currency exchange from 1999 until 2016

5.125 The overlapping data period consists thus of daily data from 04/2002 until 31/05/2019.

5.126 The calculation of the empirical market risk SCR was conducted by mainly following CEIOPS empirical model below.

5.127 (CEIOPS 2010, p.45) "The steps to produce the model are as follows:

1. Obtain a set of indices for the risks to which the company is exposed.
2. Calculate the year on year percentage change for each of these indices.
3. Multiply the value derived in point 2 by a factor designed to reflect the normalised capital required on a standalone basis in respect of that risk. So, for example, the observed 99.5th percentile year on year change for property is -25%. For the typical QIS4 firm we expect 8.4% of total capital to be in respect of property risk, so we multiply each year on year change in the property index by a factor of 100 * -8.4%/25%. 100 is the normalising value. Performing this will ensure that the undiversified sum of the 99.5% VaR capital levels for all risks is 100.
4. For each observation, sum the capital required to get a total capital requirement for that observation.
5. Order the observations by total capital requirement" and calculate the empirical 99.5% quantile.

5.128 The only difference to the CEIOPS model is the slightly different approximation of interest and spread risk. Instead of calculating a relative change as in step 3 above, a duration based approximation is used where the two risks were approximated by calculating the annual absolute changes of the corresponding proxies and multiplying these by the modified duration[128]. The duration-based approximation seems sensible for two reasons. First, it can better cope with very low and potentially negative interest rate and spread levels. Second, this is the typical approximation, which is used to approximate the relative change of a fixed income instrument and the approximation, which was used for calculating the capital charges for spread risk. Apart from this change in calculation step 3 for the two risks above, the same calculation procedure is applied. For the two-sided risks, interest rate and currency risk, the larger of the absolute empirical shocks is used.

5.129 The theoretical calculation

5.130 For the individual (standalone) market risk SCR values from above the market risk SCR which is implied by the correlation matrix from Article 164 of the Delegated Regulation is calculated by

$$SCR_{market}{}^{theoretical} = \sqrt{\sum SCR_i * SCR_j \, \rho_{i,j}} \qquad (2),$$

[128] A conservative modified duration of 10 years was assumed for spread risk. For interest rate risk, a negative duration gap of 5 years was assumed. But different values for the duration gap do not significantly affect the overall amount of the empirical SCR

5.131 where SCR_i is the average SCR for market risk *i* (e.g. 29.36 for interest rate risk) and $\rho_{i,j}$ is the correlation matrix.

5.132 Given this theoretical market risk SCR the empirical diversification benefit can be calculated by

$$Div^{theoretical} = 1 - \frac{SCR_{market}{}^{theoretical}}{100} \qquad (3).$$

5.133 If the theoretical and empirical SCR are close to each other, one could argue that the correlation matrix is (broadly) consistent the one-year 99.5 VaR stress.

Results

5.134 The results of the empirical model are shown in the following table. In the empirical model, the interest rate down and the currency down scenario were the driving scenarios with the larger shocks in absolute terms.

5.135 One can observe that the empirical SCR is significantly higher than the theoretical SCR and thus the empirical diversification benefit is significantly lower than the theoretical diversification benefit.

Table 1 – Comparison of the empirical and theoretical diversification benefit

SCR theoretical	SCR empirical	Theoretical diversification benefit	Empirical diversification benefit
77.10	84.6	22.9	15.4

Source: Refinitiv

5.136 As a sensitivity analysis the same calculations (with recent data) as above have been performed using the former market risk composition at QIS 4, see the CEIOPS 2010, p. 345. The main difference are the different weights for the interest rate and spread risk where in QIS 4 the interest rate risk had a weight of 29 and spread risk a weight of 11.

Table 2 Comparison of the empirical and theoretical diversification benefit using CEIOPS data for the market risk composition.

SCR theoretical	SCR empirical	Theoretical diversification benefit	Empirical diversification benefit
76.45	80.75	23.55	19.25

Source: Refinitiv

5.137 One can observe in table 2 that the difference between the empirical SCR and the theoretical SCR is lower than with the current market risk composition in table

1, but the empirical diversification benefit is still higher than the theoretical diversification benefit implied by the current correlation matrix.

5.138 Finally, the same calculation has been performed using the market risk composition from table 2 and the market risk correlation matrix, which was originally proposed by CEIOPS in 2010. This correlation matrix contained a higher pair-wise correlation for concentration and currency risk (both proposed values were 0.5 for all pair-wise correlations with concentration and currency risk).

Table 3 Comparison of the empirical and theoretical diversification benefit using CEIOPS data for the market risk composition and the proposed correlation matrix

SCR theoretical	SCR empirical	Theoretical diversification benefit	Empirical diversification benefit
81.94	80.75	18.06	19.25

Source: Refinitiv

5.139 From table 3 one can observe that the difference between the theoretical SCR and the empirical SCR is small and that the theoretical diversification benefit is slightly more conservative than the empirical diversification benefit.

5.140 The main reason from the large overestimation of the diversification benefit in table 1 is the inappropriate weighting of the market risk compositions for interest rate and spread risk, which is primarily the result of the current inappropriate interest rate risk measurement of the standard formula. Table 1 and table 2 indicate that the current correlation matrix might also slightly overestimate the diversification benefit in comparison to the originally proposed correlation matrix by CEIOPS.

5.141 However, the conclusion from the analysis above is that the overall structure of the market risk correlations is not systematically inappropriate. This is because the large part of the overestimation of the diversification benefit can be accounted by the current inappropriate average weightings for the interest rate risk and spread risk within the market risk module. Moreover, no appropriate data was available to analyse the pair-wise correlations with concentration risk.

5.142 Hence, EIOPA has not further analysed and reassessed all market risk correlations in detail, but has focused on the two-sided correlations with interest rate risk.

5.4.5.2. Policy issue 2: Two-sided correlations with interest rate risk

Empirical analysis

5.143 EIOPA has analysed the appropriateness of the two-sided correlations by a graphical data cutting analysis. In this analysis, annual overlapping relative changes of the above-mentioned market risk proxies for equity, spread and interest rate risk were compared. The data period ranges from 2002 until 2019 as above. As the Solvency II correlation parameters represent tail correlations, the particular focus of the graphical data cutting analysis is to have a closer look on the data points in the tail. That is the graphical analysis relies on the upper/lower percentiles (90th,95th,99th, 99.5th percentile for the correlations with an interest rate up exposure and the 10th, 5th, 1th, 0.5th percentile for the interest rate down exposure respectively).

5.144 Figure 1 displays the dependence structure of the relative equity and interest rate changes. The 90th percentile (10th percentile) and the 95 percentiles (5th percentile) are included in this figure. The 99 percentile (1th percentile) and the 99.5th percentile (0.5th percentile) were not plotted since no joint data points for equity and interest rate were observed. Specifically, the lower red rectangle in figure 1 indicates data points, which are below the empirical 5th percentile of the relative annual interest rate changes and the empirical 5th percentile of the relative annual equity changes. These data points represent data points in the tail for an interest rate down exposure and a fall in equity prices and are thus suited to analyse the dependence between the interest rate down and the equity risk. The same interpretation holds for the other percentiles rectangles.

5.145 From figure 1, one can observe that there is a clear dependence of interest rate and equity movements in the lower tail, the red and green rectangle in the bottom left corner. On the other hand, one cannot observe any data points in the upper left corner, which would represent the dependence of interest rate up movements and a fall in equity prices. These observations are in line with the finding by CEIOPS 2010 and justify the two-sided correlations between interest rate risk and equity risk.

5.146 Figure 2 and figure 3 display the dependency structure of the interest rate and spread movements for the EUR spreads and the GBP spreads, respectively. Although the two-sided dependence structure is a bit weaker than for equity and interest rate risk, either graphical data cutting analysis still supports a two-sided correlation, particularly for the higher percentiles. Hence, the data cutting analysis confirms a zero correlation for the dependency between spread and interest rate up risks.

Figure 1 – Relative changes of the EUR Swap rate and the MSCI world Index. The relative change for the interest rate is estimated as 10(absolute change), following the same duration-based approximation above. The red rectangles represent data points below the joint empirical 5th percentile and above the 95/5 percentile. The green rectangle represents data points below the joint empirical 10th percentile and above the 90/10 percentile. Source: Refinitiv.*

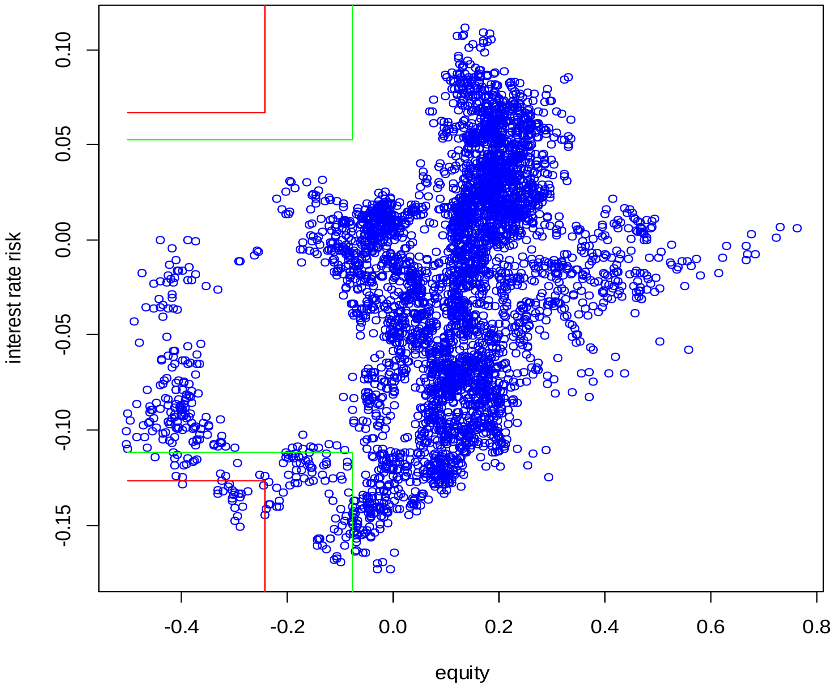


Figure 2 – Relative changes of the (EUR spreads 10Y) spread risk proxy and the EUR RFR 10Y interest rate proxy. The red rectangles represent the (joint) empirical 80/20 percentile, the green rectangles represent the (joint) empirical 85/15 percentile, the blue rectangle identifies the (joint) 90/10 percentile and the light blue rectangle the (joint) 95/5 percentile.Source: Refinitiv.

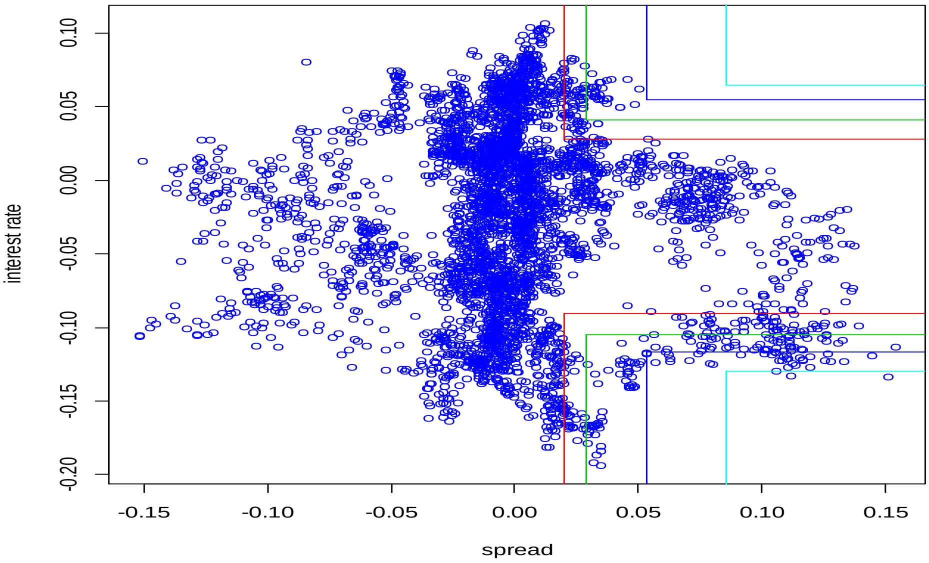
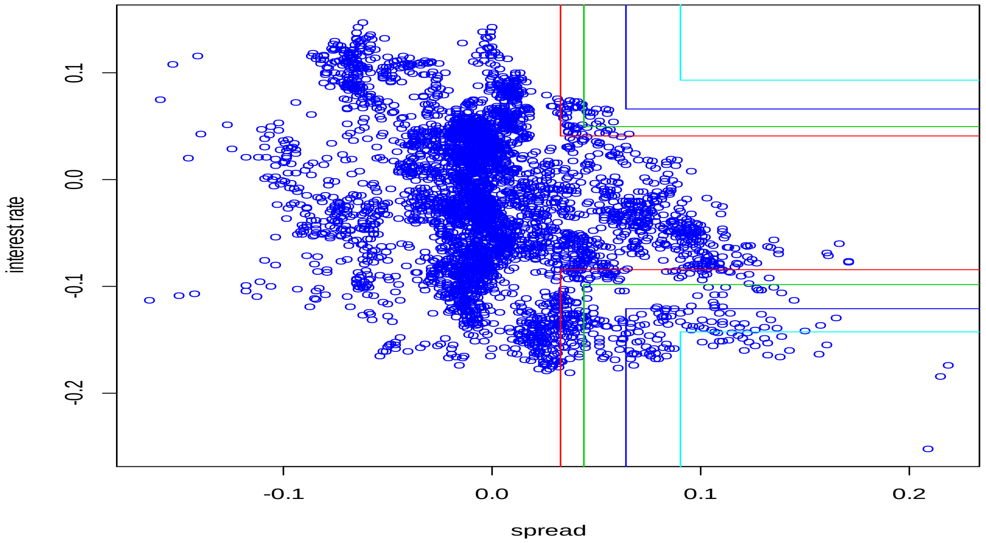


Figure 3 – Relative changes of the (GBP spreads 10Y) spread risk proxy and the GBP RFR 10Y interest rate proxy. The red rectangles represent the (joint) empirical 80/20 percentile, the green rectangle represents the (joint) empirical 85/15 percentile, the blue rectangle identifies the (joint) 90/10 percentile and the light blue rectangle the (joint) 95/5 percentile. Source: Refinitiv.



5.4.5.3. Policy Issue 3: Size of the correlation parameter between spread and interest rate down risks

Analysis

5.147 When analysing the dependence structure between different risks for the purposes of the Solvency II SCR calculation it is very important to note that one has to assess the dependence structure in the tail of the joint distribution. Accordingly, the methodologies at hand [129]exclusively aim at assessing the tail correlation between spread and interest rate risk and not the general dependence structure between the two risks. In the analysis of the tail correlation, a particular challenge is to strike a balance between the representativeness of the tail event and statistical estimation stability. As real tail events occur rarely, only few data points are representative for a tail event. On the other hand, the fewer data points are used in an estimation the less stable and robust the statistical estimation is.

5.148 For all methodologies at hand, the input data consists of the year on year rolling rate changes of the spreads and corresponding interest rates.

5.149 Instead of calculating a relative percentage, a duration-based approximation is used for the analysis of the spread and interest rate risk correlations. Here the annual overlapping percentage changes are approximated by calculating the annual absolute changes of the corresponding proxies and multiplying these by the modified duration of 10 years. The duration-based approximation seems

[129] The applied methodologies are mainly based on the methodologies applied by CEIOPS to assess the correlation between equity and interest rate risk.

sensible for two reasons. First, it can better cope with very low interest rate and spread levels and particularly negative interest rate levels. Second, this is the typical approximation, which is used to approximate the relative change of a fixed income instrument and the approximation, which was used for calibrating the capital charges for spread risk.

Data

5.150 The following market risk proxies with daily observations are used to approximate the spread and interest rate risk.

- interest rate risk proxy 1: EUR 10Y RFR data from 01/1999-08/2020 (denoted as EUR_RFR_10Y)
- interest rate risk proxy 2: : GBP 10Y RFR data from 01/1999-08/2020 (denoted as GBP_RFR_10Y)
- spread risk proxy 1: 10 year EUR AA Corporate Bond spreads relative to the EUR risk-free curve (RFR) from 04/2002-08/2020 (denoted as EUR_spreads_10Y)
- Spread risk proxy 2: Spreads to gilts on UK AA rated 10 year corporate bonds relative to the GBP RFR from 04/2002-08/2020 (denoted as GBP_ spreads_10Y)

5.151 For each pairwise correlation analysis, the overlapping data period is considered. This gives us one joint data set for the EUR and one for the GBP. Given that, the spread risk data sets have the shorter data history, all data sets contain thus observations from 04/2002 until 08/2020.

5.152 Note that the standard formula interest rate risk measures the risk a firm is exposed towards changes of the risk-free interest rate term-structure. A good proxy for spread risk measures spreads relative to the corresponding RFR. As most undertakings in the EEA are exposed to the changes of the EUR RFR and EUR corporate bond spread changes, the joint data set EUR_spreads_10Y vs EUR_RFR_10Y is considered the more representative data set to capture the dependence structure between interest rate and spread risk in the Solvency II standard formula.

Methodologies

5.153 (*Empirical tail correlation and conditional quantile exceedance*) Following the graphical data cutting analysis, the empirical (Pearson) correlation is calculated for the data points in the identified tail. Data points outside the corresponding rectangle are cut and not considered in the calculation. That is, the empirical correlation is calculated only with a limited number of observations, which are deemed representative for the considered tail risk. As the empirical correlation consists of only paired observations in one specific tail, it is not important to identify the sign, but only the size of the correlation parameter. Accordingly, the absolute value of the empirical correlation is considered as the relevant measure for the dependence in the corresponding tail. The conditional quantile exceedance (CQE) is calculated as an additional tail dependence measure. This can be calculated with historical data by

$$CQE(p) = \frac{Number\ of\ paired\ observations\ in\ the\ p\ percentile}{p \cdot Total\ number\ of\ observations}. \qquad (1)$$

Intuitively the CQE (p) yields the share of the p% worst data points in respect to a specific risk, here substantial spread widening combined with substantial decreasing (increasing) interest rates. By selecting the percentile p* such that CQE(p*) is 0.5 % ensures that the empirical probability of observing higher annual credit spreads changes and lower (higher) interest rate changes is 0.5%. Theoretically the percentile p* is thus the appropriate percentile for the tail correlation for the SCR calculation as this in line with the 99.5 % (0.5 %) VaR calibration of the individual underlying risks.

5.154 *(Rolling empirical tail correlation)* The data points in the empirical tail correlation methodology in 3.1 stem from only a few events (e.g. the financial crisis, large decrease in interest rates in 2014). Nonetheless, the calculation in 3.2 contains paired observations from different years and there might be some diversification effects across years. Moreover, the calculation of a tail correlation including observations from different years would theoretically not be in line with the one-year time horizon under Solvency II.
Therefore, a rolling yearly tail correlation is calculated in addition. The calculation is as such that in the first step the p percentile, (1-p percentile), of the individual risk is calculated including the total number of observations. In the second step, the data is cut for each observation year according to the calculated p percentile. So for each year, the empirical tail correlation is calculated provided there is a sufficient number of paired observations in the p percentile for that year. If the number of paired observations is too low or paired observations in the corresponding tail do not exist for the given year, the tail correlation is not calculated, as the corresponding year would not represent a tail event.

5.155 As an example, let us say in year 2007 there are 25 observations in the 80 percentile and in year 2010 there is only one observation. The empirical rolling tail correlation methodology would calculate the empirical correlation of the 20 data points in 2007, this would be the rolling tail correlation for year 2007. For year 2010, no empirical tail correlation can be calculated since there are not sufficient observations.

5.156 The empirical (rolling) correlation methodologies in 5.40 and 5.41 have in common that only a few number of representative paired observations are used to derive a measure for the tail.

5.157 The following two methodologies will instead use the entire historical data history to derive a tail correlation.

5.158 *(Implied correlation from the empirical model)* The empirical model by CEIOPS (CEIOPS 2010, p.45) is used to derive the implied tail correlation between interest rate and spread risk. The empirical model was presented above. In the analysis of the pairwise correlation, it is assumed that a firm is only exposed to these two risks with a specific weight. Then the empirical market risk SCR is calculated for that firm according to the empirical model in the first step. In the second step, the implied correlation is calculated as such that the SCR using the correlation matrix coincides with the empirical SCR.

Let $SCR_{market,emp}$ denote the empirical market risk SCR calculated from the empirical model above and let ω denote the weight the firm is exposed to spread risk and $1-\omega$ the weight the firm is exposed to interest rate risk. Normalising the undiversified market risk SCR to 100 implies that the spread risk and interest rate risk SCR are given by $SCR_{spread} = \omega \cdot 100$ and $SCR_{interest} = (1-\omega) \cdot 100$.
The implied correlation between spread and interest rate risk is then calculated by inverting the Solvency II standard formula market risk correlation formula. Let $\rho_{r,s}^{implied}$ be the implied correlation, then this is the solution of the following equation

$$SCR_{market,emp} = \sqrt{SCR_{spread}^2 + 2 \cdot SCR_{spread} \cdot SCR_{interest} \cdot \rho_{r,s}^{implied} + SCR_{interest}^2} \ . \quad (2)$$

Solving this, one obtains

$$\rho_{r,s}^{implied} = \frac{{SCR_{market,emp}}^2 - (100 \cdot \omega)^2 - \big(100 \cdot (1-\omega)\big)^2}{2 \cdot 100 \cdot \omega \cdot 100 \cdot (1-\omega)} \ . \quad (3)$$

5.159 *(Copula methodology)* The methodology works as such that the number of data points in the tail of the joint empirical distribution is compared to the expected number of data points implied by a simulated Gaussian copula with empirical marginal distributions and a correlation coefficient ρ in the same tail. [130] The tail is identified as such that the conditional quantile exceedance (CQE) is 0.5%.

5.160 The number of expected data points implied by the Gaussian copula with empirical distributions as marginal distributions should not be lower than the number of observed worst data points in the tail. This ensures that the correlation parameter does not underestimate the observed dependence structure in the tail. Put differently, the analysis should ensure that the weight of the data points in the tail of the joint distribution is not lower than that predicted by a Gaussian copula. Ideally, the expected number of data points should coincide or be close to the number of observed data points in the tail. Assessing the size of the correlations parameters by a Gaussian copula methodology is in line with the theoretical concept of linear correlations in the standard formula.

Results

5.161 Table 4 shows the empirical correlation and conditional quantile exceedance (CQE) for different percentiles along with the number of paired observations in the corresponding percentile.

[130] The simulation of the Gaussian copula with empirical marginal distributions works as follows. In a first step, random variables are generated from a bivariate normal distribution with mean μ and covariance matrix Σ. In a second step, these random variables are converted into uniformly distributed random variables by applying the (standard) normal distribution function to them. Finally, the empirical quantile function is used to simulate the risks where the uniformly distributed random numbers determine the p-percentile in the empirical quantile function.

One can see from table 4 that the EUR_spreads_10Y vs EUR_RFR_10Y data set shows that there is a high dependence between interest rate decreases and spread widening for lower percentiles, particularly the 80 and 85 percentile. However, the percentiles which are more representative for a tail event, the 90 percentile and the p* percentile resulting in a conditional quantile exceedance of 0.5%, support a moderate tail correlation instead. The GBP_spreads_10Y vs GBP_RFR data set indicates a higher dependence in the lower right tail and supports the current correlation of 0.5.

Table 4: Empirical tail correlation (absolute value) and CQE for the EUR and GBP data set. The tail correlation and CQE is calculated for the percentiles 80%, 85% and 90 %. The percentile p which results in a CQE of 0.5% is highlighted in green. Source: Refinitiv.*

Dataset	Percentile	Empirical correlation)	Conditional quantile exceedance CQE	Number of paired observations in percentile
EUR_spreads_10Y vs EUR_RFR_10Y	80%	0.656	0.0496	225
EUR_spreads_10Y vs EUR_RFR_10Y	85%	0.586	0.0315	143
EUR_spreads_10Y vs EUR_RFR_10Y	90%	0.26	0.0097	44
EUR_spreads_10Y vs EUR_RFR_10Y	91.25%	0.10	0.005	23
GBP_spreads_10Y vs GBP_RFR	80%	0.151	0.035	143
GBP_spreads_10Y vs GBP_RFR_10Y	85%	0.101	0.0368	160
GBP_spreads_10Y vs GBP_RFR_10Y	90%	0.295	0.022	97
GBP_spreads_10Y vs GBP_RFR_10Y	95.3%	0.719	0.005	23

5.162 The rolling correlation analysis in table 4 indicates that the most paired observations stem from the period of financial crisis in 2008 and 2009. Moreover, table 2 indicates that the high correlation for the 80 and 85 percentile for the EUR_spreads_10Y vs EUR_RFR_10Y data set in table 1 resulted from different observation years. This is because the tail correlation across years is substantially lower than the correlation in table 1 for the considered percentiles. Overall, table 2 supports a moderate tail correlation, particularly for the most representative tail event in 2008.

Table 5a: Rolling tail correlation (absolute values) and CQE for different data sets. The rolling tail correlation is calculated for the percentile 80%. Only periods where the number of paired observations in the tail exceeds 20 are shown. Source: Refinitiv.

Dataset	year	P=80% : empirical correlation	P=80 %: Number of paired observations in the tail	P=80 %: Conditional quantile exceedance
EUR_spreads_10Y vs EUR_RFR_10Y	2008	0.177	76	0.017
EUR_spreads_10Y vs EUR_RFR_10Y	2009	0.110	76	0.017
EUR_spreads_10Y vs EUR_RFR_10Y	2011	0.208	38	0.008
EUR_spreads_10Y vs EUR_RFR_10Y	2012	0.235	31	0.007

Dataset	year	P=80% : empirical correlation	P=80 %: Number of paired observations in the tail	P=80 %: Conditional quantile exceedance
GBP_spreads_10Y vs GBP_RFR	2008	0.334	112	0.026
GBP_spreads_10Y vs GBP_RFR_10Y	2009	0.110	51	0.012
GBP_spreads_10Y vs GBP_RFR_10Y	2016	0.312	71	0.016

Table 5b: Rolling tail correlation (absolute values) and CQE for different data sets. The rolling tail correlation is calculated for the percentile 85%. Only periods where the number of paired observations in tail exceeds 20 are considered. Source: Refinitiv.

Dataset	year	P=85% : empirical correlation	P=85 %: Number of paired observations in the tail	P=85 %: Conditional quantile exceedance
EUR_spreads_10Y vs EUR_RFR_10Y	2008	0.164	43	0.009
EUR_spreads_10Y vs EUR_RFR_10Y	2009	0.130	61	0.013
EUR_spreads_10Y vs EUR_RFR_10Y	2011	0.191	25	0.0055
EUR_spreads_10Y vs EUR_RFR_10Y	2012	0.235	31	0.007

Dataset	year	P=85% : empiric	P=85 %: Number of paired	P=85 %:

		al correlation	observations in the tail	Conditional quantile exceedance
GBP_spreads_10Y vs GBP_RFR	2008	0.132	91	0.021
GBP_spreads_10Y vs GBP_RFR_10Y	2009	0.026	32	0.007
GBP_spreads_10Y vs GBP_RFR_10Y	2016	0.227	27	0.006

5.163 Table 6 shows the results from the implied correlation analysis. For both data sets the empirical SCR and the implied correlation were calculated for a theorised firm with a weight of (1) 70% vs spread 30% interest, (2) 50% spread vs 50% interest, (3) 30% spread and 70% interest. The first portion reflects the current relative market risk portion of the two risks (spread risk having a higher portion than interest rate risk) whereas the last one reflects the portions from QIS 4 and the likely portion after the recalibration of interest rate risk.

Overall, the implied correlation analysis suggests a significantly lower correlation parameter than 0.5 for either data set. Interestingly, a relatively higher correlation parameter is suggested for a higher relative portion of the spread than the interest rate risk while a relatively lower correlation parameter is suggested for a higher relative portion of interest rate risk than spread risk. Accordingly, this analysis indicates that it is sensible to reduce the correlation parameter for spread and interest rate down risk after the interest rate risk will relatively (substantially) increase after the proposed recalibration.

Table 6: Implied correlation from the empirical model for different data sets and weights for the spread and interest rate risk. Source: Refinitiv.

Dataset	Weight spread risk	Weight interest rate risk	Empirical model SCR	Implied correlation
EUR_spreads_10Y vs EUR_RFR_10Y	70%	30%	83.125	0.264
EUR_spreads_10Y vs EUR_RFR_10Y	50%	50%	79.2	0.15
EUR_spreads_10Y vs EUR_RFR_10Y	30%	70%	78.425	0.08
GBP_spreads_10Y vs GBP_RFR_10Y	70%	30%	84.71	0.328
GBP_spreads_10Y vs GBP_RFR_10Y	50%	50%	80.04	0.15
GBP_spreads_10Y vs GBP_RFR_10Y	30%	70%	78.90	0.10

5.164 Table 7 displays the results of the copula analysis. The results show that even lower correlation parameters of 0.25 would generate a sufficient number of data points for the GBP_spreads_10Y vs GBP_RFR_10Y data set while for the EUR_spreads_10Y vs EUR_RFR_10Y a correlation of 0 would already result in a sufficient number of data points in the lower right tail. Hence, the copula analysis also supports a lower tail correlation parameter for the spread and interest rate down risk.

Table 7 Comparison of the observed data points in the tail and those predicted by a Gaussian copula for different copula parameters and different data sets. Source: Refinitiv.

Data set	Correlation coefficient of Copula	Observed data points in the tail	Expected data points in the tail according to the Gaussian copula
EUR_spreads_10Y vs EUR_RFR_10Y	0	23	33
EUR_spreads_10Y vs EUR_RFR_10Y	0.25	23	67
EUR_spreads_10Y vs EUR_RFR_10Y	0.5	23	116
GBP_spreads_10Y vs GBP_RFR_10Y	0	23	10
GBP_spreads_10Y vs GBP_RFR_10Y	0.25	23	24
GBP_spreads_10Y vs GBP_RFR_10Y	0.5	23	49

Analysis in light of COVID 19

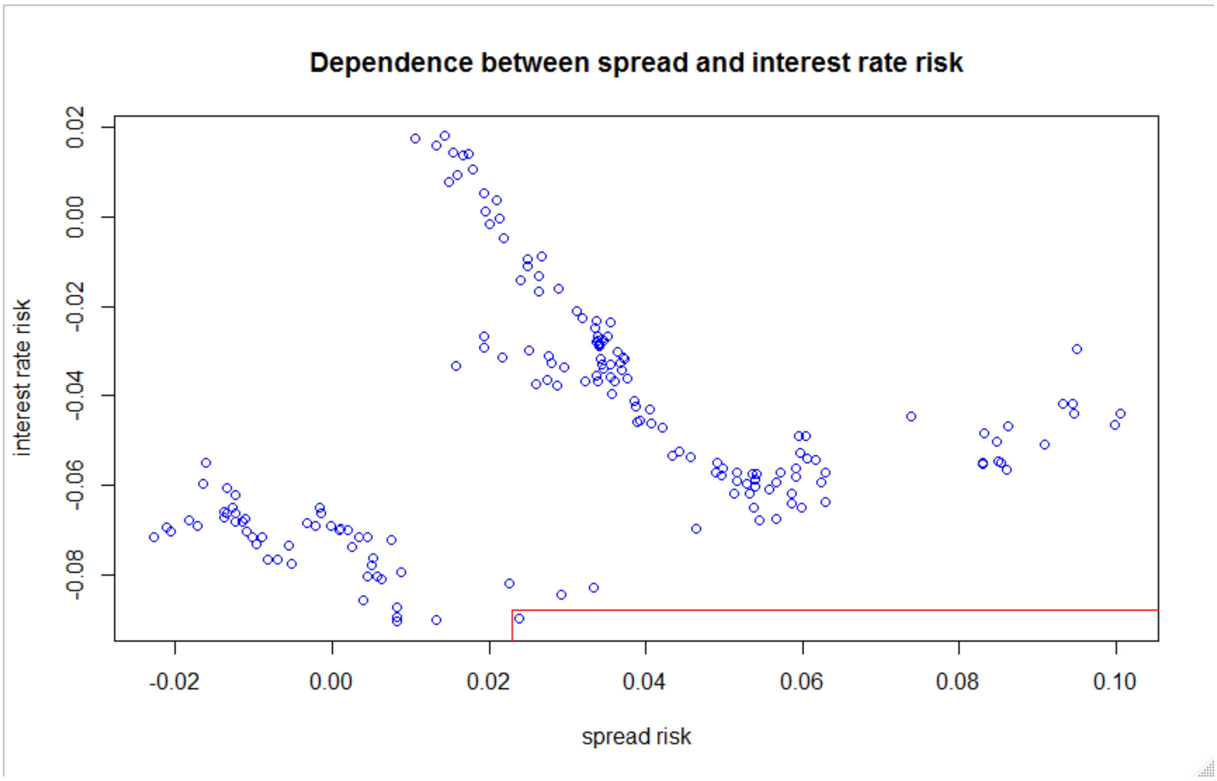
5.165 Given the recent market developments during the COVID 19 crisis with increasing credit spreads and decreasing risk-free interest rates, the relevant 2020 data has been studied more closely.

5.166 The 2020 data (particularly from March and April 2020) showed stronger spread widening and decreasing interest rate rates, particularly for March and April. Calculating the correlation only from data points from these two months would give rise to a high correlation between interest rate and spread risk. Taking the entire data from 2020 up to the end of August into account, leads however to a moderate correlation of 0.33 (data from January until August 2020) and 0.15 (data from March until August 2020). The new data from May until August 2020 showing a significant decrease in credit spreads, has in particular lead to significant decrease in this simple correlation calculation.

5.167 The 173 data points from 2020 have overall little impact on the overall analysis with 4452 data points. There is only a slight change of the estimated parameters in the methodologies if this data is included in the sample.

5.168 The main reason for the resulting moderate correlation between spread and interest rate risk is that the recent data adds too few data points to the joint lower right tail (the relevant tail for the correlation between the standard formula spread and interest rate risk). It is true that one has observed strong spread widening with decreasing interest rate movements, particularly in March and April 2020. However, most of these movements do not represent a joint tail event as can be seen in figure 4.

Figure 4: Paired observations of the approximated annual spread and interest rate changes in 2020 until 31/08/2020. The lower right rectangle represents the join (80,20) percentile. Note that the joint (80,20) percentile is derived from the entire time series. Source: Refinitiv.



5.169 It should be noted however that the results of the analysis include a high statistical uncertainty. The central estimate is around 20%, but the uncertainty leads to a confidence interval of roughly 80 percentage points (confidence level 95%). Two methodologies of the performed analysis focus specifically on a strict definition of tail events and therefore only 23 of more than 4000 data points determine the final result. If we extend the definition of tail events and base the final result on 234 data points, the correlation rises to 69% and the uncertainty drops to about 13%. However, most of these data points relate to interest rate decreases and spread widening that correspond to losses lower than the SCRs for interest rate and spread risk, but off nonetheless high severity. This estimate is broadly in line with the observed rank correlation between the interest rate and credit spread movements during the COVID-19 crisis, the Global Financial Crisis and the Sovereign crisis which are also all between 50% and 70%. The rank correlation does however not measure the dependence in the deepest tail of the distribution (above 99.5%), but the dependence of the broad tail of the distribution (above 80%), what is less adequate for the purpose of aggregating quantiles (like capital requirements), but allows for a more statistically robust estimate of the correlation.

Conclusion

5.170 Considering the empirical analysis above, it is proposed to keep the structure and the parameters of the correlation matrices unchanged, except for the correlation between spread and interest rate down risks.

5.171 The analysis still indicates that a two-sided correlation structure within the market risk module is appropriate.

5.172 The analysis above provides however overall sufficient evidence to lower the correlation parameter between spread and interest rate down risk. Particularly the EUR spread and risk-free rate data motivate a moderate tail correlation. The economic reasoning is that the largest interest rate decreases and the largest spread widening have not occurred at the same time. Moreover, the recalibration of the interest rate risk will change and particularly significantly increase the relative weight of the interest rate risk within the market risk module. According to the implied correlation methodology, this change in the relative weight should be accompanied by a decrease in the correlation parameter between interest rate down and spread risks.

5.5. Counterparty default risk

5.5.1. Extract from the call for advice

> ***3.7. Solvency Capital Requirement standard formula***
>
> *[…]*
>
> *b) Counterparty default risk module of the Solvency Capital Requirement standard formula*
>
> *EIOPA is asked to assess the proportionality of the overall structure and of the counterparty default risk module, and to provide, where appropriate, advice on methods and calibrations for a simpler approach. Where this approach would necessitate a review of the allocation of asset classes to either market risk or counterparty risk modules, such a review should be conducted consistently with the review of the market risk module.*

5.5.2. Previous advice

5.173 As part of the review of the Delegated Regulation in 2018 EIOPA recommended optional simplifications to the SCR standard formula that were included in the Regulation:

- Optional simplification for the computation of the LGD for reinsurance arrangements (Article 192(2))
- Optional simplification for type 1 exposure (Article 200)

- Optional simplification for the computation of the risk-mitigating effect of reinsurance arrangements (Article 111a)

5.5.3. Relevant legal provisions

Solvency II Directive

5.174 Article 104(1) of the Solvency II Directive sets out that there shall be a counterparty default risk module in the standard formula. Article 105(6) describes the scope of this module.

Delegated Regulation

5.175 Articles 189 to 202 and the simplifications in Articles 107 to 112.

Guidelines

5.176 Guidelines 8 and 9 in the EIOPA Guidelines on treatment of market and counterparty risk exposure.

5.5.4. Identification of the issues

5.5.4.1. Policy issue 1: overburdened calculation for the risk-mitigating effect of derivatives, reinsurance arrangement, special purpose vehicles and insurance securitisations

5.177 The calculation of the risk mitigating effect for reinsurance, SPV, securitisation and derivatives is considered the most burdensome part of the counterparty default risk module. Accordingly, it seems desirable to further simplify this part of the counterparty risk module if possible.

5.178 While for reinsurance arrangements a simple closed-form optional simplification has been implemented in the 2018 review, it is harder to come up with such a formula for derivatives. It could be beneficial if the risk mitigating effect for these two types of counterparties could be derived just from a single hypothetical recalculation. The basic idea is to extend the current simplification in Article 107 of the Delegated Regulation for derivatives and to have one simplification to calculate the risk mitigating effect for derivatives and reinsurance arrangements jointly. However, while this simplification can clearly work fine for more simple derivative structures it might be inappropriate for more complex derivative strategies.

5.5.4.2. Policy issue 2: implication of the identification of largest man-made exposures on the calculation of the risk-mitigating effect of reinsurance arrangements: hypothetical SCR

5.179 According to the Delegated Regulation (EU) 2019/981 of 8 March 2019 amending the Delegated Regulation, the scenario-based calculations of the SCR for man-made catastrophe risk for marine, aviation and fire risk should be based on the largest exposures after deduction of amounts recoverable from reinsurance or special purpose vehicles. In the fire, marine and aviation risk, changing the identification of the largest risks to be on a net of reinsurance basis may impact the counterparty default risk submodule, especially the calculations of the risk mitigating effect on underwriting risk of the reinsurance arrangement.

5.180 Underwriting risk mitigation effect of reinsurance contracts is an element of the formula for the loss-given-default (LGD) on a reinsurance arrangement or insurance securitisation, according to Article 192 of the Delegated Regulation;

$$LGD = max[50\% * (Recoverables + 50\% * RM_{re}) - F * Collateral; 0]$$

where

- RM_{re} denotes the risk mitigating effect on underwriting risk of the reinsurance arrangement or securitisation.

5.181 The amount of the potential LGD, and, at the same time RM_{re} is calculated for the individual counterparties and not for reinsurance arrangements. In the counterparty default risk, the risk mitigating effect represents the additional loss above the current value of the counterparty exposure which is expected to arise in a stressed situation. It is calculated as the difference between the SCR and a hypothetical SCR which assumes that the individual counterparty would default.

5.182 Pursuant to Article 196 of the Delegated Regulation, calculation of the RM_{re} comes down to calculation of n hypothetical requirements for underwriting risk, where n is the number of reinsurers, and each of those requirements assumes that the share of a given reinsurer under all arrangements in which it participates (in each SCR module) is disregarded in the calculation. In particular, for catastrophe risks in the case of which scenario-based calculation is used on the basis of the biggest net exposure (fire, marine and aviation risk) it can be interpreted as looking for the biggest exposure exactly n times (without the share in a given reinsurer's arrangements). The leads to the situation where calculations require in many cases enormous workload, and, in the case of an insurance undertaking with extensive facultative and obligatory cover and extensive reinsurance panel, it might become extremely complex calculations and need sophisticated IT solutions. Apart from the complexity of the calculation:

- total RM_{re} for all reinsurers generates higher mitigating effect than the one which can be achieved in SCR (gross result – net result),
- increase in diversification of reinsurance, i.e. dispersion of reinsurance on a bigger number of counterparties results in an increase in the risk mitigating

effect and, consequently, capital requirement ("punishment for diversification").

5.183 The problem of identification of the gross value in man-made catastrophes was noticed and demonstrated with an example in EIOPA's second set of advice to the Commission on specific items in the Delegated Regulation.[131] EIOPA presented two options of calculation of the risk mitigating effect: one on the basis of the biggest gross risk in the insurance undertaking's portfolio, and the other one on the basis of the gross value corresponding to the appropriate scenario for the SCR (gross value corresponding to the biggest net exposure). The EIOPA's explanation on page 570 (sections 2720-2721) includes assessment of the two methods, as well as provides suggestions regarding solution of that problem and the conclusion as to which method seems to better reflect the risk mitigating effect – Option 1, i.e. calculation on the basis of the insurance undertaking's biggest gross risk.

5.5.4.3. Policy issue 3: capital requirements for forborne and default loans

5.184 Considering the low yield environment, the related search for yield and the high pressure to dispose NPL assets on the banking sector, the insurance institutions face an increasing growth of not usual insurance risks such as credit risk. According to the EIOPA financial stability report release as of June 2019, over the last few years, the leveraged lending market and collateralised loans and mortgage market have increased significantly. The volume of CLOs traded in the European market has substantially raised in the last years and this asset class is now about 5 times larger than in 2010. In particular, where for the banking sector some high risk loan portfolios are becoming not profitable being highly capital intensive, credit risk leakages towards the insurance industry may be linked to high risk debtors such as forbearance[132] and default exposures[133]. Indeed, the use of the spread and interest rate shocks for estimating the capital absorption of low quality loans may underestimate the level of potential losses the undertaking may face on the related exposures and open the floor to capital arbitrages towards the banking regulation. This is particularly true where the loans are unrated and the duration is estimated to be rather short (e.g. up to 5 years, 3%*duri). The aim of the proposal for revision is to address the previously mentioned shortcomings and avoid moral hazard investment behaviour.

5.5.4.4. Policy issue 4: effective recognition of partial guarantees of mortgage loans

5.185 Although the current regulation allows for recognition of partial guarantees for mortgage in the SCR SF, still partial guarantees on mortgage loans may in practice not yet be recognised.

[131] EIOPA's second set of advice to the European Commission on specific items in the Solvency II Delegated Regulation, EIOPA-BoS-18/075, 2018, s. 570-571.

[132] Par. 163 of the Commission Implementing Regulation (EU) 2015/227.

[133] Article 178 of the Capital Requirements Regulation (EU) No. 575/2013

5.186 Article 192(4) of the Delegated Regulation sets out that partial guarantees on mortgage loans are recognized if they meet the requirements of Articles 209, 210 and 215(a) to 215(e). Article 215(d) of the Delegated Regulation requires that the payment of the guarantor shall not be subject to the insurance or reinsurance undertaking first having to pursue the obligor. However, a requirement for partial guarantees could be that the guarantor requires the insurance or reinsurance undertaking to first pursue the obligor itself - compared to the situation where the guarantor directly pays out the guaranteed amount. The insurance or reinsurance undertaking is thus incentivized to maximize the payment by the obligor to which it has provided the mortgage loan, because it is a partial guarantee and not a guarantee that fully covers the losses. More broadly, the requirements in Articles 192(4) and 215 of the Delegated Regulation are not sufficiently aligned with similar requirements for credit institutions (in particular Article 215(2) of the CRR) which could raise issues from a level playing field perspective between credit institutions and insurance undertakings in relation to (publicly) guaranteed mortgage loans.

5.5.5. Analysis

In order to gather relevant information for the revision of the Solvency II Directive, a short survey was formulated within the EIOPA and addressed to the NSAs concerning some components of the SCR mentioned in the call for advice. The answers received have been used in this advice.

5.187 **Policy issue 1: overburdened calculation for the risk-mitigating effect of derivatives, reinsurance arrangement, special purpose vehicles and insurance securitisations** EIOPA has been asked to assess the proportionality of the overall structure and of the counterparty default risk module, and to provide, where appropriate, advice on methods and calibrations for a simpler approach.

5.188 For this purpose, in the first step, a total risk mitigating effect containing all reinsurance, SPV, securitisation and derivative exposures would be derived (risk-mitigating techniques with both long and short derivatives excluded). This could be achieved by comparing the Basic Solvency Capital Requirement excluding the counterparty default risk module without reinsurance, SPV, securitisation and derivatives with the Basic Solvency Capital Requirement without the counterparty default risk. It seems sensible to base the total risk mitigating effect calculation on the BSCR if financial and reinsurance risk mitigations are considered jointly.

5.189 Hence, in the first step the total risk mitigating effect can be computed as

$$RM_{Total} = BSCR^{*,without} - BSCR^{*}.(1)$$

where

- $BSCR^{*,without}$ is the Basic Solvency capital requirement without counterparty default risk module that would result if no derivatives[134], reinsurance

[134] Derivatives not covered by the simplification should still be included in the $BSCR^{*,without}$

arrangements, special purpose vehicles and insurance securitisations were in force.

- $BSCR^{*}$ is the (current) Basic Solvency Capital Requirement if the counterparty default risk module is excluded.

5.190 In the second step, the total risk mitigating effect needs to be allocated towards the different counterparties. A simple proportional allocation could be introduced. More specifically the risk mitigating effect of the derivative or reinsurance arrangement, special purpose vehicles and insurance securitisations can be computed as

$$RM_i = \frac{\max|EAD_i|}{\sum_{i=1}^{n} \max|EAD_{i,}|} * RM_{Total,} \quad (2)$$

where

- $|\mathrm{EAD_i}|$ denotes the absolute value of the exposure at default of the derivative, reinsurance arrangement, special purpose vehicles and insurance securitisations towards counterparty i. If the risk mitigating instrument is a derivative $|\mathrm{EAD_i}|$ would be the absolute value of the derivative according to Article 75 of the Solvency II Directive. If the risk mitigating instrument is a reinsurance arrangement, special purpose vehicles and insurance securitisations $|\mathrm{EAD_i}|$ would be the absolute value of the best estimate of amounts recoverable from the reinsurance arrangement, special purpose vehicles and insurance securitisations towards counterparty i. The consideration of the absolute values in formula (2) ensures that derivatives and recoverables with negative values can be properly considered in the risk mitigating effect calculation.

5.5.5.1. Policy issue 2: implication of the identification of largest man-made exposures on the calculation of the risk-mitigating effect of reinsurance arrangements: hypothetical SCR

5.191 In order to analyse an impact of the changing the identification of the largest risks to be on a net of reinsurance basis on the counterparty default risk submodule the following example was prepared. An insurance undertaking has in its portfolio three contracts under which cover is provided to the aircraft risks (aircraft casco, aircraft use TPL insurance). The policies are reinsured on a pro rata basis, in accordance with the table below. Let’s assume that only man-made catastrophe risk is material for contracts, whereas the remaining risks after correlations have no influence on the Solvency Capital Requirement.

Exposure

Contract	Sum insured (mil. EUR)	Reinsurer’s name and % of QS cession	Sum insured on reinsurer’s share (mil. EUR)	Net sum insured (mi. EUR)
A	6	Reinsurer X – 100%	6.0	0.0
B	5	Reinsurer Y – 98%	4.9	0.1
C	4	Reinsurer Z – 97.5%	3.9	0.1

5.192 Taking this into account the risk mitigating effect for the individual reinsurers is amount to:

Risk mitigating effect

Reinsurer’s name	RM_{re} (mil. EUR)
Reinsurer X	6 – 0.1 = 5.9
Reinsurer Y	5 – 0.1 = 4.9
Reinsurer Z	4 – 0.1 = 3.9
Total	**14.7**

5.193 Presented above calculations may lead to the conclusion that the total risk mitigating effect is even higher than the hypothetical SCR, i.e. SCR calculated on the assumption that there is no reinsurance at the insurance undertakings amounts to 6 mil. EUR.

5.194 The next example presents and analyses a reinsurance option at two reinsurers:

Exposure

Contract	Sum insured (mil. EUR)	Reinsurer’s name and % of QS cession	Sum insured on reinsurer’s share (mil. EUR)	Net sum insured (mi. EUR)
A	6	Reinsurer X - 100%	6.0	0.0
B	5	Reinsurer Y – 98%	4.9	0.1
C	4	Reinsurer Y – 97.5%	3.9	0.1

5.195 Taking this into account the risk mitigating effect for the individual reinsurers is amount to:

Risk mitigating effect

Reinsurer's name	RM_{re} **(mil. EUR)**
Reinsurer X	6 – 0.1 = 5.9
Reinsurer Y	5 – 0.1 = 4.9
Total	**10.8**

5.196 Presented above calculations may lead to the conclusion that the reinsurance option at three reinsurers generates a higher total risk mitigating effect than in the case of two reinsurers (14.7 mil. EUR – three reinsurers, 10.8 mil. EUR – two reinsurers), and, consequently, a higher Solvency Capital Requirement.

5.197 The following options to change the Delegated Regulation might be considered:

- **Option 1** – No change
- **Option 2** – Hypothetical SCR for the fire, marine and aviation risk for the purpose of determining the risk mitigation effect in the counterparty default risk module calculated based on the largest gross risk concentration for the fire, marine and aviation risk.
- **Option 3 –** SCR for the fire, marine and aviation risk is calculated on a net of reinsurance basis and for the purpose of the hypothetical SCR in the CDR calculations the non-existence of the reinsurance arrangement does not alter the identification of the largest risk concentration for the fire, marine and aviation risk submodules.

5.198 Option 3 is the preferred option. It is consistent with the calculation of the capital requirement for man-made catastrophe risk and therefore correctly captures the credit risk less burdensome than the consultation proposal.

5.5.5.2. Policy issue 3: capital requirements for forborne and default loans

5.199 Pursuant to the Article 176(1) of the Delegated Regulation, the capital requirement for spread risk on loans shall be equal to the loss in the basic own funds that would result from an instantaneous relative decrease of $stress_i$ in the value of each loan i. According to Article 176(4) of the Delegated Regulation, for loans for which a credit assessment by a nominated ECAI is not available and for which debtors have not posted collateral that meets the criteria set out in Article 214 shall be assigned a risk factor $stress_i$ depending on the duration dur_i of the bond or loan i according to the following table:

Risk mitigating effect

Duration (duri)	**Stressi**
up to 5	3%*duri
More than 5 and up to 10	15%+1,7%(duri-5)
More than 10 and up to 20	23,5%+1,2%(duri-10)

More than 20	Min(35,5%+0,5%*(duri-20);1)

5.200 Taking into account also the difficulties to estimate the market value of a forborne or default loans portfolio given the liquidity and specificities (e.g. value of collateral) of the underlying loans, this may substantially underestimate the level of losses that the recovery process of a default or forborne loan my encounter.

5.201 Bearing in mind the previous issue, it is proposed to amend the Article 189(3) of the Delegated Regulation to include in the type 2 exposures the default and forborne loans as defined by the banking regulation (respectively, art 178 of the CRR and par. 163 of the Commission Implementing Regulation (EU) 2015/227). This would be in line with the recital 64 of the Delegated Regulation which states that "in order to ensure that the credit risk on all counterparties to which insurance or reinsurance under takings are exposed is captured in the Solvency Capital Requirement calculated with the standard formula, all exposures which are neither captured in the spread risk sub-module nor in the counterparty default risk module as type 1 exposures should be captured in the counterparty default risk module as type 2 exposures".

5.202 In order to estimate the level of the LGD for the above mentioned loans, a new comma in the Article 192 of the Delegated Regulation could be introduced, specifically tackling the level of capital adsorption for default and forborne loans. This would be calculated as:

LGD= $6.67 * max(Loan - Recoverables; 36\%$[135] $* Loan);$

where

Loan denotes the value of the mortgage in accordance with Article 75 of the Solvency II Directive; and

$Recoverables$ denotes the actualised value of the debt recoveries calculated according to the chapter 6 of the EBA/GL/2017/16.

The value of 6.67 is obtained by dividing 1 by 15% as included in the formula of Article 202, aiming to take into account the whole additional the loss as capital requirement.

- **Option 1 –** No change

5.203 This option would not add complexity to the actual framework and avoid new investments of the industry also in term of default and forborne loans recovery monitoring. On the other hand it leaves the door open to potential capital arbitrages and hazardous investments.

[135] A level of loss at least equal to a 21 years duration of unrated loan pursuant to Article 176(4) of the Delegated Regulation is assumed.

- **Option 2 –** To move the forborne and default loans under the type 2 of the counterparty default module

5.204 This proposal would guarantee more coherence with the underlying credit risk, increase the risk sensitivity of the loan capital requirements, help to overcome the valuation hurdles of the loans, and disincentive moral hazard investment in high risk credit portfolios. Moreover considering the need to calculate the LGD for each loans, it will help to foster better monitoring and risk management practices. It was not considered to introduce considerations about the duration of the loans since it would add further complexity and subjectivity to estimating the time of recovery.

This proposal stems also form the answers to the survey launched to NSAs and specifically to the question whether they consider appropriate the allocation of asset classes to either market risk or counterparty risk modules when assessing the proportionality of the overall structure of the counterparty default risk module.

5.5.5.3. Policy issue 4: effective recognition of partial guarantees of mortgage loans

5.205 In its review of the SCR, EIOPA had already investigated the recognition of partial guarantees for type 2 exposures, among which mortgage loans[136]. This resulted in a subsequent change of Article 192(4) of the Delegated Regulation. EIOPA now considers two options in the LTG-review with respect to the recognition of partial guarantees for mortgage loans:

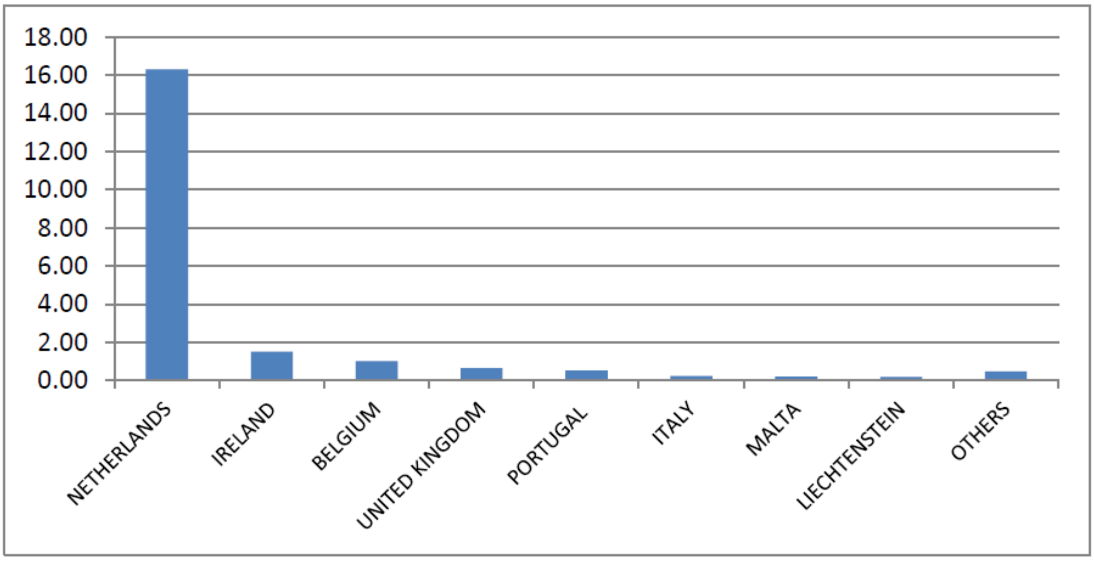
- **Option 1:** no further change
- **Option 2:** further adjust the requirements for the recognition of partial guarantees for mortgage loans

5.206 Under the option to further adjust the requirements for the recognition of partial guarantees, the requirement in Article 215(d) would be adjusted to allow for the practice that a requirement for partial guarantees could be that the guarantor requires the insurance or reinsurance undertaking to first pursue the obligor itself (compared to the situation where the guarantor directly pays out the guaranteed amount). Also the proposed adjustment would better align Article 192(4) with comparable provisions for credit institutions in the CRR (capital requirements regulation), and in particular CRR Article 215(2).

5.207 This proposed change does not result in a broader change to the treatment of guarantees in Solvency II. It merely seeks to better operationalize the treatment proposed in Article 192(4) for (publicly) guaranteed mortgage loans – which was introduced as a result of the SCR-review – and to level the playing field for insurance undertakings compared to credit institutions in this area.

[136] See EIOPA's "*Final report on the Public Consultation No. 17/004 on EIOPA's first set of advice to the European Commission on specific items in the Solvency II Delegated Regulation*" as of 30 October 2017

Value of type 2 exposures which have guarantees by Member States' central governments (in billion EUR)



5.6. Calibration of underwriting risk

5.6.1. Extract from the call for advice

> ***3.7. Solvency Capital Requirement standard formula***
>
> *[…]*
>
> *d) Calibration of underwriting risk*
>
> *Where stakeholders provide material data of sufficient quality, EIOPA is asked to assess whether that would form a more representative basis for the calibration of underwriting stresses than the calibration on which the current factors are based.*

5.6.2. Previous advice

5.208 EIOPA's second set of advice to the Commission on specific items in the Delegated Regulation included a recalibration of standard parameters of premium and reserve risks for several lines of business (medical expense, credit and suretyship, assistance, legal expenses, worker's compensation) and a recalibration of mortality and longevity stresses.

5.6.3. Relevant legal provisions

Solvency II Directive

- Article 105: Calculation of the Basic Solvency Capital Requirement

Delegated Regulation

- Article 151(1): SLT health underwriting risk sub-module
- Article 159: SLT health lapse risk sub-module

5.6.4. Identification of the issue

5.209 After advising to revise the standard deviations for premium risk and reserve risk sub-module for the non-life and NSLT health insurance and reinsurance obligations for selected lines of business only, EIOPA received some reactions from some stakeholders questioning the appropriateness of both the direction of the changes and the scope.

5.210 After last SCR review, EIOPA did not receive from NCAs information on underwriting risks for which newly available data would imply a recalibration.

5.211 In order to gather relevant information for the revision of the Solvency II Directive, a short survey was formulated within the EIOPA and addressed to the NSAs concerning some components of the SCR mentioned in the call for advice. The answers received have been used in this advice.

5.212 The survey launched to NSA's showed that none of them is aware of data which would imply a recalibration of the current standard formula parameters (instantaneous shocks or coefficients of variation) nor of main evolutions between the last calibration exercise and now

5.213 Nevertheless, one stakeholder provided some data in relation to the calibration of the SLT health mass-lapse risk arguing that they would challenge the current pan-European 40% shock.

5.214 In addition, another stakeholder, who claimed during the consultation period that the premium risk volatility for credit and suretyship insurance recalibrated in 2016/2017 would be too high, provided EIOPA in May 2020 with data to look again at the calibration of this risk.

5.215 During the summer of 2020 EIOPA also undertook an information request to a representative sample of European (re)insurance undertakings to assess the impacts of the Covid-19 pandemic during its first months since its outbreak on lapses risk and on health underwriting risk claims.

5.6.5. Analysis

SLT lapse risk

5.216 From a general perspective mass lapse risks, including the SLT health one, should reflect an extreme, catastrophic event. They should cover both internal and external causes leading to policyholders lapsing. Furthermore as future extreme events may not be included in past data, a retrospective approach would not be appropriate for the calibration of these risks.

5.217 More specifically EIOPA checked the representativeness at EU level of the national sample of undertakings provided by the stakeholder. From its QRTs data (annual solo at YE2018) EIOPA observed first that the gross written premiums (GWPs) generated by all the undertakings (i.e. not only those represented by the stakeholder) doing SLT health business in the stakeholder's Member State accounted for approximately 70% of the overall SLT health business[137] in Europe while 13% were generated by undertakings located in another Member State and another 10% uniformly in 3 other Member States. Secondly EIOPA observed that only one undertaking from this association was performing SLT health cross-border business with another Member State, albeit not significantly at EU level. Moreover, although being highly representative of the undertakings performing SLT health business in this Member State based on the share of national GWPs (83%), the set of undertakings represented by the stakeholder only accounted for 57% of the GWPs at EU level.

5.218 For this reason and for the abovementioned more general one EIOPA does not consider appropriate to recalibrate the SLT health mass lapse shock.

Premium risk for credit and suretyship insurance

5.219 The previous recalibration for this risk was performed by EIOPA in 2016/2017 on a sample representative of approx. 31% of the European direct insurance market for this LoB. It resulted in coefficients of variation of 19% for premium risk (12% previously) and 17.2% for reserve risk (previously 19%).

5.220 Based on data coming from 8 different entities and using 3 different methods, the stakeholder derived premium risk coefficients of variation ranging from 7.5% to 13.4%. None of these methodologies used by the stakeholder are replicating exactly the method used so far for the calibration of premium risk in Solvency II.

5.221 The current calibration was performed in two steps. First, for each country a standard deviation was derived and a rescaling (to take into account different volumes across markets) was applied. Then, to derive the European standard deviation, the country standard deviations were aggregated based on national weights (expressed in terms of premiums).

5.222 The calibration sample used by the stakeholder covers approximately 65% of the European market for this LoB.

5.223 However, from a qualitative perspective, this sample is mostly composed of IM undertakings whose data are less appropriate for SF calibration, unlike the sample used by EIOPA in 2016/2017 composed primarily of undertakings using the SF. In the same vein, while the sample used by the stakeholder is composed of biggest firms, EIOPA firms is composed of smaller firms whose volatility is deemed higher because of a lack of diversification effects. For this reason EIOPA's sample seems to cover more widely the diversity of the European market.

[137] Solvency II LoBs 29 and 33 were considered:
(29) Health insurance Health insurance obligations where the underlying business is pursued on a similar technical basis to that of life insurance, other than those included in line of business 33.

(33) Annuities stemming from non-life insurance contracts and relating to health insurance obligations.

5.224 Moreover the sample EIOPA used in 2016/2017 was composed of 146 solo undertakings from 25 different countries, thus reflecting the specific risk of almost each EU Member State, while the sample used by the stakeholder consists of 8 entities. Even though 6 of them cover different EU markets through FOE and FPS in an aggregated way, these data do not allow to directly reflect specificities of markets. Although consolidation might have occurred since 2016 in the sector, also from this perspective EIOPA's sample seems to cover more widely the diversity of the European market.

5.225 Finally the granularity of the sample used by the stakeholder is not as fine as the one chosen by EIOPA for its past calibrations. That has in particular two shortcomings:

a. As the standard deviation is derived from large portfolios it does not reflect the usually higher risk of smaller portfolio (coefficients of variation indeed tend to mechanically decrease when the underlying volumes increase). The standard deviation does not meet the calibration objective that it should be sufficient for at least 95% of policyholders.

b. Because of the geographical diversification resulting from the aggregation of different national businesses, the standard deviations lack representativeness across countries. The standard deviations obtained thus do not reflect the specificities of each country, yet crucial for an insurance activity so much dependent on the national economy as credit insurance and suretyship.

5.226 Apart from that, it should be noted that the Covid-19 pandemic and the expected resulting increase of defaults is a relevant development for the premium risk calibration for credit and suretyship insurance risk. It is expected that the impact of that development would only be visible in the claims data from the second half of 2020 onwards. It was therefore not possible to reflect the pandemic in a calibration for EIOPA's advice for the 2020 review. Also for this reason EIOPA recommends not to advice a change of the calibration at that stage.

Lapse risk during the Covid-19 pandemic

5.227 As regards lapse risk, EIOPA collected from the insurance industry data on the lapses from 2015 to Q2 2020. The data was requested separately by life-related line of business and separately for businesses that are subject to disincentives to lapse.

5.228 The data do not show a general pattern of lapse rates at the beginning of the pandemic in Q2 2020. In particular lapse rates did not generally increase in response to the outbreak of the pandemic.

5.229 The results do not indicate that the current lapse calibration needs to be changed. In particular the data do not provide a basis to introduce distinctions in the lapse calibration between insurance businesses that are subject to disincentives to lapse and other businesses.

Health pandemic risk

5.230 The overall capital requirement for pandemic risk of the EEA insurance undertakings applying the SCR standard formula is EUR 1.84 bn. Across countries there is a large variety as to the capital requirement.

5.231 In the complementary information request EIOPA collected data on the from insurance and reinsurance undertakings applying the standard formula on the health insurance claims caused by the Covid-19 pandemic until the end of Q2 2020.

5.232 The pandemic risk sub-module assumes for medical expense insurance that 1% of the insured are hospitalised and 20% seek medical consultation because of the pandemic. The average costs incurred for hospitalisation and consultation in a pandemic are estimated by the undertakings. The submodule further assumes that for income protection insurance 0.0075% of the total sum insured needs to be paid because of the pandemic.

5.233 For the sample that participated in the complementary information request the Covid-19 related claims correspond to 9% of the SCR for pandemic risk at the end of 2019. The claims in medical expense insurance and income protection insurance correspond to 3% and 24% of the medical expense and income protection component of the pandemic risk SCR respectively. The following table sets out that percentage per national subsample for the countries where at least five undertakings provided data and where the related pandemic SCR is above EUR 1 mn.

Country	**Ratio of Covid-19 claims until mid-2020 and SCR for pandemic risk**		
	Medical expense insurance	Income protection insurance	Total
DE	7.2%	0.4%	6%
ES	2.3%	0.1%	2%
FI	3.0%	2.9%	3%
IE	0.3%	0.8%	1%
IT	7.9%	8.5%	8%

5.234 Not covered in this table are the data from two insurance undertakings from the same country. Both undertakings, which offer disability insurance, reported income protection claims that exceed the income protection insurance component of the pandemic risk SCR. The results from these two undertakings could indicate that the size of the income protection component of the pandemic risk SCR might not be sufficient.

5.235 The results for the other countries do not confirm that.

5.236 The analysis covers only one quarter during the pandemic. It therefore does not provide a basis to fully review the pandemic risk calibration. Such a review would only be possible after EIOPA has to provide its advice.

5.7. Catastrophe risk

5.7.1. Extract from call for advice

> ***3.7. Solvency Capital Requirement standard formula***
>
> *[…]*
>
> *e) CAT risks in the Standard Formula*
>
> *In its second set of advice on specific items in the Solvency II Delegated Regulation (EIOPA-BoS-18/075), EIOPA had advised a method to capture specific insurance policy conditions (in particular contractual limits or sub-limits) that deviate significantly from the national market average conditions in the standard formula natural catastrophe calculation. In order to facilitate the application of that approach, EIOPA is asked to provide the national market average conditions that underlie the calibration of the natural catastrophe risk submodule.*

5.7.2. Previous advice

5.237 In the second set of advice to the European Commission on specific items in the Solvency II Delegated Regulation EIOPA proposed the introduction of an "ex-post adjustment" to the calculation of the capital requirements for national catastrophe risk that allows insurance and reinsurance undertakings to take into account their undertaking-specific policy conditions, see paragraphs 644 to 649 of that advice.

5.7.3. Relevant legal provisions

Delegated Regulation

5.238 Recital 54

In order to capture the actual risk exposure of the undertaking in the calculation of the capital requirement for natural catastrophe risk in the standard formula, the sum insured should be determined in a manner that takes account of contractual limits for the compensation for catastrophe events.

5.239 In paragraphs 6 of Articles 121 to 125 (windstorm, earthquake, flood, hail, subsidence) the following subparagraphs were introduced by Delegated Regulation 2018/981:

Where the amount determined for a particular risk zone in accordance with the first subparagraph exceeds an amount (referred to in this subparagraph as "the lower amount") equal to the sum of the potential losses without deduction of the amounts recoverable from reinsurance contracts and special purpose vehicles, that the insurance or reinsurance undertaking could suffer for [name of peril] risk in that risk zone, taking into account the terms and conditions of its specific policies, including any contractual payment limits, the insurance or reinsurance undertaking may, as an alternative calculation, determine the weighted sum insured for [name of peril] risk in that risk zone as the lower amount.

5.240 Recital 37

In order to ensure effective supervision of outsourced functions or activities, it is essential that the supervisory authorities of the outsourcing insurance or reinsurance undertaking have access to all relevant data held by the outsourcing service provider, regardless of whether the latter is a regulated or unregulated entity, as well as the right to conduct on-site inspections. In order to take account of market developments and to ensure that the conditions for outsourcing continue to be complied with, the supervisory authorities should be informed prior to the outsourcing of critical or important functions or activities. Those requirements should take into account the work of the Joint Forum and are consistent with the current rules and practices in the banking sector and Directive 2004/39/EC and its application to credit institutions.

5.7.4. Identification of the issues

5.241 Given the importance of NAT CAT liabilities generated by non-life business, NSAs and EIOPA need to have access to information on how the current peril-country parameters of the NAT CAT risk sub-modules were calibrated, both initially in 2010 and during the last SCR review in 2017.

5.242 Contrary to the non-CAT non-life underwriting risk's reserve and premium risk sub-module for which a dedicated group of supervisors was set up to calibrate these risks based on data centrally collected by CEIOPS / EIOPA, calibration of NAT CAT risks was outsourced to specific model vendors, reinsurance brokers and (re)insurers, while the entire process was steered by EIOPA and NSAs.

5.243 Outsourcing was necessary because of the high level of expertise needed in the field of NAT CAT modelling.

5.244 However this does not imply a delegation of responsibility from NSAs and EIOPA to these experts as regards the supervisory duties in this area of the formers.

5.245 In this vein EIOPA set up an external Expert Network on Catastrophe Risks[138] at the beginning of 2019 with the aim to strengthen and complement EIOPA's expertise with regard to the modelling and mitigation of (natural) catastrophe risks and climate change risks. This initiative is part of EIOPA's work on sustainable finance.

5.7.5. Analysis

5.246 As regards the materiality assessment of the alternative calculation (also called ex-post adjustment in the previous advice to the European Commission)

[138] The Network shares technical expertise and collects evidence in particular with regard to the following: the extent to which the calibration of the standard parameters for the natural catastrophe risk module of the standard formula captures climate related developments, an estimate of ultimate losses from natural catastrophe scenarios in technical provisions, risk management practices of the insurance and reinsurance industry in relation to catastrophe risks, private sector initiatives in addressing gaps in coverage of natural catastrophe risks.

introduced to Articles 121 to 125 of the Delegated Regulation, the survey addressed to the NSAs revealed that it is too early for supervisors and consequently for EIOPA to be in a position to thoroughly assess the use of this option by undertakings, as the amended Delegated Regulation was adopted only in 2019. Such an assessment could be carried out only at a later stage, e.g. from 2021 onwards.

5.247 Together with the CAT risks expert network members EIOPA designed a template aiming at collecting the original policy conditions underlying the current CAT risks factors in the standard formula in order to answer the call for advice on this specific item during the summer of 2019.

5.248 Not the current policy conditions were sought in the collection, but rather the policy conditions prevailing when the current risks factors were calibrated (i.e. either initially in 2008-2012 or in 2017 during the last (re)calibration exercise at the end of which existing risks factors were simply updated and some new ones introduced).

5.249 Following 2017's recalibration exercise the industry consortium PERILS was commissioned by EIOPA to collect these figures from the relevant model vendors, brokers and (re)insurers (PERILS itself is also to be considered as an important industry-wide data provider). The main outcomes and lessons learnt from this data collection include:

5.250 No or very little original policy conditions from the initial calibration (2008-2012) were available from the stakeholders: the initial calibrations were indeed mostly expert judgment. Therefore the original policy conditions communicated by these data sources relate in vast majority to the risks factors calibrated or recalibrated in 2017.

5.251 Regardless of the original policy conditions collected, the rate of completion is high for the perils windstorm and flood (property – the main LoB) and very low for earthquake, flood, hail and subsidence. These differences might be explained by the fact that windstorm is a peril, due to its high frequency compared to the others, which is generally good understood and modelled by the relevant experts, while much more uncertainty is affecting the modelling of earthquakes due to their relative lower frequency – hence the probable reluctance of stakeholders to disclose their figures. As for flood and hail these are perils which were more recently studied and modelled. Subsidence is currently only modelled in France in the standard formula: no data for this peril were given by the data sources.

5.252 The number of data sources which delivered risks factors in 2017 is always higher than the one of the data sources which provided original insurance policy conditions because it is frequent that stakeholders share the same data among them (e.g. typically PERILS' data).

5.253 EIOPA took note of the two main limitations of the natural catastrophe average policy conditions collection exercise performed during the summer of 2019:

- On the content: No or very little original policy conditions from the initial calibration (back in 2010) are available from the stakeholders (i.e. model vendors, brokers and insurers): the initial calibrations were indeed mostly expert judgment. Therefore the original policy conditions communicated by these data sources relate in vast majority to the risks factors initially calibrated, or recalibrated, in 2017.

- On the process: Following 2017's recalibration exercise EIOPA commissioned the industry consortium PERILS to collect these average figures from the relevant model vendors, brokers and insurers. It turned out that liaising with mostly third parties (model vendors and brokers) or a limited set of specific insurers generates either confidentiality issues between these third parties and their clients for the formers, or similar identifiability issues for the latter.

5.254 Against this background EIOPA decided to collect through its October 2019-January 2020 information request the average policy conditions in force at the end of 2018 (as an acceptable proxy of the last calibrated risk factors in 2017) from a representative sample of direct insurance undertakings selected by NCAs. EIOPA interpreted the collection of average policy conditions in a strict quantitative way and covered only deductibles and upper limits. A more complete approach would also cover qualitative aspects of these policies (exclusions, etc.).Both standard formula and internal model users were in the scope of this data collection to remain consistent with the population of undertakings underlying the current calibration of the NAT CAT country factors.

5.255 The results of the data collection can be found as a separate Excel file annexed to this document. Explanations on the results are included in annex 5.4.

5.8. Risk mitigation techniques

5.8.1. Extract from the call for advice

3.8. Risk-mitigation techniques and other techniques used to reduce Solvency Capital Requirements

EIOPA is asked to advise on methods for the recognition of the most common non-proportional reinsurance covers for non-life underwriting risks in the Solvency Capital Requirement standard formula, as well as for adverse development covers and finite reinsurance covers.

In this context, where EIOPA would consider that the methods set out in its "Guidelines on application of outwards reinsurance arrangements to the nonlife underwriting risk submodules" continue to be relevant, EIOPA is asked to assess the extent to which amendments to the legislative framework are necessary to incorporate these methods in the Solvency Capital Requirement standard formula.

EIOPA is also asked to clarify the definition of a financial risk-mitigation technique and of other financial instruments that may be used to reduce Solvency Capital Requirements, with a view to ensure a consistent treatment between the standard formula and internal models. EIOPA should also indicate the criteria and the methods to determine the amount of risk reduction or risk transfer that may be recognized for such items.

EIOPA is also asked to analyse whether the provisions on the assessment of basis risk are sufficiently clear and, where appropriate, advise on improvements.

5.8.2. Previous advice

5.256 EIOPA looked at the treatment of risk-mitigation techniques in the standard formula from 2017 to 2018 for its advice to the European Commission on the review of specific items in the Solvency II Delegated Regulation. Those review led to amend the treatment of financial derivatives and reinsurance arrangements as risk-mitigation techniques.

5.257 In particular, with regard to non-proportional reinsurance, EIOPA advised on the possibility to introduce a new USP method applicable to take into account stop-loss reinsurance covers. The method was then eventually introduced in the amended Delegated Regulation by the European Commission.

5.258 In the same context, EIOPA also advised not to recognize adverse development covers on the basis of the stakeholders' proposal.

5.8.3. Relevant legal provisions

Solvency II Directive

- Article 101(5)

Delegated Regulation

- Article 208: Methods and Assumptions
- Article 209: Qualitative Criteria
- Article 210: Effective Transfer of Risk
- Article 211: Risk-Mitigation techniques using reinsurance contracts or special purpose vehicles
- Article 212: Financial Risk-Mitigation techniques
- Article 213: Status of the counterparties
- Article 214: Collateral Arrangements
- Article 215: Guarantees

Guidelines

- EIOPA Guidelines on application of outwards reinsurance arrangements to the non-life underwriting risk sub-module
- EIOPA Guidelines on basis risk

5.8.4. Other regulatory background

5.259 Q&A on the treatment of Contingent Capital Operation

- Questions: Should this contingent capital operation: (i) be included in the own funds as an AOF, after supervisory approval? (ii) be accounted for in the Standard Formula or Internal Model as a way to decrease the SCR?

- Answers: (i) The described contract does not meet the requirements for a recognition as ancillary own funds as it is not callable on demand. (ii) The instrument does not transfer risk and the application of such instrument in reduction of the SCR is not appropriate. This applies for both internal model and standard formula users.

5.260 EIOPA BoS raised a number of concerns about convertible bonds being permitted as a risk mitigation technique, but agreed that further analysis was necessary to: understand better the mechanics of this sort of convertible bonds; what should be the conditions under which such bonds could be regarded as a risk mitigation technique; and what might be the impact of such bonds on insurers and the other parties involved.

5.8.5. Identification of the issues

5.8.5.1. Policy issue 1: Further recognition of the most common non-proportional reinsurance covers for non-life underwriting risks in the Solvency Capital Requirement standard formula

5.261 Following EIOPA's first and second advices on the analysis of possibilities to further recognise some specific forms of non-proportional reinsurance in the Standard Formula, some stakeholders claim that the main non-proportional covers in non-CAT non-life underwriting risks are still not enough recognised in the current version of the Standard Formula.

5.8.5.2. Policy issue 2: Recognition of adverse development covers and finite reinsurance covers

5.262 Adverse Development Covers are a form of retrospective reinsurance in which the insurer cedes the claims development risk associated with policies from past underwriting periods. They cover the risk that the existing claims reserves are not sufficient to cover the insurance obligations (i.e. reserve risk) for a defined portfolio or segment.

5.263 Finite reinsurance means reinsurance under which the explicit maximum loss potential, expressed as the maximum economic risk transferred, arising both from a significant underwriting risk and timing risk transfer, exceeds the premium over the lifetime of the contract by a limited but significant amount, together with at least one of the following features:

- explicit and material consideration of the time value of money;
- contractual provisions to moderate the balance of economic experience between the parties over time to achieve the target risk transfer.

5.264 On the basis of detailed numeric sensitivity analyses performed in 2016 and 2017, EIOPA advised on no recognition of finite reinsurance and adverse development covers in the non-life underwriting risk of the Standard Formula.

5.265 Some stakeholders did however raise the issue for possible reconsideration in the future of the outcomes set out in the former advice provided by EIOPA in February 2018.

5.8.5.3. Policy issue 3: recognition of *Contingent capital* as a financial instrument reducing the SCR

5.266 Contingent Capital is an arrangement signed between a (re)insurer and a generic counterparty (not necessarily a regulated entity) that will trigger a purchase of new insurer's shares by the counterparty at a specific price mechanism upon the occurrence of a specific event, both elements being pre-defined in the contract.

Example of Capital contingent instrument

Insurer A enters a contract with Firm B (not necessarily a regulated entity).

The contract stipulates that, if any of the three events defined below occur at any time within the next 3 years, Firm B is committed to buying for €10 million new shares of Insurer A (conducting to a capital increase for Insurer A); the new shares are generally issued with a discount (e.g. 5%) on the average market price recorded on the trading days following the event. In such case, Firm B has to provide the cash to Insurer A within a predefined timeline (e.g. 10 days).

Event 1: Firm A occurs a technical loss above a threshold (e.g. € 1m) for a specific event (e.g. NatCat).

Event 2: The loss ratio of a given LoB is higher than 120% for 2 consecutive semesters.

Event 3: The share price of Insurer A falls below a given value.

5.267 Should this capital contingent instrument be accounted for in the Standard Formula or Internal Model as a way to decrease the SCR?

5.8.5.4. Policy issue 4: recognition of Contingent Convertible Bonds as a financial instrument reducing the SCR

5.268 A Contingent Convertible Bond is an arrangement signed between a (re)insurer and a generic counterparty (not necessarily a regulated entity) according to which an undertaking issues a debt which might be later converted in new insurer's shares then held by the bondholder at a specific price mechanism upon the occurrence of a specific event, both elements being pre-defined in the contract.

5.269 As an example, such Contingent Convertible Bond instruments have already been issued with the following features:

- The insurance triggers are property or operational risk losses above a certain threshold.
- The conversion price is determined based on the average of the stock prices (the company is listed) over the conversion price calculation period which occurs after the public reporting of the quarterly (or annual) results. There is a floor to the conversion price which is set at the outset of the transaction to 50 % of the stock price at issuance. This means that in the case of a severe drop in stock prices the bondholder is forced to "acquire" stocks at a price that is higher than the market price.

5.270 Should this bond be accounted for in the Standard Formula or Internal Model as a way to decrease the SCR?

5.8.5.5. Policy issue 5: clarity of current provisions on the assessment of basis risk in the Delegated regulation

5.271 The Delegated Regulation does not clearly define the term material basis risk. “Guidelines on basis risk”, EIOPA-BoS-14/172, provides some guidance to situations where the use of a risk-mitigation technique will result in material basis risk and the guideline furthermore provides a list of assessment criteria that the undertakings should take into account for financial risk-mitigation techniques. However, there does not exist a similar list of criteria for insurance risk-mitigation techniques. And even though the undertakings shall make every effort to comply with the guidelines and recommendations, cf. 1.16 of Guidelines on basis risk, NSAs cannot use the guidelines as a legal basis to object to undertakings’ use of certain risk-mitigating instruments.

5.272 EIOPA has identified instances where reinsurance contracts provide disproportionally increased risk reduction at the standard formula stress event, which can result in a capital requirement that would be insufficient at less severe stress scenarios. This may arise due to the deterministic nature of the Solvency II standard formula stresses, which only consider capital requirements for a particular stress event, rather than a distribution of scenarios. This can misrepresent the appropriate level of capital required by undertakings.

5.8.6. Analysis

5.8.6.1. Policy issue 1: Further recognition of the most common non-proportional reinsurance covers for non-life underwriting risks in the Solvency Capital Requirement standard formula

5.273 Two different proposals have been made during the SCR review process in 2016-2017 on the possibilities to further recognise some specific forms of non-proportional reinsurance in the Standard Formula.

5.274 The first proposal was to include a “RM_other” factor on top of the premium and reserve risk module, which would particularly capture recognizable non-proportional reinsurance.

5.275 The second proposal was to let the non-proportional reinsurance factor in Article 117(3) of the Delegated Regulation be undertaking-specific and depend on the particular non-proportional reinsurance program of the undertaking. The proposed calculation was as to the proposal for adverse development covers.

5.276 Another mentioned idea was to move the existing USPs for non-proportional reinsurance for premium risk to the standard formula.

5.277 EIOPA acknowledges the need to properly address the reactions provided by stakeholders after the latest EIOPA Advice, but still sees further clarity on some methodological arguments is still needed to consistently and properly address the policy issue.

5.278 For instance it still remains unclear how the term "RM other" should be calculated without specifying loss scenarios corresponding to the loss in basic own funds resulting from the calculations of the non-life underwriting risk module. The same applies to the second proposal where the non-proportional reinsurance recovery would also need to be calculated under a premium risk loss scenario. Both proposals would imply that the calculation of the premium and reserve risk module would be a mixture of a formula and scenario-based calculation. Apart from the substantially increased complexity of the premium and reserve risk calculation, the mixture of a formula and scenario-based calculation within one risk-module might lead to unintended technical inconsistencies (see the analysis on finite reinsurance) and double counting issues. On the one hand the methodology itself entails some complexity. On the other hand, only undertakings having a sufficient data quality should benefit from a calculation of undertaking-specific risk factors.

5.279 More generally, it is very important to emphasize that for a standard formula user non-proportional reinsurance plays a much larger role in the catastrophe risk modules. The standard formula acknowledges this importance as almost any non-proportional reinsurance structure can be recognized in the scenario-based calculations in the cat risk module. The design of the cat risks is among other things so complex that all the non-proportional reinsurance structures can be applied.

5.280 The premium and reserve risk module was designed in a simpler way following a formula-based calculation partially recognizing non-proportional reinsurance. Mainly small and medium-sized undertakings benefit from the simple design of the premium and reserve risk module. In this respect, it is worthwhile to mention that in the 2017-2016 SCR review primary insurance undertakings have barely expressed concerns about the design of the premium and reserve risk modules.

5.281 Moreover, it is worthwhile to mention that the premium and reserve risk module is still risk sensitive. In particular, it takes also non-proportional reinsurance for a simple standard formula calculation sufficiently into account. The standard deviations for reserve risk and the volume measures are already net of reinsurance. The non-proportional reinsurance factors for the segments 1, 4 and 5 of Annex II of the Delegated Regulation allow for a significant 20% reduction of the gross risk factors. In this regard it is worthwhile to note that specifically the segments 1, 4 and 5 are most relevant for a potential non-proportional reinsurance cover.

5.282 Finally, after detailed numeric sensitivity analyses, EIOPA advised in the 2016-2017 SCR review a new USP standardised method for the calculation of the adjustment factor for non-proportional stop-loss reinsurance. This USP, eventually introduced in the amended Delegated Regulation (in force since 8 July 2019) by the European Commission, can be applied to any line of business for the premium risk. Accordingly, undertakings who want to benefit from a reduced capital charge in the premium and reserve risk submodule have an additional opportunity to do so.

5.283 Based on the explanations provided above, EIOPA believes that the methods set out in its "Guidelines on application of outwards reinsurance arrangements to the nonlife underwriting risk submodules" continue to be relevant. EIOPA will wait to proceed with the revision of the mentioned Guidelines and the assessment of the extent to which amendments to the legislative framework are necessary to incorporate new methods in the Solvency Capital Requirement Standard Formula after more information from stakeholders is received.

5.284 During the consultation of EIOPA's draft advice Stakeholders have proposed various options to give more recognition to the non-proportional reinsurance structures (both in premium and reserve risk). In the holistic impact assessment at the beginning of 2020, a proposal to give more recognition to non-proportional reinsurance in the 'premium-risk-module' was tested. The outcome of this test was not satisfactory, mainly for two reasons:

- It showed that the impact on an overall basis was negative, which means that the overall capital needs unintentionally rise.
- Secondly, the data submitted by stakeholders to EIOPA were too limited and incomplete to perform an in-depth analysis to allow EIOPA to test numbers back and assess why the numeric impact of the proposal turned out to be contrary to expectations.

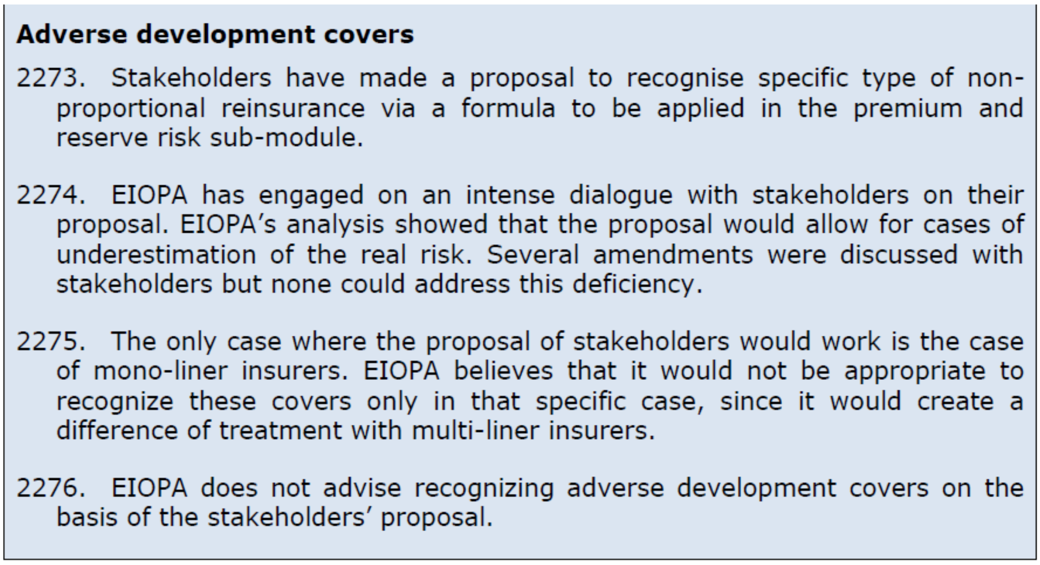
5.285 Internal analysis and discussions with stakeholders showed that the unavoidable complexity of the proposal was probably the reason for this outcome. Due to the possible complexity some (re)insurers might have misunderstood the proposal and therefore submitted 'wrong' input, others might have found the calculation too burdensome and decided not to calculate the impact as they expected little capital relief in their portfolio. Next to this, since the proposal would have replaced the current non proportional reinsurance capital relief that gives relief on three segments (1, 4 and 5) indifferent of actual non-proportional reinsurance in place, this would not be in place anymore.

5.286 As a result, the EIOPA proposal to give more recognition to non-proportional reinsurance in the 'premium risk sub-module' was not further considered.

5.8.6.2. Policy issue 2: Recognition of adverse development covers and finite reinsurance covers

5.287 On 28 February 2018, EIOPA published a second set of advice to the European Commission[139] on specific items in the Solvency Delegated Regulations. The following conclusions were drawn from the in-depth analysis:

[139] https://www.eiopa.europa.eu/sites/default/files/publications/submissions/eiopa-18-075-eiopa_second_set_of_advice_on_sii_dr_review.pdf



Adverse development covers

2273. Stakeholders have made a proposal to recognise specific type of non-proportional reinsurance via a formula to be applied in the premium and reserve risk sub-module.

2274. EIOPA has engaged on an intense dialogue with stakeholders on their proposal. EIOPA's analysis showed that the proposal would allow for cases of underestimation of the real risk. Several amendments were discussed with stakeholders but none could address this deficiency.

2275. The only case where the proposal of stakeholders would work is the case of mono-liner insurers. EIOPA believes that it would not be appropriate to recognize these covers only in that specific case, since it would create a difference of treatment with multi-liner insurers.

2276. EIOPA does not advise recognizing adverse development covers on the basis of the stakeholders' proposal.

5.288 This decision was taken after a series of possible refinements on the proposal, including putting limits to the characteristics of the treaties that can be covered by the proposed methodology. Those limits concern the attachment point and the exit level:

5.289 The attachment point shall not exceed 1.05 times Best Estimate reserves;

5.290 The exit level shall not exceed Best Estimate reserves times (1 + 3 x reserving risk factor).

5.291 After analysing these refinements the following conclusion was drawn:

Although differences are small (-0.5% was the minimum for the first three columns where the limitations proposed by stakeholders are supposed to avoid underestimation), in the end, it seems that even with the proposed refinements there are cases of underestimation and that the bigger the part of the portfolio not covered by the ADC, the more the risks are potentially underestimated. The latter is particularly a problem because by definition of ADC, it covers policies from past underwriting periods, i.e. in kind of run-off, which means that the part of the portfolio covered by ADC is meant to decrease as time passes by. Potential under-estimation would then necessarily increase through time.

5.292 Furthermore the analysis of 2018 states the following:

The standard deviation for reserve risk has been calibrated on a net of reinsurance basis. That means it includes already the average effect of reinsurance, including non-proportional reinsurance, on reserve risk at the time of the calibration. Regular updates of the calibration should ensure that the average effect continues to be appropriately captured.

5.293 Stakeholders however argued that, given the limited amount of ADCs existing in the market, the net of reinsurance calibration might be misleading.

5.294 Further analysis on the risk of double counting, shows that although the initial calibration of the volatility of the reserve risk was based on data 'net of reinsurance', there is no material difference with a 'gross of reinsurance' calibration. This is the case because at the time of the calibration there were almost no 'non-proportional reserve covers' in place and therefore the calibration 'gross of reinsurance' would not have shown any different outcome. (Please note that the impact of proportional reinsurance covers, like regular quota shares (that were in place at the time of calibration) does not influence the volatility of the reserves).

5.295 Even though the former advice from 2018 suggested not to proceed on recognition of ADC in the Standard Formula, EIOPA continued the discussions in 2019 and 2020 and performed some further analyses on data applied to case studies.

5.296 Based on the outcome of the analysis performed in 2018, which shows that underestimation is one of the risks of amending the current framework, the following adjusted formula was proposed, where, for reserve risk, the adjustment factor as mentioned in Article 117(3) Delegated Regulation can be calculated in the following way:

$adjustment\ factor = \frac{(A-(B-C)*D*E)}{A}$ where

A. Impact on basic own funds of reserve risk scenario as defined under the Standard Formula = Nominal best estimate net reserves x Standard deviation for non-life gross reserve risk of the segment x 3
B. ADC recovery under reserve risk scenario = computed as the lower of the following:
   - Nominal best estimate net reserves covered by the reinsurance structure x (1 + 3 σ(res,s)) – reinsurance structure attachment point
   - Reinsurance structure cover size
C. Additional reinsurance premium or the equivalent thereof
D. Cession to the reinsurer in %
E. Prudency factor in %

5.297 Stakeholders have provided EIOPA with several case studies to show the impact of the ADC cover both on the balance sheet (with and without application of ADCs) and on the SCR-calculation. These cases show that the capital relief based on the above defined formula is commensurate with the risk relief.

5.298 To avoid contradiction with the recently published 'Supervisory Statement on the use of risk mitigation techniques by insurance and reinsurance undertakings', limitation on attachment- and detachment point of the ADC were added to the proposal. These limitations grant the compliance with the 'requirement' of a proper balance between risk transfer and capital relief.

5.299 The analysis from 2018 shows there is mutual agreement on the fact that this formula works in case there is only one line of business. The doubts arise in case other lines of business are added to the examples (be it with ADC cover or without), because of diversification and correlation effects.

5.300 However, the case studies do not confirm these concerns from the 2018-analysis on the risk of underestimation[140]. EIOPA notes that with the limitations proposed in 2018 regarding the attachment and detachment point, the risk of underestimation is limited.

[140] It should be recognised that during the 2018 analysis, these case studies were not available and EIOPA had to base its conclusions on, at that date, very limited available SII-reported data.

5.301 Nevertheless, to overcome the risk of possible underestimation, EIOPA proposes to add a prudency factor into the formula that will be evaluated by EIOPA, based on reported data, on a bi-annual basis.

5.302 Next to the above, the limitations that were analysed in 2018 can still be kept in the proposal

5.303 The attachment point shall not exceed (1+σ) times Best Estimate reserves;

5.304 The limitation on the attachment point, showed more stable and prudent results in the 2018 analysis. The exit level is embedded in the formula reported in the above paragraphs.

5.305 Stakeholders argue that a typical attachment point of an ADC-transaction is anyhow (close to) the Best Estimate and the limit is usually defined around the 99.5 percentile (giving full recognition of the Solvency II corner stones).

5.306 Additionally, to overcome the issue of reserves decreasing in ADC-covered lines of business compared to other lines, undertakings should perform on an annual basis, the recalculation of the cover, possible reinsurance recoverable, the attachment point and premium with regard to the AD covers in place. This would overcome the risk of the attachment point drifting away from the decreasing reserves over time and therefore decrease the risk of underestimating the risk.

5.307 Finally, EIOPA is of the opinion that it is not prudent to recognise multi line covers (there is always a risk that a cover may be exhausted by an adverse development in one line, leaving the other line partially uncovered), therefore we propose to only recognise AD-covers that cover one specific group of policies (with the same risk characteristics within the same segment) at the time with it’s own attachment and detachment point. It is however possible to have multi lines covered, but not in the same (sub)contract. An overall contract might be useful.

5.308 Furthermore EIOPA advises to develop further level 3 guidance on the application of ADC in the standard formula. The aim of this level 3 guidance is to give clarification on the definition of the applicable cover, the parameters involved and the way to calculate the appropriate adjustment factor and as a consequence the appropriate capital relief.

5.309 With regard to finite reinsurance some stakeholders suggested the application of an allowance ratio to limit the amount of finite reinsurance to be recognized. It relies on a stress test approach aiming at assessing the absorbing loss capacity of finite reinsurance schemes. As acknowledge by stakeholders, finite reinsurance is of various type. EIOPA has concerns about a one-size-fits-all approach. The proposed allowance ratio a does not take into account specific features of instruments and is inappropriate to deal with the vast variety of finite reinsurance schemes. Furthermore, the calculation of the Allowance Ratio would imply that undertakings define their own of 1/200 years stress scenario. This is contradictory to the standard formula assumptions.

5.8.6.3. Policy issue 3: recognition of *Contingent capital* as a financial instrument reducing the SCR

Standard Formula (SF)

5.310 This instrument could not be considered as a "risk mitigation technique" as it does not transfer any risk accounted for in SF. Indeed:

- — the contingent capital operation does not necessarily cover a risk accounted for in the SF;
- — when an event triggered, it has no P&L impact for the insurer;
- — as the shares are bought some time after the shock, arguably the new shareholders won't share the loss.

5.311 Thus, this instrument could not be qualified as a "risk mitigation technique" and could not reduce the SCR under SF.

Internal Models (IMs)

5.312 However, in IMs, the instrument does not have to be qualified as a "risk mitigation technique" to reduce the SCR.

5.313 Indeed, one could argue that the SCR "shall correspond to the Value-at-Risk of the basic own funds of an insurance or reinsurance undertaking subject to a confidence level of 99,5% over a one-year period" (Article 101 of the Directive). With this definition, the effect of such instrument could be taken into account in internal models as its triggering (in some scenarios) results in a variation of basic own funds.

5.314 If such instrument is considered into internal models, NSAs should pay attention at the following items:

- — the triggering of the instrument should be linked to a specific risk (not the level of SCR for instance);
- — the credit risk on the contingent capital should be modelled properly.

5.315 Two options are considered regarding the recognition of this instrument in IMs:

- **Option 1:** Recognition of this instrument in IMs.
- **Option 2:** Non-recognition of this instrument in IMs. This option is consistent between SF and IMs.

5.8.6.4. Policy issue 4: recognition of *Contingent Convertible bonds* as a financial instrument reducing the SCR

SF

5.316 Does this instrument should be recognized as a "risk mitigation technique"?

For recognition:

- — If the trigger is linked to a property loss, the bond effect could be properly taken into account to mitigate the property risk (due to the structure of the

SF). On the other hand, if the trigger is linked to an operational loss, the bond cannot be used to mitigate operational risk.

— There is a limited transfer of risk: there is a risk that after the trigger event the insurer might not find enough buyers to issue shares in the market or would need to issue them at a substantial discount to the equity price before trigger. So, the bondholder also bears risk if the bond is not converted at the market price.

For non-recognition:

— Such instrument does not have a P&L effect, i.e. the instrument does not impact the income of the insurer when triggering.

— Such instruments are not explicitly mentioned in the Solvency II framework

— Recital 70 of the Delegated Regulation

  ➢ According to Recital 70 of the Delegated Regulation "the recognition of risk-mitigation techniques in the calculation of the Solvency Capital Requirement should reflect the economic substance of the technique". In that case, the economic substance of the RMT is linked to the stock price that is not modelled in the standard formula. Thus, the risk mitigating effect could not be properly taken into account in SF.

— Article 101 of the Solvency II Directive

  ➢ This article states that the SCR reflects underwriting risks, markets risk etc. of existing and future business. It does not include the planned issuance of own funds

IMs

5.317 The last reference (regarding Article 101 of the Solvency II Directive) could also argue for a non-recognition of the instrument in IMs.

5.318 However, it cannot be denied that the (partial) conversion of the bond after the insurance trigger increases the own funds, as balance sheet liabilities are reduced.

5.319 In this way, one could argue that the SCR " shall correspond to the Value-at-Risk of the basic own funds of an insurance or reinsurance undertaking subject to a confidence level of 99,5 % over a one-year period". In that case, the instrument could be triggered in some scenarios, and the risk mitigation effect of the bond should be captured in IM.

5.320 Three options are considered regarding the recognition of this instrument in the SF and in IMs:

- **Option 1:** Recognition of this instrument in the SF and in IMs. Recognizing the effect of this instrument in SF would mean to recognize this instrument as a "risk mitigation technique".
- **Option 2:** Recognition of this instrument only in IMs. Even if this instrument is not a risk mitigation technique, its effect could still be recognized in IMs.
- **Option 3:** Non-recognition of these instruments in SF and IMs. In that case, the instrument would not be recognized as a risk mitigation technique in SF. The treatment between SF and IM will be consistent.

5.8.6.5. Policy issue 5: clarity of current provisions on the assessment of basis risk in the Delegated Regulation

5.321 In order to gather relevant information for the revision of the Solvency II Directive, a short survey was formulated within the EIOPA and addressed to the NSAs concerning some components of the SCR mentioned in the call for advice. The answers received have been used to inform this advice.

5.322 The survey launched to NSA's showed situations where reinsurance is used to significantly reduce the SCR where there is limited risk mitigation. Based on the current wording of Article 210 of the Delegated Regulation there might be difficulties in finding a legal basis to object to such reinsurance. The main issue is that currently the regulations do not specify that the capital savings needs to be commensurate with the amount of risk transferred.

5.323 NSAs in particular have concerns where the undertaking targets the risk mitigation technique at the level of the SCR standard formula stress. As a consequence of this the undertaking may be exposed to a materially increased probability of ruin at less severe events than the 1:200. Where such a situation occurs, the NSA believes it would not be appropriate for the undertaking to realise the full benefit from the risk mitigation technique in the SCR.

5.324 The following principle was set out in CEIOPS advice but was not included in the Delegated Acts:

CEIOPS' Advice for Level 2 Implementing Measures on Solvency II: SCR standard formula - Article 111 f Allowance of Reinsurance Mitigation Techniques

3.41 The risk mitigation technique shall effectively transfer risk from the undertaking. The undertaking needs to be able to show the extent to which there is an effective transfer of risk in order to ensure that any reduction in SCR or increase in available capital resulting from its reinsurance arrangements is commensurate with the change in risk that the insurer is exposed to.

3.49 The SCR shall reflect the economic substance of the arrangements that implement the technique. In principle, this would be through:

— *a reduction in requirements commensurate with the extent of risk transfer, and*

— *an appropriate treatment of any corresponding risks that are acquired in the process.*

5.325 Therefore, EIOPA recommends that the above principle is included in the Delegated Regulation.

5.9. Reducing reliance on external ratings

5.9.1. Extract form the call for advice

3.19. Reducing reliance on external ratings

The Commission is working towards reducing the references to external credit ratings for regulatory purposes. In the specific context of the insurance sector, the *review of the Solvency II Delegated Act has already provided insurers with new methodological approaches to assess credit risk for unrated debts (namely the "internal assessment approach" and the "internal model approach").*

Beyond the scope of the proposed amendments in the context of the review of the Delegated Act, EIOPA is therefore asked to advise on additional methods allowing for a wider use of those alternative credit assessments. Such an approach may target corporate exposures that are also rated by credit rating agencies, and should be commensurate to the nature, scale and complexity of the risks to which the undertaking is exposed.

5.9.2. Previous advice

5.326 EIOPA provided advice in chapter 10 of the "second set of advice to the European Commission on specific items in the Solvency II Delegated Regulation (EIOPA-BoS-18/075)", as of 28 February 2018, regarding the criteria applicable to bonds and loans for which no credit assessment by a nominated ECAI is available. In particular, it was advised the use of the internal assessment approach or banks' approved internal models subject to the restriction that the sum of the debt items where the risk charge is determined with the internal assessment approach or based on the results of an approved internal model plus the equity investments to which the similarity approach is applied does not exceed 5 % of all investments. All the advice, but this latter limit of 5%, has been taken on board by the Commission and is now part of the revised Delegated Regulation.

5.9.3. Relevant legal provisions

Solvency II Directive

5.327 Article 13(40) of the Solvency II Directive defines "external credit assessment institution" or "ECAI" as a credit rating agency that is registered or certified in accordance with Regulation (EC) No 1060/2009 or a central bank issuing ratings which are exempt from the application of that regulation.

Delegated Regulation

5.328 According to Recital 2 of the Delegated Regulation, in order to reduce overreliance on external ratings, insurance and reinsurance undertakings should aim at having their own credit assessment on all their exposures. However, in view of the proportionality principle, insurance and reinsurance undertakings are only required to have own credit assessments on their larger or more complex exposures.

5.329 Article 4 of the Delegated Regulation sets out general requirements on the use of credit assessments by (re)insurance undertakings. According to paragraph 5 of this Article, where an item is part of the larger or more complex exposures of the insurance or reinsurance undertaking, the undertaking shall produce its own internal credit assessment of the item and allocate it to one of the seven steps in a credit quality assessment scale. Where the own internal credit assessment generates a lower capital requirement than the one generated by the credit assessments available from nominated ECAIs, then the own internal credit assessment shall not be taken into account for the purposes of this Regulation.

5.330 The rules for deciding whether a credit assessment by a nominated ECAI is available can be found in Article 5 of the Delegated Regulation.

5.331 The treatment of bonds and loans for which a credit assessment by a nominated ECAI is not available in the spread risk sub-module is set out in Article 176(4) and 176(4a) and (5) of the Delegated Regulation. The Delegated Regulation was amended in 2019 to include two new methodological approaches to assess credit risk for unrated debts. Undertakings can either use Internal assessment defined in Articles 176(a) and 176(b), or Assessment of credit quality steps based on an approved internal model as defined in Article 176(c).

5.332 Article 105(a) of the Delegated Regulation sets out the simplified calculation for the risk factor in the spread risk sub-module and the market risk concentration sub-module and the conditions to apply it. Where the conditions of Article 105(a) are met and where the (re)insurance undertaking complies with the requirements of Article 88 of the Delegated Regulation on proportionality, the (re)insurance undertaking should not be required to nominate another ECAI and should be allowed to calculate its spread risk sub-module and its market risk concentration sub-module as if the assets not covered would be of credit quality step 3.

Implementing regulations

5.333 The Commission published the following implementing regulations regarding external credit assessment:

- Commission Implementing Regulation (EU) 2015/2015 laying down implementing technical standards on the procedures for assessing external credit assessments; and
- Commission Implementing Regulation (EU) 2016/1800 laying down implementing technical standards with regard to the allocation of credit assessments of external credit assessment institutions to an objective scale of credit quality.

5.9.4. Other regulatory background

5.334 The credit rating agencies regulation, which lays down that rating methodologies should be rigorous, systematic, continuous and subject to validation based on historical experience, including back-testing (Article 8(3) of Regulation (EU) No 462/2013).

5.335 The banking regulation for purposes of calculating own funds requirements for credit risk allows competent authorities to permit institutions to use the Internal Ratings Based Approach (IRB Approach), provided that the conditions set out in Part Three, Title II, Chapter 3 of the CRR itself are met (Article 143(1) of Regulation (EU) No 575/2013 (the Capital Requirements Regulation, CRR).

5.9.5. Identification of the issues

5.336 Currently there is a need to strike the balance between broadening the scope of application of alternative credit assessment, thoroughness of additional alternative credit assessment methods and reduction of external rating reliance.

5.9.5.1. Policy issue 1: Scope of assets subject to alternative credit assessment

5.337 If the scope of the unrated debt approaches is broadened to include also exposures to rated debt, then the choice of categories of corporate bond to be included would need to be identified. Currently, the scope of the two approaches from Articles 176a to 176c is limited to corporate debt (i.e. does not include infrastructure project debt, sovereign exposures and unrated qualifying mortgages as there are already provisions for these). This debt may be issued either in the form of a bonds or a loans. Financial debt is excluded from scope. This is because of complexity of these exposures, and existing provisions in Solvency II for ratings based on solvency position. Also excluded from scope are debt issued by borrowers in the same group as the (re)insurance undertaking making the investment in the debt.

5.9.5.2. Policy Issue 2: Recognition of additional methods allowing for a wider use of alternative credit assessment currently provided for in the Delegated regulation

5.338 The choice of additional approaches to assess the credit quality requires the previous definition of a scope of application in order to develop a proper methodology. A rating methodology aiming to be robust should comply with a number of criteria such as:

- discriminatory power, namely the ability to rank the rated entities in accordance to their future status (defaulted or not defaulted) at a predefined time;
- the predictive power of a methodology, which can be demonstrated by comparing the expected behaviour of the credit ratings to the observed results;
- the stability of credit ratings assigned by the methodology.

5.9.6. Analysis

Policy issue 1: Scope of assets subject to the alternative credit assessment currently provided for in the Delegated Regulation
Option 1.1 No change

5.339 According the revised Delegated Regulation, the internal assessment approach (Article 176a) provides a mechanism by which (re)insurance undertakings can perform their own high level assessment of the credit quality of their unrated debt exposures. Unrated debt may qualify to be treated the same are rated debt of CQS 2 or 3, if the following criteria are met:

— Financial ratios of the borrower meet certain requirements ;

— Yields on the debt comply with certain requirements ;

— Certain additional conditions are met in relation to the borrower and in relation to the debt issuance ; and

— Internal credit assessment is performed, covering a list of qualitative and quantitative aspects of the debt issue and the borrower.

5.340 An alternative approach may be used, where insurers co-invest in unrated debt with a bank to use the credit rating produced by the bank's own Internal Rating Based (IRB) model in Solvency II. It is stand-alone and an alternate to the internal assessment approach.

5.341 In order for the bank rating to be used, certain criteria need to be met. These are in relation to the type of debt, transparency of information (the insurer needs to have sufficient information about the model and data used by the bank in coming to the rating), and criteria for the avoidance of adverse selection (bank retains some exposure to the debt).

5.342 By design, the approach developed is high level and only appropriate for small exposures to unrated corporate debt. It was never intended to replace a credit assessment performed by an ECAI, as the level of sophistication involved in the approach is not comparable.

Option 1.2 Broaden the scope of the current undertaking's own internal credit assessment to include certain corporate exposures that already have an ECAI rating

5.343 Broaden the scope of the current internal credit assessment, including certain corporate exposures that already have an ECAI rating.

5.344 At a total EEA level at year-end 2017, corporate debt made up 31%[141] of the total investments by undertakings. Of these investments, 97% were rated CQS 3 or higher (further detail in the table below).

CQS	Percentage of total Corporate Bond Investment (EEA)[142]
0	21%
1	16%
2	32%
3	28%
4+	3%

5.345 Therefore, the scope of assets that could potentially be subject to an alternative credit assessment is very large. However that would also mean that the risks involved with such an approach are very hefty.

[141] Excluding assets held for UL and IL. Taken from EIOPA's 2018 LTG report

[142] Excluding UL and IL

5.346 The criteria set out in Article 176a of the Delegated Regulation were developed to be specific to unrated debt. At present there is no experience of the implementation of these criteria by (re)insurers as disposals of the amendments of the Delegated Regulation will be included in the annual reporting for the first time in 2019. Therefore, it cannot be determined at this stage if the criteria are appropriate or if there are any unintended consequences. Give the circumstances, it is premature make any proposals on how possibly refine the alternative assessment provided for in the new Delegated Regulation to tailor also certain rated corporate exposures and/or allow a phase in, one (e.g. the approach could only be used on rated debt up to 10% of total assets in order to mitigate these risks).

5.9.6.1. Policy issue 2: Recognition of additional methods allowing for a wider use of alternative credit assessment

Option 2.1 Use of composite index

5.347 The approach is based on a rating composite index. Specifically it uses the Bloomberg Composite (COMP), which is a blend of a security's Moody's, S&P, Fitch, and DBRS ratings. The rating agencies are evenly weighted when calculating the composite. COMP is the average of existing ratings, rounded down to the lower rating in case the composite is between two ratings. The composite index is not available, where the bond is rated by only one of the four rating agencies. Expected ratings and unsolicited ratings are not included in calculating the composite.

Option 2.2: Recognize, at this stage, new alternative credit assessment approach to mirror rated bond features

5.348 Leveraging on the method already developed for unrated debt, one option is to elaborate a different alternative approach tailored on rated companies. With regard to the internal assessment approach, this method aims to take into account, in a more structured way, the qualitative information (e.g. governance, ownership structure, market placement) and to encompass also forward looking information, such as business plans data. As a matter of fact, the previously mentioned information is not easily available for assessment of small companies but play a relevant rule for large corporates companies and better mirror also the current rating agencies methodologies. It could be weighted the opportunity to use this more complex internal assessment methodology, for exposures above a given percentage of the total assets, in order to take into account the principle of proportionality. With reference to the use of internal models it should be taken into account that there is a trend in the bank industry to not rely for large corporates on approved internal models since they hinge up low default data.

Option 2.3: No recognition of additional methods for the time being, but open an analysis table to investigate how new alternative credit assessment methods could be tailored on specific rated exposures under a standard methodology.

5.349 The solution pursues the enhancement of the new alternative assessment methods (internal assessment approach and internal models) in order to tailor specific rated exposures but only after that a proper testing and impact assessment has been performed. In other words, it would be a sort of "extension" to rated bonds fulfilling new criteria. It should be highlighted that, to incentivize the use of these internal credit assessment methods, fostering better risk management processes, the opportunity to grant lower capital requirements could be weighted revising also the recital 4 of the Delegated Regulation, stating that "in order to avoid the risk of biased estimations of the credit risk by insurance and reinsurance undertakings that do not use an approved internal model to calculate the credit risk in their Solvency Capital Requirement, their own credit assessments should not result in lower capital requirements than the ones derived from external ratings".

5.350 Regarding the policy issues the proposal is to not recognize additional methods for the time being, but to open an analysis investigating if and how alternative credit assessment could be tailored on specific rated exposures and under a standard methodology. The purpose is to overcome the potential shortcomings to be faced where a methodology drafted for unrated debt is used and to allow the undertakings to invest in regulatory models to be used in internal risk management. Moreover, it would allow to perform an impact assessment before the final methodology is set up. The other options considered have been disregarded because not fit for purpose, could entail moral hazard and adverse selection, may pose risk to consistency and does not ensure enough control of the processes and compliance.

5.351 The selection of the preferred option has required a trade-off between adequacy of the approach and prudence of the methodology chosen. More weight has been given to achieve a robust method rather than to the timing, because it would help the industry to conform to the risk management best practices and to limit potential undesirable consequences.

5.352 The comparison of options against a baseline scenario has been based on a pro and cons assessment. In particular the effectiveness of each option has taken into account how it ensures adequate market-consistent technical provisions, the appropriateness of risk sensitive capital requirements and the promotion of good risk management, as approved by the EIOPA Board of Supervisors in March 2019.

5.10. Transitional on government bonds

5.10.1. Extract from the call for advice

3.3. Transitional measures

Title VI Chapter I of the Solvency II Directive lays down a number of transitional provisions. EIOPA is asked to assess the ongoing appropriateness of the transitional provisions in terms of policyholder protection and level-playing field. This assessment should, where applicable, also assess whether the ongoing possibility for companies to newly apply for the transitional measures should continue. EIOPA may prioritise its work on the different transitional measures, *provided that the advice states the reason for doing so. However, EIOPA's assessment should cover at least the transitional measures referred to in Articles 308b (12) and (13), Article 308c and Article 308d of the Solvency II Directive.*

5.10.2. Relevant legal provisions

5.353 Article 308b(12) of the Solvency II Directive sets out the transitional provision on the SCR for exposures to Member States' central governments or central banks denominated and funded in the domestic currency of any Member State (other than the currency of that Member State).

5.10.3. Identification of the issue

5.354 Exposures to Member States' central governments or central banks denominated and funded in the domestic currency of any Member State are subject to a phase-in of standard formula SCR stress factors for spread risk (Article 180(3) Delegated Regulation) and market risk concentrations sub-module (Article 187(4) Delegated Regulation) increasing from 0% in 2016 to the standard factor in 2020. The expiration of this transitional in 2020 could pose a problem to for those undertakings having exposures to Member States' central governments or central banks denominated and funded in a domestic currency different from their own domestic currency. This would be particularly the case for undertakings located in countries not taking part in the euro[143], but having exposures to EU Member States' central governments/banks denominated and funded in euro.

5.10.4. Analysis

5.355 EIOPA has analysed information from QRT template S.06.02.01 as of YE 2016, 2017 and 2018 to understand to what extent the transitional at issue is used and how relevant it is for the undertakings that apply it in terms of exposure. Exposure is relevant for only some jurisdictions outside of euro area. Please note that for the purpose of this impact assessment look through has not been performed.

5.356 In absolute terms the exposure is substantially low, representing 1.56% of the total asset in the EU at YE2018, a negligible amount. However, for some non-euro countries, such exposures can be very material, accounting for as much as 32% of total investments, at the same reference date.

5.357 There is no evidence of a clear trend towards reducing this kind of exposures in view of the expiry of the transitional, signing that no massive divestments are expected.

5.358 One only policy option assessed for this policy issue is not to change the current regulation, although EIOPA is aware of the materiality for some jurisdictions and of the potential impact on SCR. The justification for this is that undertakings were already prepared to the expiration of the transitional; moreover, proposing to

[143] Bulgaria, Croatia, Czech-Republic, Denmark, Hungary, Poland, Romania, Sweden, UK.

reactivate a measure that by the time of entry into force of the revised Solvency II Directive will be expired would be atypical and technically hard to justify.

5.359 EIOPA also considered a second policy option which was triggered by the current lack of cross-sectoral consistency and level playing field in the treatment of exposures to Member States' central governments or central banks denominated and funded in the domestic currency of any Member State.

5.360 In the banking framework, Regulation (EU) No. 575/2013 of the European Parliament and of the Council of 26 June 2013 (CRR) was modified through Regulation (EU) 2017/2395 of the European Parliament and of the Council of 12 December 2017, which in practice established a grandfathering regime for such exposures, provided that they were incurred before 12 December 2017.

5.361 In order to ensure a cross-sectoral level playing field, current exposures by insurance undertakings to the relevant assets should be exempted from capital requirements (grandfathering). The grandfathering could cover the spread risk charge, the market risk concentrations charge or both. The grandfathering requires a change to the Solvency II Directive.

5.362 The banking regulation includes a grandfathering provision in relation to the large exposures regime. Given that the purpose of the large exposure regime is to limit concentration risk, there is a direct correspondence between that regime and the market risk concentrations charge in the Solvency II SCR standard formula.

5.363 Given the immateriality of the issue at EEA level, for simplicity/proportionality reasons EIOPA considers that the grandfathering provision should be applicable to both the market risk concentrations and spread risk charges.

5.364 The provision should apply to exposures incurred before 31 December 2019. As these exposures mature, the conventional Solvency II charges for government bonds denominated in another currency will apply.

6. Minimum Capital Requirement

6.1 Extract from the call for advice

> ***3.9. MCR***
>
> *EIOPA is asked to report on Member States' rules and supervisory practices adopted pursuant to the adoption of paragraphs 1 to 4 of Article 129 of the Solvency II Directive. In particular, EIOPA is asked to report on the following items:*
>
> - *quantitative and qualitative information with regard to the use and the level of the cap and the floor set out in paragraph 3 of Article 128, as well as of the absolute floor referred to in paragraph 1(d);*
> - *potential issues faced by supervisors with regard to the calculation of the Minimum Capital Requirements and where applicable, recommendations on how they could be addressed;*
> - *an assessment on whether the rules governing the calculation of the Minimum Capital Requirement continue to be consistent with a Value-at-Risk of the basic own funds of an insurance or reinsurance undertaking subject to a confidence level of 85% over a one-year period;*
> - *potential divergences in supervisory practices in cases of non-compliance with the Minimum Capital Requirement, with regard to the withdrawal of authorization, including the timing of withdrawal, the supervisory powers following the withdrawal of authorisation, as well as to the restriction or prohibition of free disposal of assets;*
> - *potential issues with regard to the identification of eligible basic own funds items for composite undertakings, in accordance with Article 73(3) of the Solvency II Directive and where applicable, recommendations on how they could be addressed.*

6.2 Previous advice

6.1 CEIOPS-DOC 69/10: CEIOPS' advice for level 2 implementing measures on Solvency II: Article 130 calibration of the MCR

6.3 Relevant legal provisions

6.2 Solvency II Directive:

— Article 74 (separation of life and non-life insurance management)

— Article 128 (MCR general provisions)

— Article 129 (calculation of the MCR)

— Article 139 (non-compliance with MCR),

— Articles 140 (prohibition of free disposal of assets), Article 142 (finance scheme) and Article 144 (withdrawal of license),

- Chapter III - Article 273-284 (winding-up proceedings).

6.3 Delegated Regulation:

- Article 248 (Minimum Capital Requirement)
- Article 249 (Linear Minimum Capital Requirement)
- Article 250 (Linear formula component for non-life insurance and reinsurance obligations)
- Article 251 (Linear formula component for life insurance and reinsurance obligations)
- Article 252 (Minimum Capital Requirement: composite insurance undertakings)
- Article 253 (Absolute floor of the Minimum Capital Requirement)

6.4 Calculation of the Minimum Capital Requirement

6.4.1 Identification of the issues

6.4 A dedicated survey launched to NSA's showed that the vast majority of them do not face any issue **with regard to the calculation of the MCR**.

6.5 With regard to **the identification of eligible basic own funds items for composite undertakings**: the majority of NSAs do not face any issues (some of them because not supervise composite undertakings), but one single following issue is shared by some of them and is described below as the third issue.

Policy issue 1: the use of cap and floors

6.6 It can be noticed that globally there is a wide use of them, which means that the MCR only rarely corresponds to the linear calculated MCR. As a consequence, it is not obvious that the cap and floors are well designed and are useful. Several options are proposed in the analysis part.

Policy issue 2: consistency of the calculation of the Minimum Capital Requirement with a Value-at-Risk of the basic own funds of an insurance or reinsurance undertaking subject to a confidence level of 85% over a one-year period

6.7 It was not expected that a simple linear formula will accurately reflect a prescribed level of confidence, but it was deemed to be a proper proxy of it. When it comes to life MCR, no evidence was found that the calculation would no longer be consistent with a Value-at-Risk of the basic own funds subject to a confidence level of 85% over a one-year period. Indeed, the life SCR calculation has not been heavily impacted by the 2018 review changes. When it comes to non-life MCR, the alpha and beta parameters are directly linked to the sigma parameters for premium and reserve risks. Since the 2018 review has led to changes in the sigma parameters for some segments (credit and suretyship, legal expenses, assistance, accident, workers compensation, non-proportional health reinsurance), the corresponding alpha and beta parameters need to be updated.

Policy issue 3: potential issues with regard to the identification of eligible basic own funds items for composite undertakings

6.4.2 Analysis

6.4.2.1 Use of cap and floors

6.8 The following table gives some descriptive statistics on the use of cap, floor and absolute floor for all undertakings in the EEA (based on annual solo YE18 figures).

EEA undertakings	Linear MCR	Absolute floor	Floor = 25% SCR	Cap = 45% MCR
Life	18%	23%	22%	37%
Non-Life	28%	35%	25%	12%
Reinsurance	17%	36%	41%	6%
Composite	31%	20%	26%	23%
Total	25%	30%	26%	18%

6.9 It can be noticed that globally there is a wide use of caps and floors. The MCR corresponds to the calculated linear MCR only in 25 % of the cases, all undertakings together.

6.10 It can be outlined that for life undertakings there is a wider use of the cap, while for reinsurance there is a wider use of the floor. All in all however, the scarce use of linear MCR is widespread for all types of undertakings. Besides, it can be noticed that the same holds true in most jurisdictions taken individually. As a consequence, it is not obvious that the cap and floor are well designed.

6.11 The use of the absolute floor is fairly logical for very small undertakings, which carry few risks and as a consequence have a small SCR. Given the levels of the absolute floors, this is typically the case for non-life undertakings for which SCR is under 5.6M€ or life undertakings for which SCR is under 8.2M€. It is not surprising that there are more small undertakings in non-life than in life. The absolute floor is security to ensure minimal own funds and avoid tiny undertakings in the market. The actual levels are deemed satisfactory.

6.12 The wide use of caps and (non absolute) floors means that the linear MCR often departs from 35% of the SCR. This can mean either that the probability distribution forecast underlying the calculation of the SCR departs from the Normal hypothesis or that the MCR linear formula is a rough proxy of the VaR 85% of it.

6.4.2.2 Consistency with a VaR 85%

6.13 When it comes to life MCR, there is no clue that the calculation would no longer be consistent with a Value-at-Risk of the basic own funds subject to a confidence level of 85% over a one-year period. Indeed, the life SCR calculation has not been heavily impacted by the 2018 review changes.

6.14 When it comes to non-life MCR, the alpha and beta parameters are directly linked to the sigma parameters for premium and reserve risks. The rationale behind the closed formulae used are explained in the CEIOPS paper: CEIOP-DOC 69/10, "calibration of the MCR". Since the 2018 review has led to changes in the sigma parameters for some segments (credit and suretyship, legal expenses, assistance, accident, workers compensation, non-proportional health reinsurance), the corresponding alpha and beta parameters needed to be updated.

6.15 Reproducing the CEIOPS methodology on former sigma parameters, it appears that the final calibration for the K parameter is 0.91 and not 1.18 as stated in the CEIOPS advice. Consequently, K = 0.91has also been used for the new calibration.

6.16 It is believed that the former methodology is still adequate in order to compute a Value-at-Risk of the basic own funds subject to a confidence level of 85% over a one-year period, and that the proxy of a 35 % ratio between the 99.5% and 85% confidence levels (corresponding to a Normal distribution) is still accurate enough for the purpose of the calculation of the MCR.

6.17 The following table summarizes the results of the MCR recalibration for all segments:

Segment	Alpha_old	Alpha_new	Beta_old	Beta_new
Motor vehicle liability	8,5%	8,5%	9,4%	9,4%
Motor other classes	7,5%	7,5%	7,5%	7,5%
Marine, aviation, transport	10,3%	10,3%	14,0%	14,0%
Fire and property	9,4%	9,4%	7,5%	7,5%
Third-party liability	10,3%	10,3%	13,1%	13,1%
Credit & suretyship	17,7%	16,0%	11,3%	17,7%
Legal expenses	11,3%	5,2%	6,6%	7,8%
Assistance	18,6%	20,3%	8,5%	6,0%
Miscellaneous	18,6%	18,6%	12,2%	12,2%
NPR property	18,6%	18,6%	15,9%	15,9%
NPR casualty	18,6%	18,6%	15,9%	15,9%
NPR MAT	18,6%	18,6%	15,9%	15,9%
Accident	4,7%	5,4%	4,7%	4,7%
Sickness	13,1%	13,1%	8,5%	8,0%
Workers compensation	10,7%	10,3%	7,5%	9,0%
NPR health	18,6%	15,9%	15,9%	15,9%

6.4.2.3 Potential issues with regard to the identification of eligible basic own funds items for composite undertakings

6.18 Composite undertakings shall report a notional life and a notional non-life MCR. However, the regulation does not define the eligible own funds that are available for each of the activities. Besides, the calculation of the global MCR of the composite undertaking is not based on these notional MCRs for life and non-life, as it is calculated as a whole as for any other undertaking.

6.5 Non-compliance with the Minimum Capital Requirement

6.5.1. Identification of the issues

6.19 EIOPA is to address the different practices following insurance undertakings either not being compliant or having a risk of not being compliant with MCR. I.e. practice for

- Qualification of non-compliance with MCR
- Qualification of risk of non-compliance
- Supervisory actions taken when there is a risk of non-compliance of the MCR
- Practises for restriction or prohibitions of the free disposal of assets
- Withdrawal of license processes
- Supervision by NSAs post withdrawal of license

6.5.2. Qualification of non-compliance with MCR

Issue identified

6.20 Insurance undertakings have under Article 139(2) of the Solvency II Directive the obligation to inform the NSA when a non-compliance with MCR is observed. However the current regulation leaves room for interpretation for insurance undertakings to define when non-compliance can be observed.

6.21 As timely acknowledgement of a financial issue with an insurance undertaking is paramount to address the challenges in a timely manner in the interest of the policyholders, the decision of an insurance undertaking to inform the NSA is essential.

Analyses

6.22 All insurance undertakings are expected to report to NSAs with a quarterly frequency the level of MCR with a given deadline several weeks after the end of each quarter (Article 129(4) of the Solvency II Directive). However, non-compliance requires ‘immediate” information to the NSA when “observed” under Article 139(1) of the Solvency II Directive. Both “immediately” and “observed” are subject to different practices of expectation from the various NSAs.

6.23 Some NSAs leave it to the discretion of the insurance undertakings of the timing to report such non-compliance, including in the normal quarterly reporting with delayed reporting deadlines. Other NSAs expect to be informed at a much earlier stage.

6.24 The differences in practice are also linked to the ambiguity of 'observed'. I.e. is 'observed' when the exact level of all balance sheet items are fully assessed and agreed upon among the insurance undertakings AMSB – or can a risk of non compliance be observed – at an earlier stage – when the insurance undertaking is aware that a given loss situation from assets or liabilities, including reinsurance undertakings is in a stage where this may lead to a non-compliance in the following three months without being able to assess the exact level of non-compliance.

6.5.3. Supervisory actions taken in case of a likely non-compliance of MCR

Issue identified

6.25 Article 139(2) of the Solvency II Directive requires insurance undertakings within one month of the observation of the non-compliance to submit to the NSA a realistic finance scheme to restore MCR within 3 months from the observation of the non-compliance. The NSA has to approve that plan.

6.26 The requirements of a realistic finance scheme and its deadlines are very explicit in the Solvency II Directive after a non-compliance, whereas it is more up to national discretion which activities, plans and deadlines there have to be in place when there is a risk of non-compliance with MCR within the next three months.

Analyses

6.27 Many NSAs request a meeting with the insurance undertaking to better understand the economic situation. Some NSAs request more frequent reporting of the economic situation (e.g. monthly reporting instead of the three months standard reporting) and other information requests either off site or on site.

6.28 However, NSA would use different supervisory instruments when informed about a risk of non-compliance with MCR. Examples are the prohibition of profit distribution/dividend to shareholders, limit or stop new business etc.

6.29 Some NSAs also request a finance scheme similar to the one required by an actual non-compliance, others some projections (budgets) on the economic situation.

6.30 Others again will only ask additional activities to limit the risk of non-compliance if they are not satisfied that the insurance undertaking are planning to take any counter measures to remedy the situation.

6.31 For those NSAs requesting a finance scheme it is also noted that only a few NSAs have defined what elements should be part of a finance scheme.

6.5.4. Practices for restriction or prohibitions of the free disposal of assets

Issue identified

6.32 Following Article 139(3) of the Solvency II Directive NSAs "may" prohibit the free disposal of assets. Article 140 of the Solvency II Directive states that the Member States shall prohibit the free disposal of asset in accordance with national law.

Analyses

6.33 Most NSAs have in the national regulation provisions on restriction in the free disposal of assets. However, only very few NSAs have used this instrument in case of a non-compliance with MCR or a risk of non-compliance pursuant to Article 139(1) of the Solvency II Directive. NSAs do not in general observe many practical complications with regards to the use of this instrument. However, some are observing the risk of interfering with daily management, the dilemma or potential counterproductive restriction with regards to payment of coupons to investors of subordinated debt. No NSAs have observed practical complication related to claims payments. In general the supervisory instrument is seen positive in the circumstances.

6.5.5. Withdrawal of license processes

Issue identified

6.34 According to Article 144 of the Solvency II Directive the authorisation must be withdrawn when the insurance undertaking does not comply with the MCR and the NSA considers that the finance scheme is manifestly inadequate or if the insurance undertaking fails to comply with the NSA approved scheme within three months upon the observation of non-compliance.

6.35 Most NSAs consider the three months as the absolute maximum time limit for restoring the MCR. If not restored by then they will withdraw the authorisation.

6.36 However, a few NSAs consider that the three months can be extended if the NSA is not in a position to finally conclude that the finance scheme is manifestly inadequate after the said three months. I.e. if so there is then no set time limit for withdrawal of authorisation.

6.37 Other NSAs may allow the undertaking after the three months to continue conducting its business but restrict the insurance undertaking from doing new underwriting.

Analyses

6.38 The different practices for NSAs for withdrawal of authorisation gives policyholders different levels of protections. In particular, when in the end not all claims can be meet by the insurance undertaking, some authorities prolong the period of three months of non compliance with the MCR to allow the initiation of the winding-up the undertaking where other authorities only prohibiting writing new business and therewith do in fact not withdraw the authorisation. Both measures contain serious risks for the policy holders and need to be clearly ruled out under the Solvency II Directive.

6.39 In accordance with the Chapter 12 of the Opinion, an officially designated resolution authority should be in place in each Member State (see in particular section 12.2.1). Therefore, this authority would be in charge of the resolution process including the withdrawal of the authorisation of an undertaking which does not comply with the MCR, given that the power to withdraw the authorisation to write new business and put all or part of the insurance business into run-off (i.e. requirement to fulfil existing contractual obligations for in-force business) is part of the set of resolution powers which would be exercised by the resolution authority (see the section 12.2.4 of Chapter 12 of the Opinion). In case EIOPA's advice in Chapter 12 was not taken into account, the insurance undertaking would remain under supervision of the competent NSA.

6.5.6. Role of the Resolution Authority and NSA post withdrawal

Issue identified

6.40 As pointed out in Chapter 12 of this Opinion, an institution that is no longer viable or likely to be no longer viable and has no reasonable prospect of recovering to viability within a reasonable timeframe should be put in resolution (see in particular the section 12.3.3). This section should therefore be considered in conjunction with Chapter 12 on recovery and resolution.

6.41 After the withdrawal of the authorisation, the supervisory practices differ; including as to whether the undertaking is still under supervision at all, and -if so- what provisions from Solvency II are still applicable to the insurance undertaking.

6.42 Examples of this would be an insurance undertaking that still needs to fulfil certain provisions under Solvency II's Pillar II (e.g. governance requirements) and Pillar III (e.g. reporting requirements) as to inform the NSA and the public about its ongoing economic situation. Furthermore the question would be whether the insurance undertaking comes still under conduct supervision for the existing policyholders (e.g. be under supervision if the undertakings is not or not fully paying claims to policyholders).

Analyses

6.43 Most NSAs consider insurance undertakings are to continue to be under its supervision even after the authorisation has been withdrawn. However, a few NSAs have informed EIOPA that they do not have a mandate to supervise such undertakings.

6.44 In accordance with Chapter 12 of this Opinion, the resolution authority uses its experience and expert judgment to assess whether the conditions for entry into resolution are met and to initiate the resolution process. In doing so, the resolution authority also assesses whether normal insolvency proceedings might be a more adequate solution than initiating a resolution process. Where a winding-up proceeding is not taking place and an insurance undertaking with a withdrawn authorisation comes under the resolution process, it should still be subject to supervision according to the Solvency II framework.

6.45 In accordance with Chapter 12 of the Opinion, the resolution authority should therefore be required to implement the pre-emptive resolution plan or to set up an ad-hoc resolution plan in case the former does not exist to ensure an orderly resolution in a realistic timeframe taking into account that the minimum supervisory requirements of Solvency II framework need to be fulfilled. The resolution authority should be responsible for the orderly resolution of the insurance undertaking and for this purpose should monitor together with the NSA the correct implementation of the plan. Furthermore, the plan needs to state which minimum supervisory requirements need to remain fulfilled: e.g. requirements for governance, claims management, reporting requirements and any obligation for public disclosure. When the resolution authority exercises the resolution power to withdraw the authorisation (and put all or part of the insurance business into run off), the NSA should continue to supervise the fulfilment of these minimum supervisory requirements, ensuring continuous compliance with the Solvency II provisions applicable during the resolution process. Both authorities should cooperate regularly and exchange all relevant information. In case the undertaking does cross border business, the plan needs to be communicated to the college of supervisors or cooperation platform. In case there is no college of supervisors or cooperation platform (or the other type of cross-border cooperation and coordination arrangement proposed by EIOPA in the section 12.2.5 of the Chapter 12 of the Opinion), the plan needs to be communicated to the host resolution authority(s) and to the NSA supervisors concerned as well as to EIOPA.

7. Reporting and disclosure

7.1 Introduction

7.1 This section covers the following topics:

- General issues on reporting;
- Solvency and Financial Condition Report at solo and group level;
- Regular Supervisory Report at solo and group level

7.2 The analysis in some of the topics of the 2020 review other than reporting and disclosure gives rise to proposals to change reporting and disclosure provisions. Where that is the case, the proposals are set out in the chapters that deal with those topics but are also incorporated in the relevant proposals of this section. The following tables provides an overview of such proposals and where they can be found in the consultation paper.

Section	Reporting proposals
Extrapolation Section 2.2	• Impact of changes to the convergence parameter of the alternative extrapolation method on financial position
Volatility adjustment Section 2.4	• VA application ratios
Risk management provisions on LTG measures Section 2.7	• Combined impact of removal of LTG measures and extrapolation changes
Best estimate Section 3.1	Expected profit from future premiums: • Expected losses and expected profits by LoB • Future profits embedded in fees from servicing and managing funds

Section	Disclosure proposals
Extrapolation Section 2.2	• Impact of changes to the convergence parameter of the alternative extrapolation method on financial position
Volatility adjustment Section 2.4	• Size of VA and best estimate to which it is applied
Disclosure on LTG measures Section 2.8	• Minimum information on LTG measures for policyholders • Impact of LTG measures on SCR and MCR ratios • Impact of UFR changes on financial position

7.1.1 Extract from the call for advice

> ***3.15. Reporting and disclosure***
>
> *EIOPA is asked to assess, taking into account stakeholders' feedback to the Commission public consultation on fitness check on supervisory reporting:*
>
> - *the ongoing appropriateness of the requirements related to reporting and disclosure, in light of supervisors' and other stakeholders' experience;*
> - *whether the volume, frequency and deadlines of supervisory reporting and public disclosure are appropriate and proportionate, and whether the existing exemption requirements are sufficient to ensure proportionate application to small undertakings.*

7.1.2 Relevant legal provisions

7.3 The legal provision in place to take into account for this Advice are:

- — the Solvency II Directive, in particular articles 35 and 254 for supervisory reporting and articles 51, 53 to 56 and 256 for public disclosure;
- — the Delegated Regulation, in particular Chapter XII of Title I and Chapter V of Title II for public disclosure and Chapter XIII of Title I and Chapter VI of Title II for regular supervisory reporting;
- — Commission Implementing Regulation (EU) 2015/2450 of 2 December 2015 laying down implementing technical standards with regard to the templates for the submission of information to the supervisory authorities and following amendments (2016/1868; 2017/2189; 2018/1844);
- — Commission Implementing Regulation 2015/2452 (EU) of 2 December 2015 laying down implementing technical standards with regard to the procedures, formats and templates of the solvency and financial condition report and following amendments (2017/2190; 2018/1842).

7.1.3 Other regulatory background

7.4 Under the other relevant regulatory framework the following needs to be considered:

- — EIOPA Guidelines on reporting and public disclosure;
- — EIOPA Guidelines on Financial Stability Reporting;
- — EIOPA Guidelines on the supervision of branches of third-country insurance undertakings;
- — Regulation (EU) No 1374/2014 of the European Central Bank of 28 November 2014 on statistical reporting requirements for insurance corporations (ECB/2014/50);
- — Guideline (EU) 2016/450 of the European Central Bank of 4 December 2015 amending Guideline ECB/2014/15 on monetary and financial statistics (ECB/2015/44).

7.2 General issues on Supervisory Reporting and Public disclosure

7.5 This Opinion considered the input received during the public consultations as well as Commission's public consultation on fitness check on supervisory reporting (full document available here).

7.2.1 Identification of the issue

7.6 This section deals with the following issues regarding Solvency II Supervisory Reporting:

- Elimination of duplications between different reporting frameworks and improving consistency;
- Quarterly reporting;
- Deadlines for regular reporting;
- Currency of supervisory reporting;
- Reporting of specific business models;
- Main information gaps identified.

7.7 Proportionality issues are dealt with under Chapter 8.

7.8 National competent authorities should receive the information which is necessary for the purposes of supervision. It is crucial that supervisors receive meaningful data in terms of granularity, coverage, frequency and within proper timelines to identify and early assess the risks the industry face, both at micro and macro levels. Furthermore, the harmonisation of the information to supervisory authorities throughout Europe has been an essential instrument to promote supervisory convergence.

7.9 After more than 3 years of implementation of Solvency II and of use of information received by supervisory authorities it is important to reflect on the adequacy of the regular supervisory reporting defined in 2015. It should be noted that 3 years could be considered a good timing to reflect on lessons learned, but in fact part of this 3 years were of learning to both insurance and reinsurance undertakings and to supervisors and challenges such as the quality of the data had to be addressed along the way.

7.2.2 Elimination of duplications between different reporting frameworks and improving consistency

7.2.2.1 Identification of the issue

7.10 The consultation on the Fitness Check on supervisory reporting requirements was closed on 14 March 2018 and received 391 responses sent by respondents from 15 Member States. Similar to earlier consultative exercises such as the Call for Evidence, a large majority of respondents from industry stressed the significant compliance costs arising from supervisory reporting requirements. They consider many of the reporting frameworks to be overly complex and often questioned the value of some of the data reported, especially where frameworks overlap. They generally call for a streamlining of the requirements (also with regard to national reporting regimes), more timely clarification of requirements, increased harmonisation and standardisation, and applying the principle of proportionality to reflect the size and activities of respective market participants. Public authorities also highlight a range of challenges as concerns the current reporting frameworks and support an increased level of harmonisation and standardisation. However, they generally disagree that the current requirements are too far-reaching and, on the contrary, raise examples where additional data would further facilitate their supervisory or regulatory activities.

7.11 Building on the outcomes of such exercise COM has identified in the "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the regions on a Digital Finance Strategy" as well as in the strategy in the area of reporting the following priorities:

a) Promoting innovative IT tools to facilitate reporting and supervision: "By 2024, the EU aims to put in place the necessary conditions to enable the use of innovative technologies, including RegTech and SupTech tools, for supervisory reporting by regulated entities and supervision by authorities. It should also promote the sharing of data between supervisory authorities. Building on the outcomes of the fitness check of supervisory reporting requirements, the Commission, together with the ESAs will develop a strategy on supervisory data in 2021 to help ensuring that (i) supervisory reporting requirements (including definitions, formats, and processes) are unambiguous, aligned, harmonised and suitable for automated reporting, (ii) full use is made of available international standards and identifiers including the Legal Entity Identifier, and (iii) supervisory data is reported in machine-readable electronic formats and is easy to combine and process. This will facilitate the use of RegTech tools for reporting and SupTech tools for data analysis by authorities."

b) "The Commission also aims to ensure that key parts of EU regulation are accessible to natural language processing, are machine readable and executable, and more broadly facilitate the design and implementation of reporting requirements. It will also encourage the use of modern IT tools for information sharing among national and EU authorities. As a first step in the domain of machine readable and executable reporting, the Commission has launched a pilot project for a limited set of reporting requirements."

7.12 EIOPA fully supports COM strategy in this area. In particular, the framework to create the conditions for efficient data sharing between competent authorities is crucial. When developing such a framework the following should be considered:

a) Proper definition of competent authorities for specific data sets, including national and European authorities;

b) Data ownership issues - data collected by competent authorities via data sharing from other authorities should be treated similarly as data collected directly from the reporting agents;

c)Allocation of the task to facilitate this sharing at a European level.

7.13 EIOPA interprets the publication of the Digital Finance Strategy and related documents as a clear sign from the COM regarding the path to take to avoid inconsistencies and overlaps. It also acknowledges that such objectives will take time to be fully implemented. The Strategy already gives some ideas in terms of timing (e.g. by 2024 the EU aims to put in place the necessary conditions to enable the use of innovative technologies). If we consider that after this milestone implementation projects are needed we can easily assume that before the end-2026 data sharing mechanisms between competent national and European authorities will not be in place for all identified areas. The analysis below and in the document on QRTs takes this timing into consideration.

7.2.2.2 Analysis

7.1 In this context EIOPA has identified two main areas where sharing of information between competent authorities both at national and European level could promote a reduction of duplication in reporting frameworks and ensure consistency. The two areas identified are derivatives reporting and information on look-through of Collective Investment Undertakings.

7.2 In Solvency II, reporting requirements such as (S.08.01 – open derivatives / S.08.02 – derivatives transactions) are sometimes identified as a duplication of EMIR reporting obligations. Some important issues need to be to be considered going forward:

— Despite the fact that EMIR is in force only since 2014 the reporting obligation applies to all derivatives that were outstanding on 12 February 2014 and to all derivatives concluded after that date[144]. In other words, if a given Interest Rate Swaps contract was still outstanding on the reporting start date it fell within the reporting scope and derivative position in such contract may be computed at the end of the period.

— EMIR is a transaction by transaction data and acknowledging the possible complexity, position calculations by Trade Repositories are subject to unified methodology[145]. In fact, all Trade Repositories provide data on position in accordance with the guidelines in a consistent and standardised manner in ISO 20022 XML format.

— According to Article 81(3) of the Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories, both EIOPA (paragraph c)) and competent authorities or national competent authorities within the meaning of Regulations (EU) No 1024/2013 and (EU) No 909/2014 and of Directives 2003/41/EC, 2009/65/EC, 2011/61/EU, 2013/36/EU and, 2014/65/EU, and supervisory authorities within the meaning of Directive 2009/138/EC (paragraph o)) shall access from the Trade Repositories the necessary

[144] See Article 9(1) or EMIR

[145] https://www.esma.europa.eu/sites/default/files/library/esma70-151-1272_guidelines_on_position_calculation_by_trade_repositories_under_emir_final_report.pdf

information to enable them to fulfil their respective responsibilities and mandates.

- EIOPA, as ESMA, has access to the full information e.g. according to Article 81(3)(c) of EMIR, EIOPA has direct access to derivatives and according to Article 2(4) of RTS 151/2013, as amended by RTS 2019/361, EIOPA has access to all transaction data for derivatives.
- Article 81(3) of EMIR provides data access for all types of authorities in the EU, market conduct, prudential, resolution, etc. Sectorial competent authorities are covered in Article 81(3)(o) of EMIR. In other words National Competent Authorities have data access to the local transactions.
- The Trade Repositories are responsible for defining that access for each authority and provide access to the following data to authorities (based on the access rights) on a recurrent basis:
  - Trade activity (all contracts reported on the previous day);
  - Trade state (all contracts that were open on the previous day);
  - Rejections – all relevant rejected records;
  - Reconciliation – the information about the reconciliation status of derivative;
  - Position reports.
- Operationally the information may be assessed directly by connecting to the Trade Repositories or by using the TRACE system managed by ESMA for a centralised access to data. This needs to be implemented by EIOPA and each NCA.

7.3 Considering the broad scope of the available information the data could be useful for prudential supervision of individual undertakings and for example in investigating problematic issues on an ad-hoc basis, or to assess the flow of risk in the contract, in those cases in which insurers trade with a counterparty, need to centrally clear and therefore need to go via a prime broker which is a clearing member.

7.4 However, in order to establish the access some administrative steps need to be followed. Initially NCAs and EIOPA need to set up access with the Trade Repositories. Access to EMIR data is granted on the basis of clearly defined and strictly monitored rights according one’s mandates. Trade Repositories are obliged to have adequate systems and controls in place to ensure legitimate access to data by respective regulators.

7.5 It should be noted that currently, despite the fact that all NCAs have legally the right to access to their derivatives transactions not all of them have taken yet the necessary steps to activate that access. EIOPA also does not currently have access to the TRACE system although has performed its registration in the Trade Repositories and is currently receiving some information needed in the context of the Risk Free Rate production. EIOPA also does not currently have access to the TRACE system, but is registered at and has access to all EMIR Trade Repositories. Although EIOPA has the right to obtain data of all asset classes and the Trade Repositories are providing the data, EIOPA currently only accesses interest rate derivatives data to fulfil its mandate in the context of liquidity assessments for the Solvency II risk-free rate term structures.

7.6 To properly assess if the information available through the TRACE system could be used to replace or only complement the derivatives reporting under Solvency II EIOPA will take the necessary steps to access the TRACE system and perform data quality and data usability analysis. The outcome of this analysis will be shared with NCAs. Once all NCAs have performed the registration with the Trade Repositories EIOPA could also consider playing a more centralised role on derivatives information collection and analysis and disseminate to NCAs all relevant information.

7.7 This steps will be planned and considered within EIOPA Annual Work Plan taking into account other data and reporting priorities and resources in the future.

7.8 When EIOPA gains experience with the use of the data available through the TRACE system the need for template S.08.01 will be re-assessed.

7.9 For more details on derivatives reporting please refer to document on QRTs.

7.10 Solvency II reporting framework includes as well information on look-through of Collective Investment Undertakings. The current requirement requires only a high-level look-through (by asset category, currency and country), however the current look through approach does not allow deeper insights about the kind, quality or quantity of assets within the CIU. This information is urgently needed for supervisory reasons as some undertakings materially invest in Collective Investment Undertakings. When this is the case the information on look-through currently received is not considered enough and information similar to the one received in the list of assets is needed for those undertakings.

7.11 The proposal under public consultation was to introduce a new template (S.06.04), containing item-by-item information on the look through of collective investment undertakings or investments packaged as funds, including when they are participations. This template would only be applicable to undertakings with a material investment in CIU or investments packaged as funds. In order to mitigate the increased effort, in terms of timing and contractual arrangement with fund or portfolio managers, it would be allowed that the undertaking uses for reporting the last known position of each collective investment undertakings or investments packaged as funds, in each quarterly reporting, with a fixed maximum delay of one month.

7.12 However, it is acknowledge that similar information is currently already collected for Euro-zone funds. Supervisory reporting in this area could be made more efficient if other sources of data to competent authorities were made available to all relevant competent authorities, both national and European, in particular data reported to National central Banks under the statistical mandate of the ESCB (in particular Regulation (EU) 1073/2013 of the European Central Bank concerning statistics on the assets and liabilities of investment funds). This option would be in line with the objective of reduction of duplications and inconsistencies between reporting frameworks within the financial sector and that would provide NCAs the necessary information to comply with their responsibilities, as identified in the Consultation Paper.

7.13 EIOPA will further engage with ECB and ESMA to further explore this possibility. It should be noted that the Regulation referred above covers only Euro-zone CIUs.

7.14 From a Solvency II perspective the proposal would be simply to re-use the existing information and EIOPA stands ready for a broader discussion in the area of CIU reporting at a European Level. Meanwhile, and considering the time needed to implement such a sharing mechanism (see paragraph 7.14 above) EIOPA considered different options and the approach to be proposed may be found in the document on QRTs.

7.2.3 Quarterly reporting

7.2.3.1 Identification of the issue

7.15 The supervisory reporting requirements include an annual reporting and the reporting of 4 quarters. The reference date of the Q4 coincides with the reference date of the annual reporting. Considering this, when the ITSs were discussed during 2014-2015 the issue of duplication between Q4 and annual reporting was thoroughly discussed.

7.16 The reporting deadlines currently differ 9 weeks between the quarterly and the annual submissions. This means that even if the reference date is the same the annual reporting is received 9 weeks after the receivable of the Q4 information. Duplication of reporting was also eliminated to the utmost extend possible. Some annual templates do not have to be submitted unless the undertakings were exempted from submitting Q4 information. This is applicable for example for the list of assets and list of derivatives where annual submission is only required for the undertakings that have been exempted from quarterly submissions. However, in fact, some duplications still remain.

7.17 The main reason to keep Q4 reporting is the importance of such information, to be received on a timely manner for the purposes of the supervisory review process. The responsibilities of the supervisory authorities are not compatible with receiving the first information regarding the end of the financial year only 14 (or more as now being proposed) weeks after the end of the quarter.

7.2.3.2 Analysis

7.18 Considering the above background the proposals put forward by the industry and considered by EIOPA were the following:

1) Eliminate Q4 reporting;

2) Eliminate Q4 reporting but reduce the annual reporting deadlines;

3) Reduce the scope of Quarterly reporting;

4) Reduce the universe of undertakings reporting Q4 information.

7.19 In the analysis of the options EIOPA considered that exemption from quarterly reporting is already possible, except for the reporting of the MCR templates, according to Article 35 of the Solvency II Directive. In Q1 2019, 838 undertakings were subject to limited quarterly reporting. In addition some quarterly reporting are subject to risk-based thresholds (see ISBN 978-92-9473-226-2n–Report on the use of limitations and exemptions from reporting during 2018 and Q12019).

7.20 EIOPA understands the argument of duplication but highlights that the duplications are minimum and only cover the templates which annual version is different from the quarterly version.

7.21 The Q4 reporting is crucial for the supervisors risk assessment frameworks and the calculation of early warning indicators on a timely fashion. The timely information of the undertakings solvency and financial condition at the end of the year is crucial supervisory information and could not be received later than the other quarters and definitely not after 14 weeks.

7.22 Even if of secondary nature it was also taken into account the needs of National Central Banks and of the European Central Bank which also receive Q4 information.

7.23 Considering that:

- Q4 information is needed for supervisory purposes for all undertakings;
- The timing of the information is crucial;
- The scope of the quarterly reporting was revised and streamlined when possible without jeopardising the aim of reporting;
- Proportionality is applicable as well by NCAs exempting undertakings from the quarterly reporting according to Article 35;
- Information should be fit for purpose for the assessment at the end of each quarter;
- Information is needed for ECB and if would be decided to be dropped for supervisory purposes, all necessary templates for ESCB statistical purposes for Q4 will still be collected in the relevant Member States.

7.24 EIOPA proposes to keep Q4 reporting but revised the content of the quarterly templates (for all quarters) and proposes some simplifications.

7.2.4 Deadlines

7.2.4.1 Identification of the issue

7.25 The deadlines for supervisory reporting were defined in Solvency II Directive with a transitional period of 3 years[146]. The deadlines were defined as follows:

- 2016: 8 weeks after each quarter; 20 weeks after end-year
- 2017: 7 weeks after each quarter; 18 weeks after end-year
- 2018: 6 weeks after each quarter; 16 weeks after end-year

[146] Article 308b(5) [annual] and Article 308b(7) [quarterly] of the Solvency II Directive for the reporting in the transitional period, Article 312 of the Delegated Regulation

— 2019: 5 weeks after each quarter; 14 weeks after end-year

7.26 For groups the same deadlines as for individual reporting plus 6 weeks apply[147].

7.27 For public disclosure the deadlines follow the ones defined for annual supervisory reporting.

7.28 In 2019 it was the first year where the default (final) deadlines applied.

7.2.4.2 Analysis

7.29 The proposals put forward by the industry and considered by EIOPA were the following, including different combinations:

1) The reporting deadlines could be aligned with the reporting deadlines applicable for 2018: only for quarterly, only for annually or both;
2) Chronological timeline for quantitative and narrative reporting; reporting deadlines for SFCR and the RSR could be different from the annual QRT's ones because in a first step QRTs have to be done prior finalising the SFCR and RSR;
3) Consideration of national public holidays and counting of the deadlines in working days instead of weeks.

7.30 EIOPA believes some of the challenges of undertakings to comply with the deadlines could be mitigated with other changes being proposed such as a better implementation of the proportionality principle and more specifically the proposals for simplification of quarterly reporting and streamlining of both the SFCR and RSR.

7.31 The publication of the RFR by EIOPA was identified as one of the reasons for the need for longer deadlines. In this regard it should be noted that during 2020 the publication was already being done within 3 working days (EIOPA-19-057, 30 January 2019 – The Revised EIOPA Single Programming Document 2019-2021 with Annual Work Programme 2019) and not 5 working days as initially.

7.32 The change from weeks to working days would create a material miss-alignment of the reporting deadlines not only between different Member States but as well within one unique Member State and is not seen as adequate. As for the number of weeks it is understood that the market should be ready to apply the final deadlines during 2019 and following years and extending the deadline by one/two additional weeks in the review would not be adequate.

7.33 However, EIOPA also discussed the scope of quarterly reporting and is proposing a material reduction in the scope of quarterly reporting. This reduction would in EIOPA view make the 5 weeks deadline more feasible for undertakings. The deadline currently in place better fits the supervisory processes in place. EIOPA highlights once more Article 7 of the ITS 2015/2450 which defines simplifications for quarterly reporting.

7.34 Even if of secondary nature it was also taken into account the needs of National Central Banks and of the European Central Bank which also receive quarterly

[147] Article 373 of Commission Delegated Regulation (EU) 2015/35

information and for which the 5 weeks deadline is fundamental for its own business users.

7.35 At the same time, EIOPA believes that the deadlines to report annual QRTs could be extended by two weeks (keeping the deadlines in force during 2019) and the annual narrative reporting (RSR) and disclosure (SFCR) deadlines could be revised and extended by another two weeks (see also sections on 7.4 on the RSR and 7.3. on the SFCR). This extension also considers the proposals regarding the audit of elements of the SFCR (see also section on 7.3.4 on the SFCR).

7.36 EIOPA considers that the quantitative and qualitative information could be reported at different points in time, with narrative information being reported after the QRTs. EIOPA believes that the reporting or disclosure of narrative information after the delivery of the quantitative information could decrease the reporting burden.

7.37 Considering that:

- — Timeliness of quarterly reporting is crucial;
- — Content of quarterly reporting was simplified;
- — Use of working days instead of weeks would create a number of challenges, in particular in some countries;
- — Proposals on the Audit of elements of the SFCR.

7.2.5 Currency of the contract instead of reporting currency

7.2.5.1 Identification of the issue

7.38 The Solvency II reporting package requests data to be reported using the reporting currency as defined in Article 3 of ITS 2015/2450 with some exceptions. The exceptions were included in the following specific templates for supervisory reasons:

- S.16.01. – Information on annuities stemming from Non–Life Insurance obligations;
- S.19.01 – Non–life insurance claims;
- S.30.01 – Facultative covers for non–life and life business basic data: All the amounts must be expressed in this currency for the specific facultative cover;
- S.30.02 – Facultative covers for non–life and life business shares data: All the amounts must be expressed in this currency for the specific facultative cover;
- S.30.03 – Outgoing Reinsurance Program basic data: All the amounts must be expressed in this currency for the specific facultative cover;
- S.36.03 – IGT – Internal reinsurance: Maximum cover by reinsurer under contract/treaty.

7.39 In all cases the National Competent Authority may require the information to be provided in the reporting currency.

7.40 In template S.22.06 the template shall reflect the gross best estimate of insurance and reinsurance life obligations subject to volatility adjustment split by currency of the obligations and by country in which the contract was entered into but the amounts should be reported in the reporting currency.

7.2.5.2 Analysis

7.41 Considering the above background the proposals put forward by stakeholders and considered by EIOPA were the following:

1) Request all templates in the reporting currency;
2) Keep the *status quo* and not change approach but consider the request for totals in reporting currency when only original currency is reported (see also section on S.19 in the QRTs document);
3) Change the approach in S.16 and S.19 but consider the request for totals in reporting currency when only original currency is reported and keep it for all templates addressing reinsurance contracts.

7.42 In this case, EIOPA believes that in fact there are pros and cons for both solutions. Therefore considering the contradictory signs from stakeholders and in particular the burden of any change compared to the status quo EIOPA does not propose any change.

7.43 However, to address operational issues related to the submission of templates in a different currency some minor amendments are proposed.

7.2.6 Reporting of specific business models

7.2.7 Captive insurance and captive reinsurance undertakings – please see chapter 8.

7.2.8 Reinsurance undertakings

7.2.8.1 Identification of the issue

7.44 Under Solvency II (recital 13) reinsurance undertakings should limit their objects to the business of reinsurance and related operations. Such a requirement should not prevent a reinsurance undertaking from pursuing activities such as the provision of statistical or actuarial advice, risk analysis or research for its clients.

7.45 Article 4 reflects on this specific business and introduced thresholds for exemption of Article 4 which are lower than the thresholds for the direct business, recognising the importance of a proper regulation and supervision of reinsurance business.

7.46 Recital 22 says that "the supervision of reinsurance activity should take account of the special characteristics of reinsurance business, notably its global nature and the fact that the policyholders are themselves insurance or reinsurance undertakings, i.e. that it is a peer-to-peer business. This fact may impact mainly the public disclosure.

7.2.8.2 Analysis

7.47 EIOPA considered the following options:

1) Embedded proportionality and risk-based thresholds are enough;
2) A specific proportionate treatment is needed considering the specificities of reinsurance undertakings.

7.48 EIOPA has considered carefully the proposals from Stakeholders on the simplifications for reinsurance undertakings and conclude the following:

— The reporting of S.30.03 and S.30.04 is equally important and should not be specific for reinsurance undertakings;

— The reporting of S.16.01 by reinsurance undertakings may be deleted;

— All references to surrender values should not address reinsurance business.

Template S.05.01 and S.05.02 (in its revised version) are considered adequate for reinsurance undertakings.

7.2.9 Others

7.2.9.1 Identification of the issue

7.49 The variety of the insurance market presents some challenges regarding the analysis of the supervisory reporting submitted by all undertakings. The first major issue supervisors face is to be able to identify the sample of undertakings which are of relevance for a certain analysis.

7.50 Moving forward some of these specific businesses might need specific reporting but at the moment the first step that has been identified is to allow supervisors to identify the relevant undertakings for analysing specific type of business.

7.2.9.2 Analysis

7.51 EIOPA considered the following options:

1) No change in the current package;
2) Introduce information to identify relevant undertakings for analysing specific type of business;
3) Develop specific templates for specific type of business.

7.52 EIOPA also considered the incorporation in the XBRL taxonomy and all related implementation documentation of harmonised templates to be requested by NCAs when adequate but not to be included in the ITS as regular information.

7.53 The following areas were considered the ones for which this approach could be relevant:

- Information on Deferred Taxes and Loss Absorbency Capacity of Deferred Taxes,
- Information on Issuance of loans and mortgages;

- Information on pension plan and products offered by insurance companies regarding the information included in EIOPA Database of Pension Plan and Products in the EEA;
- Information on Shareholders of the insurance companies to be able to populate OECD information needs.

7.54 EIOPA has considered carefully the issues at stake and concluded that it is too soon to elaborate concrete proposals on specific types of business but it is crucial to be able to identify relevant undertakings. However it is important to identify different types of undertakings and therefore minor changes in Basic Information is proposed.

7.55 This EIOPA proposal is made under the belief that the proposed templates to be reported product-by-product (S.14 for life revised and 'S.14' for non-life) should provide enough information to supervisors on specific types of businesses.

7.56 On the areas to be considered to the XBRL, but not to the ITS, EIOPA proposes to further discuss it with the industry and further explain the rationale and expectations.

7.57 To allow a more extensive use of the Solvency II reporting to OECD reporting EIOPA will further analyse a minimum set of possible amendments such as a flag in S.02.01 or in inclusion of the information in the Register on the nature of the shareholders.

7.2.10 Main information gaps identified:

7.2.10.1 Identification of the issue

7.58 One of the main principles followed in the 2020 Review is the fit-for-purpose. The information received should be fit for the purposes of the Supervisory Review Process. This lead to a revision of the current framework and identification of the information that was not regularly used for the majority of insurance and reinsurance undertakings but as well to an analysis of the information supervisors identified as gaps in the regular information received.

7.59 Sometimes the gaps addressed information to complement existing templates while in other it addressed new information. The main gaps identified were the following (as described in the Consultation Paper):

— Cross-border information;

— Life insurance;

— Internal models;

— List of assets gaps;

— Cyber risk;

— Sensitivity of the financial position for a different extrapolation to determine the risk-free rate;

— Not enough information on expenses;

— Unlisted equities qualifying for a type 1 risk charge information;

- On the area of financial stability reporting a number of gaps have been identified: information on profitability and accounting equity;
- Information by channel of distribution;
- Include information about risks connected with other entities that are part of the same group of the undertaking for example banks or other financial institutions (when the supervisory authority is not supervising the group);
- Remuneration information;
- IFRS17;
- EPIFP;
- LAC Deferred taxes;
- There is no template which allows undertakings to inform supervisory authority about significant events or changes as well as changes in the valuation.

7.2.10.2 Analysis

7.60 EIOPA considered the following options:

1) Do not include any new information in the reporting package;
2) Include new information in the reporting package which is identified as crucial for the Supervisory Review Process.

7.61 Regarding the information on standard formula for IM users, two options have been considered:

1) Keep template as in current ITS
2) Request standard formula SCR calculation data from undertakings and groups using an internal model for supervisory reporting (however not for public disclosure/SFCR). This would apply to S.25.01, S.26s and S.27.

7.62 Option 2 implies an amendment in Article 112 (7) of Solvency II Directive.

7.63 Considering the number of gaps identified by supervisors, which reflect the use of the templates over the last 3 years and the aim to improve the Supervisory Review Process as well as the overall concern on the burden of reporting EIOPA proposes to include new information in the reporting package which is identified as crucial for the Supervisory Review Process. This should also consider the reduction or elimination of current information reflecting the other side of the coin, i.e. eliminate the information not regularly used by supervisors. EIOPA believes it is important to guarantee the right level of information for supervisors while not increasing the reporting burden.

7.64 This means that in some cases the gaps identified lead to final proposals while in others the cost benefit analysis lead to the conclusion that more experience is needed before proposing changes to the reporting package. Concerns on the overall proportionality of the package were also taken into consideration for this analysis.

7.65 All but gaps identified may be incorporated via an amendment of the ITS. The amendment proposed for the submission of information on standard formula for internal model users require an amendment in the Directive.

7.66 The templates S.25.01 and S.26.01 to S.27.01 are not currently requested for undertakings using internal models, however each undertaking that applies for an internal model has to provide standard formula SCR data for comparison during the approval process. After the internal model approval there is no legal obligation to report its solvency position using standard formula unless special circumstances exist and the NCA requests it (under Article 112 (7) of the Solvency II Directive). In practice, many NCAs, as part of their regular reporting, request standard formula figures for comparison purposes and to monitor the differences to the internal model data. At the application stage for an internal model, supervisors collect SF data and thoroughly check the risk profile deviations. SF data is requested so supervisors can continue to check how these deviations evolve and ask the necessary questions in order to understand this evolution. Interpretation of these figures depends heavily on NCA's knowledge of the internal models they supervise as well as the risk profile of the supervised undertakings or groups. The Standard Formula SCR (in overall or by risk module), as standardised and simplified approach, could be used as a common basis for market wide comparison or for comparison between IM users. For a single undertaking or group, the Standard Formula SCR could be used to challenge and to understand the Internal Model SCR and the movement from one reporting date to the other. The observation of any significant wide-spreading of the difference between the SCR calculated with the IM and the SCR calculated with the SF could trigger further activities. Further analysis may be needed when the results go into different trends (e.g. outcome(s) of IM goes down and SF up or other way around). Care should be taken when comparing standard formula (SF) and internal model (IM) results for undertakings. The comparison using SF should be made acknowledging the difference in the risk profile of companies compared to the assumptions underlying the SF and its calibration, but is useful to identify some issues and trigger further activities by the NCA.

7.3 Solvency and Financial Condition Report

7.3.1 Structure, content, addressees and language of the SFCR

7.3.1.1 Identification of the issue

7.67 The SFCR is a transparent and market discipline tool aimed to provide relevant information to stakeholders. Over the last years, undertakings have published it and adjustments to the information have been made by them to accommodate different expectations. In 2017, EIOPA issued a Supervisory Statement focusing on key areas deemed as important for a first step to support stakeholders in the development of the following SFCR content while also allowing for market discipline to be achieved.

7.68 EIOPA consulted on the split of the addressees of the SFCR into policyholders and other financial users. This split was welcomed as long as it would not create additional burden and overall the SFCR would be streamlined.

7.69 EIOPA has also consulted on the structure and content of the SFCR and analysed if the content was still fit for purpose, also considering the clarification of the addressees. Streamlining of the content, when adequate, is proposed.

7.70 EIOPA has also consulted on the language requirements both at solo and group level.

7.3.1.2 Analysis

7.71 Regarding the addressees EIOPA considered the following options:

1) No change in the SFCR and follow the Supervisory Statement's indications;
2) Further specify the different addressees and clearly set expectation to the part of the SFCR addressing policyholders (preferred).

7.72 Regarding the structure and content of the SFCR EIOPA considered the following options:

1) No change in the SFCR and allow market discipline to further improve;
2) Improve structure of the SFCR but on the content allow market discipline to further improve;
3) Improve both the structure and the content of the SFCR (preferred).

7.73 EIOPA agrees that the current structure leads to a number of duplications in the report. However, undertakings are also responsible to ensure that information provided is focused, concrete and undertaking specific. The often-observed repetition of requirements and relevant provisions of the Solvency II Directive or of accounting standards are not adequate. With the split between different addressees, this becomes even more relevant as professional users should be able to understand Solvency II and other relevant frameworks.

7.74 Additionally, the adequacy of the SFCR for captive insurance and reinsurance undertakings[148] was considered, with the following options:

1) Maintain the requirements for captives insurance and captives reinsurance undertakings;
2) Keep only the information on QRTs complemented by material info;
3) Eliminate the requirement of publishing a SFCR for pure captives.

7.75 EIOPA considered the comments received on the options consulted and have further streamlined both sections of the report in order to focus on the relevant information for all stakeholders.

7.76 Regarding the language of the SFCR EIOPA considered the following options:

1) Keep language requirements as laid out in the current Delegated Regulation;
2) Improve the language requirement (preferred).

7.77 EIOPA has identified relevant improvements both in the Solvency II Directive and in the Delegated Regulation.

7.78 A detailed proposal on the content of the SFCR is included in Annex 7.2.

7.79 EIOPA also proposes to strengthen the following principles either through guidelines, supervisory statements or other supervisory convergence tools deemed adequate:

- No padding with information not explicitly required, no repetition of legal requirements;
- No generic statements but relevant undertaking-specific information;

[148] Undertakings doing only business as defined in Article 13, paragraphs (2) and (5) of the Solvency II Directive

- More structured formats (graphs, tables) could be prescribed in order to improve readability and comparability (collect good practice examples);
- The need to explicitly state where information is non-applicable;
- Promote supervisory convergence regarding the need for re-publication of the SFCR.

7.80 The current proposal does not propose specific names for the two different parts and refers to them simply as part addressed to policyholders and beneficiaries and part addressed to other stakeholders. It could be considered naming them more precisely to facilitate for example searching and finding them on the web. The names of the reports or specific parts if disclosed in one single document could be, for example:

- SFCR – Key business and solvency information (for policyholders and beneficiaries)
- SFCR – Detailed report

7.3.2 Gaps identified in the SFCR information

7.3.2.1 Identification of the issue

7.81 An important gap identified in the SFCR was the lack of comparability of the information to be provided regarding the sensitivity of the SCR. That was already identified in EIOPA Supervisory Statement issued in 2017[149] and has been identified by the users of the SFCRs.

7.82 EIOPA has identified in the 2017 Supervisory Statement the following:

7.83 "The information on the risk sensitivity to different scenarios or stresses, should be better structured and more comprehensive: The information regarding the SCR and risk sensitivity is not comparable across different undertakings/groups. It is expected that the reporting of sensitivities to different scenarios or stresses is disclosed in a more structured format. The sensitivity to the different risks should be shown under the section 'Risk Profile'. In addition, under each risk section information on the overall impact should be provided."

7.84 Other main gap identified is information on the evolution of the Own Funds (EOF) over the reporting period. It is crucial for analysts to have more information on the triggers of changes in Own Funds.

7.85 In the public consultation different options were consulted to address these identified gaps.

7.3.2.2 Analysis

7.86 The most relevant options considered to fill the gaps of the SFCR were the following:

a) With respect to the sensitivity of the SCR:

1. No change
2. Disclosure of standardised information

[149] https://eiopa.europa.eu/publications/supervisory-statements

3. Disclosure of standardised information by introducing a reference to proportionality (preferred)

b) With respect to the variation of own funds:

1. No change

2. Disclosure of standardised information

3. No standardisation in the disclosure of variation of own funds (preferred)

7.87 Following the public consultation EIOPA received number of comments on both proposals and discussed them in detail with the following conclusions:

- No best practices were identified for the disclosure of variation of own funds, as this seems to be very undertaking specific. Therefore, considering as well the comments received EIOPA decided not to propose a standardisation in the disclosure of this information;
- Regarding the disclosure of sensitivity of the SCR and EOF best practices were identified and would be welcomed by users of the SFCR. However, good arguments were put forward by stakeholders regarding the application of proportionality principle and the extension of the information being standardised. As a consequence, the proposal of EIOPA has been revised, while still proposing standardisation in this area.

7.3.3 Availability of the SFCR

7.3.3.1 Identification of the issue

7.88 EIOPA has identified in the 2017 Supervisory Statement the following: "The majority of insurance undertakings and groups published the (Solo/Group) SFCR on a timely basis and generally complied with the relevant Solvency II requirements. In some cases Groups went the extra mile to make the Group SFCR accessible to all stakeholders. However, some undertakings still do not own a website.

7.89 One of the aspects that EIOPA aims to promote is the structuring and accessibility of the public disclosure data. Currently the public disclosure data is only required to be published electronically in the website of a given insurer and in practical terms this has the following two main drawbacks:

- The current requirements do not provide details on where the report should be made available creating difficulties to interested stakeholders to reach the SFCR report. This can be a challenge for policyholders, not familiar with websites searching, but as well for professional users needing access to SFCRs from several different undertakings, for example for a sectorial analysis.

- The electronic format normally used is pdf and sometimes in the form of scanned imaged. This highly affects the usage of the information, in particular for comparison of data between reports across time or insurers.

7.90 If the information from SFCR reports is already available for the Public then it should be easily reachable in a way that allows for efficient analysis of the information. At the same time, preparation of such reports should aim for minimum costs, not generating significant additional costs for the entities.

7.91 Also COM has identified in the strategy to follow as part of the Communication from the commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the regions on a Digital Finance Strategy for the EU the following priorities:

- Promoting data-driven innovation in finance by establishing a common financial data space: In its new data strategy for Europe, the Commission highlighted the need for better access to data and data sharing within the EU, creating broader access to public and private data to the benefits of people, businesses and the broader public interest. As part of these efforts, and in close connection with activities across other sectors, the Commission aims to set up a common financial data space through a number of more specific measures set out in this section. The Commission's objective is to help integrate European capital markets, channel investments into sustainable activities, support innovation and bring efficiencies for consumers and businesses. The Commission will set up a group of data experts in close cooperation with the ESAs to provide advice on the technical aspects of establishing a common financial data space.
- Facilitating real-time digital access to all regulated financial information: By 2024, information to be publically released under EU financial services legislation should be disclosed in standardised and machine-readable formats. As part of its CMU Action Plan, the Commission will implement EU infrastructure to facilitate access to all publicly available disclosure relevant to capital markets.

7.3.3.2 Analysis

7.92 EIOPA considered several options how to make the information for the SFCR reports easily reachable in a machine-readable format in the Public Consultation Paper on proposals for Solvency II 2020 Review (Review of technical implementation means for the package on Solvency 2 Supervisory Reporting and Public Disclosure). Trying at the same time to limit the report preparation costs for the entities while the main goal of the review was to assure that especially the quantitative information from the SFCR, published in harmonised Quantitative Reporting Templates, is easily reachable and allow for efficient analysis of data.

7.93 In terms of reachability the following options were considered:

1. To request the undertakings to submit in the regulatory reporting the two direct URLs (for XBRL and PDF) where the public disclosure report can be automatically downloaded. EIOPA or NCAs may publish these direct URL in their websites in order that interested users can access it directly (without having to surf within several issuers websites). Basic requirements in terms of availability of files should be set. Note that this option would involve amendments in the Solvency II Directive and/or the Delegated Regulation. (Preferred with minor modifications);

2. To make available via NCA or EIOPA website a repository of Public Disclosure Reports. This would imply also to derivate the data from the regulatory reporting or to set collection mechanism for those reports between the undertakings and NCAs in a similar way that currently is applied for the prudential regulatory reporting templates. Note that this option could require amendments in the Solvency II Directive and/or the Delegated Regulation.

7.94 Most of the answers supported the suggestion to request the undertakings to provide the direct links to the SFCRs in the regulatory reporting (option 1).

7.95 Acknowledging the comments, EIOPA considers Option 1 to be the preferred one for the reachability (but without requesting the URL to the public disclosure reports in XBRL format as such publication will not be requested):

- In case the SFCR reports are electronically published, to submit to NCAs under the quantitative reporting templates the exact location where the SFCR report is already available in the website (or will be in due time) and requiring that undertakings keep updated the information about the location in case of a change during the following three years.
- Otherwise, in case the undertaking does not have a website (and cannot use the website of its trade association, if applicable), EIOPA intends to in the ITS the requirement to receive the SFCR report in the format required below from the relevant NSA.

7.96 In terms of the format the following options were considered:

1) Keep the current situation (option preferred by EIOPA with minor modifications, as analysed in the impact assessment, allowing for application of search function for relevant text and numbers in the SFCR);

2) Request to publish the structured quantitative templates in XBRL. This is on top of the current public disclosure in “free electronic format” (pdf or similar);

3) Request to publish the public disclosure structured quantitative templates in XBRL including in it also some small (parts/key) elements relevant narrative information on top of the structured disclosure templates. For example, adding a Basic Information template with key elements, like company name, LEI, information if the document is audited, the name of the auditor and a brief resume of the narrative report. Publish those reports in XBRL format on top of the current public disclosure in “free electronic format”;

4) Request to publish the structured quantitative templates in XBRL and the SFCR in a structured pdf format;

5) Require a single, electronic and machine readable report. Applying for example a similar approach to the one implemented by ESMA for ESEF (iXBRL).

7.97 Stakeholders during the public consultation gave their support for keeping the current situation (option 1) with the main justification of avoiding additional reporting costs.

7.98 Although keeping the current Solvency II Directive requirements regarding the format of the SFCR report publication would not introduce any additional costs on the entities but it would not prevent e.g. image-based PDF files from being published. In this case data would be still challenging to be extracted and the process would create large difficulties and costs on interested stakeholders to access the public information. Such challenges would be high compared to the situation where entities would be publishing from the beginning SFCR reports in a searchable format.

7.99 Following this EIOPA considers Option 1 to be the preferred one for the format with the following minor modification (as assessed in the option 1.6 in the impact assessment document):

- Require that the reports shall follow a format allowing for application of search function for relevant text and numbers;
- EIOPA intends to provide more details about the technical format of the file at the relevant ITS level. Options that are considered include, but are not limited to, Portable Document Format (PDF) format as defined in the ISO 32000-1:2008.

7.100 Following the suggested option would potentially allow EIOPA in the future for extraction of the quantitative SFCR QRTs information subset from the publically available reports and cross-checking it with the figures from the supervisory reporting. Finally, the reliable data could be published which seems to be the most advantageous solution from the cost benefit perspective.

7.101 The introduction of the amendments mentioned bellow would boost the access to public available information and the efficiency for policyholders to access the SFCR information. Additionally, it could promote more advanced technological automated solutions using the information available in the SFCR reports.

7.3.4 Audit of the SFCR information

7.3.4.1 Identification of the issue

7.102 The Solvency II Directive does not require auditing of the Solvency II "figures". This requirement was extensively discussed in 2015 and EIOPA had published at that time a note highlighting the need for high quality public disclosure standards (Solvency II's report on solvency and financial condition and the potential role of external audit[150]):

"EIOPA *believes that to ensure high quality public disclosure for Solvency II purposes, external audit of that information can certainly be a powerful tool. In order to make best use of external audit in the context of SFCR, EIOPA is of the view that at individual and group level main elements of the SFCR (balance sheet, own funds and capital requirements) of all insurance and reinsurance undertakings could fall within the scope of an external audit".*

7.103 After 4 years of implementation, EIOPA believes that enough experience was gained to review audit requirements.

7.104 In the context of the national transposition of Solvency II several Member States have introduced full or partial audit requirements with regard to Solvency II "figures". The requirement is either limited to the full SFCR or its main elements

[150] https://www.eiopa.europa.eu/search/site/EIOPA%19BoS%1915%252f154_en

(BS, SCR/MCR or EOF). In some cases, it might extend to the RSR, including all QRTs disclosed in the SFCR.

7.105 Member States with an auditing requirement mandate that either the SFCR, the QRTs or the Solvency II balance sheet is subject to this requirement. Audits count as partial where not the full SFCR is audited or where other constraints apply (e.g. small undertakings and groups are not subject to the requirement or the auditing does not include internal models).

7.106 In those Member States that currently do not have Solvency II audit requirements this was generally not the option of the NCAs of these Member States but due to the fact that such auditing was not a requirement of the Solvency II Directive that needed transposition.

7.107 A summary of the current audit requirements across Member States at solo level:

Current status	**Members States**
No audit of any Solvency II figures	9 Member States Slovakia, France, Hungary, Latvia, Finland, Czech Republic, Estonia, Lithuania, Luxembourg
Audit of Solvency II figures	17 Member states
Of which:	
Balance Sheet	3 EEA States Germany, Denmark, Liechtenstein
Balance Sheet + SCR + MCR + eligible own funds	13 Member States Austria*, Belgium, Italy, Netherlands, Poland*, Portugal, Slovenia**, Spain, Sweden, Malta*, Croatia*, Romania*, Ireland**. * These countries ask for a full audit, Austria ask for the audit of the SFCR ** For SL audit requires assessment if the SFCR include and adequately present the contents of some of the chapters and correctness of some the quantitative reports *** as well as * and additionally exclusion of SCR and MCR of (partial) internal models

7.108 During the public consultation EIOPA launched a survey to solo undertaking on costs and benefits on the changes proposed. 357 individual undertakings from 29 EEA Member States (all EEA except UK and MT) with an EEA market of 32% in terms of total assets and 42% in terms of technical provisions answered the survey. Regarding the audit of the SFCR 73% answered that their undertaking is already auditing the SII Balance Sheet where 84% of them carry out audit with a wider scope.

7.3.4.2 Analysis

7.109 Considering the above background, the proposals considered by EIOPA were the following:

1) Keep the legislation as it is – no audit requirement in the Solvency II Directive – Member States' discretion;

2) Minimum audit requirement to be introduced in the Solvency II Directive to audit Solvency II Balance-Sheet (Member States' discretion to have additional requirements) but excluding captives insurance and captive reinsurance undertakings;

3) Minimum audit requirement to be introduced in the Solvency II Directive to audit Solvency II BS/MCR/SCR/EOF but excluding captives insurance and captive reinsurance undertakings (Member States' discretion to have additional requirements).

7.110 Where auditing requirements are in place all NCAs consider these to be beneficial, improving the quality of the data, assisting in supervision thus helping to protect policyholders and probably benefiting at least smaller undertakings that struggle more with Solvency II compliance. NCAs believe that the external audit requirement has materially improved the quality of the information within the SFCRs as they routinely see material corrections/reclassifications between the quarterly return (unaudited) and the final public disclosure which have been explicitly attributed (by the reporting undertaking) to the audit process. In fact, there is a good degree of challenge from auditors during SFCR production, which results in undertakings making improvements to the SFCR.

7.111 Indeed, EIOPA has always been of the opinion that only high quality disclosed figures and good public reports can fulfil the goals set out by Solvency II (please refer to the EIOPA publication[151]). Otherwise, stakeholders may be misguided in their judgements, in comparison with other public disclosures like financial statements, which are strictly regulated and scrutinised. Therefore, EIOPA and its members will be very attentive to the actual application of the Solvency II public disclosure by insurance and reinsurance undertakings and potentially divergent levels of quality in different Member States. Currently auditing requirement are in place in several Member States, and there are contradictory views from stakeholders on the costs (see Impact Assessment). In its current proposal EIOPA also considers the comments received regarding audit requirements towards captives.

7.112 The disclosure of information in the SFCR is to serve transparency which to be meaningful requires that there is sufficient assurance that the information disclosed is complete and correct. There is also the timing dimension to consider.

7.113 The SFCRs are disclosed to the market and sent to the NSAs at the same time, therefore the review from supervisors can only take place after the undertakings published their SFCR.

7.114 Regarding the proportionality principle the following was considered:

- Complete exemption: all stakeholders including policyholders deserve the same level of assurance about the completeness and correctness of the information disclosed, regardless of the size or risk profile of the undertakings, therefore it is not recommendable to have different requirements for different type of undertakings. Proportionality should be embedded as audit should be less complex, however there is evidence that audit fees might be significantly higher as a proportion of premium income for small undertakings vs larger undertakings;
- Allow NCAs to exempt with a minimum frequency of auditing every 3 years: as said before, all stakeholders including policyholders, deserve the same level of assurance about the completeness and correctness of the information disclosed, regardless of the size or risk profile of the undertakings, therefore it is not recommendable to have different requirements for different type of undertakings and groups.
- Allow discretion regarding audit requirement for captives insurance and captive reinsurance undertakings. (preferred)

7.115 Regarding proportionality EIOPA concluded that all stakeholders including policyholders deserve the same level of assurance about the completeness and correctness of the information disclosed, regardless of the size or risk profile of the undertakings with only one possible exemption for captives due to the specific nature of its stakeholders.

7.116 This audit requirements shall aim to enhance the degree of confidence regarding the compliance of the financial information in the balance sheet with the respective rules and regulations. In view of a minimum standard, to allow Member States to keep the type of assurances they have already implemented, it is proposed that the new requirement refers to audit or similar alternatives. In fact the use of other assurance review or related engagements by a certified public accountant for example are seen as adequate as well.

7.117 The proposal also does not include a requirement regarding the disclosure of the report resulting from the audit or similar requirement. The discussion on this topic identified material cultural differences and different practices in place regarding the public disclosure of such report. Usually this differences are not insurance sector specific but country specific. Introducing such a requirement for the insurance sector where the disclosure of such reports is not a practice for other sectors in a specific Member State could be challenging. Also, the aim of the introduction of this requirement is to increase the quality of the data disclosure. As such, the performance of the assurance exercise and the submission of the report to the supervisors should comply with that objective. Although the public disclosure of such report would increase transparency and market discipline it should not impact data quality as such. This of course takes as an assumption that supervisors would engage with the undertaking and require re-publications of the information disclosed in case the report submitted to them identifies material issues. Therefore, although EIOPA would favour, as in all other issues, a transparent approach and would recommend the publication of such a report, it is not being proposed as a requirement.

7.118 Some doubts have been raised regarding the application of different audit requirements between different solos belonging to same groups and the group requirements, in particular when the group applies for a single SFCR. EIOPA would like to highlight that this situation already occurs today and the proposal put forward will not increase the impact of such situation. On the contrary, as it defines a minimum standard it should reduce the differences between Members States. However, there is in fact the need to further clarify this specific situation. EIOPA would like to clarify the following:

- The group supervisor should discuss with the parent undertaking when approving the issuance of a single SFCR the concrete audit requirements to apply and at which level;
- Even if a single SFCR is approved, all the audit requirements established at national level for the solo SFCR have to be complied with regarding the solo information;
- If the requirement at group level is more extensive than the requirements at solo level the group should discuss with the group supervisor its expectations regarding the audit requirements to be applied to the input information of the consolidated figures.

7.3.5 Deadlines of disclosing SFCR

7.3.6.1 Identification of the issue

7.119 The deadlines for the solo and single SFCR were defined in the Solvency II Directive with a transitional period of 4 years[152]. The deadlines were defined as follows:

- ➢ 2016 solo SFCR: 20 weeks after end-year
- ➢ 2017 solo SFCR: 18 weeks after end-year
- ➢ 2018 solo SFCR: 16 weeks after end-year
- ➢ From 2019 solo SFCR: 14 weeks after end-year

- ➢ 2016 Single SFCR: 26 weeks after end-year
- ➢ 2017 Single SFCR: 24 weeks after end-year
- ➢ 2018 Single SFCR: 22 weeks after end-year
- ➢ 2019 Single SFCR: 20 weeks after end-year
- ➢ From 2020 same deadlines as solo SFCR: 14 weeks after year-end

7.120 The deadlines for the group SFCR were defined in the Solvency II Directive with 6 weeks extension of the solo deadlines.

7.3.6.2 Analysis

7.121 With regard to the deadlines of the submission of the SFCR EIOPA considered the following different combinations:

1) Keep the current deadlines;
2) Extend the deadlines;
3) Extend the deadlines also including additional time for the audit of the SFCR.

[152] Article 300 of and Article 368 of Commission Delegated Regulation (EU) 2015/35

7.122 For the single SFCR EIOPA considered the following different combinations:

1) The disclosure deadlines could be aligned with the single SFCR deadlines applicable for 2019 both for the policyholder and other financial users sections;
2) The disclosure deadlines could be aligned with the single SFCR deadlines applicable for 2019 only for the other financial users section while no changes are proposed for the disclosure of the policyholders section.

7.4 Regular Supervisory Report

7.123 The Regular Supervisory Report (RSR) is defined in Article 304 of the Delegated Regulation as one of the elements of regular supervisory reporting and should comprise the information referred to in Articles 307 to 311 of that Regulation.

7.124 Article 312 of Delegated Regulation identifies the deadlines and frequency required for such a report stating that the RSR should be reported at least every 3 years within the deadlines set out in Article 308b(5) of the Solvency II Directive and, after the end of the transitional period set out in that Article, no later than 14 weeks after the undertaking's financial year in question ends.

7.125 After four years of implementation of Solvency II it is important to discuss how the proportionate approach allowed under the Delegated Regulation has been implemented and if further convergence is needed in this area (see section 8.5.2.4).

7.126 As part of the general review it is important to go through the requirements of the RSR, assess its structure and content and eliminate repetitive information between RSR, SFCR and QRTs and information not regularly used.

7.4.1 Frequency of the Regular Supervisory Report

7.4.1.1 Identification of the issue

7.127 As referred above Article 312 of Delegated Regulation identifies the deadlines and frequency required for such a report stating that the RSR should be reported at least every 3 years within the deadlines set out in Article 308b(5) of the Solvency II Directive and, after the end of the transitional period set out in that Article, no later than 14 weeks after the undertaking's financial year in question ends.

7.128 The reference to "at least" allows NSAs to require a full RSR more often than every three years. In the years where a full RSR is not due undertakings are required to submit a report which sets out any material changes that have occurred in the undertaking's business and performance, system of governance, risk profile, valuation for solvency purposes and capital management over the given financial year, and provides a concise explanation about the causes and effects of such changes. That report shall be submitted within the same deadline as the full RSR.

7.4.1.2 Analysis

7.129 Following public consultation and the expressed strong concerns of stakeholders about different approaches in the application of the proportionality principle by supervisors, as well as based on the results from the RSR peer review, EIOPA considered the following options regarding the frequency of the RSR:

1) No change;

2) Introduce L3 tools for achieving supervisory convergence by keeping the minimum requirement for submission of full RSR once every 3 years but ask mandatory assessment by NCAs and communication of the frequency of the RSR;

3) Amend Article 312 of the Delegated Regulation to promote further proportionality in the RSR requirement

7.130 A change to be made with regards to the provisions in the Solvency II Directive and in the Delegated Regulation by defining a mandatory regular frequency for the full RSR once every 2 years, with possibility to exempt once (Article 312 of the Delegated Regulation) but impose mandatory communication of material changes (as defined in Article 305 of the Delegated Regulation) on annual basis. In this case NSAs could use the possibility to exempt based on the SRP, in which case the undertakings would only be required to submit the full report every 4 years, but the default frequency is set at 2 years.

7.131 The peer review performed on RSR[153] has identified divergent practices among NCAs in a number of areas, in particular:

- *the implementation of the option to request a more frequent submission of the RSR than once every 3 years (five groups of similar practices were identified);*

7.132 The peer review confirmed that the majority of the NCAs require an annual submission of the full RSR without the possibility for exemptions, while only one NCA has an option for exemption, which is set out in the local legislation.

7.133 Around one-third of the NCAs apply, to a certain extent, the principle of proportionality set out in the Delegated Regulation by performing risk-based supervision and setting the frequency of submission of the full and summary RSRs differently from the minimum defined by EU law.

- *the definition of 'material changes' and NCAs' requirements with regard to their official communication (two groups of similar practices were identified);*

7.134 The peer review confirmed that the summary RSR is hardly used as a tool for reporting to the NCAs, taking into account that the majority of EEA countries require an annual submission of the full RSR without any possibility for exemption. In addition to the NCAs applying, to a certain extent, the principle of proportionality that is embedded in SII legislation, another three NCAs officially require material changes to be communicated in a summary RSR.

- *the communication of the decision on the frequency of submission of the RSR to market participants (practices varied from no communication at all with any of the market participants to communication with all undertakings on an individual basis).*

7.135 The peer review confirmed that there were issues with collecting information and communicating the decision made on the frequency of submissions of the RSR at the solo and group levels (see Guideline 23, paragraph 1.58, of the EIOPA Guidelines on SRP). It should be highlighted that Guideline 23 has been interpreted differently by group and solo supervisors.

7.136 Taking into account the experience gained in the last four years EIOPA believes that the legal framework is adequate and the issues found in the peer review should be addressed under supervisory convergence, using a Level 3 tool. This

[153] https://www.eiopa.europa.eu/content/findings-regular-supervisory-report-rsr-peer-review-published

takes into account the need for a risk-based and proportionate approach and the need to keep the flexibility of supervisory judgment while recognising that work under supervisory convergence is needed.

7.137 This option is to be adapted to and complemented by the general approach to proportionality principle (see also chapter 8) which will clarify the conditions of application of the proportionality measures, including the possibility to report the full RSR only every 3 years.

7.4.2 Structure and content of the Regular Supervisory Report (RSR)

7.4.2.1 Identification of the issue

7.138 The RSR is defined in Article 304 of the Delegated Regulation as one of the elements of regular supervisory reporting and should comprise the information referred to in Articles 307 to 311 of that Regulation. It shall also present any information referred to in Articles 293 to 297 of that Regulation which supervisory authorities have permitted insurance and reinsurance undertakings not to disclose in their SFCR, in accordance with Article 53(1) of the Solvency II Directive. The RSR shall follow the same structure as the one set out in annex 7.2 for the SFCR.

7.139 This report is seen as complementary to the SFCR and should include the information considered private. It should not repeat the SFCR but be a complement to the information available in the SFCR.

7.140 Guideline 35 of EIOPA Guidelines on Reporting and Public Disclosure clarify the following regarding the use of links in the RSR: "When insurance and reinsurance undertakings refer in the RSR to other documents that are subject to reporting to their supervisory authorities, these should lead directly to the information itself and not to a general document. Insurance and reinsurance undertakings should not use in the RSR references to other documents that are not subject to reporting to their supervisory authorities."

7.4.2.2 Analysis

7.141 Following the experience gained in the first years of Solvency II implementation the following options are considered:

1) No changes

2) Improve both the structure and the content of the RSR

7.142 In all options it is proposed, to ensure that RSR reports are easily usable, that they should be reported in a human readable format, with search function capabilities for text and numbers i.e. in a PDF file.

7.143 EIOPA believes that the RSR has room for improvement both in terms of simplifications to promote further application of proportionality principle as well as to streamline the content and avoid duplications and overlaps within the RSR and between the RSR and other supervisory reports and information.

7.144 Regarding the streamlining of the report one important point is the reduction of the "static" information and the focus on the material changes over the reporting year. Information to evidence compliance with certain requirements is proposed to be deleted as it was not considered appropriate for a regular report. However, undertakings should be ready to show that evidence if required by supervisors. The revision of the content lead to material reductions in the content.

7.4.3 Single Regular Supervisory Report

7.4.3.1 Identification of the issue

7.145 During EIOPA Call for input and in the public consultation stakeholders asked for the possibility to apply for a single group RSR in line with the possibility to apply for a single SFCR or a single ORSA report, i.e. one report is filed for the whole group. Further, if undertakings got approval for a single group SFCR, the approval for a single group RSR should be given automatically.

7.146 Regarding single group RSR industry noted that a well-structured document can address the concern of the document being too lengthy. Moreover, it would be at the discretion of the parent company to produce a single group RSR, and as such the insurer is aware that the information is shared with several supervisors.

7.147 EIOPA has duly considered the proposal and further discussed the criteria that would be needed to allow this possibility to the industry while addressing the main concerns from supervisors. The main concerns from supervisors were:

- the nature of the document: it is a detailed and long document, if merged in a single document it would be of limited use by supervisors due to its length. Additionally, it may contain sensitive information that is not opportune to be shared among supervisors at group level;
- the frequency and deadlines: the frequency of the RSR of each solo undertaking and the group can be different, the different deadlines can have an impact on the performance and utility of a single RSR;
- the language: the translation in a foreign language can have an impact on the quality of the information provided in the RSR. This is not convenient from a supervisory perspective given the importance of the RSR information.

7.148 EIOPA believes that to reflect the fit-for-purpose principle and allow for proportionality and simplifications when this does not affect the use and the value of supervisory tools, the groups that disclose a single SFCR should be allowed to report a single RSR to supervisors if some conditions are met. Groups with a single SFCR don’t automatically have the right to submit a single RSR (single SFCR is more a prerequisite for considering whether to grant single RSR or not). The proposal (consistent with the single SFCR requirements) include the following criteria and considerations:

- Needs agreement by the NSAs concerned, where they can refuse if duly justified. If approved and the content is not satisfactory for the solo supervisors the approval can be withdrawn;
- If agreed at the level of the college, it is the responsibility of each solo insurance undertaking to submit the single RSR to each NCA and each NCA continues to have the power, as if there was a solo RSR, to supervise the specific part of the single RSR concerning the relevant subsidiary. Any non-compliance issues would be shared with the college so that requests to subsidiaries would be at the same time submitted to the parent by the group supervisor;
- Information for any of the subsidiaries within the group must be individually identifiable, each subsidiary needs to have a specific section clearly identified in the single RSR and this should not result in less information regarding the subsidiaries covered;

- Format: the single RSR (as the RSR) should be submitted in an human readable format, i.e. in a PDF file with search function capabilities for text and numbers;
- Languages: Single regular supervisory report in the language or languages determined by the group supervisor; when supervisors comprises supervisory authorities from more than one Member State, the group supervisor may, after consulting the other supervisory authorities concerned and the group itself, require the report in another language most commonly understood by the other supervisory authorities concerned, as agreed in the college of supervisors, that can only be an additional language, the same as for the Single SFCR. Where any of the subsidiaries covered by the single regular supervisory report has its head office in a Member State whose official language or languages are different from the language or languages in which that report is reported, the supervisory authority concerned may require the inclusion in that report of a translation of the information related to that subsidiary into an official language of that Member State;
- The deadline would be the same one as for the group SFCR. The information in the RSR complements the information in the SFCR, meaning that receiving the RSR before the publication of the SFCR would be of reduced added value. Should be noted that for the single SFCR, only the part addressed to policyholders will be required to be published within the solo deadline.

7.4.3.2 Analysis

7.149 EIOPA considered the following options regarding the frequency of the RSR:

1) No change – no single group RSR is introduced;
2) Allow groups disclosing a single SFCR to report to supervisors a single RSR.

8. Proportionality

8.1. Thresholds for exclusion from Solvency II

8.1.1 Extract from the call for advice

> ***3.16. Proportionality and thresholds***
>
> *EIOPA is asked to assess whether proportionality in the application of the Solvency II framework could be enhanced, and in particular in the following areas:*
>
> - *the appropriateness of the thresholds for the exclusion from the scope of Solvency II, as defined in Article 4 of Directive 2009/138/EC*
> - *[…]*

8.1.2 Relevant legal provisions

8.1 The relevant legal provision is Article 4 of the Solvency II Directive.

Article 4 of the Solvency II Directive

8.1.3 Identification of the issue

8.2 EIOPA analysed the approach under Article 4 of the Solvency II Directive which defines the insurance undertakings that are excluded from the scope of Solvency II.

8.3 Both insurance and reinsurance undertakings generally fall within the scope of the Solvency II Directive, irrespective of their legal form. Institutions for occupational retirement provision, death benefit funds and small insurance undertakings are excluded from its scope. Article 4 of Solvency II Directive determines the exclusion from Solvency II by using different quantitative thresholds:

a. size of the business volume in terms of premiums and technical provisions - annual gross written premium income lower than 5 million Euros or gross technical provisions lower than 25 million Euros;

b. where the undertaking belongs to a group, the total technical provisions of the group defined as gross of the amounts recoverable from reinsurance contracts and special purpose vehicles not exceeding EUR 25 million;

c. size of reinsurance business in terms of premiums and technical provisions - EUR 0.5 million of the gross written premium income or EUR 2.5 million of the technical provisions gross of the amounts recoverable from reinsurance contracts and special purpose vehicles, or more than 10% of the gross written premium income or more than 10% of the technical provisions gross of the amounts recoverable from reinsurance contracts and special purpose vehicles.

8.4 These thresholds reflect both the size and nature perspective due to the special treatment of reinsurance business. Undertakings exceeding any of the predefined Article 4 thresholds are therefore in the scope of the Solvency II framework.

8.5 Article 4 does not only consider the size and nature based exclusion criteria but also looks at the complexity of the business. Direct insurance undertakings who underwrite insurance or reinsurance activities covering liability, credit and suretyship insurance risks, which are considered complex, are covered by Solvency II framework even if they comply with the predefined relative thresholds.

8.6 It should be noted that undertakings that wish to apply Solvency II framework, for example to benefit from the European passport, have the right to do so. In the table below the total number of insurance undertakings currently excluded from Solvency II is presented.

Table: Undertakings currently excluded from Solvency II[154]

Country	Total number of insurance and reinsurance undertakings	Of which number of insurance undertakings that are below the Article 4 threshold and excluded from Solvency II
Austria	84	49
Belgium	69	3
Bulgaria	37	5
Croatia	18	0
Cyprus	32	1
Czech Republic	27	0
Denmark	82	11
Estonia	10	0
Finland	50	6
France	713 (including 97 undertakings linked to another by a substitution link[3])	237 (including 97 undertakings linked to another by a substitution link[155])
Germany	402 (without funeral insurance undertakings, reinsurance undertakings in run off (Abwicklung) and 1 life insurance undertaking)	27
Greece	38	2
Hungary	33	10
Iceland	11	0
Ireland	201	1
Italy	100	1
Latvia	6	0

[154] Numbers based on a survey to the NSAs in Summer 2019

[155] In France all undertakings linked to another by a substitution link are excluded from Solvency II

Liechtenstein	38	0
Lithuania	9	0
Luxembourg	278	0
Malta	68	0
Netherlands	134	22
Norway	68	0
Poland	60	1
Portugal	41	0
Romania	29	1
Slovak Republic	14	0
Slovenia	15	0
Spain	162	11
Sweden	187	26

8.7 In 13 Member States there are no insurance undertakings excluded from the scope of Solvency II. For the ones that have, each Member State decided and defined the regime to apply to the excluded insurance undertakings. In the table below such regimes are presented.

Table: Prudential regime applied to undertakings excluded from Solvency II

Country	**Which prudential regime is applicable to undertakings excluded from the scope of Solvency II?**
Austria	Other than Solvency I or Solvency II
Belgium	Solvency I rules
Bulgaria	Solvency I rules
Croatia	Solvency II rules, but with some differences (e.g. exemptions) No undertakings excluded
Cyprus	Solvency II rules, but with some differences (e.g. exemptions)
Czech Republic	Solvency II rules No undertakings excluded
Denmark	Solvency II rules, but with some differences (e.g. exemptions)
Estonia	Solvency II rules No undertakings excluded
Finland	Other than Solvency I or Solvency II
France	Solvency I rules
Germany	Other than Solvency I or Solvency II
Greece	Solvency II rules, but with some differences (e.g. exemptions)
Hungary	Solvency I rules
Iceland	Other than Solvency I or Solvency II

	No undertakings excluded
Ireland	Solvency I rules
Italy	Other than Solvency I or Solvency II
Latvia	Solvency II rules No undertakings excluded
Liechtenstein	Other than Solvency I or Solvency II No undertakings excluded
Lithuania	Solvency II rules No undertakings excluded
Luxembourg	Solvency II rules No undertakings excluded
Malta	No undertakings excluded
Netherlands	Solvency II rules, but with some differences (e.g. exemptions)
Norway	Other than Solvency I or Solvency II No undertakings excluded
Poland	Solvency II rules, but with some differences (e.g. exemptions)
Portugal	No undertakings excluded
Romania	Solvency I rules
Slovak Republic	No undertakings excluded
Slovenia	Solvency II rules No undertakings excluded
Spain	Solvency II rules, but with some differences (e.g. exemptions)
Sweden	Other than Solvency I or Solvency II

8.8 From the 16 Member States that have insurance undertakings excluded from the scope of Solvency II, 5 apply a regime similar to Solvency II but with some exemptions, 6 apply Solvency I and 5 a regime different from Solvency I or Solvency II.

8.1.4 Analysis

8.9 EIOPA has analysed two different policy issues:

- Policy issue 1: Approach towards exclusion from Solvency II;
- Policy issue 2: Revision of Article 4 content.

8.10 The first one addresses the approach of Article 4 and whether a new intermediate regime could be created as proposed by stakeholders (Approach towards exclusion from Solvency II framework). This policy issue is analysed regardless of any amendment to Article 4 thresholds and explores only the pros and cons of having a third category of undertakings.

Policy issue 1: Approach towards exclusion from Solvency II framework

8.11 The options considered were the following:

1) No Change
2) Maintain the exclusion from Solvency II to certain undertakings as defined in Article 4 (see also Policy Option 2 regarding the content of Article 4) and reinforce proportionality across the three pillars of Solvency II;
3) Maintain the exclusion from Solvency II to certain undertakings as defined in Article 4 (see also Policy Option 2 regarding the content of Article 4) and introduce a specific supervisory regime for medium sized undertakings, who would fall under the scope of Solvency II but with a special regime.

8.12 Considering Option 3 - the proposal put forward by some stakeholders (Approach towards exclusion from Solvency II framework) represents a fundamental change to the Solvency II legal framework. The main objective of the Solvency II Directive is the protection of policyholders. This protection should be similar to all policyholders regardless of the Member State, nature of the undertaking, nature of the business and size of the undertaking. This similar level of policyholder protection cannot, from EIOPA's view be achieved with a Solvency II lighter regime where fundamental cornerstones of the regime such as the actuarial function or timely supervisory reporting are eliminated from the requirements.

8.13 This proposal (Option 3) is primarily based on the size of the insurance undertaking and does not take sufficient account of the individual risk profile of the undertaking.

8.14 Therefore, EIOPA does not believe that Option 3 is adequate as it would create two categories within Solvency II which will lead to different levels of protection within Solvency II. This would also create legal uncertainty to undertakings as the decision could not be based on size only but would need to have other risk-based criteria in place. The initial decision would be burdensome for both undertakings and NSAs and the monitoring of the decision would be very difficult considering the reduced supervisory reporting in place.

8.15 In general, in the discussion on the SME definition, it should be borne in mind that such definition did not have in mind regulated and supervised activities where policyholder protection is at stake. Such an approach would be misleading to policyholders and the meaning of "compliant with Solvency II" would become unclear. In principle Solvency II requirements should be applicable to all undertakings and general application of proportionality principle and specific targeted proportionality solutions based on risk (as for example exemption proposed under remuneration principles) should be enough.

8.16 However, EIOPA agrees that application of the proportionality principle should be improved. Option 2 reflects a risk-based approach and does not create two categories within Solvency II which would lead to different levels of protection within Solvency II. Application of the proportionality principle should not be a one-size fits all approach.

8.17 EIOPA believes that an adequate implementation of the proportionality principle at the level of the applicable requirements and in the Supervisory Review process should be enough to guarantee a proportionate approach. The preference for this option should be seen in conjunction with EIOPA's proposals on general approach to proportionality in Section 8.2 and proportionality measures on Pillar I, Pillar II and Pillar III which aim at further improving the application of the proportionality principle.

Policy issue 2: Revision of Article 4 content:

8.18 The second policy issue addresses the adequacy of the different thresholds within Article 4 in terms of size (Revision of Article 4 content). In this case several options were discussed: no change, increasing thresholds, Member State options in some thresholds, consider annual average growth rates of the insurance market (and/or ECB's inflation goal and/or EEA GDP growth rate) or percentage share of the total insurance national market (both Solvency II and non-Solvency II) instead of a strict size criteria as laid out in Article 4.

8.19 EIOPA has analysed all options, in addition to the concerns/proposals put forward by NSAs and stakeholders, considering the following:

- experience on the application of proportionality principle, both on the requirements and supervisory practices;
- differences between markets, in particular regarding the size of the business;
- the size and impact of the undertakings excluded within the European insurance market over time;
- the regime applicable in the different Members to the undertakings excluded from Solvency II together with the number of Member States where the full market apply Solvency II;
- EIOPA proposals on proportionality regime in all areas covered by the 2020 Solvency II review.

8.20 EIOPA has performed analysis of different thresholds for the gross written premiums (see the relevant Impact Assessment).

8.21 Considering the Impact assessment and the analysis performed EIOPA proposes to double the threshold related to technical provisions and allow for a Member State option regarding the size of the threshold related to premium income. The rational behind is to consider the technical provisions as first line of defence of policyholder protection without flexibility for this amount but to allow for flexibility on the premiums income threshold.

8.22 Regarding the range to be proposed, after all considerations, EIOPA believes that the range of the premiums income threshold should be between 5 million Euros (the current threshold) and 25 million Euros.

8.23 The 5 million Euros is the threshold to be used by default while also allowing Member States the possibility to opt for a higher limit if such a threshold would apply to a material number of undertakings with low risk profile and representing a residual market share. Such threshold shall not exceed 25 million Euros. This would mean that some Member States will opt for the upper limit, others for the lower one, and others for one in the middle. In practice this means that the most relevant threshold in the Solvency II Directive would be, in fact, the lower limit of the range as it would work as default. By providing the possibility to opt EIOPA believes that within the freedom of each Member State the lower limit will provide a benchmark for smaller markets that opt for allowing some exemptions to follow.

8.24 This proposal allows for the exemptions of a fair number of undertakings representing a very small share of the insurance market. EIOPA proposal also considers the freedom of each Member State regarding the framework to apply to the undertakings excluded. EIOPA proposal does not impact the current practice of the Member States to define the regulatory framework for the excluded undertakings referred to in Article 4.

8.25 This approach will lead to different limits being applied in different Member States. This in fact occurs already today, as the table above evidences. In fact these different approaches could occur to a bigger number of undertakings, if the Member States go for the upper limit but EIOPA believes this could be accepted as this is expected only when such undertaking represent an immaterial market share and as long as the limit for the other items is not reached.

8.26 EIOPA has also revised other articles with specific exclusions and minor amendments have been identified as needed.

8.2. New framework for the application of the proportionality principle

8.2.1 Extract from the call for advice

3.16. Proportionality and thresholds

EIOPA is asked to assess whether proportionality in the application of the Solvency II framework could be enhanced, …

8.2.2 Previous advice

8.27 The previous advice submitted with regard to the proportionality measures for the different pillars of Solvency is reported in the relevant section of this advice.

8.2.3 Relevant legal provisions

8.28 The most relevant provisions with respect to the general application of principle of proportionality in the Solvency II framework are the following:

- Recital 18
- Recital 19
- Recital 20
- Recital 21
- Article 29 - General principles of supervision
- Article 34 - General supervisory powers
- Article 36 – Supervisory Review Process

8.29 The reference to the relevant provisions with regard to the use of the principle of proportionality for the different pillars of Solvency II is reported in the relevant sections of this advice.

8.2.4 Identification of the issue

8.30 The principle of proportionality is an overarching principle of Union law[156] and Solvency II.

8.31 The proportionality principle is currently applicable to all pillars of Solvency II and leads to:

i) Simplified calculation of SCR (standard formula) and Technical Provisions (pillar I);
ii) Proportionate configuration of system of governance (pillar II);
iii) Exemptions/limitations and proportionate supervisory reporting requirements (pillar III).

8.32 Independently from the words used (i.e. simplification versus proportionality measure versus exemption/limitation from reporting), all the above mentioned address the application of the proportionality principle and must be always justified by the nature/scale/complexity of risks.

8.33 In some case, the compliance with the nature/scale/complexity of risks is not sufficient, and additional requirements apply.

8.34 Under the current framework, the proportionality principle is applied 'automatically' by undertakings, which are responsible for assessing their compliance with criteria required by the legal framework. Supervisors not agreeing with the undertakings' decision will have to react ex-post.

8.35 Stakeholders raised to EIOPA the little or no application of proportionality under Solvency II in practice and the lack of convergence in the cases where it is applied.

8.36 Considering the available information (e.g. annual report on the use of limitation/exemptions from reporting, the result of the peer review of key functions, etc.), EIOPA agrees that there is room for improvement in the application of proportionality and further work was carried out after the public consultation of the draft advice. A dedicated meeting with stakeholders was organised on 28 February 2020 to kick-off the work.

8.37 The proposed framework for improving the principle of proportionality is based on the following pillars:

- Introduce in the legal framework clear criteria to identify undertakings whose nature, scale and complexity of risks justify the use of the proportionality principle (section 8.2.4.1 and 8.2.5.1);
- Introduce a new process for the application of the proportionality principle (section 8.2.4.2 and 8.2.5.2);
- Clarify the role of supervisors and EIOPA with regard to the application/supervision of proportionality measures not specifically mentioned in the legal framework (section 8.2.4.3 and 8.2.5.3);

[156] As provided for in Article 5(4) Treaty on European Union.

- Introduce a new transparency and monitoring tool through reporting on a regular basis the use of proportionality measures in the EU (section 8.2.4.4 and 8.2.5.4).

8.38 The specific proportionality measures with regard to the different pillars of Solvency II are described in the relevant sections of this advice.

8.2.4.1 Criteria for identifying low risk profile undertakings and the role of the supervisory authorities

8.39 According to stakeholders, one of the main obstacle to apply proportionality is that the pre-condition of the nature/scare/complexity of the risks is too wide, highly judgemental and lead to very uncertain outcomes on the concrete possibility to apply proportionality, which in the end discourage undertakings to initiate a process with their Supervisors.

8.40 Another point of criticism is that the proof of burden for the application of the principle of proportionality is entirely on the undertakings.

8.41 In order to achieve the final outcome of making the application of the proportionality principle more automatic, providing more predictability and certainty to the market, while at the same time keeping it risk-based, EIOPA advices EU COM to introduce in the legal framework some more detailed and clear criteria which identify low risk profile undertakings (LRU).

8.42 Low risk profile undertakings complying with the new predefined criteria will have the reasonable assurance to be entitled to apply the proportionality principle.

8.43 In other words, the criteria for identifying low risk profile undertakings aims at implementing in a simple and harmonised way the measurement of the nature, scale and complexity of undertaking' risks.

8.2.4.2 New process for the application of the proportionality principle

8.44 EIOPA proposes to amend the Solvency II framework in order to introduce a new process for applying the principle of proportionality by undertakings and for its supervision by NCAs.

8.45 The proposed process is different, depending on whether the applicant undertaking complies or does not comply with the new criteria for defining low risk profile undertakings (see par. 8.2.4.1).

8.2.4.3 The role of the supervisory authorities with regard to the use of proportionality measures not specifically identified in the Solvency II framework

8.46 There are different interpretations if the current Solvency II application of the principle of proportionality might lead to the use of additional proportionality measures, not explicitly mentioned in the legal framework.

8.47 This was clearly experienced in the work who led to the EIOPA Supervisory Statement on the application of the proportionality principle in the supervision of the Solvency Capital Requirement (SCR) calculated in accordance with the standard formula.

8.2.4.4 EIOPA's report on the use of proportionality measures by Member States

8.48 Currently EIOPA publishes an annual report on the use of proportionality measure for the purpose of limiting/exempting undertakings from reporting requirements.

8.49 Some stakeholders asked EIOPA to publish an annual report on the application of the proportionality principle per Member State and make propositions on how to improve its effectiveness and consistency

8.2.5 Analysis

8.2.5.1 Criteria for identifying low risk profile undertakings and the role of the Supervisory authorities

8.50 Since there is no a single best approach to measure the risk profile of insurance/reinsurance undertakings, EIOPA calibrated the criteria for identifying low risk profile undertakings by striking a fair balance between predictability/convergence in the application of the new framework, on the one hand, and allowing for supervisory judgement/risk-based supervision on the other hand.[157]

8.51 The above mentioned trade-off between simplicity/predictability for the market and use of supervisory judgement/risk-based supervision by Supervisors leads to the conclusion that new criteria should be considered as a harmonised framework that is expected to fit a good number of cases. However, even if more predictable in comparison with the current framework (where no guidance exists at all), the proposed new framework is not meant to be a fully automatic approach in every case.

8.52 Indeed, NCAs always have (and should have) the power/responsibility to:

- Challenge the application of proportionality principle and object its application to undertakings complying with the criteria for low risk profile undertakings (i.e. override the result of the application of the criteria of LRU);
- Not to object to the result of the application of the criteria for identifying low risk profile undertakings (i.e. endorse the result of the test of LRU*).*

8.53 In the cases where Supervisors deems it is not appropriate to allow the concerned undertaking to be considered a LRU, the burden of the proof is reversed and Supervisors will need to provide justification on this regard.

[157] Indeed, a high predictable and convergent framework (*pros*) based on hard quantitative thresholds which will not leave room for risk-based supervision and use of supervisory judgement (*cons*). On the other hand, a high flexible and risk-based framework (*pros*) would lead to case-by-case decision by Supervisors, with no predictability by undertakings and potentially unlevel playing field and non-convergent approach at the EU level (*cons*).

8.54 Following the same rationale, Supervisors have also the power/responsibility to allow the application of proportionality to undertakings not complying with the above mentioned criteria, when they don't fit their specific risk profile.

8.55 With regard to the approach for the definition of the criteria, EIOPA considered the two following approaches:

- Option 1 – closed list approach: shorter list of criteria where undertakings have to comply with all in a cumulative way;
- Option 2 – open list approach: longer list of criteria where undertakings only have to comply with a number of them.

8.56 The difference in the two approaches is that the first approach (closed-list approach) is simpler but also more restrictive and could leave out some undertakings not complying with all criteria. Those undertakings not complying with all criteria and willing to apply proportionality will have to initiate a separate and more burdensome dialogue with their Supervisors.

8.57 The second approach (open-list approach) leads to more flexibility in the application, has the ability to capture more different risk profiles, but it is also a bit more complex than the previous.

8.58 In order to keep the new framework simple, EIOPA followed the approach based on the closed list approach.

8.59 Eligible undertakings to be considered low risk profile undertakings are all insurance and reinsurance undertakings, meeting the criteria reported in the next paragraph, who are not pure reinsurers, don’t calculate the Solvency Capital Requirements using (partial or full) internal model and undertakings who are not at the head a group (related undertakings, not at the head of the group, can be considered low risk profile undertakings).

8.60 Low risk profile undertakings are eligible undertakings, as defined in the previous paragraph, who fulfil all the following seven criteria in the last two financial years:

1) Life undertakings whose ratio of the gross SCR for interest rate risk submodule over the gross technical provisions is not higher than 5%. This criteria applies to undertakings pursuing both life and non-life insurance activities only when the life business is material;
2) Life undertakings, excluding the index/unit linked business, whose investment returns is higher than the average guaranteed interest rates and non-life undertakings whose combined ratio is less than 100 percent. Undertakings pursuing both life and non-life insurance activities are required to fulfil both criteria for life or non-life business. In case one of the two type of business is not material, composite undertakings are not required to apply the criteria regarding that type of business;
3) Undertakings not underwriting more than 5% of annual gross written premiums outside of its home jurisdiction;
4) Life-undertakings with gross technical provision not higher than 1 billion EUR and non-life undertakings with gross written premiums (GWP) not higher than EUR 100 million. Undertakings pursuing both life and non-life insurance activities are required to fulfil both the above mentioned criteria;

5) Non-life and composite undertakings not underwriting more than 30% of the annual gross written premiums in Marine, Aviation and transport or Credit and Suretyship line of business;
6) Undertakings not investing in non traditional investments more than 20% of their total investments(i.e. traditional investments should account for at least 80% of the total investments). For the purpose of this point, traditional investments are considered bonds, equities, cash and cash equivalents and deposits and total investments are considered all the investments excluding investments covering unit-index linked contracts, excluding Property (for own use), excluding Plant and equipment (for own use) Property (under construction for own use) and including derivatives;
7) Undertakings whose accepted reinsurance, measured by gross written premiums, is not higher than 50%.

8.61 Captives undertakings, due to typical international nature of their business, most of the times based on reinsurance, are not required to fulfil the cross-border (criteria 3) and reinsurance criteria (criteria 7).

8.62 EIOPA conducted an impact assessment of the above reported criteria. The outcome of the impact assessment indicated that 407 undertakings in the EEA, corresponding to the 16% of the total number of undertakings (0.53% market share in life business and 1.8% in non-life business), would be potentially be considered as low risk profile.

8.63 For a correct reading of the figures, it should be reminded that:

- all eligibility criteria and the seven criteria referred in par. 8.59 and 8.60 were applied to estimate the number of undertakings that could be considered low risk profile;
- the analysis was done based on annual QRT data with reference year end 2019 (with respect to criteria 1, data year end 2018 and 2017 were also considered).
- The above reported impact assessment estimates the number of undertakings which can potentially be classified as LRU and apply automatic proportionality principle where there will be a more automatic link between the new concept of low risk profile undertakings and use of the proportionality measures (pillar II). The process for applying the principle of proportionality is different in case of simplification for pillar I purposes. So the final number of undertakings potentially applying the principle of proportionality across all the 3 pillars is higher than the number reported above;
- The number of undertakings above reported by definition can't forecast the number undertakings whose classification as 'low risk profile undertakings' will be challenged by Supervisors (determining a decrease of the final numbers) as well as the undertakings who will be classified as 'low risk profile undertakings' after approval of the Supervisors (determining an increase the final numbers);
- The exclusion for captives undertakings of cross-border (criteria 3) and reinsurance criteria (criteria 7) was not considered and therefore the number of undertakings fulfilling the criteria is higher (above all in the some markets).

8.64 In order to achieve some stability in the application of the new framework, EIOPA proposes that undertakings are required to fulfil all the criteria for two consecutive financial years (or in the last two years at the time of first application of the new framework). The reference to the last two years has the benefit of selecting undertakings which, fulfilling the criteria for at least two years, have more probabilities to fulfil the criteria in the next year in comparison with a undertakings selected following a single point-in-time approach. The burden of the double calculation is considered limited in comparison with the expected benefit.

8.65 New authorised undertakings, which don't have a track record of two years, are entitled to consider the last financial year.

8.66 All undertakings (i.e. start-up and not) which are expected to exceed the thresholds indicated for the criteria for low risk profile undertakings within three years should in principle not be considered low risk profile undertakings.

8.67 Similarly, undertakings will lose the status of LRU if they don't comply with at least one of the required criteria for two consecutive financial years. This means that, once entered in the sample of low risk profile undertakings, the concerned undertaking is entitled to use the automatic proportionality measure for at least two consecutive financial years in order to give the concerned undertakings a minimum amount of time to benefit from the application of the proportionality principle.

8.68 However, even in case an undertaking doesn't comply with at least one of the required criteria for two consecutive financial years and it can no longer be considered as a low risk profile undertakings for the following year, EIOPA proposes to follow a case-by case approach and entering in a dialogue with the concerned undertaking to assess whether it should be entitled to continue using some proportionality measures or not, taking into consideration the impact on the organisation of undertakings and the change of its risk profile.

8.69 Anyway, both undertakings and Supervisors should monitor the compliance with the criteria for low risk profile undertakings on annual basis.

8.70 Furthermore, undertakings are required to stand ready to revert to full application of the Solvency II requirements in case they are no longer considered low risk profile undertakings and they are requested by their supervisory authorities to stop using the proportionality measure (i.e. the need to adjust the process and procedure can't be considered a justification for not stopping using the proportionality measure).

8.71 In some cases undertakings may need an adequate amount of time to prepare, also depending of the point in time of the dialogue. For example, it would not be reasonable for supervisors to request undertakings to submit the RSR yearly instead of every 3 years if the dialogue and decision is taken in December. Another example could be organisational changes which could also take some time to implement. EIOPA believes that details regarding this process should be further elaborated on Guidelines and/or supervisory convergence tools.

8.72 Finally, in order to keep the description of the criteria relatively short and simple, EIOPA considers necessary to provide additional operational guidance with the release of EIOPA Guidelines for example to define the combined ratio and to identify the relevant data points of the QRTs to calculate the above criteria.

8.2.5.2 New process for the application of the proportionality principle

Process for undertakings complying with the criteria for LRU

8.73 EIOPA considered the following three options with regard to the process for applying the principle of proportionality:

- Option 1 - Do nothing: keep the current, automatic, approach: undertakings should continue to be responsible for deciding, based on their self-assessment, whether they comply or not with the requested criteria for applying proportionality (with no prior notification/approval to Supervisor);
- Option 2: Introduce a prior notification from undertakings to Supervisors on the intention to use a single proportionality measure (before applying it and as 'silent consent' – change of burden of proof);
- Option 3: Ask undertakings only to report (ex-post) to the Supervisory authority the information on the number/type of proportionality measures already used.

8.74 While option 2 (ex-ante notification) would make Supervisor authority aware on a timely way of the undertaking's intention to apply a certain proportionality measure, it has a cost of increased administrative burden for Supervisors and undertakings, option 3 (ex-post reporting) is more similar to the current situation. Option 1 was excluded considering the criticism received on the current approach.

8.75 EIOPA proposes the following two steps approach, based on a combination of the above options:

- ex-ante notification (not an approval or administrative process) from undertakings who believe to comply with the criteria for low-risk undertaking reported in section 8.2.5.1; and,
- once such a classification has not been challenged by the NCA (i.e. Supervisors didn't react to the ex-ante notification), an ex-post reporting (deadline and form to be discussed) of the proportionality measure(s) used by all undertakings (i.e. low risk profile undertakings and not). For the purpose of such reporting, it is proposed to include a new template in the annual quantitative reporting template (see initial drafting just for the purpose of assessing the type of reporting envisaged in annex 8.3). This reporting requirement is not exactly a new requirement, considering that currently undertakings are required to report in their QRTs/SFCR/RSR information on the simplified methods to calculate technical provisions and SCR and how the use of simplified calculation is justified by the nature, scale and complexity of the risks faced by the undertaking.[158]

8.76 As previously mentioned, it is worth reminding that Supervisors will have the possibility to challenge the use of any proportionality measures even if the classification of low risk profile undertakings has not been challenged after the early notification.

8.77 The ex-ante notification of the own classification as "low-risk profile" is considered to be a minimum burden as it is justified by the increased number of proportionality measures to become available to those undertakings, some of them without any specific criteria.[159]

[158] Guidelines on reporting and public disclosure

[159] The ex-ante notification is not indented to change the notification requirement required by SII to persons who effectively run the undertaking or are responsible for other key functions.

8.78 Not being an approval process or an administrative process there are not many examples of timeframe defined for any reaction from the national supervisory authority. Examples may be found in Article 58 or 148 of the Solvency II Directive. It should also be taken into account that it is expected a material number of notifications when the amendments will enter into force, with a higher operational burden at that one point in time. After that notifications are only expected upon changes of the risk profile or new undertakings. Therefore EIOPA proposes that National Supervisory Authorities may react within one month of the notification of a low risk profile undertaking, but that for the notifications within the first 6 months of entry into force of the amendments proposed such period is extended to two months.

8.79 The notification should include the following:

- Evidence of the compliance with the criteria defined in Delegated Regulation;
- Declaration that the undertaking does not plan any strategic change that would materially impact the business model or the risk profile;
- If possible, an early identification of the proportionality measures undertaking expects to implement, in particular the prudent deterministic valuation, mainly whether they plan to use prudent harmonised reduced set of scenarios to calibrate and ad-hoc stochastic supplement;
- Any other qualitative information undertakings considers material regarding its own risk profile.

8.80 The notification should be signed by the AMSB.

8.81 It was also pointed out that this approach could be seen as unfair towards non-'low risk profile' undertakings, which will continue to apply automatically (with no ex-ante notification) the simplifications on pillar I which have specific criteria and will be available to any undertaking (as today), penalising the 'low risk profile' undertakings which will have to notify in advance its Supervisor about their classification as low risk profile undertakings. This is not accurate as the undertakings eligible as 'low risk profile undertakings' that which to apply only those simplifications would not need to formally apply for that status as well. The concept of "low risk profile undertakings" has a wider application because it's the pre-condition for the automatic application of several proportionality measures on pillar II and in pillar III which make necessary an early notification to Supervisors. This early notification is expected to be welcomed by the industry which asked for more clarity and predictability for the application of the proportionality principle.

Process for undertakings not complying with the criteria for LRU

8.82 The criteria for defining low risk profile undertakings are designed as benchmark, expected to work in several cases but not necessary in every single circumstance.

8.83 Generally speaking, there might be two cases where some undertakings will not comply with the new criteria for low risk profile undertakings, but at the same the application of the principle of proportionality shouldn't be excluded a priori, namely:

1) Undertakings with a very specific risk profile, not captured by the criteria identifying low risk profile undertakings or medium-high risk profile undertakings which intends to apply the proportionality principle with regard to immaterial risks;
2) Undertakings willing to apply simplifications for pillar I requirements.

1) Undertakings with a very specific risk profile or medium-high risk profile undertakings

8.84 Undertakings which have a low but different risk profile from the reference low risk profile undertaking considered to calibrate the criteria for LRU will not captured by the mentioned criteria. In this case, after approval with its Supervisor, such different low risk profile undertaking can be considered as low risk profile undertakings as well and, therefore, can apply all the proportionality measures foreseen for the undertakings complying with all the LRU criteria.

8.85 Similarly medium-high risk profile undertakings by default will not fulfil the criteria for LRU, which refer to a reference low risk profile undertakings. In case such undertakings intend to apply any measure of proportionality, except the ones referred to in point 2, an approval from Supervisors is needed, and undertakings need to explain the reasons for using proportionality and give the supporting evidence.

8.86 In the two above mentioned cases, the concerned undertaking should follow a similar process but approval instead of notification is required and providing the same information requested to undertakings complying with the criteria for LRU. Furthermore, those undertakings are required to describe their risk profile and provide adequate justifications why they believe the status of 'low risk profile undertaking' should also apply to them (in the first case of number 1)) or they should entitled to use the principle of proportionality despite their medium-high risk profile (in the second case of number 1)).

8.87 The notification process for the process defined above for LRU applies mutatis mutantis in this case but with a different timeline and documentation requirements (i.e. two month from the notification by the undertaking, with an extended term of four months for the notifications within the first 6 months of entry into force of the amendments proposed in the advice).

2) Undertakings willing to apply simplification for pillar I requirements

8.88 In order to apply some simplifications for pillar I requirements, Solvency II requires, as general pre-condition, that the specific risks falling within the SCR or TP should be immaterial[160], while the criteria for identifying low risk profile

[160] For instance:
- on SCR: article 109 (Simplifications in the standard formula) of the Directive, as complemented by article 88 (Proportionality) of Delegated Regulation, allows undertakings to use simplified calculation wen the nature, scale and complexity of the risks of the undertaking falling within the relevant module or sub-module justify it;
- on TP: Article 56 (Proportionality) of Delegated Regulation require undertakings to use methods to calculate TP which are proportionate to the nature/scale/complexity of the risks underlying their insurance and reinsurance obligations.

undertakings are designed considering the overall risk profile of undertakings (which is the reference for applying the proportionality principle in pillar II and III requirements).

8.89 In addition to the above mentioned pre-condition, some specific additional requirements applies.

8.90 If undertakings comply with both requirements required by SII framework, it is proposed to let undertaking applying the measure(s), without prior notification/approval, as currently done. This is not really a change compared with the current requirement as the QRTs already have some information on the use of such simplifications. However, in future this reporting will be revised and potentially the new quantitative reporting template might be used. This will also be the case for undertakings eligible as 'low risk profile undertakings' that apply only those simplifications.

Transitional measure

8.91 Except for the use of simplification for pillar I, where no changes are proposed by EIOPA, undertakings which apply some proportionality measures by the time of the entry into force of the change to the Solvency II included in this advice, with regard to proportionality, may continue to apply such proportionality measures, without applying the new requirements, for a period not exceeding four financial years.

8.92 The new requirements introduced in this advice will apply with regard to new proportionality measure.

8.2.5.3 The role of the supervisory authorities with regard to the use of proportionality measures not specifically identified in the Solvency II framework

8.93 EIOPA discussed whether the existing proportionality measures together with the new proportionality measures, to be introduced in the Delegated Regulation, should be considered as a "close list" of all possible measures or alternatively whether Supervisors (should) have the power to apply the principle of proportionality in the Supervisory Review Process (SRP), allowing undertakings to comply with the requirements in a proportionate way, not explicitly mentioned in the Solvency II framework.

8.94 The additional proportionality measures, allowed by Supervisors, shouldn't be considered as "new" proportionality measures introduced by Supervisors, referring to a policy-making activity. They should be rather seen as the implementation of the principle of proportionality foreseen in the Directive during supervision, which is defined by the Insurance Core Principles of the IAIS as the use of "a variety of supervisory techniques and practices which are tailored to the insurer to achieve the outcomes of the Insurance Core Principles (ICPs). Such techniques and practices should not go beyond what is necessary in order to achieve their purpose".[161]

8.95 In other terms, the concerned flexibility/power/judgement of Supervisors should concern "how" requirements will have to be implemented by the undertakings and not the application of the requirements per se (the "what").

8.96 For the sake of clarity and as an example, the exercise of this power would be similar to situations mentioned in the EIOPA Supervisory Statement on the application of the proportionality principle in the supervision of the SCR.

8.97 It is acknowledged that, in the area of compliance with the system of governance, where the compliance with the principles and rules is more judgmental, it will be easier for NCAs to assess if the approach is in line with Solvency II principles and rules. On the other side, in areas such as TP calculation, SCR calculation, supervisory reporting of QRTs or public disclosure, in particular when Implementing Technical Standards exist, the room for additional proportionate ways of compliance is more reduced but should not be fully eliminated. EIOPA believes that in this latter case the role of EIOPA could be instrumental to ensure a convergent approach, as it was the case, for example, with the proportionate approach regarding SCR calculation envisaged in the EIOPA Supervisory Statement.

8.98 EIOPA proposes to amend the SII framework to clarify that similar situations in the future would be fully in line with the Solvency II framework as long as it is in line with Solvency II principles and rules as it was the case for that Supervisory Statement.

8.99 The benefits of such an approach would be:

- To keep proportionality as a principle, not as a rules-based close regime, and allow its implementation in the Supervisory Review Process;
- To allow for use of future proportionality measures, currently not envisaged, which can be fully justified and compliant with the nature/scale/complexity requirement.

8.100 The mentioned power by Supervisors shall be exercised under certain "safeguards", i.e. it should not lead to a complete exemption from requirements and the proportionality measures should be in line with the general and overarching principle of Solvency II and in the case not addressing pillar II shall be supported by EIOPA supervisory convergence tools.

8.2.5.4 EIOPA's report on the use of proportionality measures by Member States

8.101 Following up a proposal from some stakeholders, EIOPA proposes to extend the scope of the current EIOPA report on exemptions/limitations of reporting by considering the use of the principle of proportionality for all the three pillars of Solvency II in order to have a complete picture.

[161] IAIS, Insurance Core Principles: Introduction and Assessment Methodology.

8.102 The public report on the overall use of proportionality measures is expected to bring the following benefits:

- Increase the awareness of Supervisor's community on the use of proportionality measures in different Member States, which can ultimately contribute to promote further use of the proportionality measures, where common situations/risks are shared by more Member States, and further convergence in the application/supervision of the principle;
- Increase the awareness of undertakings and all the interested parties on the use of proportionality principle in the EU and better explain the areas/requirements where the principle of proportionality can be used and the reason why;
- Being a factor-finding exercise that can be used to facilitate the process of future revision of the Solvency II requirements or trigger the use of some other supervisory tools (e.g. the launch of peer reviews in some areas);
- Ultimately promote the single market and the level playing field;

8.103 It should be noted that the Report as such should not be overly burdensome (it should also pass the cost-benefits analysis test). Indeed, the introduction of a new template within the regular reporting does not imply the need for a new information channel between undertakings and NCAs and NCAs to EIOPA. Also some information is already included in the QRTs (e.g. simplifications in the different SCR modules are reported in S.26s).

8.104 It should be reminded that the new process for applying the principle of proportionality will require all undertakings (i.e. low risk profile undertakings and not) to report to their Supervisors the list of proportionality measure(s) applied through a new quantitative reporting template.

8.105 EIOPA's drafting of the relevant articles of the Solvency II Directive and its Delegated Regulation needed to implement the new framework advised by EIOPA are identified in Annexes 8.4 and 8.5.

8.3. Proportionality in pillar 1

8.3.1 Technical provisions

8.3.1.1 Extract from the call for advice

3.16. Proportionality and thresholds

EIOPA is asked to assess whether proportionality in the application of the Solvency II framework could be enhanced, and in particular in the following areas:

- *the appropriateness of the thresholds for the exclusion from the scope of Solvency II, as defined in Article 4 of Directive 2009/138/EC;*
- *the possibility to waive certain requirements relating to any of three Pillars of the framework based on size thresholds or the nature of the undertaking or of its risks;*
- *rules for the simplified calculation of sub-modules that form an immaterial part of the Solvency Capital Requirement of an individual insurance or reinsurance undertaking.*

8.3.1.2 Previous Advice

8.106 CEIOPS submitted its advice to the Commission on simplified methods and techniques to calculate technical provisions as part of the Advice on Solvency II Level 2 implementing measures.

8.3.1.3 Relevant legal provisions

8.107 Article 34 of the Delegated Regulation 2015/35

8.108 Recital 15 of the Delegated Regulation 2015/35

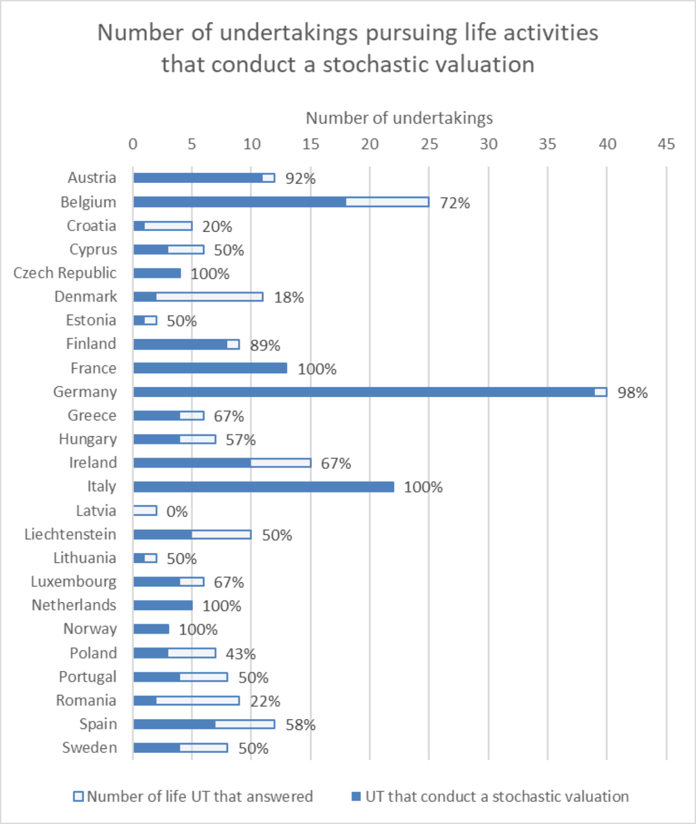
8.3.1.4 Identification of the issue

8.109 Following the call of advice from the Commission, EIOPA has considered the possibility to waive some requirements on the calculation of technical provisions. However, it has to be noted that calculation of technical provisions under the Solvency II framework is more principle based compared to other quantitative requirements, like the Solvency Capital Requirement. Consequently, the proportionality principle is intrinsically embedded in the calculation process itself, for example choosing the calculation method or the underlying assumptions, without needing specific additional provisions. Therefore, EIOPA has also explored the possibility to have new proportionality on specific requirements relating to best estimate calculation.

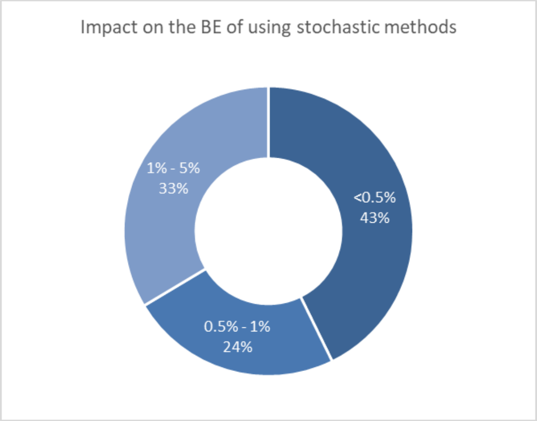
8.110 In particular, proportionality has been assessed for all the relevant topics highlighted in section 3.17. of the call for advice (Best estimate). Some options considered along chapter 3 on best estimate valuation include proportionate approaches. The two main issues addressed that have been disregarded are:

- Alignment with IFRS 17. EIOPA has considered introducing a new simplification similar to Premium Allocation Approach under IFRS 17. However, this option was finally dismissed.
- Section 3.1.7.4.1: Dynamic policyholder behaviour modelling. As option 2, EIOPA has considered the possibility to develop a simplified dynamic policyholder behaviour modelling, therefore waiving some of the requirements set in Article 26 of the Delegated Regulation. However, this option was finally dismissed.

8.111 However, regarding stochastic valuation, EIOPA considers there is room for further proportionality. The use of stochastic valuation is significantly uneven across the EEA. The information request performed for the 2020 review showed significant differences, with a use of stochastic valuation ranging from 0% to 100%. Even if this extreme variability may be due to the size of the sample, it is clear that stochastic valuation is the default approach in some markets while in others is the exception. Indeed, even for those undertakings using stochastic valuation, the scope within their portfolio significantly varies among jurisdictions.



8.112 The impact of stochastic valuation may be seen as low compared to the Best Estimate since it is below 1% in two thirds of the cases and does not go beyond 5% for the rest of them. However, an impact of 1% on the best estimate could be usually translated into an impact of 10% of the own funds and even more in some cases. The following graph shows an estimate of the impact based on the information provided by undertakings currently using stochastic valuation:



8.113 EIOPA considers that the current framework is sufficiently clear and stochastic valuation is usually expected where cash flows depend on the economic environment, e.g. for contract with options and guarantees that are not immaterial. However, stochastic valuation may be burdensome and costly for small and medium undertakings, and this may be one of the reasons for the different use of stochastic valuation across Europe.

8.3.1.5 Analysis

8.114 Stochastic valuation is the most accurate method for the valuation of contracts with options and guarantees and, indeed, deterministic valuation tends to underestimate the best estimate of such contracts since it does not consider the time value of options and guarantees (TVOG). However, stochastic valuation is more complex and costly to implement, since it requires an economic scenario generator and an actuarial platform that allows stochastic valuation. Proportionality on stochastic valuation would allow low-risk profile undertakings that have not implemented a stochastic valuation for the calculation of the best estimate yet to avoid disproportionate costs while promoting further convergence. It would allow undertakings to depart from pure deterministic valuation without being required to implement full stochastic valuation, when justified by the nature, scale, and complexity of the risks underlying their insurance and reinsurance obligations.

8.125 To smooth the path between deterministic and stochastic valuation for undertakings with less resources, an intermediate approach could be defined under the proportionality principle. This approach would allow low risk profile undertakings with moderate to low TVOG to directly apply a simple valuation of their technical provisions that, unlike deterministic valuation, does not tend to underestimate the Best Estimate. However, it is important that undertakings already using adequate methods do not revert to less accurate methods.

8.126 Therefore, EIOPA proposes to define a prudent deterministic valuation under the proportionality principle to be applied by low risk profile undertakings with medium or low time value of options and guarantees (TVOG).

8.127 This proposal only addresses the definition of the prudent deterministic valuation under the proportionality principle as an alternative to deterministic and stochastic valuation techniques. This proposal also addresses the criteria to be met in order to use prudent deterministic valuation. However, this proposal does not intend to further clarify when stochastic or deterministic techniques should be applied.

8.128 EIOPA proposes to allow undertakings to apply prudent deterministic valuation when they meet two conditions:

1. Criteria for identifying low risk profile undertakings: They meet all the criteria for low risk profile undertakings (LRU) as reported in section 8.2.5.1.
2. TVOG criterion: The TVOG of the contracts with options and guarantees is below 5% of the SCR.

8.129 However, performing a stochastic valuation to assess TVOG may be too burdensome. For this reason, EIOPA intends to publish a prudent harmonised reduced set of scenarios (PHRSS) that the undertakings should use to assess the TVOG criterion. This prudent harmonised reduced set of scenarios would consist in approximately 10 scenarios that would allow undertakings to make an estimate of the stochastic value of their best estimate without requiring them to invest in an economic scenario generator or a more complex valuation platform.

8.130 For this purpose, TVOG is defined as the difference between stochastic valuation using the prudent harmonised reduced set of scenarios and deterministic valuation measured using one single central scenario:

TVOG = Stochastic (PHRSS) BE – Deterministic (single scenario) BE

8.131 Since such a reduced set of scenarios might not be accurate enough in some cases, the calibration of the scenarios by EIOPA will include some prudence in the form of increased volatility, which usually leads to increased TVOG.

8.132 Even if defining the threshold in terms of a percentage of the Best Estimate may seem more straightforward and reasonable than a percentage (5%) of the SCR, the EPIFP included in the Best Estimate would create some unintended effects in some cases, mainly for contracts with big EPIFP or even negative technical provisions.

8.133 Therefore, the SCR is a much more stable and predictable measure that also bears the benefit that allows to easily understanding the maximum impact of the proportionality measure in terms of Solvency of the undertaking. Using a threshold based on the SCR also allows capturing two situations where proportionality is reasonable. In first place, it covers undertakings with a significant amount of contracts with low level of options and guarantees, i.e. low TVOG. In second place, it also covers undertakings with a low amount of contracts with options and guarantees. In both cases, this threshold is capturing situations where the TVOG is low and therefore proportionality can be expected.

8.134 During the information request, 25% of the undertakings that reported to use stochastic valuation reported a TVOG below 5% of their SCR. Considering that this percentage is calculated over undertakings already applying stochastic valuation, it is expected that this percentage could be higher for undertakings currently using deterministic valuation. Since undertakings should also meet LRU criteria, it is expected that 25%[162] of the low-risk profile undertakings would be allowed to use prudent deterministic valuation.

8.135 To align the assessment with the low-risk profile undertaking criteria, if an undertaking wants to start applying the prudent deterministic valuation should meet the TVOG and LRU criteria for the last two financial years. Once the undertaking is applying the prudent deterministic valuation, it will be allowed to keep using it until the undertaking does not meet at least one criterion (LRU and/or TVOG) for two consecutive financial years.

8.136 The process to apply the simplification should follow the procedure below:

- For LRU: after ex-ante notification and classification as LRU, undertakings who consider to comply with the TVOG criterion identified in this section may apply the proportionality measure.

  As for any other proportionality measure, it is worth reminding that Supervisors should have the possibility to challenge the use of prudent deterministic valuation even if the ex-ante notification as LRU was not previously challenged.

- For non-LRU: As for any other proportionality measure, undertakings not complying with the relevant criteria may still be allowed to apply specific proportionality measures, including prudent deterministic valuation, after an approval process as described in section 8.2.5.2.

[162] It is not possible to assess the combination of the LRU criteria plus the TVOG criterion because the sample of the info request includes a very low number (less than 10) undertakings fitting the LRU criteria and also provided the data required to assess the TVOG criterion.

8.137 Regarding valuation, the prudent deterministic valuation should be equal to the deterministic valuation plus a stochastic supplement. This stochastic supplement to be added to the best estimate should be equal to the threshold used as criterion, i.e. 5% of the SCR.

8.138 Undertakings that consider that the prudent harmonised reduced set of scenarios accurately reflects their risk profile could be allowed to use the prudent harmonised reduced set of scenarios to calibrate a more accurate ad-hoc stochastic supplement. Supervisors should have the possibility to challenge the use of prudent harmonised reduced set of scenarios to calibrate the ad-hoc stochastic supplement even if the ex-ante notification was not previously challenged.

8.139 The stochastic supplement may reflect different types of obligations as for example profit sharing or surrender payments. Therefore, for simplicity reasons, the whole stochastic supplement should not have the consideration of future discretionary benefit.

8.140 Since the stochastic supplement may be defined in terms of the SCR, there is a circular reference that would complicate the calculation of the SCR. To avoid undue burden, the stochastic supplement should remain constant through the SCR calculation process[163]. The stochastic supplement should therefore not influence the loss-absorbing capacity of technical provisions.

8.141 This proposal helps low risk profile undertakings using deterministic valuations to depart from pure deterministic valuation for contracts with options and guarantees and mitigate the risk of underestimation of technical provisions. The proposal is considerably simple since both the calculation and the criteria are clear and easy to implement, but it still reflects a first approximation to the stochastic nature of options and guarantees. Besides, it would allow more advanced undertakings to define a more accurate ad-hoc stochastic supplement that should still be subject to supervision by NCAs as any other component of the Best Estimate.

8.3.2 Solvency Capital Requirement standard formula

8.3.2.1 Extract from the call for advice

3.7. c) Simplified calculation of the Solvency Capital Requirement standard formula

EIOPA is asked to report on the application of the life and SLT health underwriting risk modules, as well as on the non-life lapse risk sub-module, identifying any divergent application of insurance and reinsurance undertakings. In particular, EIOPA is asked to report on areas where supervisory experience indicate the need for additional simplified calculations as referred to in Article 109 and 111(1)(l) of the Solvency II Directive and where appropriate propose relevant methods.

3.16. Proportionality and thresholds

[163] This approach is consistent with the approach follow for the Risk Margin, which also depends on the SCR.

EIOPA is asked to assess whether proportionality in the application of the Solvency II framework could be enhanced, and in particular in the following areas:

- *the appropriateness of the thresholds for the exclusion from the scope of Solvency II, as defined in Article 4 of Directive 2009/138/EC;*
- *the possibility to waive certain requirements relating to any of three Pillars of the framework based on size thresholds or the nature of the undertaking or of its risks;*
- *rules for the simplified calculation of sub-modules that form an immaterial part of the Solvency Capital Requirement of an individual insurance or reinsurance undertaking.*

8.3.2.2 Previous Advice

8.133. In the context of 2018 SCR review of specific items in the Solvency II Delegated Regulation (second set of Advice), EIOPA advised to further simplify calculations for natural, man-made and health catastrophes, in particular fire risk and mass accident its advice. In addition, to enhance proportionality in the framework, further simplifications to unjustifiably burdensome or costly elements of the capital requirement standard formula were proposed, including inter alia a carve-out from the mandatory application of the look-through in investment funds and exceptions to the use of external ratings. In details proposal were made by allowing for:

- a simplified calculation based on the application of groupings of policies in the standard formula calculation of lapse risk;
- a simplified calculation of the standard formula submodules for natural catastrophe risk based on groupings of risk zones;
- a simplified calculation of the standard formula calculation for fire risk;
- modifications to the capital at risk element of the simplified calculations for life and health mortality risk;
- a simplified calculation for parts of the debt portfolio for which external ratings are not available;
- a number of simplified calculations for counterparty default risk.

8.3.2.3 Relevant legal provisions

Solvency II Directive

- *Recital 19*
- *Recital 20*
- *Article 29 - General principles of supervision*
- *Article 109 - Simplifications in the standard formula*

Delegated Regulation

Article 88 - Proportionality

8.3.2.4 Other regulatory background

8.134. On 11 March 2019 EIOPA disclosed a supervisory statement on Application of the proportionality principle in the supervision of the Solvency Capital Requirement (see "EIOPA's Supervisory Statement Solvency II: Application of the proportionality principle in the supervision of the Solvency Capital Requirement"). The preferred approach set out in the analysis section is based on this supervisory statement.

8.3.2.5 Identification of the issues

8.135. The standard formula SCR consists of 7 risk modules and 39 risk sub-modules. Some of these are further divided into different risks, scenarios, types or regions that all have their capital requirements. Typically, all these parts of the SCR are not equally material when measured by their impact on the SCR. Some of them might be immaterial for an undertaking. Nevertheless, the calculation of an immaterial part of the SCR may be as complicated or even be more complicated than the calculation of more material parts.

8.136. Although a capital requirement is small or immaterial, it is not prudent from risk management point of view to set any such capital requirement to zero. It is important for both undertakings and supervisors to monitor the development of each risk over time. This would not be the case if a risk is ignored completely: it could happen that an immaterial risk gradually grows in size, but this is not noticed since its capital requirement has been dropped out of the SCR calculation.

8.137. There are several simplifications for capital requirements in Articles 89 – 112 of the Delegated Regulation. But still there is need to find further simplifications to be applied under the principle of proportionality. In particular, in case of immaterial risks and in case of small undertakings the simplifications given in the Delegated Regulation can still be unnecessarily complicated. To name some examples:

— In life underwriting risk module, the quantification of mortality and longevity risks require identifying contracts for which the shocks lead to a loss. This identification involves a process of several steps with a first ex-ante assessment and a second ex post computation for the SCR. The process is seen by some NSAs burdensome for a limited quantitative impact.

— Similar burden has been claimed for the design of health underwriting risk module, currently requiring to differentiate between SLT and NSLT health: while it may contribute to risk sensitivity in some specific cases, there can be others where this cannot be justified in terms of costs and benefits.

— In the non-life underwriting risk module, the non-life lapse risk sub-module requires applying the discontinuance rate of 40% on a policy by policy basis, what may create some operational challenge.

8.138. Despite the existing and new simplifications, the counterparty default risk module is still complex due to the required hypothetical SCR calculation of the risk mitigating effect. The preferred approach set out in the analysis section below would effectively address the computational burden in the mentioned parts of the standard formula.

8.139. EIOPA has not identified any divergent application neither of the life and SLT health underwriting risk modules nor of the non-life lapse risk sub-module.

8.3.2.6 Analysis

Policy issue: enhance proportionality of the framework by introducing further simplifications to the calculation capital requirements for immaterial risks of the SCR standard formula

Integrated approach towards the calculation of immaterial SCR risk in the standard formula

8.140. Under Option 2 of the Consultation paper, further simplified calculations have been proposed (chapter 8, p. 482-483, par. 8.80 and 8.83 of the Consultation document); these simplifications are very similar to the various already existing optional simplifications in the Delegated Acts. In particular, several further optional simplifications have been developed in the SCR Review 2018.

8.141. However EIOPA deems it more appropriate to provide a more general and more efficient approach to enhance the proportionality of the framework for the SCR calculations under the standard formula.

8.142. The simple extension of the already long list of optional simplifications would indeed increase (i) the complexity of the framework, (ii) the difficulty of supervisory understanding and (iii) the difficulty of comparability of the results across undertakings.

8.143. For these reasons EIOPA prefers a general approach towards risks in the standard formula that have a low to negligible impact for the risk profile of the corresponding undertakings: this preferred approach is referred as Option 3 in the Consultation paper.

8.144. In the Consultation paper (chapter 8 p. 483 and following) an integrated approach towards immaterial risks was indeed proposed under Option 3. The approach is based on the EIOPA supervisory statement approach and follows a three-step procedure. The first step is the identification step where all immaterial risks are identified using quantitative information. The second step is the application phase, where the basic idea is to derive the immaterial risk SCR by updating the immaterial risk identified in step 1 with appropriate undertaking-specific volume measures. The third step is the reassessment phase where the immateriality of the risks identified in step 1 is reassessed.

8.145. The feedback from the stakeholders was very positive. Stakeholders outlined that the proposed approach would substantially reduce the calculation burden for undertakings.

8.146. The proposal in the Consultation paper did not specify immateriality thresholds and contained two different potential methodologies (see method 1 and method 2 in the proposal in chapter 8, p.487 and p.488 of the Consultation document). Concerning the methodologies the stakeholders had a slight preference for method 2 (the volume measure methodology).

8.147. In the following, the preferred approach is described in detail. Specifically, this approach is now concretely specified in terms of thresholds, input parameters and methodology. In particular, method 2 is proposed as a concrete method to update immaterial risk SCR values.

8.3.3 Specification of the approach

Step 1: Identification of immaterial risks: Regular BSCR calculation

8.148. It is of paramount importance to identify immaterial risks before a simplified approach can be applied to them. The identification therefore requires a regular calculation of the BSCR including a regular calculation of the SCRs for all immaterial risks. Regular calculation means a calculation as it is prescribed by the provisions in the Delegated Acts to calculate the standard formula SCR. In this regular calculation, undertakings can also use the usual optional simplifications from the Delegated Acts. For instance when performing a regular calculation of the counterparty default risk undertakings could use the optional simplification for the risk mitigating effect.

8.149. After the regular calculation of the BSCR, immaterial risks can be identified as described by the EIOPA supervisory statement.

8.150. The approach can be applied to risk modules and risk sub-modules of the standard formula as long as the considered risks are immaterial.

8.151. Immaterial risks are identified applying quantitative criteria, see the subsection Thresholds and input parameters.

Step 2: Application phase and calculation of immaterial risks: Simple update of the SCR for immaterial risks

8.152. In the Consultation document two methodologies have been proposed to update the SCR of immaterial risks (see method 1 and method 2 in chapter 8, p. 484-485 of the Consultation document). In the light of comments received, EIOPA decided to further develop method 2, now concretely specified in terms of thresholds, input parameters and methodology.

8.153. The approach for the calculation of immaterial risks is based on the use of approximations.

8.154. The regular BSCR calculation is first performed at t=0 ($BSCR_0$).

8.155. In the application phase the capital requirement for an immaterial risk *k* at t = 0 is first calculated using the standard formula. This capital requirement is then expressed as a product of a factor and a volume measure.

8.156. More formally:

$$SCR_0^k = f^k \times Volume_0^k ,$$

where

- SCR_0^k is the capital requirement for immaterial risk *k* at t=0
- $Volume_0^k$ is a volume measure for risk *k* that reflects the exposure at t=0

and

- $f^k = \frac{SCR_0^k}{Volume_0^k}$ is a risk factor for risk *k*

8.157. The volume measure needs to be risk-specific (there is no volume measure that works for all risks) and undertaking-specific (undertakings should specify appropriate volume measures considering their risk profile).

8.158. In the approximation method the volume measure is updated for t = 1, …, T but the risk factor remains the same. This approximation can however not be used to

lower the capital requirement from what it was in the original calculation. The approximation for immaterial risk k at time t is therefore
$SCR_t^k = \max(SCR_0^k\,; f^k \times Volume_t^k)$.

8.159. Within the application phase, it is furthermore important that the undertaking still ensures that a change in the business model or the risk exposure has not made the formerly immaterial risk material. If the latter is the case, the application phase should stop and the immateriality of risks should be reassessed again.

Step 3: reassessment phase

8.160. After T years the identification of immaterial risks is fully reassessed as described in step 1. It is important to perform this full reassessment after some years since the risk profile of the undertaking can change over time.

8.161. Although the approach could in general be applied to many immaterial risks, it is particularly suited for risks like the counterparty default and non-life lapse risk. Due to the rapidly changing market conditions and exposures towards different market risks and the consequence that immaterial market risks can quickly become material it is proposed to exclude the market risk module from this approach.

8.3.4 Thresholds and input parameters

8.162. In the supervisory statement on the application of the proportionality principle in the supervision of the SCR, EIOPA recommends that materiality is assessed considering the weight of the sub-modules in the total BSCR and that each sub-module subject to this approach should not represent more than 5% of the BSCR or all sub-modules should not represent more than 10% of the BSCR. Those thresholds are also considered appropriate for the simplified calculation of immaterial risk submodules.

8.163. Each immaterial risk should not represent more than 5% of the BSCR, in technical terms and the notation above

$SCR_0^k \leq 5\% \cdot BSCR_0$, and

8.164. The sum of all capital requirements for immaterial risks should not be larger than 10% of the BSCR, in technical terms and the notation above is:
$\sum_k SCR_0^k \leq 10\% \cdot BSCR_0$.

8.165. The EIOPA supervisory statement moreover proposed a three-year application period (T = 3). A three-year period strikes the balance between sufficiently reducing the calculation burden for undertakings and the supervisory concern that the risk profile might change in time and thus the immateriality of risks needs to be reassessed.

8.3.5 Reporting

8.166. Undertakings should report the immaterial risks in the corresponding SCR templates S.26 and S.27. In this respect, it is proposed to extend the corresponding reporting templates such that immaterial risks can be identified via the templates.

8.167. Moreover, undertakings should report the application of the approach in their RSR report. Specifically, undertakings should briefly describe for what risk modules the approach is applied and what volume measures have been used to calculate the immaterial risks.

8.3.6 Impact of immaterial risks on the overall SCR

8.168. According to Article 88(2) of the Delegated Regulation a simplified calculation is not proportionate to the nature, scale and complexity of the risks if the error caused by it leads to a misstatement of the SCR that could influence decision-making or judgement, unless the simplified calculation leads to an SCR which exceeds the SCR that results from the standard calculation.

8.169. In the proposal above, in case of immaterial risks, the misstatement caused by the simplifications can typically be shown to be immaterial, too. This is due to the fact that a change in the value of a capital requirement for a module or sub-module will result in a considerably smaller change at the SCR level.

8.4. Proportionality in pillar 2

8.4.1 Extract from the call for advice

> ***3.16. Proportionality and thresholds***
>
> *EIOPA is asked to assess whether proportionality in the application of the Solvency II framework could be enhanced, and in particular in the following areas:*
>
> - *[…]*
> - *the possibility to waive certain requirements relating to any of three Pillars of the framework based on size thresholds or the nature of the undertaking or of its risks;*

8.4.2 Previous advice

8.167 CEIOPS submitted in October 2009 its advice to the Commission on system of governance[164] as part of the advice on Solvency II Level 2 implementing measures.

8.168 More recently, EIOPA's submitted in April 2018 its advice to the Commission for the integration of sustainability risks and factors in the delegated acts under Solvency II and IDD[165], which includes some proposed amendments to the provisions on system of governance in the Delegated Regulation.

[164] https://eiopa.europa.eu/CEIOPS-Archive/Documents/Advices/CEIOPS-L2-Final-Advice-on-System-of-Governance.pdf

[165] https://eiopa.europa.eu/Publications/EIOPA-BoS-19-172_Final_Report_Technical_advice_for_the_integration_of_sustainability_risks_and_factors.pdf

8.4.3 Relevant legal provisions

8.169 The most relevant provisions with respect to Pillar II in the Solvency II framework are the following:

- Articles 40 to 50 and 246 of the Solvency II Directive;
- Articles 258 to 275 of the Delegated Regulation;
- EIOPA's Guidelines on system of governance[166] and Guidelines on Own Risk Solvency Assessment (ORSA)[167].

8.170 In particular, Article 41 of the Solvency II Directive establishes the requirement for insurance and reinsurance undertakings to have in place an effective system of governance which provides for sound and prudent management of the business; paragraph 2 of that article provides that "*the system of governance shall be proportionate to the nature, scale and complexity of the operations of the insurance or reinsurance undertaking*".

8.171 A general reference to proportionality is made in Recital (19) of the Solvency II Directive as follows: *"This Directive should not be too burdensome for small and medium-sized insurance undertakings. One of the tools by which to achieve that objective is the proper application of the proportionality principle. That principle should apply both to the requirements imposed on the insurance and reinsurance undertakings and to the exercise of supervisory powers".*

8.4.4 Identification of the issue

8.172 The principle of proportionality applies throughout the Solvency II framework and very specifically in the context of its governance requirements since the system of governance should consider the nature, scale and complexity of the risks run by undertakings. The principle is not a right of undertakings to be excluded from certain requirements, but that neither the requirements nor the supervisory powers executed with regard to those requirements are too burdensome for small and medium-sized undertakings.

8.173 In order to assess whether proportionality in the application of the Pillar II requirements could be enhanced, EIOPA has taken into account input provided by NSAs and industry, in particular:

- A dedicated survey to NSAs in the context of the Solvency II review (May-June 2019) regarding proportionality on Pillar II;
- Stakeholders feedback during the Public Event on the discussion of various topics of the Solvency II 2020 review (including Proportionality on Pillar II) on 16 July 2019;
- NSAs experience gathered through the following peer reviews exercises:

[166] https://eiopa.europa.eu/publications/eiopa-guidelines/guidelines-on-system-of-governance-solvency-ii
[167] https://eiopa.europa.eu/publications/eiopa-guidelines/guidelines-on-own-risk-solvency-assessment-(orsa)

- Peer review on propriety of administrative, management or supervisory body members and qualifying shareholders[168]; and
- Peer review on key functions[169].

8.174 EIOPA has identified the following areas where proportionality could be enhanced in the Pillar II provisions in the Solvency II Directive or in the Delegated Regulation:

- key functions,
- ORSA,
- written policies,
- administrative, management or supervisory body (AMSB),and
- remuneration.

8.175 In addition to the possible regulatory changes at the level of the Solvency II Directive and the Delegated Regulation, EIOPA is planning a review of the Guidelines on system of governance following an evidence-based assessment of the extent to which the guidelines:

- Have been effective and efficient;
- Have been relevant given the needs and its objectives;
- Have been coherent and have shown EU added value; and/or
- Have been proportionate.

8.176 Proportionality is one of the main objectives of the review of the guidelines; other objectives are: advance in supervisory convergence, streamline the number and content of guidelines, respond to new developments or changes (e.g. on the area of sustainable finance or insurtech) and improve the format/layout.

8.177 Some examples where proportionality could be enhanced at the level of the guidelines are:

- amendment of guideline 14 (outsourcing of key functions) by granting more flexibility to undertakings within a group[170]; development of further guidance on remuneration, including the requirement to establish a remuneration committee.

8.178 This paper is focused on the proposed changes to Pillar II requirements in the Solvency II Directive and in the Delegated Regulation. EIOPA is planning to publish a separate consultation paper on the review of the Guidelines on system of governance only after the submission of the technical advice to the Commission on the 2020 review of Solvency II.

[168] See report in the following link: https://eiopa.europa.eu/Publications/Reports/2019-01025%20PeerReviewProprietyReport.pdf
[169] See report in the following link: https://eiopa.europa.eu/Publications/Reports/Peer%20review%20Key%20Functions22-11-18.pdf
[170] See pages 52 and 53 in the Report of EIOPA’s Peer review on key functions

8.4.4.1 Key functions

8.179 Undertakings are required to establish the functions included in the system of governance requirements, namely those outlined in the following articles of the Solvency II Directive: Article 44(4) – Risk Management Function, Article 48(1) – Actuarial Function, Article 46(1) – Compliance Function and Article 47(1) - Internal Audit Function. These key functions are also considered important and critical functions[171]; they are further regulated in Articles 268 to 272 of the Delegated Regulation. The key functions are an essential part of an effective system of governance under Solvency II.

8.180 These key functions are expected to be operationally independent to ensure an effective and robust internal control environment within an undertaking and support a high quality of decision making by management[172].

8.181 Typically, different individuals are responsible for each key function within the undertaking. As no explicit prohibition exists in this area, undertakings may combine key functions. However, such combinations have to be justified in relation to the principle of proportionality and undertakings need to properly address any underlying conflicts of interest that may arise from combining these functions. Best practise dictates that performing the tasks of key functions, or the role of the key function holder, should generally not be combined with operational tasks or administrative, management or supervisory body (AMSB) membership because of the latter's controlling objective. Thus, combinations of this type should only occur in exceptional cases, taking into account a risk-based approach and in consideration of the manner in which the undertaking avoids and manages any potential conflict of interest.

8.182 In developing the advice regarding key functions EIOPA identified the following policy issues:

a) Combination with operational functions

b) Members of the AMSB and key function holder

c) Combination of several key functions

(a) Combination with operational functions:

8.183 Regarding the combination of key functions with operational functions, as key functions can be seen as the second line of defence[173] in an undertaking's system of governance it is good practise that they be operationally independent in order to fulfil their role as a control function. Nevertheless, having separate key functions which are not allowed to carry out any operational tasks might be too burdensome for small undertakings with limited staff; combination of tasks may save costs (e.g. recruitment of additional staff or outsourcing).

8.184 Apart from the Internal Audit Function, which must remain objective and independent from operational functions as per Article 47(2) of the Solvency II

[171] Recital 33 of the Solvency II Directive

[172] Article 268 of the Delegated Regulation

[173] The first line of defence is within the operational performance of a function, the second is the control of such function and the third line of defence is the internal audit of such controls.

Directive, the practise of combining key functions with operational functions has been permitted, though not expressly provided for within the Solvency II Framework. While no rule exists prohibiting this practise NSAs and undertakings engaged in this practice need to be mindful that (i) it is appropriate to do so based on the nature, scale and complexity of the undertaking and (ii) that any conflicts of interests are managed and mitigated by the undertaking.

8.185 This practise was reviewed as part of EIOPAs Peer Review of Key Functions. Cases of combinations with operational tasks or responsibilities were observed in almost all insurance markets within the EEA[174]. The Peer Review found that combinations generally occur in smaller and less complex undertakings (up to the 5% market share) with the most common combinations being: Actuarial Function Holder and technical provisions calculation/pricing; Risk management function holder and financial department director/employee; Compliance function holder and legal department director/employee; and Actuarial function holder and appointed actuary. The Report recommended that NSAs *'should increase the monitoring process of combinations of key function holders and operational tasks and the knowledge of the situation in their national market and assess whether combinations of key functions fulfil the necessary conditions in relation to independence in the undertaking's organisational structure*[175]*'.*

8.186 One of the challenges faced by undertakings when deciding to combine key functions with operational functions is primarily around managing conflicts of interest. Conflicts of interest should be avoided when combining the responsibilities of key function holder with any operational tasks. In the situation where this is not possible, the undertaking needs to demonstrate that proper mitigating measures of this potential operational risk are implemented and that the conflict is continuously monitored.

8.187 As a rule, for larger and more risky undertakings combinations with operational tasks should generally be challenged by NSAs and only accepted in exceptional cases on a temporary basis. Potential conflicts of interest can only be assessed using a case-by-case approach as responsibilities and powers vary widely depending on each individual undertaking's organisational structure.

(b) Members of the AMSB and key function holder:

8.188 It is important to understand the different nature of the responsibilities and activities of the AMSB members and that of the key function holders. The key function holder is responsible for providing expert advice to the AMSB on the particular key function. It is therefore essential that the individual responsible for a key function (key function holder) complies with the relevant requirements, which calls for a more specific level of expertise. Nevertheless, finding individuals who comply with the fitness requirements to be member of the AMSB and key function holders might be particularly challenging for small undertakings.

8.189 The key function is the control function of a specific area and should report to the AMSB. Where the key function holder is also a member of the AMSB, this might

[174] See page 38 in the Report of EIOPA's Peer review on key functions.
[175] See page 37 in the Report of EIOPA's Peer review on key functions

create operational risk whereby the key function holder may be less likely to be challenged by other AMSB members regarding the performance of their key function. Article 268 of the Delegated Regulation specifies that 'each function is free from influences that may compromise the function's ability to undertake its duties in an objective, fair and independent manner'. Where such cases occur, NSAs should clearly communicate their expectation that the undertaking ensures that it is aware of possible conflicts of interest arising from such a combination and manages them effectively.

8.190 EIOPAs findings in their Report on the Peer Review of Key Functions states that the combination of key function holder with AMSB member generally occurs in small undertakings, in captives or in less complex undertakings where the activities of the key functions are outsourced.

8.191 The Peer Review also found that in general the combination between key function holders and AMSB members rarely occurs (with the combination of Internal Audit Function Holder with AMSB being the least likely to occur). NSAs have allowed the combination between key function holder and AMSB members in cases where undertakings (usually small undertakings) have taken proper measures to manage possible conflicts of interest.

(c) Combination with other Key Functions:

8.192 This provides for circumstances where the same person has been appointed as a key function holder for two or more different key functions. Having different individuals as key function holders for each of the key functions in Solvency II might be too burdensome for small undertakings with limited staff; combination may save costs.

8.193 While Solvency II does not expressly prohibit this practise, it is expected that undertakings should only look to combine key functions where the nature, scale and complexity of the risks of the undertaking allows i.e. in line with the proportionality principle. NSAs and undertakings should ensure that in such cases, appropriate additional processes and procedures have been implemented by the undertaking in order to fulfil all necessary requirements in compliance with the Solvency II requirements, in particular, Articles 258 and 268 of the Delegated Regulation and Guideline 5 of EIOPAs Guidelines on System of Governance.

8.194 One of the main findings of EIOPAs Peer Review on Key Functions was that almost all NSAs observed combinations of key function holders within their market. The most frequent combinations were between the risk management and actuarial function followed by risk management and compliance function. Combinations are more commonly used by smaller undertakings due to their limited human and financial resources, but combinations have been seen/permitted in large insurance groups. Some NSAs carry out a more rigorous scrutiny and challenge the combinations of key functions holders in large and/or more complex undertakings. Certain NSAs, such as in the Netherlands and Poland do not allow combinations of key function holders for some of the largest and most significant undertakings in their jurisdiction. One of the main risks of combining key functions is that conflicts of interest may arise which may pose an operational risk to the undertaking.

8.195 A key finding of the Peer Review was that where the same person was appointed as a key function holder for two or more different key functions, it was not always as a result of the application of the proportionality principle. In some jurisdictions combinations occur as a result of legislation that existed prior to Solvency II. In other cases lack of competent individuals along with the availability of financial resources have lead to combinations. Where combinations exist, the majority of NSAs adopt a case-by-case approach, taking into consideration a number of factors, such as: combination with operational functions, direct reporting to the AMSB, appointment of the responsible key function holder by the AMSB and how the AMSB defines the objectives of the key function holder and the remuneration of the responsible key function holder.

8.196 With respect to the internal audit function, Article 271 of the Delegated Regulation states that, whereas the general principle is that the person in charge of the audit function shall not assume any responsibility for any other function, persons carrying out the internal audit function could also carry out other key functions, where all of the following conditions are met: (a) this is appropriate with respect to the nature, scale and complexity of the risks inherent in the undertaking's business; (b) no conflict of interest arises for the persons carrying out the internal audit function; (c) the costs of maintaining persons for the internal audit function that do not carry out other key functions would impose costs on the undertaking that would be disproportionate with respect to the total administrative expenses. The internal audit key function is also expected to be operationally independent from other tasks[176] in line with the assumptions made as third line of defence.

8.197 EIOPAs Peer Review on Key Functions found that for large undertakings, combinations of the internal audit function with other key functions did not occur. Where mid-sized undertakings combined the internal audit function with other key function holders NSAs expected that these undertakings applied mitigating measures e.g. direct reporting lines to the AMSB, to ensure no conflicts arose. In relation to the practise within small undertakings, once the conditions outlined in Article 271(2) were met, then NSAs were not seen to intervene or object.

8.4.4.2 ORSA

8.198 Article 45 of the Solvency II Directive provides that every insurance and reinsurance undertaking shall conduct its own risk and solvency assessment, including:

— the overall solvency needs,

— the compliance on a continuous basis with the capital requirements and technical provisions, and

— the significance with which the risk profile of the undertaking deviates from the assumptions underlying the SCR.

[176] Article 47 of the Solvency II Directive and Article 271 of the Delegated; see also EIOPA Guideline 40 on system of governance

8.199 For the purposes of the overall solvency needs assessment, undertakings are requested to have in place processes which are proportionate to the nature, scale and complexity of the risks inherent in its business. However, Solvency II provides for limited guidance on how undertakings may apply proportionality in the development of the ORSA.

8.200 Undertakings shall conduct the ORSA regularly and without any delay following any significant change in their risk profile. Guideline 61 of EIOPA's Guidelines on ORSA further specifies that undertakings shall perform the ORSA at least annually.

8.201 The undertakings shall inform the NSAs of the results of each ORSA; the minimum content of the ORSA supervisory report is established in Article 306 of the Delegated Regulation. The ORSA supervisory report is very important and effective for supervision purposes; however, there are cases in which a simple straightforward document would suffice to obtain the required insights. The specific content of the ORSA supervisory report will depend on the complexity of the undertaking's risk profile. In particular, small and less complex undertakings face uncertainty regarding the supervisory expectations on the depth and length of the ORSA supervisory report. Small undertakings are faced with capacity restraints providing a lengthy report on an annual basis.

8.202 Also supervision might be more effective if small and less complex undertakings provide less extensive, more to-the-point ORSA supervisory reports. Having received multiple ORSAs since the entering into force of Solvency II, NSAs could be triggered to provide more guidance on what is expected from different undertakings with different profiles in this respect[177].

8.4.4.3 Written policies

8.203 Under Solvency II, undertakings are required to establish at least written policies for risk management, internal control, internal audit, fit and proper, remuneration and, if applicable, outsourcing[178].

8.204 Written policies have to be reviewed annually, be subject to prior approval by the AMSB and be adapted, if there is a significant change in the system or area concerned.

8.205 Undertakings define in written policies their system of governance and use them as a means of self-regulation. Written policies help to establish processes and procedures and to define tasks, powers, responsibilities and competences. However, establishing and maintaining all these policies might be too burdensome for small/less complex undertakings. In practise, small/less complex undertakings struggle with the amount of written policies and how detailed the written policies

[177] Some examples of initiatives adopted by NSAS are:

- ORSA template developed by the Central Bank of Ireland for undertakings classified as low/medium low impact
- Specification of the minimum content of the ORSA supervisory report by IVASS in annex 3 to the Italian ORSA Regulation

[178] Article 41(3) Solvency II Directive, Article 273 (1), Article 275 (1)(d) Delegated Regulation, Article 4(2) Commission Delegated Regulation (EU) 2017/2358. Furthermore, there are broad requirements within the Level 3-guidelines, e.g. for risk management, see Guidelines 18, 20-22, 24-26, 36.

should be. Furthermore, the strict time limit to review the policies annually may lead to unnecessary burden taking into account the undertaking's risk profile.

8.4.4.4 AMSB

8.206 Article 258(4) of the Delegated Regulation states that insurance and reinsurance undertakings shall ensure that at least two persons effectively run the undertaking. However, Solvency II does not provide any specific requirement on the composition of the AMSB. The composition of the AMSB is one of the areas where different level of requirements could be foreseen for undertakings based on their size and the complexity of their business.

8.4.4.5 Remuneration

8.207 Article 275 of the Delegated Regulation defines the remuneration principles undertakings have to comply with when establishing and applying their remuneration policies.

8.208 Considering that the remuneration principles defined in the Delegated Regulation are high-level and divergent practices have emerged across the European Union, EIOPA has developed an opinion (subject to public consultation)[179] aimed to enhance supervisory convergence by giving guidance to the supervisory authorities on how to challenge the application of certain principles. The opinion focuses on a reduced scope of staff identified as potential higher profile risk-takers to promote a proportionate approach.

8.209 Article 275(2)(c) of the Delegated Regulation provides that "*the payment of a substantial portion of the variable remuneration component, irrespective of the form in which it is to be paid, shall contain a flexible, deferred component that takes account of the nature and time horizon of the undertaking's business: that deferral period shall not be less than three years and the period shall be correctly aligned with the nature of the business, its risks, and the activities of the employees in question*".

8.210 The mandatory deferral of a significant portion of the variable remuneration component is also foreseen in the banking framework; however, Directive (EU) 2019/878 of the European Parliament and of the Council of 20 May 2019 has recognised that while all institutions should in general be required to apply all the remuneration principles to all of their staff whose professional activities have a material impact on the institution's risk profile, it is necessary to exempt small institutions and staff with low levels of variable remuneration from the principle on deferral.

[179] See Consultation Paper in the following link: https://eiopa.europa.eu/Pages/News/Consultation-Paper-on-draft-Opinion-on-the-supervision-of-remuneration-principles-in-the-insurance-and-reinsurance-sector.aspx

8.4.5 Analysis

8.4.5.1 Key functions

8.211 With respect to the combination of key functions with operational functions, the options analysed as part of this review are as follows:

- **Option 1:** No change.
- **Option 2:** Combination explicitly allowed for low risk profile undertakings (except the internal audit function).

8.212 With respect to the possibility that Members of the AMSB are at the same time key function holders, the options analysed as part of this review are as follows:

- **Option 1:** No change.
- **Option 2:** Combination of roles explicitly allowed for low risk profile undertakings.

8.213 With respect to the combination of several key functions, the options analysed as part of this review are as follows:

- **Option 1:** No change.
- **Option 2:** Combination explicitly allowed for low risk profile undertakings

Policy issue 1a: Combination with operational functions

8.214 The preferred policy option for this policy issue is **option 1a.2 Combination explicitly allowed for low risk profile undertakings (except the internal audit function).** The combination of key functions and operational functions is only explicitly forbidden in Solvency II with respect to the internal audit. For other key functions, combinations are implicitly allowed by the regulation, subject to the supervisory challenge based on the general principle of operational independence in Article 268 of the Delegated Regulation. EIOPA considers that a more explicit provision in the regulation may improve the application of the proportionality principle; specifying the conditions under which combinations should be allowed would add clarity for the benefit of both undertakings and supervisors. These conditions are aimed to ensure that the robustness of the system of governance is not impaired by the combination of functions and consequently may also be regarded as safeguards for policyholder protection. Undertakings should monitor the continuous compliance with such conditions. The requirement to properly manage potential conflicts of interest is crucial in case of combination of a key function, which is an independent control function, with an operational function. Where potential conflicts of interest cannot be properly managed, the combination should not be allowed. In particular, combination with risk generating operational functions (e.g. underwriting or investments) would normally not be allowed; while combination with less risk generating operational functions (e.g. legal, human resources or other support functions) could be acceptable.

Policy issue 1b: Members of the AMSB and key function holder

8.215 The preferred policy option for this policy issue is **option 1b.2 Combination of roles explicitly allowed for low risk profile undertakings**. The combination of roles of key function holder and member of the AMSB in the same person is not explicitly forbidden in Solvency II. Such combination is implicitly allowed by the regulation, subject to the supervisory challenge based on the general principle of operational independence in Article 268 of the Delegated Regulation. EIOPA considers that a more explicit provision in the regulation may improve the application of the proportionality principle; specifying the conditions under which combination should be allowed would add clarity for the benefit of both undertakings and supervisors. These conditions are aimed to ensure that the robustness of the system of governance is not impaired by the combination of roles and consequently may also be regarded as safeguards for policyholder. Undertakings should monitor the continuous compliance with such conditions.

Policy Issue 1c: Combination of key functions

8.216 The preferred policy option for this policy issue is **option 1c.2 Combination explicitly allowed for low risk profile undertakings.** The combination of key functions is not explicitly forbidden in Solvency II. Such combination is implicitly allowed by the regulation, subject to the supervisory challenge based on the general principle of operational independence in Article 268 of the Delegated Regulation. EIOPA considers that a more explicit provision in the regulation may improve the application of the proportionality principle; specifying the conditions under which combination should be allowed would add clarity for the benefit of both undertakings and supervisors. These conditions are aimed to ensure that the robustness of the system of governance is not impaired by the combination of key functions and consequently may also be regarded as safeguards for policyholder. Undertakings should monitor the continuous compliance with such conditions.

8.217 These combinations would be acceptable for low risk profile undertakings, provided that the potential conflicts of interests are properly managed and the combination does not compromise the person’s ability to carry out her or his responsibilities. Other undertakings could also apply these combinations, subject to the same conditions, if the supervisory authority agrees to it, on a case by case basis.

8.4.5.2 ORSA

8.218 With respect to the ORSA supervisory report, the following options have been analysed:

- **Option1:** No change. Minimum content on the report as provided in Article 306 of the Solvency II Delegated Regulation with flexibility for undertakings.
- **Option 2:** Standardised ORSA supervisory report for small/less complex undertakings.

8.219 With respect to the frequency of the ORSA, the following options have been analysed:

- **Option 1:** No change. Every undertaking should perform the ORSA at least annually. The assessment should include:
  - — the overall solvency needs,
  - — the continuous compliance with capital requirements and technical provisions and

  — the significance with which the risk profile of the undertaking deviates from the assumptions underlying the SCR.

- **Option 2:** Biennial ORSA for low risk profile undertakings. As a general rule, low risk profile undertakings should perform the ORSA every two years and after any significant change of the risk profile. However, the supervisory authority could still request low risk profile undertakings (on a case by case basis) to perform an annual ORSA considering the specific circumstances of the undertaking.

8.220 In addition, EIOPA has considered the convenience to explicitly reflect in the regulation that taking into account the proportionality principle the complexity of the stress tests and scenario analyses performed in the ORSA could vary between undertakings. Undertakings with a less complex risk profile may choose only key risks for stress tests and/or may apply simplified methods.

Policy issue 2a: ORSA supervisory report

8.221 The preferred policy option for this policy issue is **option 1 (no change). EIOPA considers that the minimum content provided in Article 306 of the Delegated Regulation** allows for a proper application of the proportionality principle, since undertakings would have sufficient flexibility with respect to the content and format of the ORSA supervisory report provided that the prescribed minimum elements are covered. While a standardised ORSA supervisory report might guide small and less complex undertakings through the key aspects to be considered in the ORSA process, it might result in unintended restrictions for undertakings and an eventual increase of the burden. Nevertheless, the current approach does not prevent further guidance on the supervisory expectations with respect to the level of detail in which the elements provided in Article 306 should be presented in the report to supervisors, taking into account the nature scale and complexity of the risks of the undertakings.

Policy issue 2b: ORSA frequency

8.222 The preferred policy option for this policy issue is **option 2 (Biennial ORSA for low risk profile undertakings).** This option allows to generally relief the burden for low risk profile undertakings by reducing the frequency of the assessment in Article 45(1) of the Solvency II Directive. As a general rule, for low risk profile undertakings an annual assessment is not deemed strictly necessary; an assessment every two years could be sufficient, provided that there is no significant change in the undertaking's risk profile. However, taking into account the role of the ORSA, as an integral part of the business strategy to be taken into account in the on-going management of the undertaking, the supervisory authority should still have the power to request an annual ORSA in view of the undertaking's specific circumstances (e.g. where the undertaking presents a weak solvency position). Conversely, the supervisory authority could agree on exceptional cases that undertakings not falling under the definition of "low risk profile undertaking" benefit from this measure.

8.4.5.3 Written policies

8.223 With respect to the frequency of the review of the policies, the following options have been analysed:

- Option 1: No change. Annual review is requested for all undertakings, including small/less complex undertakings.
- Option 2: Flexibility on the frequency of the review of policies, up to three years, for low risk profile undertakings. Change in Article 41(3) of the Directive so that there is the flexibility for less complex/small undertakings not performing that review annually.

8.224 In addition, EIOPA considers that the remuneration policy should also be added to the list of written policies in Article 41 of the Solvency II Directive since currently there is no explicit reference to remuneration in the Directive. The requirement of a remuneration policy is currently in Article 258 (1)(l) of the Delegated Regulation.

8.225 The preferred option for this policy issue is **option 3.2 (Less frequent review allowed, up to three years, for low risk profile undertakings).** Practical experience has shown that small/less complex undertakings do not need to annually review their policies. To have more room for manoeuvre the review should be appropriate to the undertaking's risk profile. Therefore, Article 41(3) of the Solvency II Directive should be amended and state that low risk profile undertakings may review the written policies less frequently, at least every three years. However, the supervisory authority should still have the power to request a more frequent review in view of the undertaking's specific circumstances (e.g. in cases of significant changes in the undertaking's business strategy). This measure would apply automatically to low risk profile undertakings but other undertakings could also apply it if the supervisory authority agrees to it, on a case by case basis.

8.4.5.4 AMSB

8.226 With respect to the minimum composition of the AMSB the following options have been analysed:

- **Option 1:** No change
- **Option 2:** Specific requirements on the composition of the AMSB
- **Option 3:** Regular assessment on the adequacy of the composition, effectiveness and internal governance of the AMSB considering proportionality.

8.227 The preferred policy option for this policy issue is **option 4.3 (Regular assessment on the adequacy of the composition, effectiveness and internal governance of the AMSB considering proportionality)**. This option is considered to reinforce the undertakings' system of governance while keeping current flexibility in Solvency II with respect to the composition of the AMSB.

8.4.5.5 Remuneration

8.228 With respect to the deferral of a substantial portion of the variable remuneration component the following options have been analysed:

- **Option 1**: No change
- **Option 2:** Mandatory deferral of a substantial portion of the variable remuneration component to be exempted for low risk profile undertakings.

8.229 The preferred policy option for this policy issue is **option 5.2 (Mandatory deferral of a substantial portion of the variable remuneration component to be exempted for low risk profile undertakings).** This option is expected to improve proportionality as well as cross-sectoral consistency by limiting the scope of this requirement taking into account the risk profile of the undertaking as well as the absolute and relative amount of the variable remuneration received by the staff member. The limited scope would be in line with the exemption in Article 94 of the Directive (EU) 2019/878 of the European Parliament and of the Council of 20 May 2019 amending Directive 2013/36/EU as regards exempted entities, financial holding companies, mixed financial holding companies, remuneration, supervisory measures and powers and capital conservation measures; however, rather than pure size thresholds as in the banking framework, it is proposed that the measure is particularly addressed to low risk profile undertakings (i.e. considering not only the size but more broadly the nature, scale and complexity of the undertaking's business).Therefore, this measure would apply automatically to low risk profile undertakings but other undertakings could also apply it if the supervisory authority agrees to it, on a case by case basis.

8.5. Proportionality in pillar 3

8.5.1 Identification of the issues

8.230 EIOPA published in July 2019 a consultation paper setting out technical advice on the reporting and disclosure requirements of Solvency II.[180] Proportionality of the requirements was one of the focus of the review. The proposed changes include proposals on the following areas:

- Amend Article 35 of the Solvency II Directive adapting it to the new proportionality framework proposed in section 8.2.;
- Review the existing risk-based thresholds and create new ones in the quantitative reporting templates;
- Simplification of the quarterly submission;
- Deletion of several quantitative reporting templates and the simplification of a number of other quarterly and annual templates;
- Amend the RSR frequency adapting it to the new proportionality framework proposed in section 8.2.

[180] See https://eiopa.europa.eu/Pages/News/Consultation-on-supervisory-reporting-and-public-disclosure.aspx.

8.5.2 Analysis

8.5.2.1 Quantitative Reporting templates (QRTs):

Article 35

8.231 Amendments to this article have been extensively discussed. The final conclusion was that any change could jeopardise a proper supervisory review process, including and especially for low risk profile undertakings.

8.232 Indeed, there is support to keep Article 35 of Solvency II as currently, i.e. keeping the reference to maximum 20% market share for financial stability purposes, and keeping the "may" as it should be a risk-based approach. The approach currently being proposed for the application of proportionality principle is a balance between a risk-based approach and the need to have simple and clear criteria to define low risk profile undertakings and provide more legal certainty.

8.233 This implies the need for a minimum on-going monitoring of the risk-profile of the undertakings. The submission of quarterly reporting is the tool that allows a regular, less intrusive and more automatised monitoring of the risk-profile which allows supervisors to be confident with undertakings using an extensive number of proportionality measures. The further reduction of the quarterly reporting would endanger such monitoring and jeopardise the protection of policyholders. On the contrary, keeping quarterly reporting would actually support a proportionate approach in the supervisory review process because high-level and automatised monitoring can be sufficient for low risk profile undertakings and would not require further actions (which would be needed if quarterly reporting is not available).

7.150 Considering the above background EIOPA considered the following options:

1) Option 1 - Keep the "may" and promote an increased use and convergent approach of this proportionality measure an indirect link to the definition of the "low risk profile" undertakings to such a limitation/exemption is proposed by identifying this classification as one of the features to have into consideration when NSAs are assessing the possibility of limitations or exemptions.
2) Option 2 - Amend the "may" into a "shall" and exempt automatically the undertakings classified as 'low risk profile undertakings' from quarterly reporting with a limit of 5% of the market share. Those undertakings should still be required to report annually. The annual reporting would allow NCAs to monitor the risk profile of the undertakings. This would represent an improvement in the automatic application of the proportionality principle.

Option 1:

8.234 In the analysis of this option it was also taken into account the simplifications being proposed for the quarterly reporting (see below) together with the already existing risk-based thresholds as evidenced in EIOPA Reports on Limitation and Exemption of Reporting (LER).

8.235 As an example the look-through reporting is carried out only by 57% of the undertakings that hold CIUs in unit-linked contracts, which corresponds to 78% of the investments in CIUs held in unit-linked and index-linked contracts. This means that 43% of the undertakings that hold CIUs in unit-linked and index-linked contracts do not need to carry out look-through reporting on a quarterly basis. These undertakings have 22% of investments in CIUs in unit-linked contracts.

8.236 In terms of number of templates to be submitted, in Q1 2019, large undertakings had to fill in on average nine templates and were hence required to fill in nearly twice as many templates as small insurance undertakings in this quarter. In total, small undertakings had to fill in only five templates on average.

8.237 In fact, it was in the annual package that the need for more proportionality was identified, which is being addressed by additional risk-based thresholds and revision of existing risk-based thresholds.

8.238 To ensure supervisory convergence it is proposed to enlarge the scope of EIOPA Guidelines on the market share to include as well the NCAs process to inform the undertakings on the limitations and exemptions.

Option 2:

8.239 In the analysis of this option the Impact Assessment for the classification as "low risk profile" undertakings was taken into account and it is recognised that such an approach should also take into account the materiality of the information received quarterly in different contexts of supervision. For this reason such an automatic approach should be limited to small percentage of the market share. In fact, using EU figures (national level impact will be different) the application of a "shall" quarterly exemption to a limit of 5% of the market share in life and non-life would allow the application to all 'low risk profile undertakings' in most scenarios described above.

8.240 The 95% coverage would also allow the ECB to continue to rely on Solvency II data and no additional requirements to undertakings to be exempted from this reporting under Solvency II.

8.241 This approach would guarantee that at least annually all the information needed for the assessment of the risks is received, while providing a substantial number of undertakings representing a residual part of the market share to benefit from a reduction of the on-going costs of reporting.

8.242 All undertakings need to be ready to initiate reporting at any time, be it due to an individual change of the risk profile or a change in the market structure or market conditions.

8.243 While it is true that the submission of quarterly reporting is the tool that allows a regular, less intrusive and more automatised monitoring of the risk-profile which would allow supervisors to be confident with undertakings using an extensive number of proportionality measures, EIOPA believes that with the future implementation of RegTech and SupTech tools that further automate reporting, it should be possible to receive quarterly information from the full market without material on-going costs. When this is case EIOPA ambition is to receive information quarterly from the entire market.

8.244 To ensure supervisory convergence and further detail the process EIOPA Guidelines on the market share would be needed to be amended if such an option would be considered.

8.245 See annex 8.6 for the concrete drafting amendments assessed regarding the proposed Option 1 and also Option 2.

8.5.2.2 Quarterly reporting:

8.246 The proposals in section 7.2.2 were assessed from a proportionality perspective. EIOPA concluded that no additional proportionality measures are needed in addition to the changes proposed to Article 35, considering:

- Quarterly package is already proposed to be simplified;
- Quarterly reporting is a crucial piece of the monitoring of undertakings risk profile undertakings under the SRP;
- Article 35 amendments.

8.247 The possibility to include the MCR template in the quarterly exemption and replace it by an alternative monitoring method for the MCR was discussed and the following is noted:

- Any exemption if allowed should be clear that it is a reporting exemption, not a calculation exemption. The quarterly MCR calculation should be kept;
- Should not be automatic as many Members believe the quarterly reporting of MCR is crucial and is not considered burdensome;
- Overall no support for complete exemption.

8.248 Based of the discussion and acknowledging that in fact the template currently in use for the MCR reporting goes beyond the reporting requirement under Article 129, an amendment is proposed to Article 35 to clarify that the information regarding the results of the Minimum Capital Requirement shall always be submitted using the QRTs as defined in the ITS.

8.5.2.3 Annual reporting:

8.249 The proposals under the document on QRTs were assessed from a proportionality perspective. EIOPA concluded that no additional proportionality measures are needed in addition to the changes under development for the risk-based thresholds.

8.5.2.4 Regular Supervisory Report (RSR)

8.250 The proposals in section 7.4 were assessed from a proportionality perspective. EIOPA concluded that no additional proportionality measures are needed in addition to the changes proposed.

8.251 A deletion of the RSR for low profile undertakings and substitution with a regularly dialogue between supervisors, (external auditors) and undertaking's management but discussed but was not supported for the following reasons:

- RSR is an important tool in the SRP;

- A simplification of the RSR was discussed and the report being proposed with focus on material changes and key information is already very streamlined;
- The RSR has embedded proportionality and NSAs observe that RSR from small undertakings is much simpler than the one from bigger undertakings.

8.252 There was support for a better and more consistent implementation of the lower frequency of the RSR for low risk profile undertakings. The option considered in the Consultation Paper was supported ("Introduce L3 tools for achieving supervisory convergence by keeping the minimum requirement for submission of full RSR once every 3 years but ask mandatory assessment by NCAs and communication of the frequency of the RSR"), however, this option needed to be put in the context of the new proportionality framework under development, e.g. convergence is to be achieved through the definition of "low risk profile" and not only by Level 3 tools. Undertakings complying with the low profile criteria should by default be allowed to report the RSR every 3 years unless formally communicated otherwise by the NSA. The frequency of every 2 years would be kept more flexible and convergence under Level 3 tools should be considered.

8.253 The allowance of a single RSR should not impact the requirement at solo level in any way, i.e. if a solo RSR is not required that undertaking specific information should not be part of the single RSR; if a group RSR is not required but a solo RSR is required, then a solo RSR should be submitted to the NSA or a single RSR (if allowed) including only the information from the relevant undertakings. In case undertakings belong to a group and lower frequency than annual is applied to any subsidiary or to the parent the college should agree as much as possible on aligning the requirements in case the group applies for a single RSR.

8.254 Currently the frequency of the RSR is defined in Level 2. For consistency with the remaining reporting framework the frequency and the link to the low risk profile undertakings is proposed to be included in Level 1, but keeping it in Level 2 could also be an option.

8.5.2.5 Solvency and Financial Condition Report (SFCR)

8.255 The proposals in section 7.3 were assessed from a proportionality perspective. EIOPA concluded that no additional proportionality measures are needed in addition to the changes proposed. The following reasons were identified:

- SFCR is an important tool regarding market discipline and the reports are used by stakeholders (this was in fact confirmed with the comments received in the public consultation);
- Insurance undertakings are considered as a "Public Interest Entity" and therefore it is difficult to argue that stakeholders are not interested in the information from insurance undertakings, and this interest cannot be linked to the risk profile;

8.256 To consider such exemption on the basis of the risk profile would create uncertainty regarding the publication of the SFCR and the fact that an undertaking previously exempted that starts publishing the SFCR would be interpreted as an increase in the risk of such undertaking.

8.257 It should also be noted that a simplification of the SFCR is being proposed and the SFCR has embedded proportionality and it is observed that the SFCR from small undertakings is much simpler than the one from bigger undertakings.

8.258 The only exemption of the above is the captives due to its specific nature.

8.5.2.6 Article 254 – quarterly reporting at group level

8.259 Proportionality principle is one of the overarching principles of Solvency II. This section focuses on proportionality at the level of group reporting.

8.260 In the areas of group reporting, regarding quarterly reporting:

- Article 254(2) of Solvency II Directive says "The group supervisor may limit regular supervisory reporting with a frequency shorter than one year at the level of the group where all insurance or reinsurance undertakings within the group benefit from the limitation in accordance with Article 35(6) taking into account the nature, scale and complexity of the risks inherent in the business of the group."
- At the same time Article 35(6) of the Solvency II Directive says: "Supervisory authorities shall not limit regular supervisory reporting with a frequency shorter than one year in the case of insurance or reinsurance undertakings that are part of a group within the meaning of Article 212(1)(c), unless the undertaking can demonstrate to the satisfaction of the supervisory authority that regular supervisory reporting with a frequency shorter than one year is inappropriate, given the nature, scale and complexity of the risks inherent in the business of the group."

8.261 In the area of group reporting, regarding reporting of item-by-item basis:

- Article 254(2) of Solvency II Directive says "group supervisor may exempt from reporting on an item-by-item basis at the level of the group where all insurance or reinsurance undertakings within the group benefit from the exemption in accordance with Article 35(7), taking into account the nature, scale and complexity of the risks inherent in the business of the group and the objective of financial stability."
- At the same time Article 35(7) says: "Supervisory authorities shall not exempt from reporting on an item-by-item basis insurance or reinsurance undertakings that are part of a group within the meaning of Article 212(1)(c), unless the undertaking can demonstrate to the satisfaction of the supervisory authority that reporting on an item-by-item basis is inappropriate, given the nature, scale and complexity of the risks inherent in the business of the group and taking into account the objective of financial stability."

8.262 In the area of proportionality applicable to group reporting the options considered by EIOPA were the following:

1) Don't change Article 254 or Article 35 (6) and (7) of the Solvency II Directive;
2) Improve proportionality under Articles 35 (6), 35 (7) and Article 254 of the Solvency II Directive.

8.263 The lack of consistency in the application of the proportionality principle at solo level leads to situations where undertakings belonging to a group are exempted by one NSAs while other less relevant solos are not exempted by different NSAs. As a result, according to the current articles, the group cannot be exempted unless all solo undertakings are exempted.

8.264 EIOPA understands the national specificities associated to the different application of proportionality principle that gives origin to this situation but believes that it leads to non-proportionate outcomes at the level of some groups. Thus, it proposes to mitigate the situation by allowing the group to be exempted even if not all undertakings belonging to the group are exempted.

8.6. Proportionality for specific business models

8.6.1 Background

8.265 The nature of captive (re)insurance undertakings is different from the nature of a "standard" (re)insurance undertaking writing a balanced portfolio of diversified risks in different Lines of Business covering a multitude of policyholders in the market.

8.266 Captive (re)insurance undertakings typically write a limited number of Lines of Business, for risks which are linked to the industrial/financial group to which they belong, with stability with regard to the type of risks underwritten over time. Furthermore, captive (re)insurance undertakings have, in most of the cases, limited or no own staff and rely heavily on outsourcing to external service providers or to the industrial/financial group to which they belong.

8.267 Whilst the business model and often also the risk profile of captive (re)insurance undertakings diverge from the ones of a "standard" European (re)insurance undertaking subject to the Solvency II framework, the development of an USP/Internal Model is, in most of the cases, not proportional considering the bureaucratic burden associated with the request for approval and therefore not an efficient option for those undertakings.

8.268 EIOPA has identified, following discussions on supervisory convergence regarding the supervision of captive (re)insurance undertakings and the analysis of the comments and arguments received during the first and second wave of consultation regarding the Solvency II 2020 review, proportionality on pillar II requirements and a set of exemptions and limitations on reporting and disclosure that should be applicable to (re)insurance captives, in light of their particular business model, meeting a set of conditions.

8.269 EIOPA also proposes that, provided that certain criteria are met, further proportionality measures shall apply to captive reinsurance undertakings on top of the above mentioned proportionality for Pillar II and exemptions and limitations with regard to Pillar III requirements.

8.270 EIOPA highlights the importance of keeping captive (re)insurance undertakings under the remit of the Solvency II Directive, and that any exemption based on the type of business model should be avoided. However, special proportionality can be introduced based on the specific nature of the business pursued.

8.271 EIOPA proposals reflect the specific business model of captives and ensures supervisors keep the necessary tools and information to supervise these entities.

8.272 The proposals set out below shall apply to captive (re)insurance undertakings which fall within the definition as set out in Article 13 (2) and (5) of the Solvency II Directive (which are kept as currently drafted) and meet specific criteria. Captive (re)insurance undertakings do not need to be classified as a 'low risk undertaking' to benefit from the specific proportionality measures proposed in this section. On the other way, if captive (re)insurance undertakings comply in addition with the 'low risk profile undertakings' criteria they can also benefit from additional proportionality measures not covered in this specific section.

8.6.2 Scope of application

8.273 With regard to the requirements to be met, EIOPA proposes the following amendments to the Solvency II framework which aim at enlarging the scope of the proportionality measures applicable for captive insurance and reinsurance undertakings.

8.6.3 Proportionality measures for captives

8.6.4 ORSA

8.274 With regard to proposals related to the frequency of the ORSA, EIOPA proposes that the full ORSA is performed and, consequently, the ORSA Report submitted to the local supervisor every 2 years or without any delay when a change in the risk profile is expected or following any significant change in the risk profile.

8.275 No amendment shall be needed to legislative text in the Solvency II Directive or in the delegated Regulation as currently the ORSA frequency is dealt with in the EIOPA Guidelines on ORSA.

8.276 In particular, a change in the risk profile is expected when:

- major changes in the underwriting program or the reinsurance program are foreseen during the next 12 months (such as start-up of new lines of business, major changes in business volume, major changes in risk tolerance limits);
- major changes in the allocation of the investments are foreseen over the next 12 months;
- unusual transaction incur over the following 12 months (such as portfolio transfers in or out, or a material change in one of the major ultimate shareholders).

8.277 With regard to proposals related to the content of the ORSA, EIOPA proposes overall guidance on the minimum expected content without limiting the possibility for the captive (re)insurance undertaking to add additional items in the ORSA or, in exceptional circumstances, for the NCAs to request additional information.

8.278 To implement this, EIOPA proposes to add a new paragraph in Article 45 of the Solvency II Directive specifying that only letters a), b) and c) of Paragraph 1 apply to captive insurance and reinsurance undertakings meeting a specific set of criteria.

8.279 The aforementioned criteria shall be mentioned in a new paragraph of Article 50 of the Delegated Regulation and should be then defined in a separate article as follows:

8.280 Captive insurance undertakings and captive reinsurance undertakings as defined in points (2) and (5) of Article 13 of the Solvency II Directive may use the proportionality requirements if all of the following requirements are met:

- in relation to the insurance obligations of the captive insurance undertaking or captive reinsurance undertaking, all insured persons and beneficiaries are legal entities of the group or natural persons eligible to be covered under the group insurance policies of which the captive insurance or captive reinsurance undertaking is part, as long as the business covering natural persons eligible to be covered under the group insurance policies remains immaterial;
- in relation to the reinsurance obligations of the captive insurance or captive reinsurance undertaking, all insured persons and beneficiaries of the insurance contracts underlying the reinsurance obligations are legal entities of the group of which the captive insurance or captive reinsurance undertaking is part;
- the insurance obligations and the insurance contracts underlying the reinsurance obligations of the captive insurance or captive reinsurance undertaking do not relate to any compulsory third party liability insurance.

8.281 The minimum expected content of the ORSA shall include at least the information indicated below.

With regard to Article 45(1)(a) of the Solvency II Directive:

- Summary of Lines of Business written, with indication of maximum limit per claim and per UW year, gross and net of reinsurance, and information on historical loss ratios gross and net of reinsurance
- Indication of the risk appetite, including (but not necessarily limited to) an indication of an SCR coverage ratio, provided that lower limits are respected. If not, clarification to the local supervisor has to be provided Indication of asset allocation and loss ratios assumptions used in the projections A minimum of 3 year financial projections of profit and loss and Solvency II Balance sheet, in a base case scenario and for each of stressed scenarios (one at least). In any case, the scenario projection should be large enough to show the recovery from the stress.
- Impact on SCR coverage ratio over the projection horizon for each of the stressed scenarios
- Conclusions and measures taken by the captive (re)insurance undertaking following the outcome of the stress-tests. In any case, those conclusions should consider the year after the stress.

With regard to Article 45(1)(b) of the Solvency II Directive:

- Continuous compliance with capital requirements will be covered implicitly in the stressed 3 or more year projections of the profit and loss and balance sheet under Article 45 (1)(a), and corresponding SCR coverage ratio evolution.

8.282 More specifically, with regard to the aspect of continuous compliance with requirements on calculation of technical provisions, for the premium provision, the ORSA report should include at least a qualitative statement of the assumptions used for the interplay of rules regarding contract boundaries, the calculation of the SCR

CAT risks and contractual limits anchored in the (re)insurance contracts accepted and (retro)ceded.

With regard to Article 45(1)(c) of the Solvency II Directive:

- Qualitative assessment if there is any indication that the standard formula should not be adequate.

8.283 EIOPA proposes to implement the above specific content as follows:

8.284 Introduce Article 306a with the minimum content requirements set out above and, when deemed necessary for specific items, develop specific Guidelines in the EIOPA Guidelines on ORSA in relation to the expected content described above.

8.285 With regard to already existing simplifications applicable to Technical Provisions and Solvency Capital Requirement calculations, EIOPA proposes to keep the current legislative text.

8.6.5 Reporting and public disclosure

8.286 EIOPA proposes to implement the reporting exemptions and limitations explained below in the ITS as a follow-up of the amendment proposed to Article 35 of the Solvency II Directive and amendment of relevant articles of the Delegated Regulation.

8.287 Specific exemptions and limitations on supervisory reporting public and disclosure applicable to captive insurance and reinsurance undertakings

8.288 With regard to reporting, EIOPA proposes to introduce the following limitations and exemptions (on top of the limitations/exemptions given to captives under Article 35 of the Solvency II Directive following a risk-based approach):

Quarterly reporting:

- Limitation from reporting on investments and derivatives (i.e. S.06.02 and S.08.01 not to be reported)

Annual reporting:

- Exemption from S.02.02
- Elimination of the currency split from S.16 template
- Elimination of the currency split from S.19 template
- Reduction of template S.27 on cat risks only to the general table without breakdown in the tables for single risks
- Exemption from S.29s template on variation analysis

8.289 EIOPA will include details on concrete templates limited/exempted in the ITS, however amendments in Article 35 of the Solvency II Directive will be needed (see section on Article 35).

8.290 With regard to public disclosure, EIOPA proposes to introduce the following specific exemptions into the public disclosure:

- SFCR for professional readers: only QRTs to be provided. No narrative part.

- SFCR for policyholders: to be provided only if the business pursued with regard to policyholders and beneficiaries involves natural persons.

8.6.6 Specific exemptions and limitations on supervisory reporting public and disclosure applicable to captive reinsurance undertakings meeting specific criteria

8.291 Captive reinsurance undertakings have a business strategy oriented to optimisation of insurable risk financing of the parent company and to find optimal reinsurance solutions (especially non-proportional ones). Dividend payments and profits from capital investments are minor figures in the balance sheets.

8.292 Furthermore the business strategy of captive reinsurance undertakings is atypical in the sense that it doesn’t pursue market share gain and keeps the business rather static across the years and therefore strategic risks tend to be close to zero. Furthermore captives tend to face decreasing probabilities of insolvency over time as profits are normally collected over time and redirected to capital.

8.293 The static nature of the business allows to calculate the worst case in a deterministic way by adding up the limits of the underwritten contracts.

8.294 As a feedback to the Public Consultation, EIOPA proposes further proportionality measures applicable only to captive reinsurance undertakings meeting the criteria mentioned in Article 50 of the Delegated Regulation based on the following conditions:

- The policyholders of the reinsurance contracts are legal entities of the group (i.e. the Parent company or other entities of the industrial group to which the captive belongs);
- Loans in place with the Parent or any group company do not exceed 20% of total assets held by the captive, groups cashpools included;
- The maximum loss resulting from the exposures can be deterministically assessed without use of stochastic methods (i.e. limits to losses covered are included in the reinsurance contracts in place).

8.295 It is important to highlight that for all reinsurance captives not meeting the criteria above, only the general provisions applicable to captive (re)insurance undertakings included in the previous section shall apply.

8.296 Provided that the previous conditions are met, EIOPA proposes to apply the following additional proportionality measures to captive reinsurance undertakings:

- No SFCR for policyholders
- The annual reporting package shall include only the QRTs disclosed in the SFCR

9. Group supervision

9.1 Introduction

9.1.1 Context

9.1 This chapter is dedicated to the section on Group Supervision CfA 3.14 of the call for advice. The call for advice covers a broad variety of topics on groups, including all key pillars of the Solvency II Framework.

9.2 The call for advice covers also some topics on Group Reporting and those are captured under Chapter 7 of this Opinion.

9.1.2 Extract from the call for advice

3.14. Group Supervision

EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:

- *the scope of application of group supervision and the supervision of intra-group transactions, including the supervisory powers in cases where the parent company is headquartered in a non-equivalent third country;*
- *the rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*
- *the appropriateness of the rules governing the calculation of the minimum consolidated group Solvency Capital Requirement, including their impact on the level of diversification benefits that may be allowed within a group;*
- *uncertainties or gaps related to the application of governance requirements at group level.*

9.1.3 Relevant legal provisions

9.3 The relevant provisions of the Solvency II framework applicable to group insurance are considered in the context of this review, in particular:

1. Solvency II Directive, Articles that refer to supervision of Insurance and Reinsurance undertakings in a group (Articles 212 to 266)
2. Solvency II Delegated Regulations applicable to Insurance Groups (Articles 328 to 342)
3. *EIOPA-BoS-14/181 EIOPA's Guidelines on group solvency (2014)*
4. *EIOPA-BoS15/201 EIOPA's Opinion on the group solvency calculation in the context of equivalence (September 25 of 2015)*

5. *EIOPA_BoS_16_008 Opinion on the application of a combination of methods to the group solvency calculation (January 27 of 2016)*
6. *EIOPA 17-648 Report to the European Commission on the Application of Group Supervision under the Solvency II Directive (December 22 of 2017)*

9.4 Other articles of the Solvency II framework are also referred to in the Advice. Such details are provided in within the specific policy issue sections.

9.1.4 Previous work

9.5 In 2018, EIOPA published a Report to the European Commission on Group Supervision and Capital Management with a Group of Insurance or Reinsurance Undertakings, and FoS and FoE under Solvency II[181] (EIOPA's report on Article 242(2)). This report was issued in response to the European Commission Call for Information on various aspects of Group Supervision of Insurance and Reinsurance Undertakings in a Group as outlined in Article 242(2) of Directive 2009/138/EC ("Solvency II Directive"), and specific topics related to the freedom to provide services (FoS) and freedom of establishment (FoE).

9.6 In 2017, EIOPA also published a Report to the European Commission on the Application of Group Supervision under the Solvency II Directive (EIOPA 17-648 of December 22 of 2017) which was based on the Commission's request on Article 242(1) of the Solvency II Directive[182].

9.7 In the context of this Advice, EIOPA also conducted a survey among National Competent Authorities (supervisory authorities) regarding Group issues covered in the scope of this Advice. The outcome of this survey is used in this Advice and is referenced to as "EIOPA survey to NSAs 2019".

9.1.5 Other reports relevant to this Advice

9.8 The European Commission published its report to the European Parliament and the Council on group supervision and capital management within a group of insurance or reinsurance undertakings[183]. The European Commission report is based on EIOPA Report to the European Commission on Group Supervision and Capital Management with a Group of Insurance or

[181] https://www.eiopa.europa.eu/sites/default/files/publications/pdfs/report_on_article_242_com_request_final_14_dec_2018_0.pdf

[182] https://www.eiopa.europa.eu/sites/default/files/publications/submissions/report_to_the_european_commission_on_the_application_of_group_supervision.pdf?source=search

[183] Report to the European Parliament and the Council on the application of Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking and pursuit of the business of Insurance and Reinsurance (Solvency II) with regard to group supervision and capital management within a group of insurance or reinsurance undertakings.

Reinsurance Undertakings and FoS and FoE under Solvency II, EIOPA-BoS-18-485, 14 December 2018 (EIOPA's report on Article 242(2) of the Solvency II Directive).

9.1.6 Data Sources and Evidence

9.9 EIOPA used various sources of data in preparing the Advice on Group Supervision: annual and quarterly reporting data for the years 2016 to 2019; EIOPA's Questions and Answers on Regulation; relevant public information available in EIOPA's website; EIOPA's observations through the activities carried out to discharge its mandates; discussions held with supervisory authorities when developing the Advice and the reports noted in section 9.1.5 -Other reports relevant to this Analysis.

9.10 It is important to acknowledge that data quality issues are still present on the information submitted by solo or groups to their supervisors, and therefore, the data presented in this report should be read taking into account such constraints.

9.11 EIOPA designed two dedicated online surveys to supervisory authorities regarding the call for advice on Group Supervision issues. One survey focused on Group Governance Issues while the second one covered issues on Group Solvency; Scope of the Group; Intragroup transactions; and Risk concentrations.

9.12 During the consultation process, EIOPA also issued a technical specifications of the information request on the 2020 review of Solvency II for (re) insurance groups subject to Solvency II. The information request was addressed to a representative sample of European groups, and the participants were selected by the supervisory authorities on a representative basis[184].

9.13 The supervisory authorities played a pivotal role in interpreting and analysing the outputs of the data request to the groups under their supervision (e.g. by validating the data and providing a context to the peculiarities of each of the groups sampled).

9.14 The stakeholders' response to the consultation paper, and the outputs of the data request are considered throughout the process in delivering the technical advice to the European Commission. A feedback statement captures the overall key messages from stakeholders.

[184] The parameters considered for the sample to be representative were:

- the "top" three groups across different type of groups (life, non-life; insurance, reinsurance) size (small, medium and large), and complexity of issues (group structure; national and cross-border groups); and
- the groups which will be relevant in addressing the variety of issues outlined in the data request.

9.15 It should also be noted that the information collated and presented in this report reflects the views of the supervisory authorities and industry as of the time when they were surveyed. EIOPA analysed such information on a best effort basis.

9.16 Data is in all cases presented on aggregated basis. The document will refer to Member States rather than to specific country names this to keep all privileged data on an anonymised manner.

9.17 The Advice focuses on policy advice and does not make an assessment on the supervisory practices of the supervisory authorities.

9.1.7 Scope of Review on Group Issues

9.18 The European Commission call for advice sets out the scope of the review on group supervision. Such scope is broad in nature and in the Advice is classified under three main sections:

i. Scope of Application of Group Supervision issues, IGTs, and RCs

ii. Rules governing the methods for calculating group solvency (including Own Fund requirements), the interactions with Directive 2002/87/EC "FICOD".

iii. Rules governing the calculation of the minimum consolidated group SCR (including the impact on the level of diversification benefits)

iv. Governance Requirements at group level

9.19 For the sake of simplicity, EIOPA will use the following terms in this chapter:

- OF = Own Funds
- OFS = Other Financial Sectors
- EOF = Eligible Own Funds
- IHC= Insurance Holding Company
- MFHC = Mixed Financial Holding Company
- MAIHC = Mixed Activity Insurance Holding Company
- EPIFP =Expected Profits Included in Future Premiums
- ASU = Ancillary Services Undertaking
- SPV = Special Purpose Vehicle
- IGT = Intra-Group Transaction
- RC = Risk Concentration
- Min.Cons.SCR = Minimum Consolidated Group SCR

9.2 Overview of policy options included in this chapter

Section	Policy Issue	Options
Scope of Application of Group Supervision issues; supervision of intra-group transactions and risk concentrations; and others		
Scope of application of group supervision		
9.3.1 Definition of the Group, including issues of Dominant Influence ; and Scope of the Group Supervision	1. Lack of clarity on the definition of group in Article 212 of the Solvency II Directive, regarding the concepts of 'acting in concert', 'centralised coordination', identification of dominant influence that support the identification of a group to capture undertakings, which, together, form a de facto group	1.1 No Change
		1.2 *(revised option)* **To clarify Article 212 of the Solvency II Directive in level 2 regarding the definitions that support the identification of a group to capture undertakings, which, together, form a de facto group, upon supervisory powers**
	2. Need to facilitate the application of group supervision under Article 213 of the Solvency II Directive in the case of horizontal groups; groups with multiple points of entry in the EEA; and multiple groups held by the same individual or legal entity.	2.1 No Change
		2.2 To provide the supervisory authorities with powers to require groups to restructure for the purpose of exercising group supervision when necessary.
	3. Lack of clarity in other definitions to secure scope of a group subject to Solvency II	3.1 No Change
		3.2 Clarify the definitions of subsidiary, parent undertaking, control, participation and the definition of groups, to secure the scope of existing groups
9.3.2 Definition of Insurance Holding Company and other challenges related to Insurance holding companies and Mixed financial holding companies	1. Lack of clarity of the meaning of 'exclusively or mainly' in the definition of IHC (Article 212(2)(f) of the Solvency II Directive)	1.1 No Change
		1.2 Clarify on the term "exclusively" or "mainly" used in the definition of IHC contained in Article 212(2)(f) of the Solvency II Directive
	2. Article 214(1) of the Solvency II Directive; and powers over insurance holding companies and mixed financial holding companies	2.1 No change
		2.2 Amend the wording of Article of the 214 (1) Solvency II Directive to allow supervision and enforcement on the top insurance holding company or mixed financial holding companies of the

		group and to request of a structural organisation that enables group supervision at holding level or another level in the group where necessary
9.3.3 Exclusion from group supervision	1. Exclusion of undertakings from the scope of group under supervision, which can lead to complete absence of group supervision or application of group supervision at a lower / intermediate level in the group structure.	1.1 No Change
		1.2 Reinforce documentation and monitoring requirements in case of exclusions by introducing a clearer principle on the exclusion from group supervision
	2. Negligible interest (Article 214(2)(b) of the Solvency II Directive) vs. achieving the objectives of group supervision.	2.1No change
		2.2 To provide criteria to be considered for the purpose of assessing "negligible interest"
Supervision of Intra-Group Transactions (IGTs) and Risk Concentrations (RCs)		
9.3.4 Supervision of IGTs and RCs	1. No inclusion in the current definition of IGTs of a reference to IHC, MFHC, MAIHC, and third country (re)insurance undertakings as one of the possible counterparties of the IGTs	1.1 No Change
		1.2 *(revised option)* **Amend the wording of Article 13(19) of the Solvency II Directive to include at least holding companies[185], and third country (re)insurance undertakings as a possible counterparty to the transaction.**
		1.3 Enlarge the IGT definition to any transaction among all undertakings within the group (i.e. including ancillary services, etc.)
	2. Lack of consistency in application of thresholds for IGTs and RCs and limited criteria for setting up these thresholds in accordance with Article 244(3) of the Solvency II Directive	2.1. No Change
		2.2 **To amend Article 244(3) of the Solvency II Directive to allow the introduction of additional criteria.**
Issues with Third Countries		
9.3.5 Article 262 Solvency II Directive - Clarification	1. Further clarity needed on the objectives and application of Article 262 of the Solvency II Directive	1.1 No Change
		1.2 *(revised option)* **Clarify the objectives of the use of 'other methods' under Article 262 of the Solvency II Directive,**

[185] See relevant policy analysis in this chapter (section 9.3.4.5), and opinion document section 9.4.

		including the establishment of EU-holdco depending on already exiting EU structure; and other clarifications.
Rules governing the methods for calculating group solvency (including Own Fund requirements)		
Method 1 -Calculation of Group Solvency		
9.3.6 Treatment of Insurance Holding Companies (IHC), Mixed Financial Holding Companies (MFHC), for the purpose of Notional SCR and Own Funds calculations	1. Need to clarify how a notional SCR should be calculated and how to treat the IHC and MFHC for the purpose of the group solvency calculation, in particular of a notional SCR and own funds for such undertakings	1.1. No Change 1.2 State that a notional SCR is equal to zero for the intermediate IHC and MFHC **1.3. Include clearly the provision of a notional SCR for both the parent and intermediate IHC and MFHC, including those in third countries and how to treat the IHC and MFHC for the purpose of the group solvency calculation, in particular of a notional SCR and OF for such undertakings.**
9.3.7 Article 229 of the Solvency II Directive – A proxy Method to calculate group solvency requirements.	1. Lack of a clarity and consistency in the application of Article 229 of Solvency II Directive in particular in cases where imposing Solvency II calculation is too burdensome or impossible.	1.1. No Change 1.2 Simplified methodology in favour of equity method with a cap on own funds for non-negligible undertakings for which Solvency II calculation is not possible or small undertakings **1.3** *(New Option, and preferred policy option)* **A simplified approach, in addition to the current option provided in Article 229 of the Solvency II Directive, should be introduced in favour of equity method (IFRS or local accounting rules consistent with market valuation) for non-material undertakings for which Solvency II calculation is not possible due to lack of information or other reasonable factors, and subject to group supervisor approval.**
Method 2 -Calculation of Group Solvency		
9.3.8		1.1 No Change

Scope of method 2 (where used exclusively/or in combination with method 1)	1. Need to clarify the scope of undertakings to be included under method 2 and their treatment to ensure a consistent treatment across methods (same scope of entities under all methods) and across EEA	**1.2 Provide clarity on the scope of undertakings to be included under method 2 and their treatment.**
9.3.9 Partial Internal Model (PIM) and Integration Techniques	1. Lack of a provision in the Solvency II framework about the application of integration techniques to partial internal models at group level that are partial with respect to entities to ensure appropriateness.	1.1 No Change. **1.2 Introduce a requirement to demonstrate appropriateness by clarifying that in general there is no mutatis mutandis approach to translate integration techniques for risks in Article 239 of the Delegated Regulation to the integration of entities for partial internal models at group level, but a demonstration of the appropriateness is required similar to Article 229 (4) of the Delegated Regulation. Also an explicit link between the requirements of Articles 328 and 343 of the Delegated Regulation should be established**.
Combination of Methods – Calculation of Group Solvency		
9.3.10 Group SCR calculation when using Combination of methods	1. A need for clarification of principles to ensure appropriate coverage of risks in the group SCR under the combination of methods. This especially concerns equity risk for participations, currency risk and concentration risk.	1.1 No Change **1.2** *(revised option)* **Introduce principles of no double counting and no omission of material risks The Delegated Regulation would explicitly cover equity risk for participations, currency risk and concentration risks, as these risks allow for an explicit description of the treatment in the standard formula. Other risks that might emerge or be relevant in specific cases would be dealt with on a case by case basis based on existing supervisory powers.**
9.3.11		1.1 No Change.

Group Solvency – Application when using combination of methods	1. Need for clarification in Article 233 of the Solvency II Directive to explicitly state that Method 2 (where used exclusively or in combination with Method 1) applies to single undertakings.	**1.2 Indicate that method 2 (where used exclusively or in combination with method 1) applies to single undertakings. It is also advised to amend Articles 220, 227, 234 and 235 of the Solvency II Directive to refer to the advised changes on this section.**
Own funds requirements for groups		
9.3.12. Classification of Own Funds	1. Classification of own funds at group level and the reliance on criteria for classification at solo level – issues with the application Article 330 (1)(d) of the Delegated Regulation	1.1 No Change
		1.2 A deletion of the paragraph (1)(d) of Article 330 of the Delegated Regulation
	2. Assessing "free from encumbrances" in particular in relation to own-fund items issued by an insurance holding company or mixed-financial holding company (recital 127 of the Delegated Regulation)	2.1 No Change
		2.2 Clarify and include a principle indicating the purpose of recital 127 and clearly indicate that it is sufficient to provide for the suspension of repayment/redemption of the own-fund item when there is a winding-up situation of any EEA related (re)insurance undertaking of the group.
		2.3 Similar to option 2 but applicability to be extended to ultimate parent (re)insurance undertakings.
9.3.13. Availability Assessment of Own Funds (Article 330 of the Delegated Regulation)	1. Inclusion of own fund items to cover the solo contribution to group SCR (Art 330 (5) of the Delegated Regulation)	**1.1. No Change**
		1.2 Introduce a principle based approach that takes into account the quality of non-available own funds covering the solo contribution to the group SCR.
	2. Formula for calculating of the contribution to group SCR- Need to clarify the inclusion of undertakings in the SCR Diversified.	1.1 No Change
		1.2 Clarify the inclusion of all undertakings taken into account in the SCR diversified.
		3.1. No Change

	3. Availability assessment of specific items within the reconciliation reserve, the benefit from transitional measure on technical provisions or risk-free interest rates	3.2 Clarify that the benefit of transitional measures on technical provisions and interest rate is assumed to be unavailable by default within the meaning of Article 330(3) of the Delegated Regulation.
		3.3 *(New option and preferred policy option)* **Include in the regulations that the group solvency position without availability of the benefit from these transitional should be disclosed, and supervisory action can be taken**
	4. EPIFPs and the availability assessment of own funds under Article 330 of the Delegated Regulation	4.1 No Change
		4.2 Clarify that EPIFP is assumed to be unavailable by default within the meaning of Article 330(3) of the Delegated Regulation
		4.3 *(New option and preferred policy option)* **Groups should include EPIFPs in the availability assessment of own funds under Article 330(1) of the Delegated Regulation.**
9.3.14. Minority Interest	1. Need for a clear basis and approach for the calculation of minority interest at regulatory level.	1.1. No Change.
		1.2. *(revised option)* **Further clarify the basis of minority interest in Solvency II and the approach to be followed for its calculation.**
Calculation of the minimum consolidated group SCR, including the impact on the level of diversification benefits that may be allowed within a group		
9.3.15. Minimum Consolidated Group SCR (Min.Cons.SCR)	1. Lack of clarity and alignment of the scope of undertakings included in the minimum consolidated group SCR versus the—undertakings included in the group SCR.	1.1 No change in the scope undertakings included in the minimum consolidated group SCR calculation
		1.2. Enhancing the scope of the Min.Cons.SCR by including the IHC and MFHC; and upgrading the current Guideline 21b) of EIOPA Guidelines on Groups Solvency on third countries to an explicit law provision
		2.1 No Change on the methodology of calculation

	2. Change of calculation method for minimum consolidated group SCR	2.2 Change the way how minimum consolidated group SCR is calculated
		2.3 *(New Option and new preferred policy option)* **No Change on the method to calculate the Min.Cons.SCR, clarify the purpose of the Min.Cons.SCR, and introduce a new trigger metric for the application at group level of the requirements related to solo MCR**
Solvency II and the interactions with Directive 2002/87/EC (FICOD;, and any other issues identified with Other Financial Sectors		
9.3.16. Inclusion of Other Financial Sectors (OFS)	1. Lack of clarity on Inclusion of undertakings in Other Financial Sectors (OFS) into Solvency II.	1.1 No change.
		1.2 Clarify that, regardless of methods used Article 329 of the Delegated Regulation is applicable for the inclusion of OFS entities in the group solvency calculation.
	2. Allocation of own funds from Other Financial Sectors into relevant Solvency II tiers for the purpose of Solvency II calculations	**2.1 No change.** *(new preferred option)*
		2.2 *(revised option)* Confirmation in the regulations that no allocation of own funds from OFS into relevant Solvency II tiers when including these in the group solvency calculation
		2.3 Allocation of clearly identified own- fund items from OFS into relevant Solvency II tiers where practicable and material
	3. Clarify the ability of excess of own funds from OFS to absorb losses in the insurance part of the group	3.1 No change
		3.2 Clarify that no availability assessment should be done for own funds from OFS
		3.3. *(revised preferred option)* **To require an analysis of the loss-absorbing capacity of own-fund items both from a group (self-assessment) and a supervisory perspective.**

		3.4 *(New Option)* To require an analysis of the loss-absorbing capacity of own-fund items from OFS similar to that required under FICOD
	4. Lack of clarity about the inclusion of undertakings of Other Financial Sectors' own funds and capital requirements into Solvency II when OFS entities form a group	4.1 No change
		4.2 Clarify that group own funds and group capital requirements calculated according to sectoral rules should be used in the group solvency calculation when OFS entities form a group.
	5. Need to clarify which capital requirements for credit institutions, investment firms and financial institutions should be included in the group solvency.	5.1 No change
		5.2 *(revised option)* **Clarify what should be taken into account as the "capital requirements" of the credit institution, investment firms and financial institution in the group solvency calculation.**
9.3.17 Application of Article 228 of the Solvency II Directive – Related credit institutions, investment firms, and financial institutions	1. Lack of clarity regarding the methods of inclusion of related credit institutions, investment firms and financial institutions in group solvency calculation in Article 228 of the Solvency II Directive, and its interaction with FICOD, and other articles of the Solvency II framework.	1.1. No change
		1.2 Clarify in Article 228 of Solvency II Directive that FICOD methods are only applicable for the inclusion of related credit institutions, investment firms and financial institutions (not for other related undertakings)
		1.3 *(revised option)* **Remove references to FICOD Methods, in Article 228 of the Solvency II Directive, and amend Article 68(3) of the Delegated Regulation accordingly**
Governance Requirements - uncertainties or gaps related to the application of governance requirements at group level.		
9.3.18		1.1. No Change

Mutatis mutandis application of solo governance requirements to groups - Article 40 of the Solvency II Directive (definition of the AMSB for groups); and Article 246 of Solvency II Directive (supervision of the system of Governance)	1. Lack of clarity regarding the mutatis mutandis application of solo governance requirements to groups - Article 40 of the Solvency II Directive (definition of the AMSB for groups); and Mutatis Mutandis under Article 246 of Solvency II Directive	**1.2** *(revised option)* **Clarify the provisions regarding responsibility for governance requirements at group level, and setting principles to reduce SoG mutatis mutandis issues.**

9.3 Identification of the Policy Issues

9.20 The issues are presented in the next sections according to topic and as summarised in the Overview of policy options and policy issues.

Scope of Application of Group Supervision

9.3.1 Definition of the Group, including issues of dominant Influence; and Scope of the Group Supervision

9.3.1.1 Extract from the call for advice:

3.14. Group supervision

EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:

- *the scope of application of group supervision and the supervision of intra-group transactions, including the supervisory powers in cases where the parent company is headquartered in a non-equivalent third country;*

9.3.1.2 Relevant legal provisions

9.21 Article 13 of the Solvency II Directive – definitions of parent undertaking, subsidiary undertaking, participation

9.22 Article 212 of the Solvency II Directive – definitions of participating undertaking, related undertaking, group.

9.23 Article 213 of the solvency II Directive – application of group supervision

9.24 Guideline 1 of EIOPA Guidelines on the treatment of related undertakings (EIOPA-BoS-14/170)

9.3.1.3 Other regulatory background

9.25 Article 1, and Article 12 of the Consolidated accounts Directive (83/349/EEC)

9.26 Recital 31 of Directive 2013/34/EU on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, which refers to circumstances where control may effectively be exercised.

9.27 Article 21a of the Directive (EU) 2019/878 amending Directive 2013/36/EU (Capital Requirements Directive V (CRD)), which refers to the Approval of financial holding companies and mixed financial holding companies. In particular:

> Paragraph 3(b) the structural organisation of the group of which the financial holding company or mixed financial holding company is part does not obstruct or otherwise prevent the effective supervision of the subsidiary institutions or parent institutions as concerns the individual, consolidated and, where appropriate, sub-consolidated obligations to which they are subject.
>
> Paragraph 6 Where the consolidating supervisor has established that the conditions set out in paragraph 3 are not met or have ceased to be met, supervisory measures may include (...) Paragraph 6(c) giving instructions or directions to the financial holding company or mixed financial holding company to transfer to its shareholders the participations in its subsidiary institutions;

9.28 Article 159 (a) of the Directive (EU) 2019/878 amending Directive 2013/36/EU (Capital Requirements Directive V (CRD)), which refers to transitional provisions on approval of financial holding companies and mixed financial holding companies. In particular, the second paragraph:

> "During the transitional period referred to in the first paragraph of this Article, competent authorities shall have all the necessary supervisory powers conferred on them by this Directive with regard to financial holding companies or mixed financial holding companies subject to approval in accordance with Article 21a for the purposes of consolidated supervision".

9.29 Article 17 of the Directive 2002/87/EC ('FICOD') states that supervisory authorities shall have the power to take any supervisory measure deemed necessary in order to avoid or to deal with the circumvention of sectoral rules by regulated entities in a financial conglomerate.

9.3.1.4 Identification of the issue

Policy Issue 1– Lack of clarity in Article 212 of the Solvency II Directive in level 2 regarding the definitions that support the identification of a group to capture undertakings, which, together, form a de facto group, upon supervisory powers.

9.30 It is noted that there can be insurance and reinsurance undertakings, which can fulfil several or all of the following conditions:

- Partly or fully have the same shareholders;

- Have members of the AMSB in common, but not a majority;
- Partly or fully have the same management bodies;
- Partly or fully have the same system of policies (investments, risk management, compliance, etc.) and outsourcing arrangements;
- Partly or fully share the same personnel, including personnel in key functions and key function holders themselves;
- Have financial links (reciprocal financing links) which could be considered as intra-group transactions if within a group;
- Have common investments, including joint holdings in other undertakings.
- Partly or fully the same shareholders are members of AMSB, personnel, key personnel, key functions.

9.31 The undertakings as described in the above cases act as if they formed a group, and generate risks of a group nature that are not manageable at solo level, but these undertakings do not form a group according to Article 212 definitions:

- There are no capital ties between them (Article 212(1)(c)(i));
- The undertakings do not share a majority of their AMSB members, and they are not managed on a unified basis pursuant to a contract or provisions in the memorandum or articles of association of those undertakings (Article 212(1)(c)(i));
- There are strong and sustainable financial relationships but there is no identified undertaking which exercises a dominant influence through centralised coordination (Article 212(1)(c)(ii));
- The supervisory authority has not enough elements to consider that a dominant influence is exercised by one undertaking over the other ones (Article 212(2)).

9.32 It is also noted that there is no definition or common understanding of "centralised coordination", leading to potential divergent interpretations, and that the list of criteria which define the "dominant influence" in the Guideline 1 of EIOPA Guidelines on the treatment of related undertakings could be more specific and brought into the regulations in order to enhance the level playing field.

Policy Issue 2: Need to facilitate the application of group supervision under Article 213 in the case of horizontal groups, groups with multiple points of entry in the EEA, and multiple groups held by the same individual or legal entity

9.33 It was also noted that, in the following situations captured from supervisory practice, it is not always possible to correctly identify a group and/or to apply group supervision in a meaningful and relevant way:

— *Horizontal groups* with undertakings linked to each other pursuant to criteria in Article 212(1)(c)(i) or pursuant to situations described in the first policy issue. In these cases, there is no unique undertaking that would be responsible for group supervision requirements (e.g. reporting requirements).

— *Groups with multiple points of entry in the EEA*:

- o Several undertakings or groups are part of a unique financial conglomerate;
- o Several undertakings or groups are part of a unique non-insurance group.
- o Several undertakings or groups are part of a same third-country group (see paragraph 9.34 on the identification of policy issue 1);

— *Multiple groups held by the same individual or legal entity in the EEA*. In that case, several separate groups are under supervision while one might need to have only one group

9.34 In the case of several undertakings or groups being part of a same third-country group, it was noted that supervisory authorities shall have powers to require the establishment of an EU holding company which is heading the EEA undertakings (as one of the methods noted in Article 262 of the Solvency II Directive). Please refer to section 9.3.5 Third Country Issues – for further information on Other Methods.

Policy Issue 3: Lack of clarity in other definitions to secure scope of a group subject to Solvency II

9.35 In the presentation of this issue, "subsidiaries" over which a dominant influence is exercised are called in this section "influenced subsidiaries" hereafter. An influenced subsidiary can either (i) belong to a group defined by the establishment of strong and sustainable relationships characterized by a dominant influence through a centralised coordination (Article 212 (1) (c) (ii)) or (ii) belong to a group because a supervisory authority has taken a decision to consider the effective exercise of a dominant influence from an undertaking to another (Article 212 (2)).

9.36 First of all, it is unclear that "subsidiaries" and "participations" of "influenced subsidiaries" are included in the scope of the group. Indeed:

- A subsidiary of an "influenced subsidiary" does not necessarily fulfil at least one of the criteria in order to be considered as the subsidiary (within the meaning of Directive 83/349/EEC) of the undertaking which exerts a dominant influence. Therefore, it cannot be considered as within scope of the group, according to the current Solvency II definitions.
- Similarly, an undertaking which exerts a dominant influence and has no direct ownership nor any ownership by way of control, of 20% or more of the voting rights or capital of the participation of the "influenced subsidiary". Consequently, the participation of the "influenced subsidiary"

cannot be considered as a participation of the undertaking which exerts a dominant influence according to the Solvency II definitions.

9.37 In case of joint subsidiaries and participations held by "influenced subsidiaries" of the same undertaking which exerts the influence, it is unclear whether percentages of control shall be added up. In the case where the percentages cannot be added up, the undertakings, which are jointly held by "influenced subsidiaries" of a unique parent undertaking may not necessarily belong to the group.

9.38 It is unclear if sub-paragraphs (i) and (ii) of the definition of group in Article 212 (1) (c) of the Solvency II Directive are exclusive or not as noted at least by two supervisory authorities. Indeed:

- Assuming that subsidiaries of an "influenced subsidiary" can be considered as subsidiaries (see paragraph 9.35, subsidiaries of an "influenced subsidiary" could be considered as part of the group in accordance with subparagraph (i) of Article 212(1)(c). However, this would require that both subparagraphs (i) and (ii) of the definition are used, while at present it can be interpreted that they are mutually exclusive based on the current drafting of Article 212(1)(c) of the Solvency II Directive. Therefore, there is a need for clarification in that regard (e.g. that the connecting word "or" should be removed in between the sub-paragraphs (i) and (ii) to indicate that those sub-paragraphs are not mutually exclusive; and that it should also be understood that there is no change proposed regarding the two sub-points under sub-paragraph (ii)).

9.39 Finally, undertakings, which are linked to each other by a relationship as set out in Article 12(1) of Directive 83/349/EEC on Consolidated Accounts, which is referred to in Article 212 of the Solvency II Directive can hold subsidiaries and participations. According to the definition of groups pursuant to Article 212(1) of the Solvency II Directive, only the subsidiaries and participation of the undertaking which is considered as head of group can be considered as belonging to the group, not the subsidiaries and participations of the undertaking which is linked to the undertaking considered as head of group. In the case where both linked undertakings own subsidiaries and participations or in the case where the jointly own subsidiaries and participations, the scope of the group is unclear. Therefore, it is recommended to clarify the definition of groups formed of undertakings linked to each other and whether their subsidiaries and participations hold alone or jointly, are included.

9.3.1.5 Analysis and Policy Options

Policy Issue 1: – Lack of clarity in Article 212 of the Solvency II Directive in level 2 regarding the definitions that support the identification of a group to capture undertakings, which, together, form a de facto group, upon supervisory powers

Policy Option 1: No Change

9.40 No change does not help with current issues as challenges with identification of a group under the current criteria remain, therefore, precluding an effective group supervision on undertakings which together, form a de facto group.

9.41 Solo supervision focuses on the risks of a solo undertaking while group supervision focuses on the risks derived from group activities and the risks posed by interconnections between the undertakings which together constitute a group. Therefore, a consolidated view is important and group supervision will bring added value. Group supervision supports the protection of policyholders.

9.42 In situations where undertakings form together a de facto group, means that there is no clear visibility of the overall risks and interconnectedness between such undertakings, the interdependencies and the flows of capital, as well as potential double gearing.

9.43 If clarifications on the definitions are not brought into the regulation it would be very difficult or almost impossible to apply group supervision by supervisors for the cases noted.

Policy option 2: To clarify Article 212 of the Solvency II Directive in level 2 regarding the definitions that support the identification of a group to capture undertakings, which, together, form a de facto group, upon supervisory powers

9.44 For horizontal groups, Article 212 of the Solvency II Directive could be amended to allow the supervisory authorities to consider as undertakings linked to each other the undertakings which, in the assessment of the supervisory authorities (and not necessarily on the basis of a contract), are effectively managed on a unified basis.

9.45 The regulatory framework should provide a definition or general understanding of what is meant by 'centralised coordination' in paragraph (1)(c)(ii) of Article 212 of the Solvency II Directive. It should also be noted in the opinion that centralised coordination is part of the overall analysis of dominant influence independently from the type of undertakings involved.

9.46 There is also a need for the framework to define criteria for considering when undertakings are linked to each other. In that regard, in the case of undertakings linked to each other, the regulatory framework should also provide for criteria, which shall be used to identify the undertaking, which is responsible for group supervision requirements.

9.47 It is also advised to revise the criteria for considering that an undertaking exercises a dominant influence over another one (laid down in GL 1 of EIOPA Guidelines on the treatment of related undertakings), pursuant to paragraph (2) of Article 212 of the Solvency II Directive and bring such criteria to a legislation (level 2).

9.48 It is also advised to clarify in the regulatory framework that the exercise of a dominant influence within the meaning of paragraph (1)(c)(ii) of Article 212 does not necessarily fulfil the same criteria as the exercise of a dominant influence within the meaning of paragraph (2) of the same article (where paragraph (1)(c)(ii) involves various elements including dominant influence while paragraph (2) focuses only on dominant influence and where it is indicated that supervisory authorities shall "also" consider the content of paragraph 2 in addition to the content of paragraph 1).

Policy Issue 2: Need to facilitate the application of group supervision under Article 213 of the Solvency II Directive in the case of horizontal groups, groups with multiple points of entry in the EEA, and multiple groups held by the same individual or legal entity

Policy Option 1: No Change

9.49 No change does not help with current issues and uncertainty regarding the application of group supervision. In particular, in cases where it is not always possible to correctly identify a group and / or to apply group supervision.

9.50 A no change also means that risks derived from horizontal groups, groups with multiple points of entry in the EEA and multiple groups held by the same individual or legal entity would not be managed from a group's perspective, in particular if there is no specific designated undertaking to exercise supervision under it and which is responsible for group supervision requirements.

Policy Option 2- To provide supervisory authorities to require their supervised undertakings, to structure in such a way, which enables the relevant supervisory authority to exercise group supervision, in particular in cases where the group supervision would not be applicable otherwise.

9.51 To provide supervisory authorities to require their supervised undertakings, to structure in such a way, which enables the relevant NSA to exercise group supervision, in particular in cases where the group supervision would not be applicable otherwise. This will assist supervisory authorities dealing with some of the practical supervisory cases encountered and described in the identification of the issue.

9.52 To ensure a consistent use of such powers at EU level, in the case of cross-border groups, other supervisory authorities concerned and EIOPA should be consulted as part of the process. This in line with similar requirements in the framework for other financial sectors.

9.53 Within this framework, the supervisory authorities should be allow to require the establishment of an EU holding company where necessary (similarly to the possibility allowed in Article 262 of the Solvency II Directive) or the establishment of an undertaking that exercises centralized coordination and dominant influence as laid down in art 212 (1) (c) (ii). This is subject to a clear supervisory judgment on a case by case basis. In cases where the group supervisor is not the supervisor of the designated entity (this could be happening if the designated entity is a holding company), both should cooperate to exercise supervision under it.

Policy Issue 3: Lack of clarity in other definitions to secure scope of a group subject to Solvency II

Policy Option 1: No Change

9.54 No change does not help with current issues and uncertainty regarding the scope of groups. Not clarifying the regulations limit the ability from supervisors from exercising effective group supervision and jeopardises the level playing field.

Policy Option 2: Clarify the definitions of subsidiary, parent undertaking, control, participation and the definition of groups, to secure the scope of existing groups

9.55 The definition of groups under Solvency II uses the accounting provisions as a first reference. It is also acknowledged that the accounting provisions referred to in the Solvency II framework may link to various regulations (e.g. Directive 83/349/EEC which has been repelled since 2013 by EU Directive 2013/34/EU of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings; and Regulation (EC) No 1606/2002 of 19 July 2002 which adopts the international accounting standards (IFRS) in the EU). It is worth noting that the references to the Accounting Directive have different purposes and context in Article 212(1) of Solvency II than the general reference to the IFRS in Article 9(1) of the Delegated Regulation. On one hand Solvency II relies on the definitions of the Accounting Directive and on the other hand it requires insurers to recognize assets and liabilities in accordance with the IFRS. Therefore, there is a clear demarcation between the application of the Accounting Directive and the IFRS for Solvency II purposes. Further, it is also the understanding is that Directive 2013/34/EU focuses on providing clarity and comparability of financial statements, other than IFRS.

9.56 Solvency II provisions are then considered on top to specific accounting provisions quoted in the Solvency II framework (e.g. the identification of a dominant influence by the supervisor). Considering that the accounting provisions and Solvency II serve specific purposes, it is natural that some uncertainties may arise from the interactions of those different sets of rules as regards the definition of the group. For this reason, some elements of the definitions should be amended to clarify the scope of groups subject to the Solvency II framework.

9.57 The suggestion made by stakeholders in the responses to the consultation paper about no need for policy changes to the scope of the group and having the same "consolidation perimeter" both under Solvency II and the accounting frameworks would not possible as Solvency II focuses on effective and efficient risk management and the setting of adequate prudential requirements on groups as defined and subject to Solvency II. The scope of groups subject to consolidated financial statements may be different from the scope of group supervision[186] under Solvency II. For instance, Article 214 of the Solvency II Directive provides for exclusions from the group supervision, while Article 229 of the Solvency II Directive provides for deductions from the own funds eligible for the group solvency.

9.58 Furthermore, the concept of consolidated data under Solvency II is not identical to the concept of consolidated accounts used for the preparation of the consolidated financial statements. The Solvency II consolidated data takes into account Solvency II definitions and principles, and it requires certain adjustments in order to calculate the group solvency requirements according to Method 1.

9.59 EIOPA is of the view that clarity is needed in relation to other definitions outlined in the Solvency II Directive and possible interactions with other European regulations to ensure a level playing field through sufficiently harmonised rules as well as an effective and efficient supervision of groups and cross-border business.

[186] To assess the differences regarding the scope of the group between Accounting and Solvency II regimes, the group SFCR should include in template S.32 which provides details of the undertakings included in the scope of group supervision as well as the method used to incorporate the various undertakings in the group solvency requirements. Furthermore, to support the analysis and understanding of differences, the group SFCR should explain the material differences between the scope of the group used for the consolidated financial statements and the scope for the consolidated data determined in accordance with Article 335 of the Delegated Regulation (EIOPA Guideline on reporting and disclosure - Guideline 14 – Information on the scope of the group).

9.60 Policy option 2 is the preferred choice and seeks to ensure that the scope of the group is secured in all relevant cases, the policy option in particular intends:

- to clarify that sub-paragraphs (i) and (ii) in Article 212(1)(c) are not mutually exclusive
- to clarify that subsidiaries and participations of undertakings over which a dominant influence is exerted are within the scope of the same group as the undertaking which exerts the dominance influence
- to clarify that percentages of control and of ownership can be added up for joint subsidiaries and joint participations when these joint subsidiaries and joint participations are held by undertakings over which a dominant influence is exerted by a unique undertaking.
- to clarify that, in the case of groups defined by undertakings which are linked with another by a relationship as set out in Article 12(1) of Directive 83/349/EEC, subsidiaries and participations of each of these linked undertakings are also part of the group.

9.3.2 Definition of Insurance Holding Companies and other challenges related to Insurance holding companies and Mixed financial holding companies

9.3.2.1 Extract from the call for advice

> ***3.14. Group supervision***
>
> *EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*
>
> - *the scope of application of group supervision and the supervision of intra-group transactions, including the supervisory powers in cases where the parent company is headquartered in a non-equivalent third country;*

9.3.2.2 Relevant legal provisions

9.61 Article 212(1)(f) of the Solvency II Directive: definition of an insurance holding company.

9.62 Article 214 of the Solvency II Directive: scope of group supervision.

9.3.2.3 Other regulatory background

9.63 Article 4 of the Regulation (EU) 575/2013 of 26 June 2013 on prudential requirements for credit institutions and investment firms, regarding the definition of 'mixed activity holding company' which is defined as a parent undertaking, other than a financial holding company or an institution or a mixed financial holding company, the subsidiaries of which include at least one institution;

9.64 A question in relation to the definition of 'financial holding company'[187] in banking supervision contained in Regulation (EU) No 575/2013 (CRR) as amended was raised via the EBA Q&A tool seeking to clarify when a group of entities (of which at least one is an institution) consists of mainly institutions or financial institutions. The EBA was asked to provide more guidance on what is meant with 'mainly'. Subsequently, the definition of financial holding company was amended to read as follows in the CRR 2: '*financial holding company' means a financial institution, the subsidiaries of which are exclusively or mainly institutions or financial institutions, and which is not a mixed financial holding company; the subsidiaries of a financial institution are mainly institutions or financial institutions where at least one of them is an institution and where more than 50% of the financial institution's equity, consolidated assets, revenues, personnel or other indicator considered relevant by the competent authority are associated with subsidiaries that are institutions or financial institutions*'

9.65 Article 21a of the Capital Requirements Directive V (CRD)[188] - (EU) 2019/878 amending Directive 2013/36/EU as regards exempted entities, financial holding companies, mixed financial holding companies, remuneration, supervisory measures and powers and capital conservation measures

9.66 Article 3 of the Directive 2002/87/EC on the supplementary supervision of credit institutions, insurance undertakings, and investment firms in a financial conglomerate ('FICOD'), which refers to the use of the ratio of the balance sheet of the regulated and non-regulated financial sector entities in the group to the balance sheet total of the group as a whole should exceed 40%, this as an indicator for the purpose of determining whether the activities of a group mainly occur in the financial sector.

9.67 Article 17 of the Directive 2002/87/EC ('FICOD') states that supervisory authorities shall have the power to take any supervisory measure deemed necessary in order to avoid or to deal with the circumvention of sectoral rules by regulated entities in a financial conglomerate.

[187] The previous version of the definition of a 'financial holding company' contained in the CRR has read as "a *financial institution, the subsidiaries of which are exclusively or mainly institutions or financial institutions, at least one of such subsidiaries being an institution, and which is not a mixed financial holding company."*

[188] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019L0878&from=EN

9.3.2.4 Identification of the issue

Policy Issue 1: Article 212 of the Solvency II Directive does not provide additional explanation of the meaning of 'exclusively or mainly' in the definition of IHC.

9.68 Article 212 of the Solvency II Directive does not provide additional explanation of the meaning of 'exclusively or mainly' in the definition of IHC. This can cause inconsistencies in the application of Article 212(1)(f) and (g) and lead to an unlevelled playing field and supervisory convergence issues as first noted in EIOPA's report on Article 242(2) of the Solvency II Directive. Based on data collated from supervisory authorities at least 5 of 28 member states have encountered issues with how the main business of the holding company is classified. It is also worth noting that some of the supervisory authorities that indicated not having issues have no groups under their supervision, and those responsible for group supervision have either implemented national regulation to address the regulatory gap and/or introduced a supervisory criteria for the assessment. Not having a level playing field is significant on how group supervision can be exercised (see further in the analysis section under heading 9.3.2.5).

Policy Issue 2: Article 214(1) of the Solvency II Directive and powers over insurance holding companies and mixed financial holding companies.

9.69 Article 214(1) of the Solvency II Directive states that the fact that a holding company (IHC, MFHC, MAIHC) is considered as part of the scope of group supervision does not mean that these holdings are subject on a stand-alone basis to individual supervision, except for the application of Article 257 of the Solvency II Directive which refers to fit and proper requirements. However, the reading of Article 214(1) of the Solvency II Directive is not as clear as Articles 218, 219 and 235 of the Solvency II Directive which contain explicit requirements for adequate capital at group level, and Article 257 on governance requirements. It is acknowledged that Article 219 of the Solvency II Directive which refers to frequency of calculation of group solvency outlines that (re)insurance undertakings, IHC and MFHC shall monitor the group SCR on an on-going basis and that the group supervisor shall ensure that the group solvency calculation referred in Article 218 of the Solvency II Directive are carried out annually by the participating (re)insurance undertaking or by the IHC or the MFHC, however this does not give direct supervisory powers over these holding companies (ICH, MFHC). The assumption is that these requirements on these holdings can be fulfilled by a supervised subsidiary in the group, however this will not be possible if it is not empowered to ensure compliance with the group requirements and has no responsibility for the group governance requirements.

9.70 In some Member States group requirements cannot be upheld towards the holding company (IHC, MFHC) of the group due to the strict transposing Article 214(1), in other member states their national legislation did implement group requirements for holding companies, while in others there are requirements for IHC and MFHC but no sanctions due to a strict implementation of Article 213 and 214(1) of the Solvency II Directive in that group supervision takes place at the level of the insurance undertaking.

9.3.2.5 Analysis

Policy Issue 1: Article 212 of the Solvency II Directive does not provide additional explanation of the meaning of 'exclusively or mainly' in the definition of IHC.

9.71 The issues concerning the definition of holding companies (IHC, MAIHC) are causing inconsistencies in the application of Article 212(1)(f) and (g) of the Solvency II Directive leading to supervisory convergence matters. For example, if an IHC is identified, the group would be subject to full group supervision including capital requirements, governance and reporting. If a MAIHC is identified only the IGTs are reported, leading to unlevelled playing field compared to the reporting requirements applicable to IHC.

9.72 For that reason, some supervisory authorities have introduced certain criteria to be used when determining whether an undertaking can be identified as an IHC. For example, some supervisory authorities examine the proportion of the consolidated balance sheet that is represented by the insurance undertakings. In order to determine whether an undertaking is considered to be an IHC a range of thresholds is used. These thresholds used vary, with the most common being used of 50% of the consolidated balance sheet. Such divergent practices may result in potential competitive disadvantages for certain groups depending on the interpretation by the group supervisor and/or national transposition issues. It is also noted that limiting the criteria for the purpose of identifying an IHC only to the number of subsidiaries only is not representative and other aspects, such as the size of the balance sheet of insurance companies in the group/and or other parameters, should be also considered.

9.73 Based on the data collated for the EIOPA’s report on Article 242(2) of the Solvency II Directive as well as the most recent data discussed for the Solvency II 2020 review, the interpretation of the definition of MAIHC for most supervisory authorities follows Article 212(1)(g)). This means that any other parent undertaking that is not listed in Article 212 as an IHC or a MFHC would be by default defined as a MAIHC. Saying that, in some member states, this would also mean that a regulated entity such as a credit institution could be defined as a MAIHC due to their national legislation.

9.74 The main distinction between IHC and MAIHC is how the main business of the holding company is classified. Therefore, any degree of ambiguity with the definition of the MAIHC should improve by setting a clear criteria in the definition of an IHC. The policy advice on IHC will create more certainty of what holdings should be categorised as IHC and any scope for interpreting the definition of a MAIHC would be limited by default.

9.75 A few stakeholders noted in the comments the need to indicate how the issue with the definition on MAIHCs will be resolved. A stakeholder suggested to use a similar criteria as the one provided in Article 3 of the Directive 2002/87/EC ('FICOD') to determine whether the activities in a group are significant within a particular sector (regulated vs. non-regulated entities). This could be an option, however it may increase complexity to the existent definition of MAIHCs.

9.76 EIOPA is of the view that there is no need to upgrade the definition in Article 212(1)(g) as long as the policy advice on the definition of IHCs is adopted, in particular as the most significant issue is with the definition of the IHC, and the definition of MAIHCs follows a residual approach.

Policy Issue 2: Article 214(1) of the Solvency II Directive and powers over insurance holding companies and mixed financial holding companies.

9.77 The issues concerning the interpretation of Article 214(1) of the Solvency II Directive are causing inconsistencies in the application of group requirements to holding companies leading to ineffective supervision and supervisory convergence issues as whether the holding of the insurance group is under supervision depends on the local law.

9.78 Several supervisory authorities reported in the Solvency II 2020 Data Request issued via the survey to supervisory authorities have no supervisory powers towards top holdings of insurance groups at all, others reported to supervise subsidiaries of groups originating in other countries where the group supervisor did not have adequate supervisory powers over holding companies. One supervisory authority reported that according to their national law the insurance group decides which entity in the group scan be approached and is responsible for the group requirements, another supervisory authority experienced group responsibilities for group requirements are scattered over the group and the entity or these entities do not have the seniority nor the powers within the group to be adequately informed if the requirements are fulfilled nor for compliance from their sister companies or the group holding. See also the EIOPA Report to the EC on Group Supervision and Capital Management with a Group of Insurance or Reinsurance Undertakings and FoS and FoE under Solvency II, EIOPA-BoS-18-485, 14 December 2018.

9.3.2.6 Policy Options

Policy Issue 1:_Article 212 of the Solvency II Directive does not provide additional explanation of the meaning of 'exclusively or mainly' in the definition of IHC.

Option 1 – No Change

9.79 Not clarifying the definition of IHC in Article 212(1) of the Solvency II Directive will lead to continued unlevelled playing field.

9.80 Developing guidelines which would provide further details on the criteria to be considered for the purpose of identifying an IHC could be a softer tool, however, given the regulatory gaps identified and mentioned in the previous paragraphs, the guidelines, due to its legal nature and scope cannot address gaps of a regulatory nature. Therefore, an effective solution to support a level playing field would be better addressed in legislation (Level 2).

Policy Option 2 – To clarify the term "exclusively" or "mainly" used in the definition of IHC contained in Article 212(1(f) of the Solvency II Directive

9.81 To provide further clarity on the term "exclusively" or "mainly" used in the definition of IHC contained in Article 212(1)(f) of the Solvency II Directive so that it should be understood to refer to a situation where more than 50% of the total of the balance sheet of the holding company or another indicator (i.e. the solvency capital requirement, equity, personnel, etc.) deemed relevant by the national supervisory authority, is derived from the insurance sector (including third country insurance undertakings).

9.82 This option, while providing further clarity with a view to support the identification of an IHC, would also allow some level of flexibility for supervisors to take into account, in certain circumstances, other criteria, which would be more relevant for the purpose of identification of IHC. In that regard if the 50% threshold based on the total balance sheet of the holding company is not reached, other criteria could be used to support the assessment (i.e. the solvency capital requirement, equity, etc.).

Policy Issue 2: Article 214(1) of the Solvency II Directive; and powers over insurance holding companies and mixed financial holding companies

Policy Option 1: No Change

9.83 No change does not help with current issues and uncertainty regarding the lack of clarity of the current wording of Article 214(1) of the Solvency II Directive.

Policy Option 2: Amend the wording of Article of the 214 (1) Solvency II Directive to allow supervision and enforcement on the top IHC or MFHC of the group and to request of a structural organisation that enables group supervision at holding level or at another level in the group where necessary

9.84 Wording of Article of the 214 (1) Solvency II Directive should be amended to allow supervision and enforcement of powers over the top IHC or MFHC of the group (excluding MAIHC) or to request the holding to ensure a corporate structure and structural organisation that enables group supervision, even if it applies at another level in the group where necessary.

9.85 The supervisory powers requested for supervisory authorities are to be applied on a case by case basis, and are deemed to be in line with other supervisory powers available in the legislative framework for other financial sectors (see Article 17 of the Directive 2002/87/EC (FICOD), and Article 21a of the Capital Requirements Directive V (CRD). Supervision and enforcement on these holdings are a must considering the impact that can be generated to policyholders and shareholders for failing to have adequate supervisory powers.

9.86 To ensure a consistent use of such powers at EU level, in the case of cross-border groups, other supervisory authorities concerned and EIOPA should be consulted as part of the decision process.

9.87 It is also recommended that the group supervisor should have appropriate and effective supervisory powers to be applied and enforced against such holding companies. The powers referred to in the previous paragraph granted to supervisors should include at least one of the following:

- suspending the exercise of voting rights attached to the shares of the subsidiary insurance or reinsurance undertaking held by the insurance holding company or mixed financial holding company;
- issuing injunctions or penalties against the insurance holding company, the mixed financial holding company or the AMBS of that holding company;
- giving instructions or directions to the insurance holding company or mixed financial holding company to transfer to its shareholders the participations in its subsidiary insurance or reinsurance undertakings;
- designating on a temporary basis another insurance holding company, mixed financial holding company or insurance or reinsurance undertaking within the group as responsible for ensuring compliance with the requirements set out in Articles 218 to 246 of the Solvency II Directive;
- restricting or prohibiting distributions or interest payments to shareholders;

- requiring insurance holding companies or mixed financial holding companies to divest from or reduce holdings in insurance or reinsurance undertakings or other financial sector entities;
- requiring insurance holding companies or mixed financial holding companies to submit a plan on return, without delay, to compliance.

9.3.3 Article 214(2) of the Solvency II Directive - Exclusion from the scope of group supervision

9.3.3.1 Extract from the call for advice

3.14. Group supervision

EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:

- *the scope of application of group supervision and the supervision of intra-group transactions, including the supervisory powers in cases where the parent company is headquartered in a non-equivalent third country;*

9.3.3.2 Previous advice

9.88 EIOPA answer to Q&A 485[189] states that "the possibility to exclude an undertaking from the scope of group supervision provided in Article 214(2) is an option which can be exercised by National Supervisory Authorities at their sole discretion, based on their assessment whether the criteria mentioned in this Article are fulfilled"; and also expresses "in case the decision to apply Article 214(2) has a consequence of non-applying group supervision, the underlying circumstances and the validity of such a decision should be monitored on a regular basis. The above approach is in line with the proportionality principle. Depending on the nature, scale and complexity of the risks of the group, the group supervisor considers the proportionality principle in the application of group supervision".

9.3.3.3 Relevant legal provisions

9.89 Article 214(1) and(2)of the Solvency II Directive –scope of group supervision

9.3.3.4 Identification of the issue

9.90 The possibility to exclude an undertaking from the scope of group supervision provided in Article 214(2) of the Solvency II Directive is an option, which can be exercised by supervisory authorities, based on their discretionary

[189] https://www.eiopa.europa.eu/content/485_en?source=search

assessment provided that the criteria mentioned in Article 214(2) are fulfilled. However, in accordance with Article 213(1) of the Solvency II Directive, Member States shall provide for supervision of insurance groups. For that reason the supervisory authorities are recommended not to exclude an undertaking from the scope of the group supervision when it leads to a waiver of the group supervision, especially on the basis of justification that this undertaking is of negligible interest with respect to the objectives of group supervision.

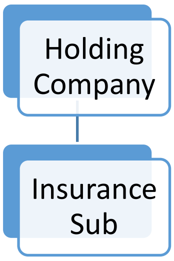
9.91 However, in practice different interpretations and supervisory approaches regarding the exclusion of a company from the scope of the group supervision are observed (see Issues 1 and 2 below) and this results in some degree of inconsistencies between the Member States as different conclusions can be reached based on the supervisory processes and supervisory judgment that is applied. The issues on Article 214(2) of the Solvency II Directive was also identified in EIOPA's 2018 report on Article 242(2) of the Solvency II Directive, and although the initial cases identified relate to different practices, it is also observed from the discussions with supervisory authorities that some of the different practices are derived from lack of clarity on the current Solvency II framework.

Policy Issue 1: Exclusion of undertakings from the scope of group supervision, which can lead to complete absence of group supervision or application of group supervision at a lower / intermediate level in the group structure

9.92 The following cases are considered based in the experiences shared by supervisory authorities:

Case 1: Exclusion of holding company; leading to complete absence of group supervision.

Group structure concerned:

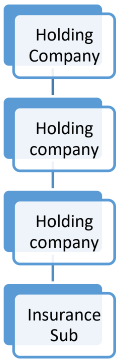


9.93 For the group structure presented above, the exclusion of the Holding Company would lead to complete absence of group supervision, an outcome that cannot be justified as "negligible". A holding company in such a structure fully controls the insurance subsidiary and even if it is presenting itself as a passive investor, the fact that it only holds an insurance company outlines its interest in extracting as much financial benefit as possible from its only economic activity. These interests may be at odds with those of the insurance subsidiary policyholders and group supervision needs to be applied in order to ensure that the policyholder interests are adequately protected.

9.94 From the market perspective, it is observed that when private equity firms using a leveraged buyout Model structure (LBO), an empty shell (commonly outside the EEA) is generally created using bank debt, in order to invest in the insurance subsidiary. This could create pressure on the insurance subsidiary to generate sufficient cash flows to service such debt. As a result, in many cases, insurance companies can become "over-leveraged" and they may not in position to generate sufficient cash flows to service their debt. This in turn can lead to illiquidity and insolvency. In that regard, while it may be the case that it is a simple group structure with only two companies, the need for the application of group supervision is still highly desired on the basis of the pressure associated with high dividend and coupon payments.

Case 2: Exclusion of holding company; leading to application of group supervision at a lower / intermediate level in the group structure.

Group structure concerned:



9.95 The instances, where a holding company was excluded from the scope of group supervision on the basis of Article 214(2) of the Solvency II Directive, decisions were mostly based on the size of the holding company and the negligible interest it represented in relation to the objectives of group supervision (Article 214(2)(b)). For example, where the holding company was only holding of shares and its only activity consisted of the collection and distribution of dividends without any other intragroup activity, it was considered that such holding company had no significant interest for the purposes of group supervision. This situation is particularly plausible where an intermediate entity in the group is known (or proven) to actively manage the insurance activities in the group.

9.96 Some cases where holding companies at the top of the group were exempted from the scope of the group and as a result the group solvency is applied at the next level were also observed. This potentially could lead to substantial capital relief for the group SCR, which is then calculated at sub-holding level in those cases were the top holding is not the entire owner of the group. In that regard, the criterion for exemption of the scope of supervision in such cases should be further clarified and developed.

9.97 In another case, a third country group has a sub-holding in the EEA, but this holding is out of the scope of supervision as it has other non-insurance activities and is not the parent of the EEA licenced insurance company. Business in the other EEA member states are provided via a third country branch set up in the same Member State as the subsidiary. In the opinion of supervisory authorities and EIOPA, such a construction poses a challenge on the efficient and effective application of group supervision in the EEA.

Policy Issue 2: Negligible interest (Article 214(2)(b) of the Solvency II Directive) vs. achieving the objectives of group supervision.

9.98 It was also noted that there can be some different interpretations as to what "negligible interest" with respect to the objective of group supervision (as laid out in Article 214(2)(b)) of the Solvency II Directive means. In some cases the assessment of negligible interest was limited only to comparing the size of the entity potentially subject to exclusion with the size of the group. This, however, is not the only factor that should be considered in such assessment.

9.99 Several cases of exclusion of the top holding in the EEA were also reported by supervisory authorities. In some circumstances the supervisory authority qualified the holding as of negligible interest for group supervision under Article 214(2)(b) of the Solvency II Directive based on the discussion with the group. In many of these cases, the holding excluded from supervision was a stock company holding the majority of the shares of a former mutual company. In all these cases the result was a change in the level of group supervision to the next sub-holding in the group structure, however in most cases such sub-holdings were 'empty shells' with no AMSB, and no insurance activities which led to group supervision taking place at the level of the direct subsidiary of the former mutual holding. In other cases, it led to waiving the establishment of a college of supervisors. While in other cases, the application of Article 214(2)(b) of the Solvency II Directive resulted in waiving group supervision.

9.100 EIOPA was also approached by an insurance undertaking who argued that based on its observations supervisory authorities set different standards for excluding holdings from group supervision and there with sometime triggering a much lower SCR requirements for those groups whose holding company does not own the 100% of the insurance subsidiaries. This leads to an unlevel playing field for insurers supervised by supervisory authorities with a different interpretation of the meaning of 'negligible interest'.

9.101 Similar cases were encountered by supervisory authorities as detailed in EIOPA's 2018 report on Article 242(2) of the Solvency II Directive (please refer to pages 88 to90 of that report) which are a clear indication that the issue is due to the interpretation of what is to be considered as 'negligible interest'.

9.3.3.5 Analysis

Policy Issue 1: Exclusion of undertakings from the scope of group supervision, which can lead to complete absence of group supervision or application of group supervision at a lower / intermediate level in the group structure.

9.102 Article 214 of the Solvency II Directive should be clearer in stating that the exclusion of one or more entities from the scope of group supervision on basis of negligible interest cannot lead to a situation where such decision results in complete absence of for group supervision.

9.103 The criteria for exemption from the scope of supervision under Article 214(2) of the Solvency II Directive would benefit from further clarity. Also, further a level playing field through sufficiently harmonised rules could be achieved by introducing a practice where EIOPA is consulted before the final decision for exemptions are taken by the supervisory authorities.

9.104 In relation to the impacts noted of potential capital relief deriving from the exclusion of top holding company, a convergent application of Article 214(2)(b) of the Solvency II Directive should be better assured by a process in which EIOPA is consulted before the final decision for exemptions are taken by the NSA. This will lead to adequate risk sensitive capital requirements as well as effective and efficient supervision of groups.

Policy Issue 2: Negligible interest (Article 214(2)(b) of the Solvency II Directive) vs. achieving the objectives of group supervision.

9.105 The assessment for the purpose of exclusion from the scope of group supervision on the basis of negligible interest should not be only limited to comparing the size of the entity potentially subject to exclusion with size of the group. It should also take into account other factors, for example, impact on group solvency, intragroup transactions or financing, etc. Also, the supervisory authorities may not exclude undertakings if they are collectively of non-negligible interest and the supervisor should check if any undertakings belonging to the group have already been excluded from group supervision under Solvency II. If undertakings have already been excluded, the supervisory authorities is recommended to assess whether the additional exclusions would create a non-negligible interest. There are clear cases where the outcome is different in similar situations as well as where the exclusion would lead to an absolute absence of group supervision.

9.3.3.6 Policy Options

Policy Issue 1: Exclusion of undertakings from the scope of group supervision, which can lead to complete absence of group supervision or application of group supervision at a lower / intermediate level in the group structure.

Policy Option 1 – No Change

9.106 No change in the regulatory framework would maintain the quo status.

Policy Option 2- Reinforce documentation and monitoring requirements in case of exclusions by introducing a clearer principle on the exclusion from group supervision

9.107 To introduce an overall principle in the Solvency II Directive on the exclusion from group supervision to ensure that exceptional cases as well as cases of potential capital relief are adequately justified, documented, monitored and all relevant parties in the decision are also involved in the process. It is proposed to introduce a principle in the Solvency II Directive stating the exclusion should not "normally" result in complete absence of group supervision. The exclusion of undertakings can lead to absence of group supervision in very exceptional cases only after consulting EIOPA and any relevant supervisory authorities and should be subject to continuous monitoring.

9.108 It is also proposed that in case of potential capital relief deriving from the exclusion of top holding company a convergent application of Article 214 (2)(b) of the Solvency II Directive should be better assured by a process in which EIOPA is consulted before the final decision for exemptions are taken by the supervisory authority.

Policy Issue 2: Negligible interest (Article 214(2)(b) of the Solvency II Directive) vs. achieving the objectives of group supervisions

Policy Option 1 – No change

9.109 No change in the regulatory framework would maintain the lack of clarity which leads to an unlevel playing field and to the consequences noted in the identification and analysis of the issue.

Policy Option 2 – To provide criteria to be considered for the purpose of assessing "negligible interest"

9.110 The assessment of "negligible interest" with respect to the objective of group supervision should take into account at least the following criteria: the size of the entity potentially subject to exclusion when compared with the size of the group; the potential impact on group solvency; whether the related undertaking (other than a subsidiary) belongs also to another group as a subsidiary and is included in the scope of group supervision exercised over the other group; whether encompassing by the group supervision would lead to receiving the additional valuable information about the group (for example related but not subsidiary regulated entities).

9.3.4 Supervision of Intragroup Transactions (IGTs) and Risk Concentrations (RCs)

9.3.4.1 Extract from the call for advice

> ***3.14. Group supervision***
>
> *EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*
>
> - *the scope of application of group supervision and the supervision of intra-group transactions, including the supervisory powers in cases where the parent company is headquartered in a non-equivalent third country;*

9.3.4.2 Relevant legal provisions

9.111 Article 13(19) of the Solvency II Directive –definition of intra-group transaction.

9.112 Article 244 of the Solvency II Directive – supervision of risk concentrations.

9.113 Article 245 of the Solvency II Directive – supervision of intra-group transactions.

9.114 Article 265 of the Solvency II Directive on supervision of intra-group transactions where the parent undertaking of one or more (re)insurance undertakings is a mixed-activity insurance holding company (MAIHC).

9.3.4.3 Other regulatory background

9.115 In accordance with Article 2(18) of the FICOD 'intra-group transaction' means all transactions by which regulated entities within a financial conglomerate rely directly or indirectly on other undertakings within the same group or on any natural or legal person linked to the undertakings within that group by close links, for the fulfilment of an obligation, whether or not contractual, and whether or not for payment.

9.116 Under FICOD the Member States shall require regulated entities or mixed financial holding companies to report, on a regular basis and at least annually, to the coordinator all significant intra-group transactions of regulated entities within a financial conglomerate, in accordance with the rules laid down in this Article and in Annex II. The thresholds shall be based according to Annex II on own funds or technical provisions and before setting the threshold an intra-group transaction shall be presumed to be significant if its amount exceeds at least 5% of the total amount of capital adequacy requirements at the level of a financial conglomerate.

9.117 With regards to reporting thresholds for RCs, FICOD provides that until the entry into force of any regulatory technical standards adopted in accordance with Article 21a(1)(b), the opinion referred to in point (17)(c) shall, in particular, take into account the market share of the regulated entities of the financial conglomerate in other Member States, in particular if this share exceeds 5%, and the importance in the financial conglomerate of any regulated entity established in another Member State.

9.118 EIOPA's Q&A 490:

> Answer:
>
> "Intra-group transactions (IGTs) to be reported regularly in S.36.01, S.36.02, S.36.03, S.36.04, in accordance with Article 245 of the Solvency II Directive, should be those as defined in Article 13 point 19 of Directive 2009/138/EC, according to which IGT means "a transaction by which (re) insurance undertaking relies, either directly or indirectly on other undertakings…." and that are performed by insurance and reinsurance undertakings within a group. Therefore, only IGTs in which at least one insurance or reinsurance undertaking is involved, either directly or indirectly, are subject of reporting obligations under Article 245 of the Solvency II Directive.
>
> Information about the transactions which do not fall under the scope of the above mentioned definition may be requested in addition by the relevant supervisory authority on the basis of Article 254(2) of the Solvency II Directive, according to which supervisory authorities shall have access to any information relevant for the purpose of group supervision, regardless of the nature of the undertaking concerned".

9.3.4.4 Identification of the issues

Policy issue 1 - No inclusion in the current definition of IGTs of a reference to IHC, MFHC, MAIHC, and third country (re)insurance undertakings as one of the possible counterparties of the IGTs

9.119 The current definition of IGTs as provided in Article 13(19) of the Solvency II Directive does not explicitly include the reference to the Insurance Holding Companies (IHC), Mixed Activities Insurance Holding Companies (MAIHC) or Mixed Financial Holding Companies (MFHC) as one of the possible counterparties of the IGT as well as between other non-insurance undertakings part of the group supervision scope.

9.120 From a supervisory perspective, the lack of explicit reference to holding companies and other related parties as one of the possible counterparties is considered as a gap since it doesn't allow to capture clearly the information regarding IGTs that involve only holding companies and other related parties, for example when the group consists of a cascade of holding companies (with insurance subsidiaries at the bottom of the cascade). The information is deemed fundamental to understand the movements of capital and other resources within the group. Indeed, EIOPA underlines that according to Article 235 of the Solvency II Directive, holding companies should be considered, for the purpose of group solvency, as insurance or reinsurance undertakings.

9.121 The definition is also not including the reference to third country insurance and reinsurance undertakings in the scope of the group. This is considered another fundamental gap from a supervisory perspective, since the (re)insurance undertakings should be treated equally regardless of their location, EEA or not EEA, for the purpose of IGTs supervision.

9.122 Moreover, in case of third country groups with no EU group supervision the level of details provided on the IGTs is not the same as for the EU groups and the information provided depends on the third country supervisor and might not include relevant information for the major solo undertakings.

9.123 An additional issue relates to the interpretation and transposition in national law regarding the definition of mixed-activity insurance holding company (MAIHC) as to whether a MAIHC can be a regulated entity or not. In some Member States a regulated entity other than an insurance undertaking, for example a bank, can be identified as MAIHC, as defined in Article 212(1)(g) of the Solvency II Directive. It is justified with the fact that no explicit provision prevents a regulated financial undertaking from being a MAIHC as credit institutions are not excluded in this definition. In this case intra-group transactions should be monitored on the basis of Article 265 of the Solvency II Directive. However, there are other Member States that do not consider identifying a regulated entity other than an insurance undertaking as a MAIHC. The interpretation followed by these Member States is that only non-regulated entities can be identified as a MAIHC (following the definition of regulated entity under FICOD Article 2(14). In this case there is a risk that the group would not be subject to Solvency II and IGTs would not be monitored according to Article 265 of the Solvency II Directive.

9.124 Following from this, it is advised to clarify in the regulations that where a regulated entity from other financial sectors at the top of the group does not fall under the definition of a MAIHC, Article 265 of the Solvency II Directive also applies to these entities. This independently from the regulated entity (e.g. a bank) being subject or not to FICOD IGTs reporting.

9.125 Another issue relates to the case where a mixed-activity insurance holding company (MAIHC) is the head of a Financial Conglomerate, and where some jurisdictions replaced the Solvency II IGTs-reporting with a MAIHC by FICOD IGTs-reporting without making an assessment [e.g. the (insurance) group supervisor after consulting with other supervisory authorities concerned.] for waivers according to Article 213(3) of the Directive. As a result, the MAIHC, is subject to higher thresholds for the supervision of the conglomerate and thus considered of limited value from an insurance supervisory perspective. It should be noted that the insurance supervisor should still be in a position to monitor IGTs between the insurance undertakings and the bank, if it deems it necessary, and in conjunction with the FICOD supplementary supervision.

Policy issue 2 - Need for clearer criteria on the application of thresholds for IGTs and RCs

9.126 Thresholds for IGTs are set according to Article 245(3) in connection with Article 244(3) of the Solvency II Directive. The group supervisor based on the specific assessment of the significance of IGTs for a specific group and after consulting the other supervisory authorities concerned and the group, decides upon appropriate thresholds for the reporting by type of IGT. Thresholds are currently based on a limited number of variables: solvency capital requirements, technical provisions, or both. However, the nature, structure and complexity of a group might result in the necessity of different thresholds for different types of transactions.

9.127 The thresholds should also take into account the risk profile of the individual undertakings, such as the SCR of the individual (re)insurance undertakings, as IGTs can significantly affect the solvency and liquidity of an individual group member.

9.128 Thresholds for RCs are set according to Art 244(3) of the Solvency II Directive. Similarly to IGTs, thresholds should be based on solvency capital requirements, technical provisions, or both. When defining the thresholds, the group supervisor and the supervisory authorities concerned should take into account the specific group and risk-management structure of the group.

9.129 At present there is a lack of consistency in application of thresholds for IGTs and RCs among the supervisory authorities with different procedures and thresholds set up for each group for the identification and reporting of significant, very significant IGTs or IGTs to be reported in any circumstance as well as for significant RCs or RCs to be reported in any circumstance. Some common practices for IGTs include the use of relative thresholds based on the solvency capital requirement of the solo undertaking involved in the transaction (e.g. x% of the lowest solo solvency requirement of the undertakings involved in the transaction), while for RCs thresholds are based on the group solvency capital requirement. However, these thresholds differ, and in some cases they are not defined at all.

9.130 As a result, setting thresholds that too high or too low may impair the analysis of transactions or risk concentrations that can be important in understanding the overall risks of the group. Moreover, inadequate thresholds can lead to inadequate reporting and inefficient supervisory actions. Thresholds should be set in such a way that they are useful to supervisors in its role of protecting policy holders while at the same time no pose an excessive reporting burden for groups.

9.131 It is also noted that the current criteria for setting thresholds for IGTs reporting are limited, in accordance with Article 244(3) of the Solvency II Directive, to solvency capital requirements, technical provisions, or both. This can present potential issue in the cases of IGTs involving non-regulated entities considering that thresholds will be applied to a regulated undertaking. In the case where such undertaking has high SCR and /or technical provisions this may lead to a risk of not capturing all of the information necessary from perspective of the group supervisor. With regards to RCs where the most common practice is to use the group solvency capital requirement for the purpose of setting RCs thresholds, this can be not always relevant for all single risk exposures and combinations of risk exposures, which may arise in a group.

9.132 Additionally the threshold based on SCR and/or technical provision may result in unintended consequences, as the increase of these values will increase the threshold. This means that the higher the risks and/or the higher technical provisions will or could effect in lower number of transactions and/or exposures reported, which is not the aim of the reporting.

9.133 The introduction of additional criteria should cover not only a quantitative approach (as described above), but it is also recommended that it should include a qualitative criterion which is defined by the group supervisor on the basis of a risk based approach. The supervisor could define this as part of its supervisory risk approach where the nature, complexity of the business model of the group will be taken into consideration. For transparency purposes, the supervisory authority could disclose the overall approach it will follows on setting thresholds for groups under its supervision. This will facilitate groups understanding not only the process but preparing in advance of any reporting and disclosures related to IGTs and RCs.

9.134 A few practices may indicate that in certain cases it could be more efficient for the supervisory authority to request full reporting of IGTs as that could imply less work for a group (e.g. the group will not have to be concerned about the thresholds changing over time as they depend on quantitative variables that can fluctuate but it will work on the basis that all information will be reported). The policy options outlined would not prevent if such approach is deemed as the most suitable to deal with specific supervisory cases.

9.3.4.5 Analysis and Policy Options

Policy Issue 1: No inclusion in the current definition of IGTs of a reference to IHC, MFHC, MAIHC, and third country (re)insurance undertakings as one of the possible counterparties of the IGTs

Policy Option 1: No change of the current regulation.

9.135 No change. In this case, the definition included in Article 13(19) of the Solvency II Directive would remain limited to IGTs where at least one EEA insurance or reinsurance undertaking is involved, either directly or indirectly.

9.136 The information on IGTs, which do not fall under the scope of definition in Article 13(19) (i.e. transaction where one of the counterparty is a Holding Company or other related entity, or a third country insurance undertakings) can be requested by the relevant supervisory authority on the basis of Article 254 of the Solvency II Directive, according to which supervisory authorities shall have access to any information relevant for the purpose of group supervision, regardless of the nature of the undertaking concerned.

9.137 The current definition might affect supervisory convergence stemming from the divergent supervisory practices observed in closing the gap identified.

Policy Option 2: Amend the wording of Article 13(19) of the Solvency II Directive to include at least holding companies[190] *and third country (re)insurance undertakings as a possible counterparty to the transaction.*

9.138 This would allow the supervisor to have access to information also about transactions between holding companies or third country (re)insurance

[190] MAIHCs reporting on IGTs is already provided for under Article 265 of the Solvency II Directive, however where the regulated entity from other financial sectors at the top of the group does not fall under national law in the definition of a MAIHC, Article 265 applies to those entities. Hence, MAIHCs are kept under the scope of the title of this policy option in conjunction with IHC, MFHC.

undertakings and any other entity of the group, which would be a counterparty to such transaction.

9.139 Amend Article 13 (19) of the Solvency II Directive to include at least any transaction by which a (re)insurance undertaking, third country (re)insurance undertaking, insurance holding company, mixed financial holding company relies, either directly or indirectly, on other undertakings within the same group or on any natural or legal person linked to the undertakings within that group by close links, for the fulfilment of an obligation, whether or not contractual, and whether or not for payment. The supervisory authorities may add further type of counterparties based on their supervisory needs.

Policy Option 3: Enlarge the IGT definition to any transaction among all undertakings within the group (i.e. including ancillary services, etc.)

9.140 The enlargement of the definition to any kind of IGTs, which can include also transactions that have no impact on (re)insurance undertakings of the group (e.g. transaction between entities belonging to other sectors) can provide the group supervisor with an overall picture of all main transactions within the group. The downside however, is that it could be very burdensome for the group to provide such information, while not being very efficient from a supervisory perspective.

9.141 To reduce the reporting burden, the group supervisor in cooperation with the other supervisors, could eventually define separate thresholds for the different kind of transactions with a view of receiving information, which would be of focus from supervisory perspective taking into account specificities of the supervised group.

Policy Issue 2: Need for clearer criteria for the application of thresholds for IGTs and RCs

9.142 Considering the issues highlighted above, further convergence on IGTs and RCs reporting can be achieved by providing further guidance for setting up thresholds and supervision of IGTs and RCs. This work will be supported by cross analysis of supervisory authorities' approaches in order to identify best practices and foster supervisory convergence.

9.143 In relation to setting up thresholds for IGTs and RCs reporting it is recommended the appropriateness of the current basis used for setting thresholds prescribed in Article 244(3) of the Solvency II Directive is also reviewed to allow the introduction of other criteria in order to take into account specificities of the supervised group. In that regard other indicators should be also considered for that purpose. For example eligible own funds or qualitative criteria deemed relevant.

Policy Option 1 – No change

9.144 No change in the regulatory framework would maintain the status quo.

Policy Option 2: To amend Art 244(3) of the Solvency II Directive to allow the introduction of additional criteria

9.145 It is recommended that Article 244(3) of the Solvency II Directive is amended with a view of allowing the introduction of additional criteria, such as eligible own funds or a qualitative criterion, as deemed necessary by the group supervisor for the purpose of setting thresholds for IGTs and RCs reporting. A qualitative criterion is defined by the group supervisor on the basis of a risk based approach.

Third Countries

9.3.5 Article 262 Solvency II Directive - Clarification

9.3.5.1 Extract from the call for advice

> ***3.14. Group supervision***
>
> *EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*
>
> - *the scope of application of group supervision and the supervision of intra-group transactions, including the supervisory powers in cases where the parent company is headquartered in a non-equivalent third country;*

9.3.5.2 Relevant legal provisions

9.146 Article 247 of the Solvency II Directive – Group Supervisor

9.147 Article 262(1) and (2) of the Solvency II Directive: Parent undertakings outside the Community: absence of equivalence

9.3.5.3 Identification of the issue

9.148 If the ultimate parent undertaking of an EEA (re)insurance undertaking is situated in a third-country that is not recognised as equivalent according to Article 260 of the Solvency II Directive, the competent EEA group supervisor may determine the scope of group supervision as follows:

- application of the relevant Solvency II requirements to the world-wide group as if it was based in the EEA; or
- application of “other methods” to achieve the objectives of group supervision as mentioned in Article 262(2) of the Solvency II Directive.

9.149 The Directive in its current form does not define the other methods applicable for cases where the parent undertakings are registered in a non-equivalent third country. The Directive provides one example of what an "other method" could mean as it mentions the establishment of a holding company in the EU and the application of Solvency II group supervision principles at that level. Based on supervisory practice, the following other methods have been identified as effective means of ensuring appropriate supervision of the (re)insurance undertakings in a group, and in particular, collecting information as to the wider group to which EEA operations belong to:

Objectives related to group supervision	**Example of methods**
Limit the contagion risk within the group	▪ Require the group to establish/maintain an insurance holding company (or a MFHC) with its head office in the EEA (with all EEA insurance undertakings owned and controlled by that entity). This is specifically referred in Article 262 of the Solvency II Directive; ▪ Require the board of the EEA holding company to be independent in composition of the parent; ▪ - Prohibit, limit or restrict transactions between the EEA undertakings and the rest of the group.
Preserve the capital allocation within the group and the quality of capital of each insurance company within the group	▪ Prohibit the payment of dividends outside the EEA entities (or EEA group) without notifying the group supervisor; ▪ Prohibit, limit, restrict or require pre-notification of transactions between the EEA undertakings and the rest of the group including (but not limited to): - reinsurance; - investment in loans to related undertakings; and - any other transaction that involves the transfer of economic benefits to, or the assumption of liabilities from, a related non-EEA undertaking or group. - Collect information and exercise appropriate supervision in case the capital structure and level of senior leverage of the parent undertaking could undermine the ability of an insurance undertaking's own fund item to meet the features determining its classification

Assess the risks of an insurance group in a group-wide context with a particular focus on the risk of contagion and the impact of unregulated entities within a group	▪ Receive any solvency reports provided to third-country supervisors for any (or all) parent undertakings of the EEA supervised firm or group; ▪ Receive reports prepared for the board of the third-country parent undertaking which concern: - the group's overall financial and/or solvency position; - the assessment and measurement of risks the group is exposed, to i.e. any ORSA like or equivalent reports; ▪ Requiring the group to provide copies of letters, reports or other correspondence from their auditors.
Ensure at least one supervisor has an overall view of the group and its associated risks and establish protocols for cooperation between groups	▪ Require the group to provide any correspondence from another supervisory authority relating to the financial position or solvency of the parent undertaking or the group as a whole; ▪ Presence of a world-wide college or a more limited alternative, e.g. creation of a memorandum of understanding (MoU) to facilitate dialogue and exchange of information with other supervisors.

9.150 The assessment of the capital allocation and the quality of capital is one of the purpose for which "other method" mentioned in Article 262 can be used by supervisors, especially in case of subsidiaries belonging to group with a parent company situated in a non-equivalent third country, and the group is not subject to Solvency II group supervision at EEA level.

9.151 According to the data gathered by EIOPA with its Report on Group supervision and Capital management, there are around 200 insurance groups with the top holding company outside the EEA (both equivalent and non-equivalent). Moreover, EIOPA notes a rising trend of acquisition of EEA insurers or portfolios by non-EEA insurance groups or private equity funds. Considered that in third countries the nature of own funds is different and does not necessarily include subordination features, significant capital injections in insurance subsidiaries actually rely on non-core capital or non-subordinated debt, raising potential risks on the solvency situation of the insurance companies.

9.152 In fact, specific challenges reported by supervisors concern the cases where the parent undertaking, headquartered in a non-equivalent third country and with no EEA group identified, issues senior debt and those proceeds are used to finance the insurance company of the group (e.g. through the issuing of a Tier 1 subordinated debt). If the latter does not make distributions or cannot redeem the subordinated debt (e.g. due to a breach of its SCR), the parent undertaking may be unable to fulfil its obligations related to the senior debt.

9.153 In these cases supervisory authorities are not able to assess whether the high level of senior debt leverage in the financing structure of the parent undertaking as described above could put more pressure on the insurance company to make distributions. This could undermine an own fund item's ability to meet the features determining its classification (absence of encumbrances), and hence jeopardize the actual solvency of the insurance company.

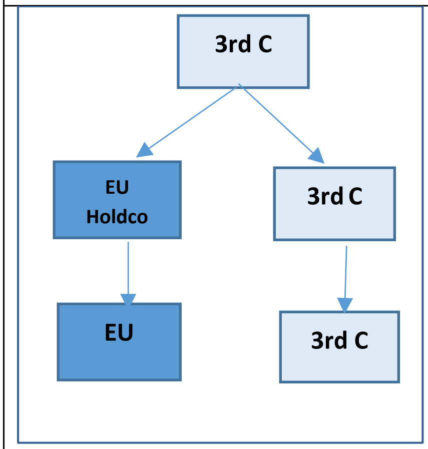
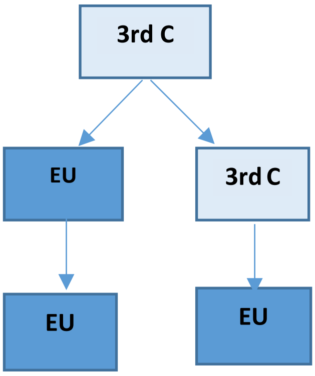
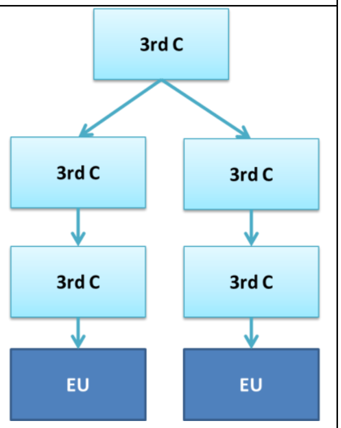
9.3.5.4 Analysis

Policy Issue 1: Further regulatory clarity needed on the application of Article 262 of the Solvency II Directive

9.154 The example of a "method" available to supervisory authorities under Article 262(2) of the Solvency II Directive, i.e. to require setting up of an EEA hold-co was intended to refer to different situations where there is no ultimate parent undertaking at the EU level.

9.155 The following supervisory cases[191] note that asking a group to set up an EU holding company (IHC or MFHC) was (i) not free from challenges due to the lack of clarity; and (ii) in some circumstances not the best alternative to achieve the objectives of group supervision:

- A single EU group within the world-wide group (case 1),
- An EU sub-group which is part of a world-wide group but does not include all of the EU undertakings (case 2),
- There is no parent undertaking at the EU level and therefore no EU group (case 3).

Case 1	Case 2	Case 3
		

[191] For further supervisory findings please refer to EIOPA Report to the EC on Group Supervision and Capital Management with a Group of Insurance or Reinsurance Undertakings and FoS and FoE under Solvency II, EIOPA-BoS-18-485, 14 December 2018 (pages 91 to 93)

9.156 The existent alternative to establish an EU holding company would not be relevant in case 1, where there is no need for an EU holding company, as there is already an EEA holding company which means that Article 213(2)(a) or (b) applies at the level of the EU group. In such a case, the EEA group supervisor would only need to decide whether any additional "other methods" such as the one listed in table above are needed. Supervisors will make these decisions on a case-by-case basis taking into account the particular circumstances of a group and may equally decide that no other methods, in addition to the establishment of a holding company, are necessary.

9.157 In cases 2 or 3, the current wording in Article 262(2) of the Solvency II Directive is not clear whether, when such an EU holding company is to be established, and if it should be the parent undertaking of all (re)insurance undertakings in the EEA. This as the current legislation states that "the supervisory authorities may in particular require the establishment of an insurance holding company (IHC or MFHC) which has its head office in the Community, and apply this Title to the insurance and reinsurance undertakings in the group headed by that insurance holding company.").

9.158 Furthermore, some supervisory authorities have also informed that the requirement to establish an EU holding company is not necessarily easy to enforce in their jurisdictions. For instance, this is the case in Member States where the supervisor does not have specific statutory powers to require the group to restructure. In that regard, it is necessary that supervisory authorities have adequate powers to require the group restructuring in such a way which allows for the establishment of such an EU holding company in the EU to ensure appropriate supervision of the (re)insurance undertakings in a group (please also refer to section 9.3.2 in relation to the policy issue on Article 214(1) of the Solvency II Directive and powers over holdings). This proposal would not necessary apply in the case of restructuring cases that involve groups at national level.

Other issues identified in the application of current provisions on third countries consistency and clarity of language

Item 1 - Consistency of drafting between Articles 213 and 260 of the Solvency II Directive:

9.159 In the absence of equivalence as referred to in Article 260, Article 262 of the Solvency II Directive provides that Solvency II principles for group supervision shall apply "at the level of the insurance holding company (IHC or MFHC), third-country insurance undertaking or third-country reinsurance undertaking".

9.160 The provision appears to be inconsistent with the different types of ultimate third-country parent undertakings outlined when defining the cases of application of group supervision, as referred to in Article 213(2)(c) of the

Solvency II Directive: "an insurance holding company (IHC or MFHC) having its head office outside the Community or a third-country insurance or reinsurance undertaking".

Item 2 - Clarity of language as to objective of "other methods"

9.161 Paragraph 2 of Article 262 of the Solvency II Directive states that, where other methods are to be applied, they must "ensure appropriate supervision of the insurance and reinsurance undertakings in a group". While not specifically said, it is understood in practice that this provision aims at ensuring appropriate supervision of EEA insurance and reinsurance undertakings which belong to a group within the meaning of Article 212 and Article 213(2)(c) of the Solvency II Directive, i.e. which ultimate parent undertaking is located in a non-equivalent third-country.

Item 3 - Clarity of language as to role of the EEA group supervisor in setting "other methods"

9.162 Article 262(2) of the Solvency II Directive requires that these other methods must "be agreed by the group supervisor, after consulting the other supervisory authorities concerned". It is understood that the "group supervisor" which is referred to is the EU group supervisor, in accordance with Article 247 of the Solvency II Directive.

9.163 Some undesirable confusion was reported as to whether the "group supervisor" in the case of non-equivalent third countries' cases could be interpreted as the third-country supervisory authority in charge of the supervision of the worldwide group, within the meaning of Article 212 of the Solvency II Directive instead of EEA group supervisor that applies "other methods" to ensure appropriate supervision of EEA entities belonging to a wider international group.

9.3.5.5 Policy Options

Policy Issue: Further regulatory clarity needed on the application of Article 262 of the Solvency II Directive

Option 1: No change

9.164 No change in the regulatory framework would maintain the status quo for the policy issues identified and analysed under sub-sections 9.3.5.3 and 9.3.5.4 above.

Option 2: Clarify the objectives of the use of 'other methods' under Article 262 of the Solvency II Directive, including the establishment of EU-holding company depending on already exiting EU structure; and other clarifications.

9.165 Providing further clarity in the legislation on the objectives and circumstances for establishment of an EU holding company (IHC or MFHC). This would benefit the EEA group supervisor when assessing the most appropriate 'method' to apply in cases dealing with parent undertakings registered in a non-equivalent third country. The supervisory decision would take into account the existing structure of the group and how to best ensure appropriate supervision of the (re)insurance undertakings in a group.

9.166 The legislation should inform that the following objectives should be considered in ensuring an appropriate supervision of the (re)insurance undertakings in a group:

i) to limit the contagion risk from the third-country group and the EU sub-group(s) or isolated undertakings;

ii) to preserve the capital allocation and the quality of capital of the EU sub-group(s) or isolated undertakings and prevent creation of capital;

iii) to assess risks at the level of the world-wide group context with a particular focus on the risk of contagion and the impact of unregulated entities within the group;

iv) to ensure cooperation between all concerned supervisors (within the EU and/or outside of the EU) and that at least one supervisory authority has an overall view of the group and its associated risks and establish protocols for cooperation between groups.

9.167 The supervisory authorities can develop or set alternative methods in addition to the one already outlined in Article 262(2) of the Solvency Directive as deemed necessary to address the objectives outlined above. This is to allow supervisory authorities the possibility to apply their own supervisory experience as well as to adequately manage each group on a case by case basis.

9.168 It is also advised that the supervisory authorities shall clearly document the rationale for the choice of one or several methods as defined above. The notification process (as noted in the last paragraph of Article 262 of the Directive) should also include EIOPA as one of the concerned parties.

9.169 The European Commission should also clarify in the legislation that the establishment of an EEA holding company can be required as an "other method" under Article 262(2) of the Solvency II Directive when no such holding company exists encompassing all EEA business of the group. However, the establishment of an EEA holding company should not be mandatory where the supervisor applies "other methods" that allow it to achieve the objectives of Solvency II group supervision.

Other issues identified in the application of current provisions of Article 262 on third countries

9.170 The European Commission should seek to further amend Article 262(2) of the Solvency II Directive to improve consistency of drafting with Article 213 of the Solvency II Directive regarding definition of third country ultimate parent of the group and to clarify that it is the EEA group supervisor that applies 'other methods' to ensure appropriate supervision of EEA entities belonging to a wider international group. This will ensure more consistency in the application of other method and further convergence and a level playing field among the supervisory authorities.

9.171 The European Commission is advised to clarify in the legislation that the provisions under Article 262 of the Solvency II Directive aim at ensuring appropriate supervision of EEA insurance and reinsurance undertakings which belong to a group within the meaning of Article 212 and Article 213(2)(c) of the Directive.

9.172 The European Commission is advised to clarify in the legislation that it is the EEA group supervisor the one to have powers under the Solvency II framework to apply 'other methods' to ensure appropriate supervision of EEA entities belonging to a wider international group.

Rules governing the methods for calculating group solvency, including the interaction with Directive 2002/87/EC "FICOD"

Method 1 -Calculation of Group Solvency

9.3.6 Treatment of Insurance Holding Companies (IHC), Mixed Financial Holding Companies (MFHC)

9.3.6.1 Extract from the call for advice

> ***3.14. Group supervision***
>
> *EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*
>
> - *[…]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

9.3.6.2 Relevant legal provisions

9.173 Article 226 and Article 235 of the Solvency II Directive

9.174 Articles 329, 330, 335, 336, 359, 372 of the Delegated Regulation

9.175 Guideline 21 of EIOPA Guidelines on Group Solvency.

9.3.6.3 Identification of the issue

9.176 Article 226 and Article 235 of the Solvency II Directive provide, respectively, that the intermediate IHC and MFHC as well as IHC and MFHC that are at the top of the insurance group should be treated for the sole purpose of the group solvency requirements as if they were insurance or reinsurance undertakings subject to the Solvency II rules as regards the solvency capital requirements and eligible own funds. The same treatment would be applicable to a parent IHC, MHFC in a non-equivalent third country according to Article 262 of the Solvency II Directive, unless other methods are applied. In addition, Articles 329, 330, 335, 336, 359 and 372 of the Delegated Regulation specify additional aspects of the treatment on IHC and MFHC for the purpose of the group solvency calculation, in particular with regard to the treatment of own funds.

9.177 It is not clear how to treat the IHC and MFHC for the purpose of the group solvency calculation, in particular if a notional SCR and own funds should be calculated for such undertakings. Further, it is noted that some member states have set national regulation or guidance addressing the issue of notional SCR for IHC and MFHC. All the above, leads to divergent practices and an unlevelled playing field.

9.178 A notional capital requirement is instead required explicitly for a non-regulated undertaking carrying out financial activities in Article 329(1)(e) of the Delegated Regulation.

9.179 When method 1 is used, Article 335(1) (a) and (c) of the Delegated Regulation requires a full or proportional (line by line) consolidation of any related IHC or MFHC, if subsidiaries. This means that IHC and MFHC, both at the top and at intermediate level, contribute to the consolidated group SCR according to Article 336 (a) of the Delegated Regulation.

9.180 However, there are situations where the solvency assessment of an IHC or MFHC is needed at individual level for the purpose of the group solvency requirements:

- the consolidated group SCR should also include the proportional share of the SCR of the intermediate IHC and MFHC that are not subsidiaries according to Article 336 (b) of Delegated Regulation;
- for the assessment of the availability of own funds, according Article 330(5) of the Delegated Regulation "where an own-fund item of a related insurance or reinsurance undertaking, third-country insurance or reinsurance undertaking, IHC or MFHC cannot effectively be made available to cover the group Solvency Capital Requirement, this own fund item may only be included in the calculation of group solvency up to the contribution of that related insurance or reinsurance undertaking,

third-country insurance or reinsurance undertaking, IHC or MFHC to the group Solvency Capital Requirement". Therefore a notional SCR would be needed, in general, when assessing any potential deduction of non-available own funds.

9.181 Moreover, Article 372(2)(c)(ii) of Delegated Regulation foresees that the group regular supervisory report regarding the group's capital management includes: the "qualitative and quantitative information on the Solvency Capital Requirement and own funds for each intermediate insurance holding company, insurance holding company, intermediate mixed financial holding company, mixed financial holding company and ancillary services undertaking within the group, in so far as it is included in the calculation of the group solvency".

9.182 An additional aspect relates to the calculation of the IHC or MFHC contribution to the minimum consolidated group SCR (Min.Cons.SCR), where Article 230 of the Directive only includes a reference to the MCR of the participating and related (re)insurance undertakings and it does not extend it to other undertakings such as IHC, and MFHC. The rationale for having a different scope for the Min.Cons.SCR and the Group SCR is not clear[192]. Closing the issue on the lack of alignment on the scope between these two would be favourable. Further details on proposals on the Min.Cons.SCR are available at section 9.3.15 of this Chapter.

9.183 In addition to that, there is no clarity regarding the treatment of the IHC and the MFHC when applying method 2, whether the IHC and the MFHC should be included in the scope of the group solvency calculation with a notional own fund and a notional SCR. This issue is also addressed separately in the section 9.3.8 on the scope of application of method 2.

9.3.6.4 Analysis and Policy Options

Policy Issue: Need to clarify how a notional SCR should be calculated and how to treat the IHC and MFHC for the purpose of the group solvency calculation, in particular of a notional SCR and own funds for such undertakings

9.184 The analysis for this section is presented under each policy option. Please note that the analysis under Policy option 3 cover three elements: (i) Notional SCR for IHC and MFHC Scope and Application; (ii) Notional SCR for IHC and MFHC under Method 1; (iii) Notional SCR for IHC and MFHC under Method 2 and Combination of Methods.

[192] Guideline 21 of EIOPA Guidelines on Group Solvency, explanatory text 2.64: Insurance holding companies, mixed financial holding companies, ancillary services undertakings and special purpose vehicles are not separately included in the minimum consolidated group solvency capital requirement since no notional minimum capital requirement is required for them.

Option 1- No change

9.185 No change means the current issues described above will remain.

Option 2 – A notional SCR equal to zero for the intermediate IHC and MFHC

9.186 When applying method 1 a notional SCR equal to zero would lead to that, for example, all minority interest in an intermediate IHC and MFHC would be deducted from the group own funds. There will be no contribution to group SCR of related not subsidiary IHC and MFHC, in comparison to the treatment for related not subsidiary insurance and reinsurance undertakings.

9.187 When applying both method 1 and method 2 (combination of methods), any subordinated debt issued by an intermediate IHC or MFHC would be assumed non-available (if not proven otherwise) and the whole amount of subordinated debt would be deducted from the group own funds.

9.188 When applying method 2, in practice, there will be no inclusion of IHC or MFHC since OF and SCR are equal to zero.

9.189 In general, the solvency position of the group will not be reflecting real risks from IHC and MFHC.

Option 3 - Clarify how a notional SCR should be calculated and how to treat the IHC and MFHC for the purpose of the group solvency calculation, in particular of a notional SCR and own funds for such undertakings.

Notional SCR for IHC and MFHC Scope and Application

9.190 EIOPA advises that the regulatory framework is amended to include clearly the provision of a notional SCR for both the parent and intermediate IHC and MFHC, including those in third countries, similarly to the provision of a notional capital requirement for non-regulated undertakings carrying out financial activities.

9.191 A notional SCR would be calculated on the basis that the IHC or MFHC should be treated as an insurance undertaking for the purpose mentioned in, inter alia, Article 336(b), Article 330(4)(a) and Article 372(2)(c)(ii) of the Commission Delegated Regulation (EU) 2015/35.

9.192 The calculation of the Notional SCR of an IHC and MFHC:

- applies to all IHC and MFHC independently of the group structure (e.g. where these undertakings are positioned within the group at the top or at intermediate level)
- does not change the group SCR calculated under Method 1 (provided that the group SCR is not lower than the minimum consolidated group SCR)
- should cover relevant risks listed in Article 101(4) of the Solvency II Directive, depending on the risk profile of the insurance holding

company or mixed financial holding company. Considering that a holding company does not carry out (re)insurance activities, their potential exposures to market, credit and operational risks should still be covered. The same treatment applies in case of the standard formula and an internal model

9.193 The calculation of the Notional SCR is relevant for the application of the following:

- Calculation of the contribution to the group SCR (see policy analysis and proposal under section 9.3.13(2)
- Availability assessment of own funds at group level
- Calculation of the Minimum Consolidated Group SCR (see Policy analysis and proposal under section 9.3.15) as the calculation of the Min.Cons.SCR would be based on the value of the notional SCR.
- Scope of application of Method 2 (see Policy analysis and proposal under section 9.3.8)
- Treatment in case of Combination of methods (see Policy analysis and proposal under section 9.3.10).

9.194 The main use of the notional SCR is to determine the contribution of the related undertaking included with Method 1 to the group SCR and consequently the allocation of the diversification effects (see policy issue 9.3.13 (2)).

9.195 The contribution to the group SCR is the basis for the quantification of the amount of non-available own funds recognized to cover the group SCR (analysis of the availability of own funds at group level). In case of IHC and MFHC, this analysis, according to Article 330 of the Delegated Regulation applies only to intermediate holding companies.

Notional SCR for IHC and MFHC under Method 1

9.196 When applying method 1, without the notional SCR and the contribution calculation, any non-available own funds stemming from the intermediate IHC or MFHC are deducted from the group own funds. If the notional SCR is calculated for IHCs and MFHCs, only the amount of, for example, minority interest or subordinated debt that exceeds the contribution of related holding companies to the group SCR is deducted from the group own funds. Moreover, non-available own funds stemming from the holding companies will be recognized as group own funds, with a positive effect on the group solvency ratio.

9.197 However, as the inclusion of the notional SCR of the holding companies in the group SCR calculation would also reduce the contribution to group SCR of each entity of the group (including insurance undertakings), the final impact on group own funds depends on the distribution of non-available own funds in the group between (re)insurance undertakings and holding companies.

9.198 In order to reduce the effect of double counting of the equity risks as highlighted by the stakeholders and to ensure a balanced treatment of all undertakings in the calculation of the contribution to the group SCR, EIOPA advises that the ultimate parent companies (insurance or holding company) should be included in the calculation of the contribution on the basis of their SCR, net of the participation (equity) risk since no availability assessment is required for these entities as per Article 330 of the Delegated Regulation.

9.199 If performing such a calculation is too burdensome for the ultimate parent companies (insurance or holding company), a gross calculation of the SCR can be adopted as a simplified method.

Notional SCR for IHC and MFHC under Method 2 and Combination of Methods

9.200 If the IHC or MFHC is included under method 2 (as proposed in the section 9.3.8 on Scope of method 2), these should also be treated as an insurance undertaking and will be included in the group solvency calculation with a notional OF and a notional SCR.

9.201 When combination of methods 1 and 2 is applied, the notional SCR and the notional OFs of the IHC and MFHC are added to the group solvency calculation but it would be expected that there is no double counting of equity risk in the notional SCR if the proposal under section 9.3.10 on combination of methods is adopted

9.3.7 Article 229 of the Solvency II Directive – Non-availability of information and undertakings deemed as non-material. An alternative for a proxy Method to calculate group solvency requirements

9.3.7.1 Extract from the call for advice

> ***3.14. Group supervision***
>
> *EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*
>
> - *[…]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

9.3.7.2 Relevant legal provisions

9.202 Article 214 of the Solvency II Directive

9.203 Article 229 of the Solvency II Directive

9.3.7.3 Identification of the issue

9.204 Article 229 refers to the non-availability of information necessary for calculating the group solvency of a (re)insurance undertaking, concerning a related undertakings with its head office in a member state or a third country.

9.205 In the EIOPA's report on Article 242(2) to the European Commission is noted the challenges of applying Article 229 of the Solvency II Directive. In this advice, the focus will be on cases where imposing Solvency II calculations to (non-equivalent) third countries insurance undertakings (subsidiaries) is currently operationally burdensome (for small undertakings in non-equivalent third countries) or not feasible (for instance, no rate curve for this country), or where the data from such non-equivalent third countries although available cannot be verifiable, and where Article 214 of the Solvency II Directive is not applicable. Indeed, under Article 214(2), the concerned entities cannot be considered as negligible, or there are no legal barriers to the transfer of information, or the inclusion of the concerned entities is not inappropriate or misleading with respects to the objectives of group supervision.

9.206 In some cases, applying Article 229 of the Solvency II Directive does not necessarily lead to efficient supervisory results and may result in the exclusion of too many undertakings from the group solvency calculation.

9.207 Article 229 does not outline that the application should be only made for negligible cases. Therefore, the group may end up excluding from the group solvency calculation some material (non-negligible) subsidiaries as applying the Solvency II calculation would not be possible for those undertakings. However, the issue of excluding undertakings from the group solvency calculation is of supervisory concern in some cases, in particular when there are more than one undertaking with its head office in a (non-equivalent) third countries. A number of undertakings that on its own could be considered as negligible or no material, can become of significant interest.

9.208 Although Article 229 of the Solvency II Directive does not make specific reference to non-equivalent third countries, it would be expected that if the undertakings are in an equivalent third country they would have the information. Nonetheless, Article 229 can also apply to undertakings in equivalent third countries[193].

9.209 Finally, some divergent practices are noted regarding the approach to the undertakings in non-equivalent third countries across some groups which cause the problem of level playing field.

9.3.7.4 Analysis

Policy Issue: Lack of clarity and consistency in the application of Article 229 of the Solvency II Directive in particular in cases where imposing Solvency II calculation is burdensome or impossible.

9.210 In order to avoid the issue identified above, and facilitate efficient group solvency supervision, it is recommended to introduce an alternative simplified approach to the current application of Article 229 mainly for non-material undertakings for which Solvency II calculation is too burdensome, with a clear methodology that is easily applicable to the calculation of own funds and the group SCR calculation as an alternative to the exclusion from the group solvency calculations.

9.211 If undertakings are material, EIOPA is of the opinion that the application of full Solvency II rules should be applied.

9.212 When the full Solvency II calculation is not feasible concerning related undertakings and currently they may be only subject to deduction of the book value according Article 229 of the Solvency II Directive, the proposed alternative simplified approach could be used. The condition would be that the book value of the undertaking (currently deducted) should follow IFRS or an accounting approach that is comparable with a market consistent valuation (ref. to Article 75 of the Solvency II Directive) as this will both provide an alternative option to the standard process and make the input values for the group solvency calculation more meaningful both to industry and the supervisors. Two cases could be identified regarding the value of the participation:

i. If the value of the participation is positive: in that case, the participation has a positive value in the group balance sheet (equity method), and the relevant shocks on equity, currency, and concentration applies.

[193] Regarding group solvency calculation in the context of equivalence, an EIOPA Opinion was issued in 2015 dealing with the solvency calculation of a (re)insurance undertaking, an insurance holding company or a mixed financial holding company which is a participating undertaking in a third country (re)insurance undertaking. This Opinion provided some guidance on: Third country capital requirements to be taken into account in the group solvency calculation; Considerations in the assessment of the availability of eligible own funds at group level; Examples in the capital requirements to be used for US subsidiaries of EEA groups.

ii. If the value of the participation is negative: in that case, the participation has a negative value in the group balance sheet (equity method) but no shocks are applied.

9.213 The application of the above methodology, can be extended in line with the proportionality principle, to specific circumstances within the scope of Article 229 of the Solvency II Directive -non-availability of adequate information or other reasonable factors[194] subject to group supervisor approval, where undertakings are deemed as non-material or non-significant.

9.214 Based on the data analysed it is recommended that the materiality thresholds for the application of the new alternative simplified approach under Article 229 would be generally considered on the basis of total group assets, and are in the range of 0.1% on individual basis, and 0.3% on aggregated basis. Having a larger percentage threshold would not be considered prudent.

9.215 Other basis to set the materiality threshold were taken into consideration, such as excess of assets over liabilities, and total eligible group own funds. However, these were not favoured as these indicators could create more volatility and circularity issues which could restrict the application of the simplified alternative calculation for groups that may need to benefit from it.

9.216 The use of any simplified calculations should be subject to the group supervisor approval and on-going review. This to ensure a level playing field and consistency of application across the EU.

9.3.7.5 Policy Options

Policy Issue: Lack of clarity and consistency in the application of Article 229 of the Solvency II Directive in particular in cases where imposing Solvency II calculation is burdensome or impossible.

Option 1 – No change

9.217 No change means that the current challenges described above in applying Article 229 and 214 of the Solvency II Directive will continue.

Option 2 –Simplified methodology in favour of equity method with a cap on own funds for non-negligible undertakings for which Solvency II calculation is not possible or small undertakings

9.218 Introducing a simplified methodology in favour of equity method with a cap on own funds for undertakings for which Solvency II calculation is not possible, allows in some way an explicit application of the proportionality principle to small undertakings covered under this case.

[194] For instance, the quality of the information cannot be assured. Or other circumstances noted as part of the identification of the policy issue.

9.219 With this approach, the controlled (re)insurance undertaking (for which information is not available or small) is still part of the group solvency calculation (using equity method), and for the own funds, a prudent approach is adopted by considering that the excess over the SCR value is non-available.

9.220 The Equity method referred to in the policy proposal is the accounting equity method. This to facilitate a simplified approach.

9.221 The use of the simplified methodology should be subject to the group supervisor’s approval, in order to ensure a level playing field and consistency of application.

Option 3 –A revised simplified approach in favour of equity method (IFRS or local accounting rules consistent with market valuation) for non-material undertakings for which Solvency II calculation is too burdensome or not practicable due to lack of information or other reasonable factors and subject to group supervisor approval.

9.222 Based from stakeholder’s comments, it is understood that stakeholders welcome the idea of an alternative simplified methodology that takes into account the accounting values, however they do not support a cap on own funds. It is also noted that some groups are applying a proxy calculation as an alternative to the default approach set under Article 229.

9.223 To address this, EIOPA proposes a new policy option which will offer a simplified alternative approach, where groups would have to:

- use accounting values either IFRS or an accounting approach that is comparable with a market consistent valuation (ref. to Article 75 of the Solvency II Directive) in order to provide a reliable value of the participation,
- When calculating the own funds, these are taken in full according to the accounting rules,
- when calculating the solvency capital requirements, a shock for equity risk, currency risk and concentration risk is applied to the value of the undertaking.
- The output of the capital requirement calculations cannot be lower than the proportional share of local capital requirements (“the floor”) for that undertaking. Therefore, if this local capital requirement is not available, the simplification cannot apply. The output of the calculation is then added to the group SCR calculation.

9.224 The simplified alternative approach under this policy option acknowledges that European groups are investing and expanding outside the EEA, and that groups need a rules that also facilitate an international level playing field. However, the simplified approach cannot offer a preferential treatment to non-equivalent third countries in comparison to equivalent third countries.

9.225 Any groups diverging from the strict application of Article 229, which requires the group to deduct the book value of the subsidiary from own funds eligible for the group solvency, should check with their group supervisors to understand the benefits from the policy advice.

Method 2 -Calculation of Group SCR

9.3.8 Scope of method 2 (where used exclusively or in combination with method 1)

9.3.8.1 Extract from the call for advice

> ***3.14. Group supervision***
>
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> - *[…]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

9.3.8.2 Relevant legal provisions

9.226 Article 220(2) of the Solvency II Directive

9.227 Article 233 of the Solvency II Directive

9.228 Article 328 of the Delegated Regulation

9.3.8.3 Identification of the issue

9.229 The current framework for the scope and application of method 2 is not comprehensive enough. Therefore the need to clarify the scope of undertakings to be included under method 2 and their treatment to ensure a consistent treatment across methods (same scope of entities under all methods) and across EEA.

9.230 Article 220(2) of the Solvency II Directive states that when the supervisory authority is of the opinion that the use of the exclusive application of the default method (method 1) is not appropriate, the group can, after approval, apply method 2 or a combination of method 1 and 2.

9.231 Article 233 in the Solvency II Directive sets out how the calculation of group solvency is done with method 2 (the alternative method). This article only refers to the inclusion of related (re)insurance undertakings and there is no reference to other types of undertakings such as third country insurance and reinsurance undertakings, insurance holding companies (IHC) and mixed financial holding companies (MFHC) or undertakings in other financial sector (OFS).

9.232 Article 328 of the Delegated Regulation lists the elements to consider when assessing whether to approve the inclusion of a related undertaking with method 2. In this article the reference is to related undertakings and, specifically, to third-country (re)insurance undertakings (Article 328(1)(f)).

9.233 Therefore, a predominant question among supervisors and some groups is if the use of method 2 is for all related undertakings in general:

- Should the use of method 2 also include related IHC and MFHC?
- If the IHC or MFHC is included under method 2, these should be treated as an insurance undertaking when calculating notional SCR and OF for the purpose of the group solvency calculation.
- Should the inclusion of related undertakings in Other Financial Sectors (OFS) under Method 2 mean a need for a full assessment under Article 328 of the Delegated Regulation?

9.234 Article 329(1) of the Delegated Regulation (which is theory valid for both method 1 and method 2) provides that related undertakings in OFS should be included with the relevant sectoral rules referred to in letter (a) to (e). However, it’s not definitely clear if the use of method 2 was intended to be used for related undertakings in OFS.

9.3.8.4 Analysis

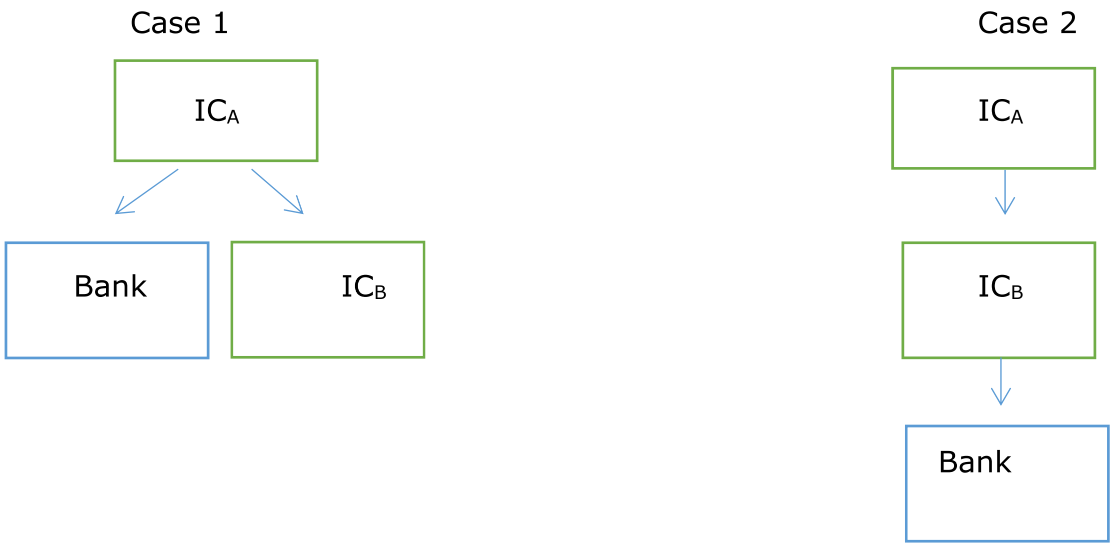
9.235 The IHC and MFHC could be included in the scope of application of method 2 on the basis of Articles 226 and 235 of the Solvency II Directive which state that IHC and MFHC shall be treated as if they were insurance undertakings for the purpose of group solvency calculation, regardless of the method of calculation.

9.236 In relation to the undertakings in OFS, their inclusion in the scope of method 2 is less straightforward.

9.237 First of all the regulatory framework should clarify if method 2 is applicable to undertakings in OFS or not. From the reading of Article 233 of the Solvency II Directive the understanding is that method 2 was not necessarily designed for the inclusion of undertakings in OFS.

9.238 Additionally, there are still uncertainties related to the treatment of OFS entities, in particular, it is not clear if Article 329 of the Delegated Regulation should be always followed for OFS entities regardless of the method of calculation used.

9.239 Two simple cases are illustrated below: insurance undertaking A controls both an insurance undertaking B and a bank directly (case 1) or indirectly through IC_B (case 2). The insurance undertaking B is included via method 2 in both cases.



9.240 In the case illustrated above, the ICB is included with method 2 (Deduction and Aggregation (D&A)), the question is how to treat the Bank in both cases? In order to ensure a consistent treatment in the group solvency calculation, it should be clear that the contribution of the bank to the group solvency is taken into account according to Article 329 of the Delegated Regulation in both cases regardless of the group structure itself.

9.3.8.5 Policy Options

Option 1: No Change

9.241 No change to the regulatory framework keeps the uncertainty and therefore not a preferred choice.

Option 2: Provide clarity regarding Article 233 of the Solvency II Directive and Article 329 of the Delegated Regulation.

9.242 Article 233 of the Solvency II Directive should clearly identify the undertakings to which method 2 would be applicable and the Delegated Regulation should clearly prescribe the treatment for such undertakings. In particular:

- If the IHC or MFHC can be included under method 2, a notional SCR and own funds should be calculated on the basis that the IHC or MFHC is treated as an insurance undertaking. If that is the case, IHC and MFHC should follow on the policy recommendation on 9.3.6 regarding the application of a notional SCR and notional Own Funds.

- Regarding undertakings in other financial sectors, Article 329 of the Delegated Regulation should clearly apply to these related undertakings independently of the method used for the group's solvency calculation. The treatment of Other Financial Sectors is detailed under section 9.3.16 of this advice.

9.3.9 Partial Internal Model (PIM) and Integration Techniques

9.3.9.1 Extract from the call for advice

> ***3.14. Group supervision***
>
> *EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*
>
> - *[…]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

9.3.9.2 Relevant legal provisions

9.243 Recital 134 of the Delegated Regulation.

9.244 Articles 230(2) and 231 of the Solvency II Directive

9.245 Articles 239, and Annex XVIII of the Delegated Regulation

9.3.9.3 Identification of the issue

9.246 There is no special regulatory provision about application of integration techniques to the partial internal model at group level. Probably the mutatis mutandis approach may be used in practice, however this is not expressed explicitly in the regulations and may lead to an un-level playing field.

9.247 Recital 134 of the Delegated Regulation provides that there are two specific possibilities (or combination of them) when the model at the group level may be classified as "partial" internal model, which leads to three cases: when the limited scope of the model refers to (i) risks or (ii) to the undertakings or (iii) both of them. While the case of limited scope of risks does not cause material doubts concerning the mutatis mutandis approach for the consolidated group Solvency Capital Requirement calculated using a combination of the internal model and the standard formula, the case of limited scope of undertakings (which is present in many cases in practice) may not be clearly treated in the legal provisions.

9.248 Article 343 of the Delegated Regulation deals with the appropriateness of the integration technique in the general sense of "reflection of the overall risk profile" but no details are available explaining the above described issues.

9.249 Considering that there is no special regulatory provisions about application of integration techniques to the partial internal model at group level, the application of integration techniques causes some questions, in particular:

- Several integration techniques are provided in Annex XVIII of the Delegated Regulation but when looking at them it is important to consider that they always refer to "risks" and not to "undertakings".
- The relation between the integration technique 1 and method 2

9.3.9.4 Analysis

Policy Issue: There is no specific provision about the application of integration techniques to partial internal models at group level

1) *Several integration techniques are provided in Annex XVIII of the Delegated Regulation but when looking at them it is important to consider that they always refer to "risks" not to "undertakings".*

9.250 The references to "risks" may be intentional in the legislation, as the integration techniques aim to mirror the standard formula aggregation, where risks are aggregated, and not undertakings. Nevertheless, similar issues arise in the case of a solo undertaking with more than one major business unit, some of which are in the scope of the solo internal model. This suggests that the use of the techniques provided in Annex XVIII of the Delegated Regulation for the integration of internal models based on major business units (at solo or group level) needs clarification.

9.251 Moreover, having references to risks only and not having an explicit provision that the integration techniques from Annex XVIII of the Delegated Regulation may be also applied at group level for the purpose of integrating undertakings leads to questions such as how the integration from the first and the third cases referred to in Recital 134 of the Delegated Regulation should be performed.

9.252 Article 343 of the Delegated Regulation requires only:

> "a description shall be provided of the methods used to assess the risks in these excluded related undertakings in order to demonstrate that the exclusion does not lead to an underestimation of the overall risks to which the group is exposed; the application shall demonstrate that the consolidated group Solvency Capital Requirement calculated using a combination of the internal model

and the standard formula will adequately reflect the overall risk profile of the group".

9.253 Article 343 of the Delegated Regulation does not clarify whether the integration techniques from Annex XVIII should be used as a default method for groups in the same way as for the solo case or could be used without restrictions or cannot be used at all. The only hint that the integration techniques could be used as default methods of integration is the mutatis mutandis approach, however, this interpretation might be in conflict with some of the methods which mirror the standard formula aggregation. It is worth mentioning that when applying standard formula at group level, this interpretation assumes that the fully consolidated part is like one undertaking. Therefore, mirroring the aggregation structure of the standard formula for the integration of undertakings would appear to be an over interpretation.

9.254 For example, when two undertakings have the same types of risk (e.g. assume the same market risk) there is a supervisory/prudential concern that the aggregation of both undertakings using the standard formula correlation structure used in integration techniques may recognise diversification effects which effectively do not exist. Thus, it may require an assessment of the appropriateness of the integration techniques and of their operation in these cases and potentially in general.

9.255 Therefore, from a conceptual and supervisory point of view it is necessary to consider the appropriateness of the integration techniques used at solo level for the group purposes.

2) Relation between the integration technique 1 and method 2

9.256 The integration technique 1 is the only technique which does not mirror the standard formula correlation structure. Therefore, it is clear that the scope is not restricted to the integration of risks. Moreover, it has a simple interpretation, and. using it for the group purposes seems to be a reasonable approach. However, its usage will probably give the higher capital requirement and two issues should be considered in this context.

a. Case 1: A separate undertaking is excluded from the scope of the internal model at the level of the group for which its SCR solo is calculated by the standard formula. According to the regulatory provisions, there are two possibilities on how to aggregate this undertaking into the group SCR: it may be done by method 2 or by method 1, and as using integration technique 1 is technically the same operational calculation as using method 2, the result may be similar under either method chosen. However, it is worth noting that (i) the application of method 2 for a specific undertaking is subject to a detailed assessment of the group supervisor and may be applied only when the conditions allow to do it. , and (ii) the integration technique 1 is subject to the whole detailed internal model assessment, but it is not clear from the provisions which issues the group supervisor should take into account in the assessment of the appropriateness of this integration technique (apart from "reflection of the overall risk profile of the group") and what are relations with the conditions of using method 2. Especially when the technique is easily available due to its presence in the Delegated Regulation there is a temptation to use that technique without deep analysis, as it is simple and does not cause questions about the interpretation of the result (simple sum).

b. Case 2: more than one undertaking is excluded from the internal model at the level of the group and the undertakings are not treated separately. By using the integration technique 1, it imposes a calculation approach of adding up the standard formula part and the internal model part. This means that all undertakings excluded from the model scope should be consolidated even if they have no capital links among them, and for such "new hypothetical undertaking" the standard formula capital requirement should be calculated and added to the capital requirement calculated by the model. In such case the interpretation of such consolidation process (should the undertakings which are not linked be treated as one undertaking?) is not straightforward and brings the question on the economic sense of such calculation. Moreover, when using the analogy with the "case 1" it means that "new hypothetical standard formula undertaking" approach results in applying the same calculation technique as in case of method 2 but not for one undertaking (for which method 2 is allowed) but for a group of undertakings ("sub-consolidation") which is not allowed under method 2.

9.257 Article 343 of the Delegated Regulation treats the appropriateness of the integration technique in the general sense of "reflection of the overall risk profile" but no details are available explaining the cases described above.

9.258 In order to avoid problems with lack of clarity between method 1 and method 2, it would be desirable to make an explicit reference in the Delegated Regulations linking the assessment of appropriateness of method 2 (Article 328 of Delegated Regulation) with the assessment of appropriateness of the use of method 1 with the integration techniques (Article 343 of the Delegated Regulation). The decision about the use or refusal of the method 2 should be made in conjunction with the analysis of the use of method 1 as an alternative and vice versa.

9.259 Having the linkage between Articles 328 and 343 of the Delegated Regulations is an important one in light of the cases presented above. The proposed approach will add clarity to the application of integration techniques at group level by ensuring that the decision of how to treat undertakings excluded from the internal model at group level scope should be undertaken after a deep analysis and understanding of the links and consequences of applying the calculation method for the group solvency requirements (method 1 or method 2).

9.260 However necessary, this link does not provide any clarification to the supervisory authorities on how and in which cases the integration techniques may be applied at group level as indicated in the analysis. The outcome of the survey to the supervisory authorities carried out for the purpose of Article 242 report[195] suggests that the integration techniques provided for the solo purposes (i.e. for risks) are widely used also at group level while in the most cases the limited scope is due to undertakings exclusion and not exclusion of risks.

9.3.9.5 Policy Options

Policy Issue: There is no specific provision about the application of integration techniques to partial internal models at group level

9.261 Therefore in addition to the above mentioned clarification and taking into account that development of a technique which could be appropriate for the aggregation of the whole undertakings for all groups may be impossible in practice two policy options were considered:

Option 1: Not to change the current legislation

9.262 The lack of clarity in application of the mutatis mutandis application of the integration techniques at group level will remain. For instance, keeping the possibility to apply techniques designed for risk aggregation as a default option also for the undertakings which may not make sense.

Option 2: Introduce requirement to demonstrate appropriateness: Clarify in the regulation that in general there is no mutatis mutandis approach to translate integration techniques for risks in Article 239 of the Delegated Regulation to groups but a demonstration of the appropriateness is required similar to Article 239 (4). Also an explicit link between the requirements of Articles 328 and 343 of the Delegated Regulation should be established.

9.263 Clarify that in general there is no mutatis mutandis approach to translate integration techniques for risks in Article 239 of the Delegated Regulation to groups, especially in cases, in which the model is partial with respect to entities. In such cases, integration technique 1 may be feasible in most cases but the assessment of its appropriateness should take into account:

i) Its effectiveness and similarity to method 2, and

[195] See section 3.2.3 of the Report to the European Commission on Group Supervision and Capital Management with a Group of Insurance or Reinsurance Undertakings, and FoS and FoE under Solvency II (Article 242(2) Report)

ii) The fact that in case of isolated undertakings excluded from the scope of the model adding the capital requirements for the modelled part and non-modelled part requires the full consolidation of isolated undertaking and may not have economic sense.

9.264 For all other integration techniques at group level or in the case of several major business units within a solo undertaking, the appropriateness of this integration technique for the specific case would have to be demonstrated as stipulated in Article 239 (4) of the Delegated Regulation for an alternative integration technique from paragraph 3 of Article 239. Similarly to Article 343 (5) (a) (iii) of the Delegated Regulation the undertakings and groups should explicitly show that this technique does not result in an underestimation of the overall risks the group is exposed to as part of the assessment required in Article 239 (5) (b) that the resulting Solvency Capital Requirement appropriately reflects the risk profile of the undertaking or group. This would imply for groups to demonstrate that there is no recognition of diversification benefits that do not exist (e.g. between the same risk in the modelled and un-modelled parts) (see paragraph 9.254). Regarding the integration techniques referred to in paragraphs 2 and 3 of Article 239 of the Delegated Regulation different from the solo case, they are not recommended for application at group level due to the reasons presented in the analysis[196]. However, if such integration techniques are chosen, these would have to satisfy the same requirements as an alternative technique in order to ensure that in a specific case they are still appropriate (cf. Article 239 (5) of the Delegated Regulation).

9.265 The benefit of the proposal will limit the application of those integration techniques which are not appropriate for the integration of undertakings, and will clarify the cases when the technique 1 may not be appropriate. It will ensure that any technique that is used has been properly justified and no inappropriate diversification benefit is recognised.

9.266 Cases in which the internal model would be partial with respect to risks and entities and in which a standard integration technique could be considered, would be forced to follow the alternative method. This disadvantage is considered to be of less importance as appropriateness of methods will have to be documented anyway.

[196] See section 9.3.9.4. on the analysis of the policy issue for this section (paragraphs 9.250 to 9.260)

Combination of Methods – Calculation of Group SCR

9.3.10 Group SCR calculation when using Combination of methods

9.3.10.1 Extract from the call for advice

> ***3.14. Group supervision***
>
> *EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*
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> - *[…]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

9.3.10.2 Relevant legal provisions

9.267 Articles 220 and 233 of the Solvency II Directive.

9.268 Articles 335 and 336 of the Solvency II Delegated Regulation.

9.3.10.3 Identification of the issue

9.269 It is noted that current regulation guidance regarding the calculation of the group SCR under the combination of methods leads to questions by undertakings and supervisors and thus could affect the level playing field on group supervision. A key issue when using the combination of methods to calculate the group SCR is whether equity, concentration and currency risk are appropriately considered.

9.270 The identification of the issue can be best presented by considering a case which looks at the following:

- Questions around the combination of methods in general concern all groups, e.g. those with simple group structure and those with complex staged group structure and groups falling under Solvency II completely or with third country parts.
- Whether the ultimate EEA parent undertaking is an insurance or reinsurance undertaking or a holding company for the topic seems not to be crucial.
- Whether the group is applying an internal model is not considered to be relevant. For simplicity reasons the case is described in a standard formula setup.

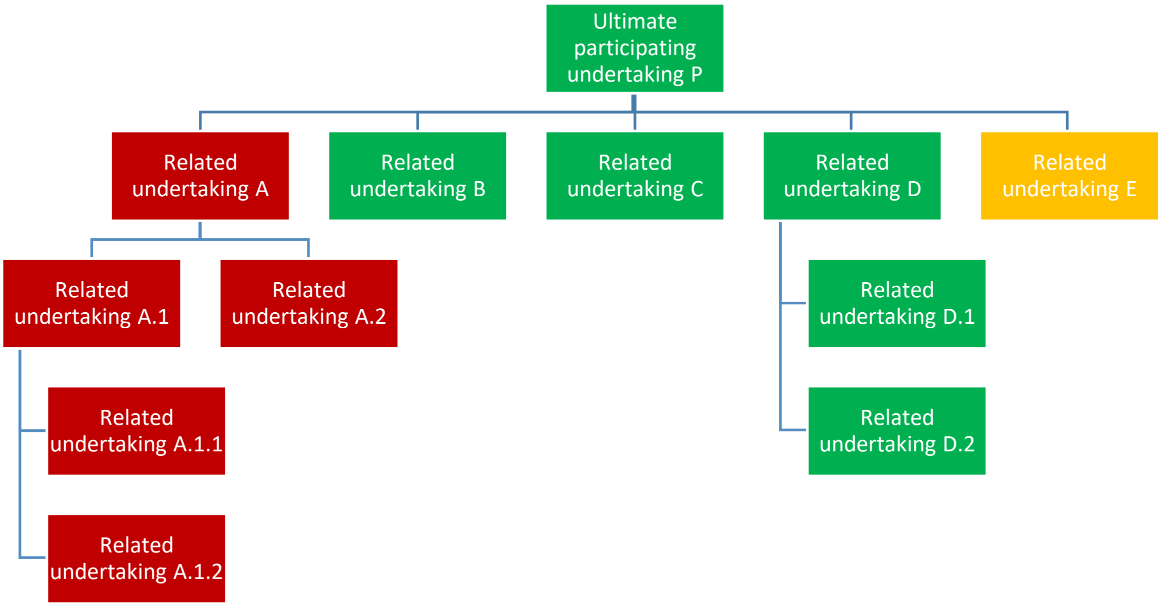
9.271 The case for consideration of the issues covers:

a. The ultimate parent P is an insurance company in the EEA falling under solvency II with related undertakings A, B, C, D and E of which A and D are participating insurance companies with related undertakings A.1, A.1.1, A.1.2, A.2 and D.1, D.2 respectively.

b. Undertaking A and its related undertakings are located in a third country with different currency but solvency regime equivalent to Solvency II. All other undertakings are located in the EEA, falling under Solvency II and have EUR as reporting currency.

c. The Group applies the combination of methods in the calculation of group own funds and group SCR as follows: Undertakings P, B, C, D and the undertakings related to D are considered by method 1 and form the consolidated part (marked in green). Undertaking A and its related undertakings (marked in red) as well as undertaking E (marked in orange) are not consolidated but included by method 2.

d. In the combination of methods, the consolidated part would be considered as one undertaking holding participations in undertakings A and its related undertakings as well as in undertaking E


Ultimate participating undertaking P
Related undertaking A
Related undertaking B
Related undertaking C
Related undertaking D
Related undertaking E
Related undertaking A.1
Related undertaking A.2
Related undertaking D.1
Related undertaking A.1.1
Related undertaking D.2
Related undertaking A.1.2

9.272 A key issue raised by group supervisors relates to the coverage of all relevant risks, namely equity risk for participations, sometimes called ‘participation risk’ (see below), currency risk and concentration risk, at the same time avoiding double counting. The following two subsections will provide the details.

9.273 While in general there are no differences between cases of use of the standard formula or use of an internal model, in the case of internal models consistency between the assessment of the admissibility of the use of method

2 and the use of integration techniques has to be ensured. Especially the principle of 'substance over form' would have to be respected.

9.274 For groups with related undertakings in third countries the following is assumed: In case the solvency regime is considered to be equivalent to Solvency II for insurance undertakings the respective local requirements are applied. If the regime is not considered to be equivalent, Solvency II metrics have to be applied.

9.3.10.4 Analysis

Policy Issue: A need for clarification of principles to ensure appropriate coverage of risks in the group SCR under the combination of methods. This especially concerns equity risk for participations, currency risk and concentration risk.

9.275 The Solvency II Directive in Article 220 (2) establishes the combination of methods without describing the details. But, in a canonical view there is a part of the group which is consolidated and another part which is not consolidated. In the context of method 2, deduction and aggregation method, described in Article 233 of the Solvency II Directive, this means that the consolidated part is with relation to the non-consolidated part taking the role of the participating undertaking.

9.276 With respect to the consolidated part, EIOPA's view is that the consolidated data according to Article 335 of the Delegated Regulation for the purpose of the calculation of the own funds of the consolidated part, are net of the related undertakings outside the consolidated part and net of any intra-group transactions (IGTs).

9.277 With respect to the non-consolidated part, EIOPA's view is that related insurance or re-insurance undertakings are considered each on their own, e.g. no subgroup consolidation is allowed.

9.278 In the example provided above, the group's SCR is the sum of the SCR for the consolidated part (undertakings P, B, C, D, D.1, D.2) and the solo SCRs of related undertakings A, A.1, A.2, A.1.1, A.1.2 and E.

9.279 In a kind of 'gross view', the 'deduction & aggregation' algorithm described in Article 233 of the Solvency II Directive could be read as replacing the parts of capital requirements caused by that related undertaking in a participation view by the SCR for the related undertaking. This operation eliminates all connections including diversification, the latter introducing a certain level of prudency.

9.280 In assessing whether the use of combination of methods is allowed, supervisors have to check the criteria of Article 328 of the Delegated Regulation. Inter alia, supervisors have to consider whether the use of method 2 does not materially affect the group solvency calculation. This especially implies that no material risks should be disregarded. While risks associated with the assets and liabilities in the solo view are considered by the SCR of the related undertakings included by deduction and aggregation, any group specific risks have to be assessed – according to the specific group setup. The next paragraphs consider three risks recently discussed by supervisors and undertakings.

9.281 'Participation risk': Is considered to be 'equity risk' for the specific equity type 'participation', i.e. in the sense of Article 105 (5) b) of the Solvency II Directive "the sensitivity of the values of assets, liabilities and financial instruments to changes in the level or in the volatility of market prices of equities (equity risk)". This type of risk is relevant in general for undertakings of the group not being consolidated, and in the case of combination of methods for those related undertakings not included in the consolidated part. In the case of valuation of these undertakings by the 'adjusted equity method', the value is the net asset value in terms of the Solvency II balance sheet of these undertakings in the solo perspective. The changes in the level of the value essentially are reflected in the solo SCR. Corresponding considerations apply in case of (temporarily) equivalent regulatory regimes where the local capital requirement takes the role of the solo SCR.

9.282 'Currency risk' is "the sensitivity of the values of assets, liabilities and financial instruments to changes in the level or in the volatility of currency exchange rates" (Article 105 (5) e) of the Solvency II Directive). In constellations of related undertakings outside the consolidated part, with reporting currency different from the reporting currency of the group, EIOPA's view is that the SCR calculated in that currency would be included with the exchange rate relevant for the respective key date. To assess whether changes in exchange rates are sufficiently reflected, one perspective to consider is the own funds full consolidation. To illustrate this, suppose the following simplified constellation: Undertaking B would have a net asset value of 100 in currency CB, different from the reporting currency CA of the group and all assets and liabilities of B would be in currency CB, while all other assets and liabilities of the group would be in currency CA. In this constellation, undertaking B in the solo perspective would not face any currency risks, but in the consolidated view a currency risk for the net asset value of B relative to currency CA would exist and have to be capitalised, e.g. in the standard formula essentially a charge of 25% would apply.

9.283 'Concentration risk' reflects "additional risks to an insurance or reinsurance undertaking stemming either from lack of diversification in the asset portfolio or from large exposure to default risk by a single issuer of securities or a group of related issuers" (Article 105 (5) e) of the Solvency II Directive). In the standard formula, the reflection of this risk is described in Articles 182 to 187 of the Delegated Regulation. As in the combination of methods, related undertakings outside the consolidated part, would not be included in the consolidated data, neither their value nor their assets would be included in the concentration risk within the consolidated part. However, in a consolidated view, the assets of the participations outside the consolidated part would contribute to the exposures to consider, as well as to the calculation base.

Summary of principles

9.284 With respect to the non-consolidated part, EIOPA's view is that related insurance or re-insurance undertakings are considered each on their own, e.g. no subgroup consolidation is allowed.

9.285 According to the supervisory reading of Article 335 of the Delegated Regulation, the combination of methods should:

(i) not lead to any double counting of risks, namely the equity risk for participations outside the consolidated part, as this risk is expected to be covered by adding the solo SCR without allowing for diversification.

(ii) nor should lead to material risks being neglected from being adequately covered in the group solvency calculation. This particularly pertains to currency risk and market concentration risk.

9.286 Considering method 2 or the use of method 2 in a combination of methods not to be the default method but a simplification compared to the consolidated view of method 1, its application follows a careful consideration of certain variables, especially recitals 124 and 125 of the Delegated Regulation, and Article 328 of the Delegated Regulation (choice of method). A comparison to the Solvency Capital Requirement under method 1 should be performed as one option to prove that such a simplification is acceptable and prudent. In such a comparison third country equivalence decisions should be appropriately reflected. Furthermore, to avoid burdensome method 1 calculations, a sufficiently prudent estimate of it might be considered to be favourable.

9.3.10.5 Policy Options

Policy Issue: A need for clarification of principles to ensure appropriate coverage of risks in the group SCR under the combination of methods. This especially concerns equity risk for participations, currency risk and concentration risk.

Option 1 – No Change

9.287 No change will not improve the situation and will probably continue to lead to divergent supervisory approaches.

Option 2 – Introduce principles of no double counting and no omission of material risks

9.288 For the combination of methods the principles as described above would be introduced: (i) there is no double counting of risks, namely the equity risk for participations outside the consolidated part, as this risk is expected to be covered by adding the solo SCR without allowing for diversification and (ii) no material risks are being neglected but are adequately covered in the group solvency calculation. This particularly pertains to currency risk and market concentration risk.

9.289 The Delegated Regulation would explicitly cover equity risk for participations, currency risk and concentration risks, as these risks allow for an explicit description of the treatment in the standard formula. Other risks that might emerge or be relevant in specific cases would be dealt with on a case by case basis based on existing supervisory powers.

9.290 For the standard formula, and with respect to currency risk a reference would be made to Article 188 of the Delegated Regulation and for market concentration risk to Articles 182 – 187 of the Delegated Regulation. More specifically in the case of currency risk for any entity included by method 2 and reporting in a currency different from the reporting currency of the group the exposure to currency risk should be increased by the value of that entity determined in accordance with Article 13 of this regulation. A similar approach should be followed to determine the exposures relevant in the calculation of market concentration risk. For internal models reference would be made to Articles 343 and 349 of the Delegated Regulation and thus the usual internal model requirements. This requirement concerns the Solvency Capital Requirement for the part of the group covered by method 1. Neither the capital requirements for the entities included by method 2 nor the approach to add up the capital requirements are impacted.

Pros	Cons
Clarification of the treatment of those risks discussed by undertakings and supervisors. Diversification will be allowed for currency and market concentration risk.	Principle not explicitly established in Regulation in general, but only for three specific risks.

9.3.11 Group Solvency –Application when using combination of methods

9.3.11.1 Extract from the call for advice

> ***3.14. Group supervision***
>
> *EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*
>
> - *[…] The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

9.3.11.2 Relevant legal provisions

9.291 Article 220 of the Solvency II Directive – Choice of Method

9.292 Article 227 of the Solvency II Directive - Related third-country insurance and reinsurance undertakings

9.293 Article 233 of the Solvency II Directive - Method 2 (Alternative method): Deduction and aggregation method

9.294 Recital 125 of the Solvency II Delegated Regulation

9.295 Q&A 1401 (published in July 2018)

Answer

We understand the overall question as if there is a possibility of applying combination of methods to a Group that intends to establish sub-groups and intends to apply Method 1 for its sub-groups in order to calculate its total Group Solvency.

We wish to emphasise that Solvency II Framework is very specific regarding the choices of calculation method for group solvency:

- Method 1 is the default method of application and that involves full consolidation so that all the risks of the group are taken into account, and it does not foresee any sub-consolidation.
- When other methods are applied (Method 2, and Combination of Methods), the calculation of the group solvency applies to related undertakings and not to sub-groups.

Therefore, a combination of the methods as described in your question one to four are not acceptable under the Solvency II framework.

We also wish to outline that the application of other methods (Method 2, and Combination of Methods) follows a rigorous supervisory assessment and should be used looking at the substance of it based on the criteria outlined in Article 328 of the Delegated Regulations, and not encouraged for a temporary use.

Where method 2 is needed for temporary reasons (as in the situation described in scenario 4), we advise that you liaise with your national competent authority to ensure your individual case is carefully analysed in detail. This includes to assess the issues of a ´strong use´ of discretion and level playing field and to consider adequate supervisory measures (as an example, an agreed plan to implement a method compliant with the Solvency II requirements). Moreover, as this subject may relate to sub-groups in jurisdictions other than the member state from where your question is issued, we also encourage your national competent authority to engage with the supervisory authorities that may be involved on this case to ensure consistency of supervisory practices.

In any case, we reiterate that should method 2 be granted for a temporary use, it will apply to related undertakings and not to sub-groups.

9.3.11.3 Other regulatory background

9.296 Annex I, Section II of the Directive 2002/87/EC (FICOD)

9.3.11.4 Identification of the issue

9.297 There is a need for Article 233 of the Solvency II Directive to explicitly state that Method 2 (where used exclusively or in combination with Method 1) used to calculate the group solvency requirements applies to single undertakings (where used exclusively or in combination with Method 1) as there are some interpretations that do not follow the intention of Method 2 (Deduction and Aggregation).

9.298 Where Method 2 is used exclusively, Article 233 of the Solvency II Directive is fully OR somehow explicit as to how own funds and capital requirements shall be aggregated. EIOPA and supervisory authorities interpretation has been that own funds shall be aggregated undertaking by undertaking, and capital requirements shall also be aggregated undertaking by undertaking. In particular, as there is no other way prescribed to aggregate own funds and capital requirements.

9.299 Where Method 2 is used in combination with Method 1, there are no provisions as to how the combination of methods shall be processed. In practice, it is not explicit whether, for example, it could be allowed that some parts of the group use Method 1 first, which are then "aggregated" with Method 2. Such allowance would lead to situations where Deduction and Aggregation method is applied at a "sub-group" level rather than undertaking by undertaking.

9.300 Q&A 1401 provides with some clarification that, in all cases, Method 2 applies to undertakings and not to "sub-groups". This position derived from the reading that is made of Article 233 when applied to groups which apply Method 2 exclusively. However, it was noted by the supervisory authorities that Q&A 1401 was strongly opposed by firms in absence of legal provisions.

9.301 It is noted that Method 2 is intended to apply as a by-exception method for small and isolated undertakings which data are insufficient to allow for the application of Method 1, in relation to their size.

9.302 It is also noted that, by virtue of Recital 125 of the Delegated Regulations, Method 2 apply in practice to groups having large subsidiaries in equivalent third-countries, which could lead in some cases to potential substantial solvency gains.

9.303 As the method 2 allows for a simplified calculation (e.g. simple aggregation and no consolidation) and potentially to substantial gains, it was designed in a prudent manner that does not allow for diversification between undertakings (simple sum of solo SCRs) and encompasses potential multi counting of risks (when solo SCRs take into account exposures to related undertaking which SCRs are added up). Contrarily, applying Method 2 at a "sub-group" level would allow for diversification between undertakings that use Method 2 and re-treat potential multiple counting of risks via the consolidation process.

9.304 Furthermore, where Method 2 is applied to groups having subsidiaries in equivalent third-countries, local solvency capital requirements and own funds eligible locally to satisfy that requirement, can be used in accordance with Article 227 of the Solvency II Directive. However, Article 227 equivalence decisions only relate to solo requirements and own funds, not to group equivalence. Therefore, Article 227 equivalence decisions are not meant to encompass any equivalence in terms of how diversification between undertakings is accounted for. It was thus noted that applying Method 2 at a "sub-group" level would lead to the use of unjustifiable diversification benefits.

9.305 Additionally, it is noted that, where Method 2 is applied to groups having subsidiaries in equivalent third-countries, the application of Method 2 at a "sub-group" level could lead to arbitrages depending on what parent undertaking of the "sub-group" is chosen and what equivalent third-country it is located in.

9.306 Overall, it is noted that there is a risk of an unlevel playing field between jurisdictions because supervisory authorities can have divergent positions. In that regard, Article 233 could be more explicit.

9.3.11.5 Analysis and Policy Options

Policy Issue: Need for Article 233 of the Solvency II Directive to explicitly state that Method 2 (where used exclusively or in combination with Method 1) used to calculate the group solvency requirements applies to single undertakings (where used exclusively or in combination with Method 1).

Option 1- No change.

9.307 No change will keep the status quo.

Option 2 – Explicitly state that Method 2 applies (where used exclusively or in combination with Method 1) to the individual undertakings.

9.308 In order to ensure consistency of application, it is advised that Article 233 of the Solvency II Directive should be changed to indicate that method 2 (where used exclusively or in combination with method 1) applies to individual undertakings and not to sub-groups. Introducing such a clarification would be also consistent with the wording in the FICOD Directive which is more explicit about the need for capital adequacy requirements and states that they shall be carried out on the basis of each of the entities in the group.

9.309 It is also advised to amend Articles 220, 227, 234 and 235 of the Solvency II Directive to refer to the new policy advice to ensure clear referencing.

Own Funds Requirements for Groups

9.3.12 Own Funds Requirements for Groups

9.3.12.1 Extract from the call for advice

> ***3.14. Group supervision***
>
> *EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*
>
> - *[…] The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

9.3.12.2 Relevant legal provisions

9.310 Articles 331 to 333 in the Delegated Regulation (EU) 2015/35 outline the criteria for classification of own-fund items at group level and makes reference to criteria at solo level as set out in Articles 71, 73 and 77 of the Delegated Regulation.

9.311 Recital 127 of the Delegated Regulation provides further elements to consider regarding the meaning of free from encumbrance at group level when an own-fund item is issued by an IHC or a MFHC.

9.312 EIOPA Guidelines on the Classification of Own Funds (EIOPA-BoS-14/168 EN) support supervisory convergence regarding the classification of own funds. The guidelines focus mainly on issues encountered by solo undertakings.

9.3.12.3 Background

9.313 When determining group own funds that are eligible to cover the group SCR and the minimum consolidated group SCR, four different aspects should be considered. These are relevant to the own funds from (re)insurance undertakings, IHCs and MFHCs, and ancillary services undertakings:

9.314 **a. Classification of own-funds into tiers:** this step aims at determining whether own-funds have the required characteristics and features to be classified into one of the three tiers; if some own funds do not meet the required features for classification, they cannot be eligible to cover the group SCR at all (Articles 331 to 334 as well as recital 127 of the Delegated Regulation). For information on the policy issues noted regarding classification of own funds please refer to section 9.3.12

9.315 **b. Availability assessment of own-funds at group level:** this assessment already takes into account any intra-group adjustments (deductions) and should be carried out in accordance with Article 330 of the Delegated Regulation and it includes both:

- transferability of the assets within the group;
- fungibility, this refers to the ability of own-funds items to absorb losses wherever they arise within the group.

For information on the policy issues noted regarding availability assessment of own funds please refer to section 9.3.13

9.316 As the last step of the availability assessment, deductions may have to be made for minority interests in subsidiaries that are not fully owned. A dedicated policy advice on **minority interest** is provided in section 9.3.14

9.317 **c. Application of tiering limits at group level:** The same rules as the ones at solo level apply regarding tiering limits, and the treatment depends on the method used (method 1, method 2, or combination of methods).

The advice does not focus on this area, however there was a topic considered under policy issue 9.3.16(2) regarding the allocation of OFS own funds into relevant Solvency II tiers.

9.318 d. In addition, the **own funds coming from entities in other financial sectors** should be subject to a separate assessment but are not subject to the solvency II tiering rules. A policy related to the ability of OFS own funds capacity to absorb losses is presented under section 9.3.16(3).

9.3.12.4 Identification of the issue

9.319 Articles 331 to 333 in the Delegated Regulation define that the classification of own-fund items at group level shall follow the solo criteria.

Thus, the criteria for classification of group own-funds items in the Delegated Regulation rely on the wording and interpretation of the framework for solo undertakings.

9.320 The classification criteria for groups require, among others, that:

- The undertaking complies with the classification criteria set out at solo level (Articles 71, 73 and 77 of the Delegated Regulation). Articles 331 to 333 of the Delegated Regulation provide the meaning of some terms in the solo Articles that have to be adapted to group level when assessing classification of solo own-fund items from a group perspective;
- The own-fund item is free from encumbrances and it is not connected with any other transaction at group level. The encumbrance assessment, which is carried out at solo level may therefore require additional assessment from a group point of view.

9.321 The following policy issues have been identified in this section:

- Need to clarify the application of Article 330(1)(d) of the Delegated Regulation as well as the requirement to follow criteria for classification of own-fund items at solo level. There is also a need to clarify the title for Article 331 of the Delegated Regulation as well as to clarify the context/references in Article 332 of the Delegated Regulation.
- Need to clarify how to apply recital 127 ("free from encumbrances") in relation to own-fund items issued by IHC and MFHC.

Policy Issue 1: Classification of own funds at group level and the reliance on criteria for classification at solo level – issues with application of Article 330 (1)(d) of the Delegated Regulation

9.322 When an own-fund item is issued by an EEA (re)insurance undertaking, the group supervisor relies on the classification made at solo level for solo purposes. When assessing if this own-fund item also complies with the requirement at group level set out in Article 331 of the Delegated Regulation, SCR shall mean both solo SCR and group SCR, MCR shall mean the minimum as calculated in accordance with method 1 or when a combination of methods is used the minimum calculated for the part covered by method 1. Also, when Article 331 of the Delegated Regulation refers to insurance and reinsurance undertaking, this shall mean both the participating (re)insurance undertaking and the related (re)insurance undertaking, as stated in paragraph 3 of the cited article, even though the title of this article only refers to related undertakings.

9.323 When an own-fund item is issued by a related third country undertaking which does not follow the same rules as Solvency II for classification of own funds at local level, a reclassification according to the provision of Articles 71, 73 and 77 of the Delegated Regulation must be carried out at group level in order to be compliant with Article 332 of the Delegated Regulation. For this purpose, SCR shall mean the group SCR, MCR shall mean both the local capital requirement and the minimum as calculated according to method 1 or when a combination of method is used the minimum calculated for the part covered by method 1.

9.324 The same additional assessment should be carried out at group level in case of an equivalent third-country (re)insurance undertakings included with method 2 even though, according to Article 227(1) of the Solvency II Directive, own funds eligible to satisfy local requirement shall be taken into account in the group solvency calculation.

9.325 It is also noted that Article 332 of the Delegated Regulation only makes reference to related third-country (re)insurance undertakings. Therefore, a question arises if the group should ensure that an own-fund item of a top parent third-country insurance undertaking (e.g. a subordinated debt) should comply with the Solvency II requirements at group level.

9.326 Article 333 of the Delegated Regulation refers to own-fund items in IHC and MFHC and intermediate IHC, MFHC and subsidiary ancillary services undertaking (ASU). When assessing if this own-fund item also complies with the requirement at group level, SCR shall mean group SCR, and the MCR includes both non-compliance with the minimum capital requirement as calculated in accordance with method 1 or when a combination of methods is used the minimum capital requirement calculated for the part covered by method 1, and the insolvency of the undertaking that issued the own-fund item. Insurance and reinsurance undertaking shall mean both parent undertaking (not ASU) and the subsidiary undertaking.

9.327 It is noted that Articles 331 to 333 of the Delegated Regulation currently apply to both method 1 and method 2; and in earlier versions of the Delegated Regulation these articles were only applicable to method 1. Also, it is EIOPA and the supervisory authorities' understanding that the availability assessment (as required under Article 330 of the Delegated Regulation) is done after the classification of own-fund items in accordance with Articles 331 to 333 of the Delegated Regulation.

9.328 Therefore, there is an inconsistency in Article 330(1)(d) which implies that when method 2 is used for a related undertaking, an own-fund item issued by that related undertaking which does not comply with the classification requirements as set out in Articles 71, 73 and 77 of the Delegated Regulation and referenced to in Articles 331 to 333 of the Delegated Regulation, can still be assessed for being eligible to cover the group SCR.

9.329 For example, when a debt has been issued by a third country (re)insurance undertaking included with method 2, the terms and conditions must refer to group SCR in order to be classified in accordance with Article 332 of the Delegated Regulation. However, Article 330(1)(d) of the Delegated Regulation seems to suggest that even though an own-fund item is not meeting the classification requirements set out in Article 332 of the

Delegated Regulation, it could still be included up to the contribution to group SCR.

Policy Issue 2: Assessing "free from encumbrances" in particular in relation to own-fund items issued by an insurance holding company or mixed-financial holding company (recital 127 of the Delegated Regulation)

9.330 An own-fund item, issued by an IHC, MFHC or subsidiary ASU has to comply with the provisions as set out in Article 333 of the Delegated Regulation in order to be included in the group own funds.

9.331 Article 333 (1)(b) of the Delegated Regulation sets out that own fund items should be free from encumbrances and not connected with transactions which would undermine the quality of that own-fund item at group level. Article 71(1) points (a)(ii) and (o) as well as Articles 73 and 77 of the Delegated Regulation covers the requirements about an own fund item being free from encumbrances in the solo context.

9.332 Recital 127 of the same regulations states that an own-fund item, such as a subordinated debt, issued by an IHC or a MFHC should not be considered to be free from encumbrances unless the claims relating to those own-fund items rank after the claims of all policy holders and beneficiaries of the (re)insurance undertakings belonging to the group.

9.333 In Q&A 400[197], EIOPA answered that the aim of this recital is to explain the requirement laid down in Article 333(1)(b) of the Delegated Regulation. Therefore, this article needs to be read together with the recital and "Recital 127 cannot be disregarded by national supervisory authorities and they should ensure that the condition included in this recital are taken into account when compliance with Article 333 of the Delegated Regulation is assessed…". As regards the way of ensuring compliance with Article 333 in the context of the conditions included in this recital, neither the Directive nor the Delegated Regulation provides a specific requirement in this regard."

9.334 Currently, there is some uncertainty whether and to what extent recital 127 is to be taken into account, as well as its enforceability. Some member states indicate they take the recital into consideration, but in the situation where a supervisory authority is challenged by industry there is a lack of binding provisions and different views can exist about the legal status of the recitals compared to the articles of the Delegated Regulation. Moreover, in a cross border context, the enlargement of the "subordination" to all the policyholders of the group in case of the winding-up of any (EEA) insurance and reinsurance undertaking of the group may be not possible in practice, depending from the specific winding-up regulatory framework in place in each jurisdiction. The enforceability of this provision may be difficult in the absence of a European Recovery & Resolution framework.

[197] https://www.eiopa.europa.eu/content/400_en?source=search

9.335 As recital 127 of the Delegated Regulation makes specific reference to certain type of undertakings (IHC and MFHC), it would also be needed to clarify in the regulations whether the principle set out in recital 127 also applies to groups whose ultimate parent is a (re)insurance undertaking who has issued an own-fund item this to avoid divergent interpretations.

9.336 It should be noted that extending the scope of the provision also to the (re)insurance undertaking which has issued an own-fund item would not necessarily address all the policyholders of the group as it makes specific reference only to ultimate parents and no to intermediate issuers.

9.3.12.5 Analysis and Policy options

Policy issue 1: Classification of own funds at group level and the reliance on criteria for classification at solo level – issues with application of Article 330 (1)(d) of the Delegated Regulation-

Option 1 – No change.

9.337 In this case contradiction with Articles 331 to 333 of the Delegated Regulation will remain.

Option 2 – Delete the paragraph (1)(d) of Article 330 of the Delegated Regulation

9.338 Starting from the assumption that if the provisions in Articles 331 to 333 of the Delegated Regulation (including the requirements in Articles 71/73/77) are not met, this would lead to the non-recognition of the full amount of that own-fund item at group level. A deletion of this paragraph would avoid that an own-fund item under method 2 and not compliant with Articles 331 to 333 of the Delegated Regulation (including reference to Articles 71/73/77) is still considered available at group level.

Policy issue 2: Assessing "free from encumbrances" in particular in relation to own-fund items issued by an insurance holding company or mixed-financial holding company (recital 127 of the Delegated Regulation)

Option 1 - No change.

9.339 Still divergent practices among NSA's on the assessment of free from encumbrances for IHC and MFHC and unclear how and to what extent the recital 127 should be taken into account as well if this recital is legally binding provision or not.

Option 2: Clarify and include a principle indicating the purpose of recital 127 and clearly indicate that it is sufficient to provide for the suspension of *repayment/redemption of the own-fund item when there is a winding-up situation of any EEA related (re)insurance undertaking of the group*

9.340 Amend the Solvency II Regulation to include a principle indicating the purpose of recital 127 and clearly indicate what is sufficient when there is a winding-up situation.

9.341 Taking into account the challenges related to the enforceability of the "subordination" in all jurisdictions, the policy proposal is to clarify that it is sufficient to provide for the suspension of repayment/redemption of the own-fund item when there is a winding-up situation, but limiting the scope to when there is a winding-up of any EEA (re)insurance related undertakings of the group.. The supervisory authority should still have the possibility to waive the suspension of repayment or redemption of that item in exceptional circumstances.

9.342 The policy proposal does not preclude the content of the new provisions in the Delegated Regulations may be considered appropriate when assessing whether group own funds issued by parent insurance undertakings are free from encumbrances.

9.343 Based on the responses to the consultation paper, it is noted that some stakeholders are already taking into account the recital 127 of the Delegated Regulation at the level proposed in the consultation paper and sometimes beyond the intention of policy option 2. In that regard, some stakeholders would favour option 3 over option 2, which is also seen as ensuring a level playing field. Some of the stakeholders' supporting option 2.3 are also of the view that option 3 would not necessarily address all the policy holders of the group as it is making a specific reference to ultimate parents (e.g. and no intermediates, etc.)

9.344 Policy option 2.2 is the preferred option as it will strike the right balance of impacts between those groups which do not apply recital 127 at all and the groups that apply it beyond the proposed scope of policy option 2.2.

Option 3 – Similar to option 2 but applicability of the aim of recital 127 extended also to ultimate parent (re)insurance undertaking.

9.345 The criteria as described in option 2 (suspension of repayment/redemption) will be used for ensuring consistency with Article 331(1)(b) and Article 332 (1)(b) of the Delegated Regulation. Taking into account that, (re)insurance undertakings have their own policyholders and beneficiaries, contrary to the IHC and MFHC, this additional requirement would be extended only to the ultimate parent.

9.346 The difference between option two and three, is that option three will provide the same treatment independent if the group are headed by a IHC, MFHC or a (re)insurance undertaking.

9.3.13 Availability Assessment of Own Funds

9.3.13.1 Extract from the call for advice

> ***3.14. Group supervision***
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> *EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*
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> - *[…]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

9.3.13.2 Previous advice

9.347 CEIOPS advice CEIOPS-DOC-52/09, CEIOPS'' Advice for Level 2 implementing Measures on Solvency II: Assessment of Group Solvency.

9.3.13.3 Relevant legal provisions

9.348 Article 222 of the Solvency II Directive provides that when calculating eligible group own funds, no impact on own funds generated by double use of own funds is allowed and addresses taking into account potential availability constraints of the own-fund items among the different undertakings.

9.349 Article 330 of the Delegated Regulation regarding availability at group level of the eligible own funds of related undertakings.

9.350 Guideline 12 of Guidelines of group solvency regarding the Contribution of a subsidiary to the group solvency capital requirement, EIOPA-BoS-14/181

9.351 Guideline 16 of Guidelines of group solvency regarding Adjustments related to non-available own funds for the calculation of group eligible own funds, EIOPA-BoS-14/181

9.3.13.4 Identification of the issue

9.352 As stated in Article 222(3) of the Solvency II Directive, if the supervisory authorities find that certain own funds eligible for the SCR of a related (re)insurance undertaking other than those referred to in Article 222(2) of the Directive cannot effectively be made available to cover the SCR of the participating insurance or reinsurance undertaking for which the group solvency is calculated, those own funds may be included in the calculation only in so far as they are eligible for covering the SCR of the related undertaking.

9.353 Article 330(1) of the Delegated Regulation lists elements to consider by the supervisory authorities when assessing whether certain own funds of related insurance and reinsurance undertakings, third-country insurance and insurance undertakings, insurance holding companies (IHC) and mixed financial holding companies (MFHC), cannot effectively be made available at group level to cover the Group SCR.

9.354 Article 330(3) of the Delegated Regulation lists own-fund items that shall be assumed not to be effectively available to cover the group SCR and introduces the possibility for the participating undertaking to demonstrate to the supervisory authority that the assumption of non-availability is inappropriate.

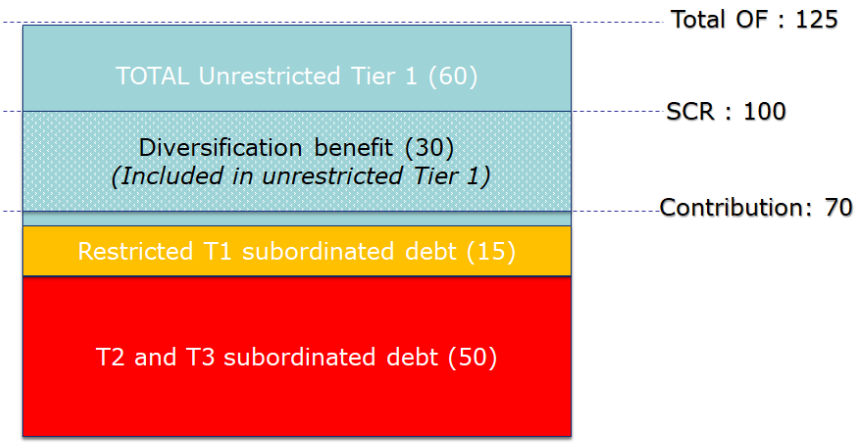
Policy Issue 1: Inclusion of own fund items to cover the solo contribution to group SCR (Article 330(5) of the Delegated Regulation)

9.355 Article 330(5) of the Delegated Regulation provides that an own fund item that cannot effectively be made available to cover the group SCR, may still be included in the calculation of group solvency up to the contribution of the related insurance or reinsurance undertaking concerned to the group SCR. The determination of the contribution to group SCR is calculated where the related undertaking is included with Method 1. When method 2 is used, the contribution to group SCR corresponds to the solo SCR of that related undertaking.

9.356 In a few Member States, non-available own funds can be significant and lead to deductions from group own funds (the main reported item subject to availability restrictions being surplus funds). However, the approach provided in Article 330(5) of the Delegated Regulation may lead to the inclusion of almost all non-available solo own funds items in the group solvency calculation (including subordinated debt and solo deferred tax assets). In these cases, the sum of the non-available own fund items of each related undertaking is less than the amount corresponding to that related undertakings contribution to the group SCR.

9.357 A few supervisory authorities are of the view that a different approach should instead be followed and that groups should not "stack" own fund items of each subsidiary in such a way that the contribution of each undertaking to the group SCR is first covered by non-available items. The argument is that the contribution to the group SCR could not be covered mainly by Tier 2 and Tier 3 instruments (since the solo SCR itself has to be mainly covered with Tier 1 own funds, and several own fund items deemed unavailable are not "unrestricted Tier 1 item). This interpretation is followed by some groups in a few jurisdictions in a very non-homogeneous way (more or less conservative).

9.358 The below example illustrates some of the limitations of the current framework in a "worst case" scenario. A solo company has an amount of own funds of 65 that are eligible to cover the solo SCR of the undertaking, but those are deemed unavailable (e.g. external subordinated debt). By applying the current framework, the output would be that the whole amount of subordinated debt is taken into account to cover the contribution to the group risks, despite that these own fund items represent the majority (93%) of the contribution to the group SCR. In addition, when Article 330(5) of the Delegated Regulation is followed (solo SCR not assumed a barrier to transferability), the unrestricted Tier 1 items are also fully taken into account at group level. However, because the amount of eligible restricted Tier 1 is dependent on the overall amount of Tier 1, the maximum amount that could be transferred from the solo to the group while still complying with the solo SCR is only 20 (out of the 25 of excess own funds over the SCR)[198].


Total OF : 125
TOTAL Unrestricted Tier 1 (60)
SCR : 100
Diversification benefit (30)
(Included in unrestricted Tier 1)
Contribution: 70
Restricted T1 subordinated debt (15)
T2 and T3 subordinated debt (50)

9.359 Therefore, the current framework, based on this case, could lead to an overestimation of the real ability of the solo undertaking to effectively provide support to the other entities of the group[199].

9.360 Saying that, it may happen that in cases of groups with not strong capitalisation levels, and where the quality of non-available own funds items are not sufficient, the effective support from a solvent undertaking to another undertakings in the group can potentially put the former at risk of breaching its solo SCR.

[198] In the example presented, if 20 of own funds are transferred, then the amount of unrestricted Tier 1 is 40, the amount of eligible restricted Tier 1 is 10 (so in that case the restricted Tier 1 represents 20% of total Tier 1). Therefore, total own funds equal 100 (hence a 100% SCR ratio).

[199] It is worth noting that if the group could demonstrate its ability to dispose of the related undertaking within 9 months, the capital would be available when needed and the current approach would not overestimate the real amount of fungible capital.

Policy Issue 2: Formula for calculating of the contribution to group SCR- Need to clarify the inclusion of undertakings in the SCR Diversified.

9.361 The determination of the contribution of a subsidiary to group SCR is calculated where the related undertaking (e.g. the (re) insurance undertaking, IHC or MFHC) is included with Method 1.

9.362 Guideline 12 of Guidelines of group solvency provides detailed guidelines regarding the contribution of a subsidiary to the group solvency capital requirement. Although the guidelines are addressed to supervisory authorities, it is understood from discussions with supervisory authorities that communication with industry has been made regarding compliance with the guidelines.

9.363 The diversification benefits between undertakings included through full or proportional consolidation are recognised at group level when calculating the consolidated group SCR.

9.364 The calculation of the contribution of the solo to the group SCR is needed for the purpose of assessing the availability of own funds. The availability assessment is applied to the related undertakings as mentioned in Article 330(1) of the Delegated Regulation, however the calculation of the contribution is mainly done for undertakings calculating a SCR at solo level. When determining the contribution of a related undertaking to the group SCR (when the standard formula is used), the following formula[200] is applied, where i=undertaking (the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company):

$$\text{Contrib}_i = \text{SCR}_i \times \frac{diversified\ SCR}{\sum_j SCR_j}\ .$$

9.365 When the company is an IHC or MFHC, the requirement to require a notional SCR for these companies is outlined in Articles 226 and 235 of the Solvency II Directive, however there are divergent practices as noted in section 9.3.6 of this advice.

9.366 As a consequence, when such holding companies are not always included in the calculation of the denominator, the group would overestimate the contribution of each company to the group SCR, which would result in including a greater amount of non-available own funds in the eligible own funds at group level.

[200] Technical annex 1 of the Guidelines of group solvency

Policy Issue 3: Availability assessment of specific items of the reconciliation reserve, in particular the benefit from transitional measure on Technical provisions or -free interest rates

9.367 In addition to the own-fund items clearly identified in the legal framework, the group supervisor can identify additional own-fund items that should also be subject to the availability assessment according to Article 330(1) of the Delegated Regulation. Due to some features of specific components of the reconciliation reserve which can be clearly identified (e.g. the benefit of transitional measures on technical provisions or on risk-free interest rates, or the expected profits included in future premiums) the issue of their availability at the group level should be considered.

9.368 It was noted a potential uncertainty as to whether the benefit from the solo transitional measures can be transferred to other undertakings in a group or not. The benefit of the transitional measures strictly derives from the nature of the solo undertaking's business, portfolio and risk profile and it is the result of a measure aimed to facilitate the transition to Solvency II valuations rules for technical provisions and therefore it is not clear, how they could absorb losses elsewhere in the group. If it is deemed non-transferable, it cannot be considered as available to absorb losses at the level of the group according to Article 330 of the Delegated Regulation.

9.369 According to the legislation, the benefit from a solo transitional measure on Technical provisions or risk-free interest rates is not identified as a non-available of own-fund (i.e. not listed in Article 330 (3) or 330 (4) of the Delegated Regulation). In this way (issue 1 above), the question of transferability should still be raised for any element of own funds, but there is no convergence on this matter; and, the onus of proof might lie with supervisory authorities should they want to challenge the availability assessment made by a group.

9.370 The legislation already provides a tool (i.e. mutatis mutandis application of Article 308e of the Solvency II Directive at group level) where the phase-in plan process will clearly apply if no compliance with the group solvency capital requirements occurs. Therefore, it is important to understand the impact of these transitional measures on the solvency ratio at group level and to include some provisions in the context of availability of own funds in order to allow an analysis of the group solvency position with or without the assumption of availability of those benefits.

Policy Issue 4: EPIFPs and the availability assessment of own funds under Article 330 of the Delegated Regulation

9.371 Another question on the availability of specific and clearly identifiable items of the Reconciliation Reserve could also arise from expected profits which intend to reflect future profits of a given life insurance portfolio (EPIFPs).

9.372 While EPIFPs can be considered as available to cover future losses of these given portfolios, it is not obvious nor easily proved in all cases that they can be transferred within nine months to absorb losses in another undertaking, at group level.

9.373 From the information gathered through the public consultation, it is the general understanding that these items can be considered available at group level since there are some ways to monetise EPIFP, should the need arise. Stakeholders' view of possible ways to do it is through transactions such as sale of legal entities, portfolio transfers, mergers of companies, reinsurance arrangement and securitisation

9.374 It is noted that, in cases where a group is composed of a large undertaking and several very small undertakings, considering these elements as non-available by default could result in significantly reducing the amount of own funds eligible to cover the group SCR.

9.375 At the same time it is also noted that, as the very large undertaking is the principal contributor to the group SCR, these elements should still be taken into account to a certain extent in the group own funds, because their main purpose is to absorb losses arising from that undertaking.

Other issues considered by EIOPA

Elements to consider in the Assessment of availability of own fund items

9.376 Article 330(1) of the Delegated Regulation lists elements to be considered in the assessment of the own-fund items of each related insurance or reinsurance undertaking, third-country insurance or reinsurance undertaking or IHC or MFHC, in order to determine if each item can effectively be made available to cover the group SCR. All elements should be considered in the assessment, i.e. these elements are cumulative.

9.377 Article 330(1) of the Delegated Regulation paragraph (a) refers to the loss-absorbency ability of own funds, wherever the loss arises within the group, and paragraph (b) refers to the transferability of the assets "backing" the own funds. Regarding (a) and (b), the assessment should be done taking into account any legal or regulatory restrictions. Paragraph (c) refers to a 9-month timeline in order to make the own funds available.

9.378 There are uncertainties regarding how the 9-months assessment would be done in practice and how this criterion could be considered to remediate any assumption on non-availability of any own-fund items. For example, can a future loan granted within 9 months considered as fulfilment of the 9 months period condition? If yes, the possibilities to make own funds available are unlimited and make the criterion useless and would denature the very nature of the availability assessment of own funds.

9.379 There is also uncertainty potentially on how to evidence that some own funds which in principle are not available like Ancillary Own Funds (AOF), subordinated debt or Deferred Tax Asset (DTA) may in some cases be available. Taking into account the nature of such own funds the difference between them and the own funds which by default are non-available is not clear.

9.380 Even if aware of the uncertainties regarding the assessment of the 9-month period, EIOPA believes that a time framework for the availability assessment should be kept in order to let the group develop a plan on what could be available on realistic basis and to take into account the business specificities of an insurance group. The timeframe of 9 months is considered reasonable enough.

Where to demonstrate availability of own-fund items in accordance with Article 330(3) of the Delegated Regulation

9.381 According to Article 330(3) of the Delegated Regulation, it is unclear for some to which supervisory authority the participating undertaking shall demonstrate that the assumed non-available own-fund item indeed is available at group level. The common view among supervisory authorities has been that the participating undertaking should demonstrate it to the satisfaction of the group supervisor.

Interlinkage between Article 330(5) of the Delegated Regulation and Article 222(4) of the Solvency II Directive

9.382 The wording of Article 222 (4) of the Solvency II Directive focus on the Solvency Capital Requirement of the related undertakings while Article 330 of the Delegated Regulation focus on the contribution to the group SCR, and this had led to different interpretations. It is recommended that the clarification should be in the direction of the recognition of non-available own funds up to the contribution to the group SCR.

9.383 Article 330 (5) of the Delegated Regulation seems to refer to an own-fund item while Article 222(4) of the Solvency II Directive makes a reference to a sum of own funds. This has led to the interpretation that the sum of all non-available own funds (with the exception of the minority interest) are compared entity by entity with the contribution to group SCR.

9.384 Therefore, it is advised that it should refer to the sum of all own-fund items of a related undertaking that cannot effectively be made available to cover the group SCR.

9.3.13.5 Analysis and Policy Options

Policy Issue 1: Inclusion of own fund items to cover the solo contribution to group SCR (Article 330(5) of the Delegated Regulation)

Option 1: No change

9.385 There is a criteria and process on how own funds are calculated as noted in the background to issues relating to group own funds (see section 9.3.12.3 of this document). Such criteria and related process provide for certain safeguards so that no own fund components are included at group level which cannot be used to absorb losses elsewhere in the group. This when supported with an on-going supervisory review process on own funds should be sufficient to manage this policy issue, and no policy change is needed.

9.386 Keeping the approach where the sum of non-available own funds of each related undertaking is compared to that related undertaking's contribution to group SCR is considered a balanced approach between the spirit of recognizing own funds as available up to the coverage of the solo SCR diversified, and the need to take into account the diversification benefits, and to limit the transferability over the contribution to the group SCR.

Option 2: Introduce a principle based approach that takes into account the quality of the non-available own fund items, in particular where it is not sufficient (i.e. it should not predominantly consists of Tier 1).

9.387 As described in the identification of the issue, in cases where most of the non-available own fund items of a solo undertaking are not of the highest quality (i.e. mainly tier 2 and tier 3 items), the current approach may lead to an overestimation of the ability of the undertaking to provide support to other undertakings in the group and put the former at risk of breaching the solo SCR if the capital is effectively transferred.

9.388 This unintended consequence of the current approach could be addressed by advising, within the same framework, that the group should ensure to the satisfaction of the group supervisor that any transfer of capital across the group will not affect the ability of the individual undertakings -in the scope of the availability assessment to be compliant with the solo requirements. In the cases where this ability cannot be proved, an additional hair cut to the non-available items should be requested by the group supervisor.

Policy Issue 2: Formula for calculating of the contribution to group SCR- Need to clarify the inclusion of undertakings in the SCR Diversified.

Option 1: No change

9.389 No change will left the current uncertainty a float.

Option 2: Clarify the inclusion of all undertakings taken into account in the SCR diversified.

9.390 As noted in the identification of the policy issue, there are challenges with the calculation of the contribution of the IHC and MFHC to the group SCR.

9.391 The policy proposal seeks to ensure that all key risks derived from undertakings are captured in the diversified SCR calculation in a consistent manner, while still allowing a proportionate application where no added burden is posed by including ancillary service undertakings.

9.392 Considering that Articles 226 and 235 of the Solvency II Directive clearly provide that IHC and MFHC should be treated as insurance undertakings for the purpose of group solvency calculation, it will be justified that IHC and MFHC undertakings should be taken into account when calculating the contribution of each company to the group SCR which will help solving the policy issues identified.

9.393 For further details on the treatment of Insurance Holding Companies (IHC), Mixed Financial Holding Companies (MFHC) for the purpose of notional SCR calculation, please refer to section 9.3.6

9.394 Subsidiary ancillary services undertakings (ASUs) also contribute to the calculation of the SCR diversified. Therefore, in principle, the same treatment should apply for both insurance holding companies and ancillary services undertakings. It is understood that a few stakeholders also mentioned the need for including in the SCR diversified. Taking into account a proportionate approach, EIOPA is of the view that requiring the calculation of a notional SCR for ASUs would be burdensome for insurance groups and the process of such added calculations would be of limited added value for the group solvency calculation.

Policy Issue 3 - Availability assessment of specific items within the reconciliation reserve, the benefit from transitional measure on Technical provisions or risk-free interest rates

Option 1 – No change

9.395 No change means that the uncertainty will remain.

Option 2 - Clarify in the regulations that by default, the benefit of transitional measures on technical provisions and risk-free interest rate is assumed to be unavailable in the meaning of Article 330(3) of the Delegated Regulation.

9.396 Considering that the benefits of the transitional measures on technical provisions and risk-free interest rate strictly derives from the nature of the solo undertaking's business, portfolio and risk profile, it is not evidently clear that this benefit could absorb losses elsewhere in the group. Therefore, there would be a need to in the regulations that by default, the benefit of transitional measures on technical provisions and risk-free interest rate is assumed to be unavailable in the meaning of Article 330(3) of the Delegated Regulation.

9.397 Taking into account the significant impact on solvency ratio of these transitional measures at group level on the one hand, and the impossibility of demonstrating the transferability of such benefits when contributing to the group solvency on the other hand, EIOPA is of the opinion that a new policy option should be introduced (see option 3)

*Option 3 (**New policy option**) Include in the regulations that the group solvency position without availability of the benefit from these transitional should be disclosed, and supervisory action can be taken.*

9.398 The benefits on transitional measures under this policy issue will not be listed in Article 330(3) and (4) of the Delegated Regulation as non-available items by default at group level. Nor will it be subject to availability assessment.

9.399 In the context of the availability assessment of own funds at group level, the application of the provisions of Article 308(e) and Article 308(d)(5)(c) of the Solvency II Directive, should be extended, requiring the group to calculate and disclose the solvency position without the assumption that transitional benefits are available by default.

9.400 The quantification of the impact of non-availability of the transitional measures on the group financial position should be publicly disclosed on the Solvency and financial condition report.

9.401 The group supervisor can take supervisory actions if the whole group significantly rely on the benefits of a transitional, and that could misrepresent the actual ability of the group's own fund to be transferred and to absorb losses across the group. This policy measure will have an impact on disclosures and it should be also included in the Solvency II Directive to facilitate the supervisor taking necessary supervisory measures on case by case basis depending on the financial position of the group.

9.402 The solo undertakings concerned will not be affected by the group supervisor's decision.

9.403 Significant reliance on the benefits of a transitional is not limited or does not only refer to breaching the group SCR, and depends on the financial position of each group.

Policy Issue 4 - EPIFPs and the availability assessment of own funds under Article 330 of the Delegated Regulation

Option 1 – No change

9.404 No change means that the uncertainty regarding the effective availability of EPIFPs will remain.

Option 2 - Clarify in the regulations that by default, EIPFP is assumed to be unavailable in the meaning of Article 330(3) of the Delegated Regulation.

9.405 Treat EPIFP as a non-available own fund item by default. It could be argued that since most premiums considered in the EPIFP calculation are not to be received before 9 months, EPIFP should by default be considered as non-available. This does not prevent the group from demonstrating, to the satisfaction of the supervisory authority, that it is able to make EPIFP available within 9 months (for instance by transferring the portfolio).

9.406 Majority of stakeholder were against the option that indicated EPIFPs should be treated as a non-available item by default. On the contrary, stakeholders already applying a conservative approach were in favour. Some stakeholders are of the view that EPIFP should continue to be treated as an assumed available own fund item at group level since there are several methods to monetise EPIFP and make future profits available at group level, should the need arise. Stakeholders' view is that this can be done through transactions such as sale of legal entities, portfolio transfers, and mergers of companies, reinsurance arrangement and securitisation.

9.407 Taking into account the significant impact on the solvency position of EU groups in case of no recognition of this item as available own funds at group level and the comments from the stakeholders new policy option has been introduced.

*Option 3: (**New Policy option**): Groups should include EPIFPs in the availability assessment of own funds under Article 330(1) of the Delegated Regulation.*

9.408 Groups are required to consider EPIFPs as part of the regular availability assessment of own funds at group level. EPIFPs are considered still as available but their availability should be justified. The groups are expected as part of their self-assessment of own funds to justify availability of EPIFPs, on the basis of Article 330(1) of the Delegated Regulation, in order to determine the effectively available own funds at group level to cover the group solvency requirements. The assessment of this own fund item may end up with non-availability. It should be noted in any case that, in accordance with Article 330(5) of the Delegated Regulation, non-available own funds can be taken into account in the group solvency up to the contribution of each company to the group SCR.

Other issues considered by EIOPA

9.409 The interlinkage between Article 330(5) of the Delegated Regulation and Article 222(4) of the Solvency II Directive must be clarified as it has led to different interpretations and applications:

a) The wording of Article 222 (4) of the Solvency II Directive focus on the Solvency Capital Requirement of the related undertakings while Article 330 of the Delegated Regulation focus on the contribution to the group SCR.

b) Article 330 (5) of the Delegated Regulation seems to refer to an own-fund item while Article 222(4) of the Solvency II Directive makes a reference to a sum of own funds.

9.410 Therefore, it is advised that (a) the clarification should be in the direction of the recognition of non-available own funds up to the contribution to the group SCR; and (b) that the application should refer to the sum of all own-fund items of a related undertaking that cannot effectively be made available to cover the group SCR.

9.411 According to Article 330(3) of the Delegated Regulation, it is unclear to which supervisory authority the participating undertaking shall demonstrate that the assumed non-available own-fund item indeed is available at group level, and this appears to create different applications. Therefore, the wording on Article 330(3) of the Delegated Regulation should clarify that the participating undertaking should demonstrate it to the satisfaction of the group supervisor.

9.3.14 Minority Interest –Basis and Approach to calculation of Minority Interest to be deducted from the consolidated group own funds

9.3.14.1 Extract from the call for advice

3.14. Group supervision

EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:

- *[…]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

9.3.14.2 Previous advice

9.412 CEIOPS advice CEIOPS-DOC-52/09, CEIOPS'' Advice for Level 2 implementing Measures on Solvency II: Assessment of Group Solvency

9.3.14.3 Relevant legal provisions

9.413 Article 222 of the Solvency II Directive provides that when calculating eligible group own funds no double use of own funds is allowed and any potential availability constraints of the own-fund items among the related undertakings shall be taken into account.

9.414 Article 222(3) of the Solvency II Directive states that certain own funds that cannot be considered available at group level may only be included up to the SCR of the related undertaking, provided that the own funds are eligible at solo level.

9.415 Article 330(4) of the Delegated Regulation states that minority interests shall not be considered as effectively available to cover the group SCR.

9.416 Recital 126 or the Delegated Regulation, provides that when considering whether certain own funds cannot effectively be made available to cover the group SCR, supervisory authorities should pay particular attention to any minority interest in the eligible own funds covering the Solvency Capital Requirement of a subsidiary insurance or reinsurance undertaking, third-country insurance or reinsurance undertaking, insurance holding company or mixed financial holding company.

9.417 Guideline 14 of Guidelines of group solvency, EIOPA-BoS-14/181, which refers to the treatment of minority interests for covering the group solvency capital requirement, and outlines the need to calculate the amount of minority interests in the eligible own funds, to be deducted from the group own funds, for each subsidiary, in the following order:

1. calculate the eligible own funds exceeding the contribution of the subsidiary to the group solvency capital requirement;

2. identify and deduct the amount of non-available own funds exceeding the contribution of the subsidiary to the group solvency capital requirement from the eligible own funds calculated in step 1;

3. calculate the part of minority interests to be deducted from the group own funds by multiplying the minority share by the result of step 2.

9.3.14.4 Identification of the issue

Policy Issue: Need for a clear basis and approach for the calculation of minority interest at a regulatory level (level 2)

9.418 From an accounting perspective, a non-controlling interest (minority interest) represents the equity in a subsidiary not attributable to the parent undertaking. Therefore, the minority interest represents the interests from third parties in the equity[201] of that subsidiary.

9.419 From a prudential point of view and a Solvency II group solvency perspective, the minority interest principle follows a similar perspective to the accounting perspective, however there would be differences as the prudential framework focuses on the adequacy of capital and protection of policyholders.

9.420 The amount of minority interest and its eligibility must be considered for the purpose of calculating group own funds. The minority shareholders part of eligible own funds is not explicitly reported, on the contrary, it is embedded in the value of own funds. Therefore it is important to determine the amount of minority interest to deduct from the group own funds.

9.421 The Solvency II framework does not list minority interest as a specific own fund item in the same way as other own fund items are listed in the Directive or in the Delegated Regulation.

9.422 Solvency II regulation does not provide any explanation on how the minority interest is calculated. Recital 126 of the Delegated Regulation provides that supervisory authorities should pay particular attention to any minority interests in subsidiary (re) insurance undertakings, third-country (re)insurance undertakings, IHC and MFHC, and the Article 330(4) of the Delegated Regulation states that minority interest shall be considered effectively as a non-available own-fund item.

9.423 In the guidelines on Group Solvency, guideline 14 explains the necessary steps to calculate the part of minority interest to be deducted from the group own funds. Prior to the deduction due to minority interest, non-available own-funds other than minority interests (as referred in Article 222(2) and (3) of the Solvency II Directive and Article 330 of the Delegated Regulation) exceeding the subsidiary’s contribution to group SCR should be deducted. The guideline 14 also illustrates the total solo available own funds of a subsidiary that could be considered to cover the group solvency requirements, but only for the purpose of showing the deduction on the available own funds stemming from one subsidiary However the actual outcome of the calculation in Guideline 14 of EIOPA’s guidelines on group solvency is the amount which should be deducted from the group own funds,

[201] A parent presents non-controlling interests in its consolidated statement of financial position *within equity, separately from the equity of the owners of the parent.* [IFRS 10:22]

rather than calculating how much own funds from the subsidiary can be included.

9.424 The process described in Guideline 14 of EIOPA's guidelines on group solvency ensures that the minority interests are deducted from the excess of own funds above the contribution of the subsidiary to the group SCR, after any deduction of other non-available own funds other than minority interest. The reasoning behind this, is that firstly, the minority interest is in any case considered effectively as a non-available own-fund item at group level and that, secondly, minority interest is not a specifically identified own funds item but is embedded in the value of all own funds items.

9.425 Any minority interest in an ancillary services undertaking is in any case not considered as available to cover the group SCR (Article 330(4)(b) of the Delegated Regulation) and must be fully deducted from the group own funds. However, for other subsidiaries as mentioned in Article 330(4)(a), the calculation of the actual amount of minority interests to be deducted from group own funds still poses challenges which should be clearly addressed in the Regulation.

9.426 One of such regulatory gaps posing a challenge refers to the valuation and basis used for minority interest to be deducted from group own funds

i. It should be clarified from a Solvency II perspective, that the amount of minority interest to be deducted from group own funds must start with a recalculation according to solvency II rules, on the basis of the excess of own funds to take into account any revaluation from accounting to solvency II; or
ii. It could be defined and calculated with reference to the accounting framework, always equal to the amount as calculated in group consolidated financial accounts. In such case, minority interest should be clearly identified as an additional group specific item on the list of own fund items provided in the Delegated Regulations.

9.427 Moreover, there are further questions on which basis the minority interest should be calculated on the basis of solo eligible own funds net of intragroup sub-ordinated debt and ancillary own funds, and whether it should be including or excluding external sub-ordinated debt.

9.428 Another challenge refers to the scope of the guideline on minority interest. The guideline provides an overall process as described in the initial paragraphs of this section, however given the regulatory gaps identified and mentioned in the previous paragraphs, the guideline, due to its legal nature and scope cannot address gaps of a regulatory nature. Therefore, an effective solution to support a level playing field would be better addressed in the legislation (Level 2).

9.429 Finally, the data collected for this advice indicates that the groups subject to Solvency II are not applying guideline 14 of guidelines on group solvency in a consistent manner[202]. The lack of consistency on application of the guideline leads not only to supervisory convergence issues but also level playing field issues as the final figures on the amount of minority interest to be deducted could be different across groups (either within a single jurisdictions or across jurisdictions). This is even more important considering that minority interests represent (one of) the main source of deductions from group own funds[203].

9.3.14.5 Analysis

Policy Issue: Need for a clear basis and approach for the calculation of minority interest at a regulatory level (level 2)

9.430 The analysis focuses on the basis of minority interest for the purpose of the deductions from group own funds and how should it be calculated based on Solvency II principles.

9.431 The principle behind the calculation of minority interest to be deducted from group own funds based on the current Solvency II framework is that the percentage of minority interest is applied to the available own funds (i.e. after any deductions on other non-available own fund items (other than minority interest)) in excess to the solo contribution to the group solvency requirements. This means that it applies to all available own funds. This follows the understanding of the application of the guideline on minority interest, which is described in the identification of the issue. However, the guideline by itself does not address the regulatory challenges and gaps identified and there is a need to consider what would be the basis and approach to calculate the amount of minority interest that would be deducted from the group own funds.

Solvency II approach to deal with the calculation of Minority Interest to be deducted from consolidated own funds:

9.432 After considering the comments from stakeholders to the consultation paper and other data available on this subject, the following cases are used to support the policy advice:

- Case 1.a: Based on the solvency II valuation and according to Guideline 14, the technique is described with a "gross view", i.e. the minority interest to be deducted from group own funds is calculated on the basis of the subsidiary's own funds in excess of the contribution to the group SCR including all subordinated debts and gross of IGTs (i.e. including

[202] EIOPA Guidelines on Group Solvency, and in particular Guideline 14- Explanatory Text (2.38 of the GLs) published in the Final Report on Public Consultation No. 14/036 on Guidelines on Group Solvency.
https://www.eiopa.europa.eu/sites/default/files/publications/eiopa_guidelines/final_report_group_gls.pdf

[203] Based on the analysis of S.23.04.04.11, minority interest is the most representative non-available own fund item according to Article 330 of the Delegated Regulation.

intragroup subordinated debts). This case reflects the current status quo;

- Case 1.b: under this case it could be argued that the minority interest to be deducted from group own funds should be calculated on the basis of the subsidiary's own funds *net of intra-group sub-ordinated debt and ancillary own funds* in excess of the contribution to the group SCR, and including only external subordinated debt. This case reflects the policy choice;

9.433 Based on the analysis of inputs from stakeholders and other data available to EIOPA, it confirmed that the output under case 1.b and policy advise would offer an alignment with the Article 330 of the Delegated Regulation and Guideline 14 of EIOPA's guidelines on group solvency while both reduces the impact on the total deductions applied to eligible own funds and eases the calculations the groups will need to apply regarding minority interest.

9.434 The outputs for the consulted case 1.c. will have a larger impact on the overall available own funds at group level as the minority interest is calculated separately from other non-available own funds. Hence, ignoring to some extent the fact, that the non-available own funds may be included up to the contribution of solo SCR to the group SCR. The Guideline 14 of EIOPA's guidelines on group solvency is adopted on the basis that paragraph 5 precedes paragraph 4 of Article 330 on the process of determining the availability at group level of eligible own funds of related undertakings. By not giving priority to non-available own fund items to cover the contribution as implied under case 1.c., this may lead to a lower amount of minority interest deducted from group own funds in principle, however it could also lead to other own fund deductions due to non-availability not analysed in detail in the consulted case.

9.435 Some stakeholders disagree with the inclusion of external subordinated debt in the minority interest calculation. The approach followed by the guideline on minority interest mainly aims at identifying the excess of available own funds over the contribution to the group SCR. To this end, it is necessary to include **all own funds of the subsidiary concerned**. Due to the structure of solo own funds, in general, there will be no deduction for minority interest applied to subordinated debt instruments – in alignment with the accounting approach. The only exception for deduction for minority interest on sub-ordinated debt would be in situations where a subordinated debt has been demonstrated to be available in accordance with Article 330 (3) of the Delegated Regulation (which is generally not the case as there is a default presumption of unavailability) and it is in excess of the contribution to the group SCR of the subsidiary. EIOPA is not aware of situations where sub-ordinated debt has been demonstrated to the group supervisor as available. The overall spirit of Guideline 14 of EIOPA's guidelines on group solvency is still considered appropriate.

9.436 The actual amount of minority interest to be deducted from own funds changes according to the different cases outlined above and numerically exemplified here after. The example elaborates on the steps required as per the guideline on minority interest.

9.437 The example covers two cases:

- Case 1.a illustrates the calculation of the Minority Interest according to the current guidelines (e.g. current status quo).
- Case 1.b illustrates the proposed way forward in the policy advice.

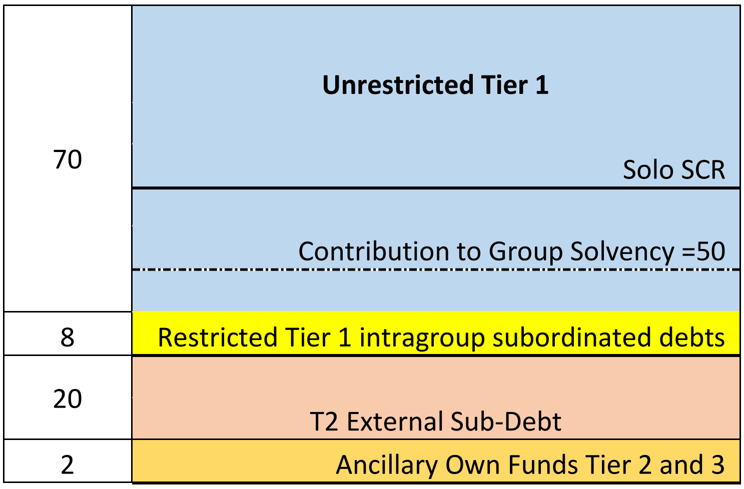
And under each of the cases case there are two examples:

- Example 1 refers to a situation where the solo Non available own funds from are higher than the contribution to the group SCR.
- Example 2 refers[204] to a situation where the solo Non available own funds from are lower than the contribution to the group SCR.

➢ **Basic Information for the Cases and Examples:**

	Case 1.a. Example 1	**Case 1.a. Example 2**	**Case 1.b. Example 1**	**Case 1.b. Example 2**
Solo Eligible Own Funds by Tiering:				
Unrestricted Tier 1 (UT1)	70	70	70	70
Restricted Tier 1 (T1r)-intragroup subordinated debts	8	8	8	8
Tier 2 – external subordinated debt	20	20	20	20
Ancillary Own Funds Tier 2 and 3	**2**	**2**	**2**	**2**
Total solo eligible own funds	**100**	**100**	**100**	**100**
Contribution to the group solvency capital requirement	50	50	50	50
Non-available own fund items (*before consideration for minority interests*), and including external subordinated debt	60	40	60	40
Intra-group Subordinated Debt and Ancillary Own Funds	10	10	10	10
% of Minority interests	20%	20%	20%	20%

[204] Case 1.a Example 2 and Case 1.b Example 2 refer to the examples from the consultation paper.



70	**Unrestricted Tier 1** Solo SCR Contribution to Group Solvency =50
8	Restricted Tier 1 intragroup subordinated debts
20	T2 External Sub-Debt
2	Ancillary Own Funds Tier 2 and 3

- **Illustration of the Example**

	MI calculation as per guidelines' workings		**Advice Policy Option**	
Cases	**Case 1.a. Example 1**	**Case 1.a. Example 2**	**Case 1.b. Example 1**	**Case 1.b. Example 2**
A. Calculation of the amount of MI to be deducted (as per GLs steps)				
Step 1: calculate the own funds exceeding the contribution of the subsidiary to the group solvency capital requirement				
Solo own funds taken into account for the MI calculation	100	100	90	90
Contribution to the group SCR	50	50	50	50
Eligible own funds taken into account for the MI calculation exceeding the contribution to group SCR	50	50	40	40
Step 2: identify and deduct the amount of non-available own funds exceeding the contribution of the subsidiary to the group solvency capital requirement from the eligible own funds calculated in step 1				
Non-available own fund items (before consideration for minority interests)	60	40	60	40
Deduction of non-available own funds exceeding the contribution to group SCR	-10	0	-10	0
Solo own funds taken into account for the MI calculation after deduction of non-available own fund items exceeding the contribution to group SCR	40	50	30	40
Step 3: calculate the part of minority interests to be deducted from the group own funds by multiplying the minority share by the result of step 2.				
Minority Interest % applied to calculation in step 2 = deduction applicable to group own funds	**8**	**10**	**6**	**8**

B. For illustrative purposes, the contribution from solo own funds that could be considered when calculating the group own funds (without considering the consolidation process)				
Cases	**Case 1.a. Example 1**	**Case 1.a. Example 2**	**Case 1.b. Example 1**	**Case 1.b. Example 2**
Total solo own funds before availability assessment and minority interest calculation	**100**	**100**	**100**	**100**
Less intragroup subordinated debts and ancillary own funds	-10	-10	-10	-10
Solo own funds net of intragroup subordinated debts and ancillary own funds	**90**	**90**	**90**	**90**
Deduction due to non-availability of own fund items	-10	0	-10	0
Deduction due to the non-availability of minority interest	**-8**	**-10**	**-6**	**-8**
Total amount of solo own funds that could be considered when calculating the group own funds (without considering the consolidation process)	**72**	**80**	**74**	**82**

➢ **Noted Impact based on the example**

In the example, it is noted that under the policy advice the amount of minority interest to be deducted will be less, and therefore the expected amount of total solo available own funds that could be considered when calculating the group solvency requirements (ignoring consolidation process) would be higher. This could represent a benefit for industry while still maintaining the overall spirit of guideline 14 of EIOPA guidelines on group solvency.

9.3.14.6 Policy Options

Policy Issue: Need for a clear basis and approach for the calculation of minority interest at a regulatory level (level 2)

Option 1: No Change

9.438 No change will not help with current uncertainty and issues noted regarding the basis and approach to calculate the minority interest to be deducted from group own funds.

Option 2: Further clarify the basis used for the calculation of the minority interest in Solvency II and the approach to be followed for its calculation.

9.439 Include in the Delegated Regulation a clarification on the approach to be followed in line with Guideline 14 of the Guidelines of group solvency, and close the regulatory gap regarding the basis and approach of calculation of minority interest to be deducted from the group own funds under the Solvency II framework.

9.440 With regard to the basis of calculation of minority interest, it is advised that the calculation is based on the own funds calculated according to Solvency II valuation and to be net of intra-group sub-ordinated debt and ancillary own funds and to include external sub-ordinated debt. Therefore, the part of the minority interest exceeding the subsidiary's contribution to group SCR is deducted from the group own funds.

9.441 With regard to the approach to calculate the minority interest, it is advised that the amount of minority interests of a subsidiary to be deducted from group own funds should be determined by calculating the amount referred to in point (a) and multiplying it by the percentage referred to in point (b):

(a) The excess available own funds over the contribution to the group SCR calculated as:

(a) The total eligible own funds of the subsidiary (net of intragroup subordinated debt and ancillary own funds) minus the higher of the following:

(i) The contribution of the insurance undertaking to the group SCR;

(ii) The amount of total non-available own funds from the subsidiary undertaking (net of intragroup subordinated debt)

It should be noted that any non-available own funds in excess of the contribution are still a deduction under the overall own funds calculation but this amount is not subject to the application of a MI %.

(b) The percentage of minority interest regarding the subsidiary concerned is the percentage used for the purpose of establishing the consolidated accounts.

Rules governing the calculation of the minimum consolidated group SCR (including the impact on the level of diversification benefits)

9.3.15 Minimum Consolidated Group SCR

9.3.15.1 Extract from the call for advice

3.14. Group supervision

EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:

- *[…]the appropriateness of the rules governing the calculation of the minimum consolidated group Solvency Capital Requirement, including their impact on the level of diversification benefits that may be allowed within a group;*

9.3.15.2 Relevant legal provisions

9.442 Article 230 of the Solvency II Directive

9.443 Guideline 21 of Guidelines on Group Solvency - Minimum consolidated group solvency capital requirement (floor to the group solvency capital requirement)

9.444 Guideline 22 of Guidelines on Group Solvency- Minimum consolidated group solvency capital requirement

9.3.15.3 Identification of the issue

Policy Issue 1 – lack of clarity and alignment of the scope of undertakings included in the minimum consolidated group SCR versus the undertakings included in the group SCR

9.445 There is lack of clarity regarding the scope of undertakings included in the minimum consolidated group SCR.

9.446 The legislation does not explicitly states how undertakings from third countries should be treated. Moreover EIOPA has identified lack of consistency regarding scope in the in the minimum consolidated group SCR (Min.Cons.SCR) and the group SCR.

9.447 The first issue was explained in the Guideline 21b) of EIOPA Guidelines on Groups Solvency[205], however the lack of clear provision was considered in

[205] This Guideline states that for third country insurance and reinsurance undertakings the local capital requirements, at which the authorisation would be withdrawn should be used independently of any equivalence finding.

EIOPA Q&A 625 as an inconsistency with the Directive, where insurance and reinsurance undertaking is a separate object than third country insurance or reinsurance undertaking (Article 230 of the Solvency II Directive) refers only to insurance and reinsurance undertakings). While this approach is considered as pure legalistic one (third countries insurance and reinsurance undertakings contribute to the group SCR and therefore should be also considered in minimum consolidated group SCR) the clarification which amount should be treated as "MCR" for third country insurance and reinsurance undertakings in the law provision is desired.

9.448 The second issue stems from the fact, that IHCs, MFHCs, ASUs and SPVs are included in the calculation of consolidated group SCR, but they are not included in the minimum consolidated group SCR calculation due to lack of a defined "MCR" for such undertakings. This approach may lead to the minimum consolidated group SCR not changing for certain group structures in spite of a significant change of group SCR.

Policy Issue 2 –Calculation method for minimum consolidated group SCR and mutatis mutandis issues

9.449 The way of calculation for minimum consolidated group SCR does not ensure that its amount correspond to the amount of group SCR in the same way as at solo level - ensuring that the ratio of EOF/MCR is always greater than ratio EOF/SCR.

9.450 The reverse relation between the ratios, compared to the expected one, may stem from a high diversification effect and/or consolidation effect in the group SCR with lack of recognition of such effect in the minimum consolidated group SCR.

9.451 Moreover, in the consolidation process some own funds are eliminated at the group level, while the minimum consolidated group SCR (Min.Cons.SCR) is calculated as the sum of solo MCRs without consolidation effects. Further the Min.Cons.SCR should be covered with a higher quality of capital according to the regulations. This may have significant impact especially in the case of the cascade structure of the group, using a floor 25% for MCR calculation at solo level. As the amount of minimum consolidated group SCR is treated as "group MCR" (Article 139 of the Directive applies mutatis mutandis) it may cause problems with the "trigger inversion" (i.e. (when the minimum consolidated group SCR is breached before group SCR because the ratio of SCR coverage is higher than minimum consolidated SCR coverage ratio) in particular with some strong immediate restrictions on the debt issued without earlier more soft measures when the group SCR is not covered.

9.3.15.4 Analysis

9.452 The discussion of the policy issues have as a basis the understanding that the Min.Cons.SCR is the minimum floor for the entities that are included on a consolidated basis and is a mechanism to safeguard that the group SCR is not lower than the sum of MCRs solo.

9.453 Clarifications regarding the policy issue on the Notional SCR calculation and related issues (see policy issue 9.3.6 in the consultation paper) should be considered when looking at the policy issues and options outlined in this section.

9.454 The analysis and the presentation of the two policy issues try to focus on:

i. The scope of the Min.Cons.SCR (policy issue 1)

ii. The method to calculate the Min.Cons.SCR (policy issue 2)

iii. The purpose of the Min.Cons.SCR (a floor to the group SCR) (policy issues 2)

iv. The issue of the "mutatis mutandis" application at group level of the requirements related to solo MCR. (policy issue 2)

Policy issue 1 -Lack of clarity and alignment of the scope of undertakings included in the minimum consolidated group SCR versus the undertakings included in the group SCR

9.455 In order to ensure a clear level playing field through sufficiently harmonised rules regarding the amount that should be treated as a "MCR" for third country insurance and reinsurance undertakings, Guideline 21b) of EIOPA Guidelines on Groups Solvency should be upgraded to a Level 2 should be considered.

9.456 Including IHC and MFHC in the scope of undertakings that should be considered in the Min.Con.SCR (the notional SCR for such undertakings is necessary due to other reasons) could solve the problem of lack of alignment of the scope between Min.Cons.SCR and group SCR ensuring that the changes in the group SCR will be more appropriately reflected in the Min.Cons.SCR.

9.457 There may be complex group structures involving a large number of ASUs and SPVs however the inclusion of ASUs and SPVs seem to be disproportional to the aims of group solvency supervision, and for simplicity and to reduce the burden involved in the calculation of the group SCR for most cases where such undertakings are not significant these undertakings are excluded from this policy advice.

Policy issue 2: Calculation method for minimum consolidated group SCR and mutatis mutandis issues

9.458 The current methodology to calculate the Min.Cons.SCR is aligned with the principle of simplicity and auditability. The Min.Cons.SCR is "the floor" of the group SCR using a simple calculation and for which no diversification benefits are brought into the calculation. Further the method of calculation facilitates auditability.

9.459 However, as noted in the identification of the issue the way the Min.Cons.SCR is calculated may cause "trigger inversion" issues for some groups.

9.460 The alignment of relation between the SCR and MCR ratios at group level was considered. It was discussed, for instance, if this could be achieved by changing the way minimum consolidated group SCR is calculated. As an example, by introducing a concept of "corridor" at group level as noted by stakeholders, where the minimum consolidated group SCR plays mainly the role of the group SCR floor; or a recalculation of MCRs at solo level used for the minimum consolidated group SCR calculation. However, it had its limitations as also noted by stakeholders, and it does not seem to be justified to address the policy issues noted. Further, a recalculation of solo MCR will not only be confusing and burdensome, but the relation of group SCR floor with the sum of solo MCRs could not be kept under such case.

9.461 Although the methodology of the calculation of the Min.Cons.SCR may cause a trigger inversion for some groups, we appreciate that the main concern to industry is not the trigger inversion per se but the consequences of the "mutatis mutandis" application at group level of the requirements related to solo MCR.

9.462 Therefore, it is important to differentiate two dimensions to this policy issue when recommending a way forward: (i) the method to calculate a floor to the group SCR; and (ii) the issue of the "mutatis mutandis" application at group level of the requirements related to solo MCR.

9.3.15.5 Policy Options

Policy issue 1: Lack of clarity and alignment of the scope of undertakings included in the minimum consolidated group SCR versus the undertakings included in the group SCR

Option 1: No change in the scope undertakings included in the minimum consolidated group SCR calculation

9.463 The benefit is that there is no additional requirements, while the downside is, that omitting many entities included in group SCR in minimum consolidated MCR may lead to underestimation of the value which at group level constitutes the floor of the consolidated group SCR. A no change will also maintain the challenges regarding the interpretation of the relation between group SCR and Min.Cons.SCR ("the floor" of the group SCR).

Option 2: Enhancing the scope of the Min.Cons.SCR by including the IHC and MFHC; and upgrading the current Guideline 21b) of EIOPA Guidelines on Groups Solvency on third countries to an explicit law provision

9.464 This policy option will bring regulatory clarity by (i) aligning the scope of undertakings in Min.Cons.SCR and group SCR; (ii) upgrading the content of EIOPA GL 21b) to the regulations (level 2) in order to confirm that there is consistency with the Directive.

9.465 The advice seeks a simple application, and without significant burdens as notional SCR for IHC and MFHC is already necessary for other group solvency purposes.

9.466 A simple way of calculation, would be to define the amount as a percentage of the notional SCR. The notional MCRs for the holding companies would be equal to 35% of their notional SCR. The 35% is based on the middle point of the corridor 25% - 45%). This facilitates a proxy calculation of the MCR without imposing additional burden on industry. Furthermore, the percentage advised for the notional MCRs for the holding companies (35%) is aligned to the current percentage of solo MCRs to solo SCR of the market, where based on data available the range is between 32% and 36%. The analysis excludes the cases where the MCR is higher than the SCR due to the absolute MCR.

9.467 Having the similar scope between the group SCR and the Min.Cons.SCR will help to interpret the minimum consolidated group SCR as the floor for the entities that are included on a consolidated basis. It is a mechanism to safeguard that the group SCR is not lower than the sum of "solo" MCRs.

9.468 However, taking into account that the minimum consolidated group SCR as a "floor" at group level is treated as "group MCR" (i.e. provisions for solo MCRs are applicable mutatis mutandis at the group level) the enhancement of the scope of the Min.Cons.SCR will lead to an increase of trigger inversion cases as highlighted by stakeholders' comments.

9.469 EIOPA is of the view that there should not be concerns about the trigger inversion issues experienced by some groups (please see next policy issue (9.3.15(2)) once the advice on enhancing the scope of the minimum consolidated group SCR, clarifying the purpose of the Min.Cons.SCR and addressing the mutatis mutandis issues is put in place.

Policy issue 2: Calculation method for minimum consolidated group SCR and mutatis mutandis issues

Option 1: No change on the methodology of calculation,

9.470 The change in the calculation of the minimum consolidated group SCR method has been considered as disproportionate to the aim. The current methodology is aligned with the principle of simplicity and auditability.

Option 2: Change the way how minimum consolidated group SCR is calculated

9.471 Changing the current methodology was considered (and suggested by stakeholders) as a possible answer to the problem of trigger inversion. However the fundamental change (introducing SCR-like way of calculation was assessed as jeopardising simplicity and auditability.

9.472 Changing the calculation methodology is not a preferred option as this could create separate challenges and not necessarily solve the issue with the trigger inversion. Therefore, EIOPA is of the opinion that the issue of trigger inversion could be solved by introducing a new metric as indicated in the now preferred policy option 3 below.

Option 3: No Change on the method to calculate the Min.Cons.SCR, clarify the purpose of the Min.Cons.SCR, and introduce a new trigger metric for the application at group level of the requirements related to solo MCR

9.473 This policy seeks to (i) confirm the method for calculating the Min.Cons.SCR (the floor to the group SCR); (ii) clarify the purpose of the Min.Cons.SCR and (iii) address the issue of the "mutatis mutandis" application at group level of the requirements related to solo MCR by introducing a new trigger metric for groups.

9.474 The Min.Cons.SCR is the amount which should be considered as the lower limit of the group SCR (floor of SCR), but its application mutatis mutandis would mean that it plays the role of the "group MCR".

9.475 Taking into account the issues with the trigger inversion described in the identification of the issue, EIOPA is of the opinion that the Min.Cons.SCR should not any longer trigger the same supervisory actions as at solo level (e.g. all relevant elements from Article 139 of the Solvency II Directive), EIOPA advises a new trigger metric for the purpose of the supervisory actions applied at group level mutatis mutandis. This metric will be calculated as the lower value of 45% of the group SCR and the floor (Min.Cons.SCR) of the group SCR.

9.476 Based on the analysis made on the information publicly available for own funds (S.23.01.04), it is noted that for majority of groups the Min.Cons.SCR represents in average a 47% of the consolidated Group SCR or a 44% of the total group SCR. Hence 45% of the group SCR would be a reasonable metric. However, the relationship between the 45% of the group SCR to the actual calculated Min.Cons.SCR does not necessarily run symmetrically for all groups, (i.e. in some cases the Min.Cons.SCR could be higher or lower than the average percentage of 45%). Therefore, EIOPA advice is that the new trigger should have a limit with reference to the floor and the percentage applied to the group SCR in order to avoid undesirable consequences from the application of the new trigger. The new trigger will ensure a proper supervisory ladder for groups, and prevent increasing or introducing a new capital requirement. In short, this new trigger metric would be the reference for all group requirements stemming from the mutatis mutandis application of the solo requirements. And, it is expected that the new metric will prevent a trigger inversion, since the new trigger value has been designed to be lower than the group SCR.

Solvency II and the interactions with Directive 2002/87/EC (FICOD) and any other issues identified with Other Financial Sectors (OFS)

9.3.16 Inclusion of Other Financial Sectors (OFS)

9.3.16.1 Extract from the call for advice

> ***3.14. Group supervision***
>
> *EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*
>
> - *[…]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

9.3.16.2 Previous advice

9.477 CEIOPS advice CEIOPS-DOC-52/09, CEIOPS Advice for Level 2 implementing Measures on Solvency II: Assessment of Group Solvency

9.3.16.3 Relevant legal provisions

9.478 Article 228 of the Solvency II Directive provides for alternative methods for including credit institutions, investment firms and financial institutions.

9.479 Article 329(1)(a) to (e) of the Delegated Regulation 2015/35, sets out how specific related undertakings shall be included in the group solvency calculation (credit institutions, investment firms and financial institutions, AIFM, UCITS, IORPs as well as non–regulated undertakings carrying out financial activities)

9.480 Articles 335(1) (e) and 336(c) of the Delegated Regulation which regulate how to include OFS when calculating group own funds and group solvency capital requirement according to Method 1 of Solvency II.

9.481 GL 11 of Guidelines of group solvency, EIOPA-BoS-14/181 states that, when the undertakings of other financial sectors form a group, solvency requirements of such a group should be considered to be used instead of the sum of the requirements of each individual undertaking when calculating the group solvency.

9.482 EIOPA Q&A 1344 which clarifies how to include credit institutions, investment firms and financial institutions in the calculation of group solvency capital requirement.

9.3.16.4 Other regulatory background

9.483 Directive 2002/87/EC, Financial Conglomerate Directive ("FICOD")

9.484 Commission Delegated Regulation (EU) No 342/2014 supplementing Directive 2002/87/EC of the European Parliament and of the Council and Regulation (EU) No 575/2013 of the European Parliament and of the Council with regard to regulatory technical standards for the application of the calculation methods of capital adequacy requirements for financial conglomerates ("DR 342/2014").

9.3.16.5 Identification of the issue

9.485 Solvency II places reliance on the regulatory framework of other financial sectors. The Solvency II framework does not provide sufficient guidance on how relevant sectoral rules, in practice, should be taken into account when calculating group solvency, and on the interactions, if any, with other applicable regulations (FICOD, IORP Directive, etc.).

9.486 EIOPA Q&A 1344 provided that the same capital requirements for related credit institutions, investment firms and financial institutions should be used in the Solvency II calculation as in the supplementary capital adequacy calculation for a financial conglomerate. It is however unclear to what extent FICOD and the DR 342/2014 should be taken into account in the Solvency II group solvency calculation.

9.487 As a consequence, there is no certainty at this stage on how to adequately supervise the inclusion of related undertakings in other financial sectors (OFS) in the group solvency calculations.

9.488 Issues which need to be clarified refer to the inclusion of undertakings in OFS and whether the choice of method would lead to the same result when including such undertakings. It also includes issues referring to classification and availability assessment of own funds for related undertakings in OFS as well as the amount of capital requirements which should be included into the group solvency calculation as well as the link with conglomerate legislation.

Policy Issue 1: Lack of clarity on inclusion of undertakings in Other Financial Sectors (OFS) into Solvency II

9.489 Article 329 of the Delegated Regulation provides details on which capital requirements and own funds to be included regarding related credit institutions, investment firms and financial institutions as well as other related undertakings in other financial sectors. This article is applicable unless the book value of the related undertaking has been deducted in accordance with Article 229 of the Solvency II Directive. The references in Article 329 of the Delegated Regulation letter (a) to (e) refer to capital requirements and own funds calculated according to relevant sectoral rules.

9.490 The outcome of discussions held within EIOPA and previous analysis done, is that the contribution of these undertakings to the group solvency is the same, independent of calculation method used, since the proportional share of capital requirements and own funds calculated according to sectoral rules are simply aggregated.

9.491 Since Article 329 of the Delegated Regulation does not mention anything in relation to the method used for including undertakings from OFS, it should be clarified if Article 329 is applicable regardless of the calculation methods used for the group solvency. See also policy proposal 9.3.17 on Article 228 of the Solvency II Directive).

Policy Issue 2: Allocation of OFS own funds into relevant Solvency II tiers for the purpose of Solvency II calculations

9.492 There is no explicit provision stating if and how own funds from OFS entities should be classified into the Solvency II tiers. This could lead to own-fund items regarded as of lower quality according to sectoral rules to be included as Tier 1 in the group solvency calculation.

9.493 As there are substantial differences between the classification into tiers according to banking and insurance rules, an allocation of significant own funds items into Solvency II tiers in the reporting would help the group supervisors to be prepared for the situation when some own funds item do not possess the same characteristics as insurance own funds items in stress situation.

9.494 If an allocation of own funds from OFS should be made, it is not clear if Tier 1 from OFS can or should be reported as Tier 1 under Solvency II. In the absence of explicit provisions it is noted that some supervisory authorities have applied the following principles when allocating own funds from entities subject to CRD/CRR into Solvency II tiers:

a) Regarding credit and financial institutions, Article 68(5) of the Delegated Regulation describes how to deduct, at solo level, such an OFS entity's value from an insurance undertaking's own funds. The underlying mapping between the OFS's tiers and the Solvency II tiers which stems from this Article is considered as applicable when aggregating OF from OFS to group OF.

b) Regarding other financial entities which are regulated by CRD IV/CRR, the same underlying mapping is considered to apply.

However, no rules are available for other OFS undertakings not regulated by CRD IV/ CRR.

Policy Issue 3: Clarify the ability of excess of own funds from OFS to absorb losses in the insurance part of the group

9.495 There is no specific provision in the Solvency II framework which explicitly allows supervisors to assess the availability of own-fund items from other financial sectors, which appears to give a preferential treatment to OFS own funds over the own funds generated by the insurance part of the group. The assessment, according to Article 330 of the Delegated Regulation, is required only for certain own funds in related (re)insurance undertakings, third country (re)insurance undertakings, IHC and MFHC.

9.496 As for credit institutions, investment firms, and financial institutions, Article 329(1)(a) of Delegated Regulation includes a reference to relevant sectoral rules in FICOD when defining how to include such undertakings in the group solvency. It is however unclear if and to what extent the FICOD regulations should be considered in the Solvency II-calculation. For example, the FICOD regulations, Article 4.1 DR 342/2014, requires an availability assessment of all regulated entities in a financial conglomerate.

9.497 It needs to be clarified if an availability assessment similar to the one described in the FICOD regulations (Delegated Regulation 342/2014) should be applicable also for the Solvency II calculation and if such an assessment should be performed for all own funds in undertakings in OFS, including IORPs, or only for some significant own funds.

9.498 A total absence of availability assessment of the excess own funds of an OFS entity would imply that in some cases, where the "insurance part" of the group is undercapitalised, the solvency ratio of the group subject to Solvency II may still be satisfactory. This regardless of whether the excess of capital of the OFS entities can effectively absorb losses stemming from the insurance undertakings within the group.

Policy Issue 4: Lack of clarity on the inclusion of own funds and capital requirements subject to sectoral rules when OFS entities form a group

9.499 EIOPA guideline 11 in Guidelines on Group Solvency clarified that when related undertakings of OFS form a group subject to sectoral capital requirements, the group capital requirement should be considered instead of the sum of each individual capital requirements. It should be considered whether this should also be the treatment of own funds from OFS. This could mean, for example, that own funds in that sectoral group have already been assessed for availability within the sectoral group subject to their own OFS sectoral rules before including them in the Solvency II group solvency calculation. Given that this is an important element in the calculation of solvency requirements, it should also be considered if this clarification regarding capital requirements and own funds should be included in the Solvency II Delegated Regulation to ensure a level playing field.

Policy Issue 5: Need to clarify which capital requirements for credit institutions, investment firms and financial institutions should be included in the group solvency.

9.500 EIOPA Q&A 1344 provides that the same capital requirements for related credit institutions, investment firms and financial institutions, i.e. including buffers and add-ons, should be used in the Solvency II calculation as in the supplementary capital adequacy calculation for a financial conglomerate. It should be considered what is the purpose of having the same treatment of capital buffers as capital add-ons and if this clarification should be included in the Solvency II regulation.

9.3.16.6 Analysis and Policy Options

Policy Issue 1: Lack of clarity on inclusion of undertakings in Other Financial Sectors (OFS) into Solvency II

Policy Option 1: No Change

9.501 No change does not help with current issues and uncertainty.

Policy Option 2- Clarify that, regardless of method used in the group solvency calculation, Article 329 of the Delegated Regulation is applicable for the inclusion of OFS entities in the group solvency calculation

9.502 Since Article 329 of the Delegated Regulation is not mentioning anything in relation to the method used and actual technique applied for including OFS entities, it should be clarified that Article 329 always applies regardless of the Solvency II methods used for calculating group solvency (see also section

9.3.17 on proposal to remove paragraph one of Article 228 of the Solvency II Directive)

9.503 This means that related undertakings in OFS should be included in the group solvency calculation using a technique where the sectoral own funds and capital requirements for these undertakings are aggregated to the total group own funds and total group SCR respectively.

Policy Issue 2: Allocation of own funds from Other Financial Sectors into relevant Solvency II tiers for the purpose of Solvency II calculations

Policy Option 1- No change.

9.504 No change does not help with current issues and uncertainty.

Policy Option 2 – Confirmation in the regulations that no allocation of own funds from OFS into relevant Solvency II tiers when including these in the group solvency calculation.

9.505 The policy option is considered as it provides certainty on the question about how to treat the tiering coming in from OFS, in particular when there are differences on the tiering/quality of certain own funds between Solvency II and OFS.

9.506 If the allocation into tiers of eligible own funds to cover the group SCR as calculated under Solvency II rules would not include any of the related undertaking in OFS, this could lead to the overestimation of the eligible own funds of the best quality in the group solvency calculation.

Policy Option 3– Allocation of own-fund items from OFS into relevant Solvency II tiers where practicable and when the excess of own funds is material

9.507 Allocation on a high-level and only for specific, clearly identified own-fund items such as subordinated debt and similar, when it is practicable and the own-fund items materially affect the amount of group own funds.

9.508 If practicable, the mapping of own funds as described in Article 68(5) in the Delegated Regulation could be followed:

9.509 The underlying mapping between the OFS's tiers and the Solvency II tiers which stems from this Article might be considered as applicable when aggregating own funds from OFS to group own funds.

9.510 It should be noted that an allocation of own funds from OFS into the relevant Solvency II tier would have an impact on reporting and disclosure but not on quantitative requirements.

Policy Issue 3: Clarify the ability of excess of own funds from OFS to absorb losses in the insurance part of the group

Option 1 – No change.

9.511 No change does not help with current issues and regulatory uncertainty.

Option 2 – Clarify in the regulations that no availability assessment should be done for own funds from OFS

9.512 Clarify in the regulation that no availability assessment of own funds from OFS should be done in Solvency II.

9.513 This policy option could provide certainty on the question about how to deal with the availability assessment on OFS, and will assume that the availability assessment made at the level of the sectoral rules would be enough for the group to fulfil the requirements under Solvency II regarding availability assessment. However, from a supervisory point of view this option assumes that all own funds stemming from the OFS will be always available to cover the losses in the insurance part of the group. It is doubtful whether all own funds from OFS may be for example transferred to other entities in the group in such case.

Option 3 –To require an analysis of the loss-absorbing capacity of own-fund items both from a group (self-assessment) and a supervisory perspective.

9.514 The objective of this policy option is to have sufficient assurance that the excess of own funds from the OFS can be effectively used to absorb losses in the insurance part of the group, in particular in a stress situation. This will also avoid a misinterpretation of the financial position of the group.

9.515 The policy proposal does not interfere with the OFS rules applicable to their relevant sectors. It only seeks to analyse if there are own-fund items which would limit an inclusion of the excess of the own funds coming from OFS that contributes to the group own funds under Solvency II. This analysis should particularly be performed in case the excess of own funds stemming from Other Financial Sectors is deemed material.

9.516 In order to achieve the objective of the policy, and to keep it aligned with the treatment of insurance companies contributing to the group own funds, it is advised that:

(i) Subordinated debt instruments and Deferred tax assets, if included in sectoral own funds in excess of OFS sectoral capital requirement are assumed as not effectively available to absorb losses in the group solvency under Solvency II unless the group can demonstrate to the satisfaction of the group supervisor that they are able to absorb losses.

(ii) For other own-fund items in excess of the OFS sectoral capital requirements the groups may include them in the group own funds. If a supervisory authority on its own or through the college of supervisors have concerns regarding the ability of such own funds to absorb losses, the group should demonstrate to the satisfaction of the supervisory authority that such sectoral own funds can absorb losses arising in the insurance part of the group. The ability to transfer excess own funds for the purpose of absorbing losses in the insurance part of the group should appropriately take into account among others whether there are non-distributable reserves or own-fund items, for which the loss absorbability is restricted by the specificities of the undertakings in other financial sectors. This also includes such funds and items that cannot be transferred even if not specifically labelled as non-distributable items.

9.517 EIOPA will also use supervisory convergence tools to address any harmonisation issues, especially regarding the identification of own fund items, which cannot be addressed through a change of the legislation.

Option 4 (new) – To require an analysis of the loss-absorbing capacity of own-fund items from OFS similar to that required under FICOD

9.518 This policy option is included to compare the other possible alternative which is to adopt a style alike to Article 4 of the Commission Delegated Regulation EU 342/2014 on Financial Conglomerates.

9.519 This option allows for more detailed assessment of all sectoral own funds in excess of OFS sectoral capital requirement, but it requires quite extensive assessment both from the groups and supervisory authorities. This option although fully consistent with other sectors it would be much stricter and require much more resources than option 3.

Policy Issue 4: Lack of clarity on the inclusion of own funds and capital requirements subject to sectoral rules when OFS entities form a group

Option 1– no change.

9.520 No change does not help with current issues and uncertainty.

Option 2 – Clarify that group own funds and group capital requirements calculated according to sectoral rules should be used in the group solvency calculation when OFS entities form a group.

9.521 Clarify in Articles 329, 335 and 336 of the Delegated Regulation that when related undertakings in OFS form a group subject to sectoral group supervision, group own funds and group capital requirements calculated according to sectoral rules should contribute to the group solvency calculation instead of the sum of the capital requirement and own funds of each individual undertaking.

Policy Issue 5: Need to clarify which capital requirements for credit institutions, investment firms and financial institutions should be included in the group solvency.

Option 1 – No change

9.522 No change does not help with current issues and uncertainty

Option 2 – Clarify what should be taken into account as the "capital requirements" of the credit institution, investment firms and financial institution in the group solvency calculation.

9.523 Currently the only guidance available for inclusion of capital requirements from credit institutions, investment firms and financial institutions is the answer to Q&A 1344. As part of the consultation paper, the proposal of upgrading the Q&A 1344 to the regulations was made to clarify that the same capital requirements for related credit institutions, investment firms and financial institutions, i.e. including buffers and add-ons, should be used in the Solvency II group solvency calculation as used in the supplementary capital adequacy calculation for a financial conglomerate.

9.524 However, EIOPA acknowledges that not all insurance groups are identified as financial conglomerates, and moreover there are substantial differences in the definitions of buffers for credit institutions, investments firms, and financial institutions, which make such buffers non-comparable to the Solvency II capital add-on. The differences, EIOPA understand as follows:

9.525 Firstly, the capital add-on is part of the capital requirements for insurance undertakings. The capital add-on is imposed in order to achieve the prescribed Solvency II confidence level, while banking capital buffers are set over the CRD confidence level and kept for adverse situations (for instance, in light of the Covid-19 pandemia, banks are allowed to operate below the capital buffers level for the time of the pandemia).

9.526 Secondly, the consequences of credit institutions, investments firms, and financial institutions not covering a buffer under their regulations would be different than not covering the capital add-ons for (re)insurance undertakings under Solvency II. For example, the capital conservation buffer and the countercyclical capital buffer under CRD trigger only limits on the payments of dividends or bonuses[206], while a re (insurance) undertaking not covering capital add-ons under Solvency II results immediately in a recovery plan.

[206] https://www.consilium.europa.eu/en/policies/banking-union/single-rulebook/capital-requirements/

9.527 Thirdly, capital buffers are mostly not company specific but set for the whole market in a given member state, therefore level playing field and the potential impact of the decisions of member states about the capital buffer amounts may be also an issue.

9.528 Some stakeholders raised also the issue of the scope of application of the Q&A 1344 and that the calculation should be based "solely on figures that appear in published returns".

9.529 Article 336 (c) of the Delegated Regulation makes a reference to the capital requirements from all OFS entities, calculated according to the relevant sectoral rules. Therefore, the above analysis would lead to legal question, as currently it is not clear (i) whether the buffers of credit institutions, investments firms, and financial institutions may effectively be considered as part of the capital requirements for the purpose of the Solvency II group solvency calculations; and (ii) whether own funds covering the OFS buffers may be included (see further on section 9.3.16(3)).

9.530 The Delegated Regulation should therefore state clearly what should be considered as capital requirement for credit institutions, investment firms and financial institutions that belong to a group subject to Solvency II, and whether the capital buffers under CRD should be considered as part of the capital requirements for such entities as well as whether the same requirements should be taken into consideration by Solvency II groups which are not identified as financial conglomerates.

9.3.17 Application of Article 228 of the Solvency II Directive- – Related credit institutions, investment firms, and financial institutions

9.3.17.1 Extract from the call for advice

> ***3.14. Group supervision***
>
> *EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*
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> - *[…]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

9.3.17.2 Relevant legal provisions

9.531 Article 228 of the Solvency II Directive - Related credit institutions, investment firms and financial institutions

9.532 Article 68(3) of the Delegated Regulation – Treatment of participations in the determination of basic own funds

9.533 Annex I to Directive 2002/87/EC on the supplementary supervision of credit institutions, insurance undertakings and investment firms in a financial conglomerate (FICOD)

9.534 Guideline 11 of EIOPA Guidelines on Group Solvency on the treatment of specific related undertakings for group solvency calculation

9.3.17.3 Identification of the issue

Policy Issue: Lack of clarity regarding the methods of inclusion of related credit institutions, investment firms and financial institutions in the group solvency calculation (Article 228 Solvency II Directive), and its interaction with FICOD, and other articles of the Solvency II framework.

9.535 Article 228 of the Solvency II Directive provides that Members States shall allow the use of Methods 1 and 2 of the FICOD mutatis mutandis (i.e. as an alternative to Solvency II Methods 1 and 2) to include credit financial institutions, investment firms and financial institutions, with the condition that Method 1 FICOD may only be used if the group supervisor is satisfied by the level of integrated management and internal control.

9.536 Solvency II method 1 and FICOD method 2 are considered to lead to the same way of inclusion of credit financial institutions, investment firms and financial institutions in the group solvency calculation. Under Solvency II related credit financial institutions, investment firms and financial institutions are brought into the group solvency calculation using a deduction and integration technique by applying sectoral rules.

9.537 Article 228 of the Solvency II Directive is not clear as to (i) how to assess the level of integrated management and internal control to allow the application of Method 1 FICOD; (ii) if the application of Article 228 is limited only to insurance groups that are identified as financial conglomerates; (iii) and if Article 228 is applicable to the whole group or only to the related undertakings subject to this article, and (iv) how FICOD methods 1 and 2 should be used for the Solvency II group solvency calculation.

9.538 Furthermore, there are national transposition issues derived from various interpretations. For instance, it was noted that Member States transposed Article 228 of the Solvency II Directive in national legislation in different ways:

a. Some member states implemented Article 228 by stating that credit institutions, investment firms and financial institutions must be included in the group solvency calculation through FICOD methods [adding that Method 1 FICOD can be used only in case of a sufficient integration of the group] in a way that requires the application of FICOD methods instead of applying method 1 of the Solvency II Delegated Regulation (cf. Article 335(1) (e)).

b. Other member states implemented Article 228 by stating that credit institutions, investment firms and financial institutions may be included in the group solvency II calculations through FICOD methods (instead of the Solvency II methods). However, since Method 2 FICOD and Method 1 Solvency II are considered to lead to the same way of inclusion of credit financial institutions, investment firms and financial institutions in the group solvency calculation (cf. (Article 335 (1) (e) Delegated Regulation), it is more likely that the option provided in Article 228 paragraph 1 is not used in practice and that credit institutions, investment firms and financial institutions are included through Solvency II method 1 in the group solvency calculations.

9.3.17.4 Analysis

9.539 Following from the issues identified above, the analysis section will aim to expand on the challenges derived from the lack of clarity of Article 228 of the Solvency II Directive.

9.540 On the first issue, how to assess the level of integrated management and internal control to allow the application of Method 1 FICOD, Article 228 of the Solvency II Directive states that "method 1 set out in Annex I to Directive 2002/87/EC (FICOD) *shall be applied only where the group supervisor is satisfied as to the level of integrated management and internal control* regarding the entities which would be included in the scope of consolidation". This lead to a clear challenge, where no FICOD nor Solvency II guidance has been provided for in the regulations on how to assess the level of integrated management and internal control. Making a supervisory assessment of this condition hardly operable in practice.

9.541 On the second issue, if the application of Article 228 is limited only to insurance groups that are identified as financial conglomerates. By reading Article 228 of the Solvency II Directive, it could be understood that FICOD methods 1 and 2 should be applied to the whole Solvency II group for the calculation of the group solvency. With this interpretation, it could also be understood that Solvency II groups with participations in credit financial institutions, investment firms and financial institutions are allowed to use FICOD methods and not the Solvency II method laid down in Articles 335 to 336 of the Delegated Regulation, regardless if they are financial conglomerates subject to FICOD capital requirements or not. As a result, it would be necessary to specify that FICOD method 1 or 2 should be used only to include the credit financial institutions, investment firms and financial institutions undertakings into the group solvency.

9.542 On the other hand, if Article 228 of the Solvency II Directive is interpreted to apply only to the related undertakings and not to be applied to the whole Solvency II group, the reason for applying FICOD method 1 is unclear.

9.543 On the third issue, if Article 228 of the Solvency II Directive is applicable to the whole group or only to the related undertakings subject to this article, it is understood that Article 228 of the Solvency II Directive when incorporated in the legislation sought to facilitate some simplifications on the solvency calculations to include credit financial institutions, investment firms and financial institutions. However, when Article 228 (paragraph 1) is applicable to the whole group, it diminishes the application of Solvency II methods.

9.544 Method 1 FICOD allows for capital sectoral rules including sub-consolidation to bring in the credit financial institutions, investment firms and financial institutions. Guideline 11 of EIOPA Guidelines on Group Solvency[207] on the treatment of specific related undertakings for group solvency calculation sought to cover for any gaps relating to the cases where Method 1 FICOD could apply. Hence, Guideline 11 would be sufficient and clearer for Solvency II groups, and there would not be need to keep the wording of Article 228 (paragraph 1) which is creating different interpretations on the application.

9.545 On the fourth issue, how FICOD methods 1 and 2 should be used for the Solvency II group solvency calculation, the regulations are silent on how the FICOD methods should in practice work for the Solvency II group. It is noted from the public disclosures from at least one insurance led financial conglomerate that there is a diverse interpretation leading to a Solvency II group either not being consistent in all cases to Solvency II regulations, or having to apply a mix approach between FICOD rules and Solvency II rules that do not follow a consistent basis. For instance, Solvency II groups that follow only FICOD Method 1 could face the challenge of how to follow a consolidated approach that uses a different starting point and valuation of assets which would have an impact on items of the Solvency II items like the reconciliation reserve. Therefore, regulatory consistency is needed to ensure that Solvency II groups, in particular those which are identified also as financial conglomerates, follow the Solvency II methods (instead of FiCOD methods) of calculation for group solvency.

9.546 Article 228 paragraph two allows supervisory authorities in their role as group supervisors, to decide, at the request of the participating undertaking or on their own initiative, to deduct any participation (as referred to in the first paragraph of the same article) from the own funds eligible for the group solvency of the participating undertaking. This would appear to be one of

[207] When the undertakings of other financial sectors form a group subject to sectoral capital requirement, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should consider using the solvency requirements of such a group instead of the sum of the requirements of each individual undertaking when calculating the group solvency

most valuable elements of this article which allows flexibility for Solvency II groups.

9.547 It is noted from EIOPA's report on Article 242(2) to the European Commission, that there were 3 cases from 1 country, where a participating undertaking was allowed to deduct a participation in credit institutions, investment firms, and financial institutions from the own funds eligible for the group solvency of the participating undertaking, as referred to under Article 228 paragraph 2 of Solvency II Directive.

9.548 Article 68(3) of the Delegated Regulation on treatment of participations in the determination of basic own funds offers the possibility for solos not to deduct strategic participations which are included in the calculation of the group solvency on the basis of Solvency II method 1 and FICOD method 1. Depending on the transposition of Article 228 into national law, as mentioned on the identification of the issue, the use of Method 1 of Solvency II is, in some MS, not allowed for participations in credit institutions, investment firms, and financial institutions. Therefore, Article 68 (3) remains in practice not applicable to groups using Method 2 of FICOD in those cases.

9.549 Therefore if the clarification of Article 228 of the Solvency II Directive results in removing the possibility to use FICOD methods (e.g. Article 228 paragraph one), or in a deletion of the full article from the legislation, then there will be a need to amend Article 68 of the Delegated Regulations. It is envisaged that the amendment on Article 68 of the Delegated Regulations would not lead to a change on the application of this article.

9.550 Finally, it should also be noted that there are sections of this advice to the European Commission that also relate to the interlinkage with other financial sectors. And in that regard, we refer you to consider the analysis and advise on section 9.3.16(4) regarding the lack of clarity about the inclusion of own funds and capital requirements subject to sectoral rules when other financial service entities form a group.

9.3.17.5 Policy Options

Option 1: No Change

9.551 No change will not be an option due to the lack of regulatory clarity.

Option 2: Clarify in Article 228 of Solvency II Directive that FICOD methods are only applicable for the inclusion of related credit institutions, investment firms and financial institutions (not for other related undertakings)

9.552 Need to change Article 228 to clarify that methods 1 and 2 according to FICOD should be used only to include the undertaking which is a credit institution, investment firm or financial institution in the group solvency calculation and not to the rest of the whole group.

9.553 Clarification is also needed on:

- how the assessment of the level of integrated management and internal control should be performed in practice
- how FICOD method 1 should apply in practice. In particular, clarification is needed on whether applying FICOD method 1 only to the related undertaking is different from applying FICOD method 1 to the whole group.

Option 3: Remove references to FICOD Methods in Article 228 of the Solvency II Directive, and amend Article 68(3) of the Delegated Regulation accordingly

9.554 Due to the lack of clarity regarding Article 228 of the Solvency II Directive as well as to the national transposition issues, an option would also be to remove a part of or the full Article 228 from the Solvency II Directive.

9.555 The overall objective of the proposal is to reducing the number of methods to include an undertaking which is a credit institution, investment firm or financial institution in the group solvency calculation. This will be beneficial for industry as well as for supervisors, in particular as it will be easier for groups having clarity on the methods used as well as for supervisors to monitor the application of methods used.

9.556 The fact, that the Solvency II framework provides enough flexibility and guidelines on how to include related credit financial institutions, investment firms and financial institutions and that there are difficulties in applying FICOD Method 1 makes the proposal to simplify the article beneficial for industry and insurance supervisors

9.557 A deletion of **Article 228 paragraph one**, removing the references to FICOD methods, will simplify matters to Solvency II groups. Solvency II groups will therefore include related credit financial institutions, investment firms and financial institutions undertakings in the group solvency calculation only with the methods outlined by the Solvency II framework (see Section 9.3.16);

9.558 According to **Article 228 second paragraph**, the supervisory authorities could decide, at the request of the participating undertaking or on their own initiative, to deduct the participation in a credit financial institutions, investment firms and financial institutions undertakings from the own funds eligible at group level. A deletion of this paragraph would limit the flexibility given to the group supervisor and or the participating undertaking to deduct these related undertakings from the eligible group own funds.

9.559 If credit financial institutions, investment firms and financial institutions are deemed as strategic participations, it should be noted that Article 68(3) of the Delegated Regulation, as an exception to the rule on determining basic own funds of (re)insurance undertakings, allows such solo related undertakings not to deduct strategic participations in credit financial institutions, investment firms and financial institutions undertakings which are included in the calculation of the group solvency on the basis of Method 1 FICOD or on the basis of Method 1 of the Solvency II Directive. Thus, an amendment to Article 68(3) of the Delegated Regulation would also be needed to ensure references are made only to Solvency methods for the inclusion of related credit institutions, investment firms and financial institutions in solvency calculations.

9.560 The policy proposal will be limited to remove Article 228 paragraph one of the Solvency II Directive. This takes into account any concerns of losing out on the flexibility offered by the second paragraph of this article.

Governance Requirements - uncertainties or gaps related to the application of governance requirements at group level.

9.3.18 Mutatis mutandis application of solo governance requirements to groups - Article 40 of the Solvency II Directive (definition of the AMSB for groups); and Article 246 of Solvency II Directive (supervision of the system of Governance)

9.3.18.1 Extract from the call for advice

3.14. Group supervision

EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:

- *[…] uncertainties or gaps related to the application of governance requirements at group level.*

9.3.18.2 Relevant legal provisions

9.561 Article 40 of the Solvency II Directive – Responsibility of the administrative, management or supervisory body

9.562 Article 246 of the Solvency II Directive – on the supervision of system of governance

9.563 Articles 258 to 275 of the Delegated Regulation on the system of governance.

9.564 EIOPA Guidelines on system of governance (EIOPA_BoS_14/253) - Guideline 65 – Responsibilities for setting internal governance requirements and other relevant guidelines 66 to 70 on Group governance specific requirements; as well as Guideline 62 on intra-group outsourcing.

9.3.18.3 Identification of the issue

9.565 Article 246 of the Solvency II Directive imposes the mutatis mutandis application by insurance groups of the requirements laid down in Articles 41 to 50 of the Directive (which are applicable to solo entities), but it does not explicitly refer to Article 40 (responsibility of the AMSB of insurance and reinsurance undertakings).

9.566 There is not a clear defined system of governance for groups in the Solvency II framework. The system of governance that applies to groups rely on the application of mutatis mutandis which although offers great flexibility to industry it is open to interpretation due to the regulatory gap. Hence, creating uncertainty which leads to an un-level playing field. In addition to the mutatis mutandis issues, it is also prudent to precise group governance requirements in order to easily identify responsibilities at group level, to safeguard correctly identification and management of group risks and to ensure some level of consistency between group and solo systems of governance within the group. This is also necessary to reinforce financial stability and group resilience.

9.3.18.4 Analysis

Article 40 of Solvency II Directive

9.567 The rationale of why Article 40 does not apply mutatis mutandis at group level is not clear based on the records available. It is noted from the stakeholders' comments that a few stakeholders indicate that this was a conscious decision made by the legislator to hold the "highest" supervised entity below the IHC or MFHC as accountable. This however, it is not the interpretation of the supervisory authorities with responsibility for group supervision nor EIOPA. According to Solvency II, the responsible undertaking for group governance requirements (and other types of requirements) is the ultimate parent undertaking as referred to in Article 213 and Article 215 of the Solvency II Directive.

9.568 It is understood that a simple referencing to Article 40 would not be a practical implementation for groups, and some additional safeguards or specifications may be needed to ensure clarity on the need for groups also having regard to Article 40 of the Solvency II Directive. Some of the considerations are :

- Article 40 refers only to insurance and reinsurance undertakings and, obviously, it does not include a specific reference to IHC or MFHC;

- the identification of the responsible AMSB at group level may not be always straightforward, depending on the structure and organization of the group;
- it should be clear that the AMSB of each insurance and reinsurance undertaking within the group is still responsible for its own compliance with all solo requirements.

9.569 In light of those considerations, EIOPA is of the opinion that Solvency II Directive would benefit from including a direct and specific reference to Title I, Chapter IV, Section 1, with further specifications that clarifies the mutatis mutandis application of Article 40 at group level. In particular:

- the AMSB of the ultimate participating insurance or reinsurance undertaking, insurance holding company or mixed financial holding company which is in the scope of group supervision in accordance with Articles 213 paragraphs 2 a), b) and c), *by default*, has the ultimate responsibility for the compliance with the Solvency II requirements at group level;
- The group supervisor, in consultation with the group and the other supervisory authorities concerned where applicable, on the basis of the structure and organization of the group, could also identify a different entity responsible for the compliance with all requirements at group level.
- In some cases, the proper identification of the AMSB responsible for the group governance could lead the supervisory authority and the other involved authorities to ask to the group to restructure or to establish a holding company or an undertaking that exercises centralised coordination and dominant influence as laid down in Article 212 (1) c) (ii) (see policy issue 2 on dominant influence).

9.570 Moreover, it is recommended to specify that the ultimate responsibility at group level should not impair the responsibilities of the AMSB of each insurance and reinsurance undertaking within the group, which remains responsible at solo level according to Articles 40 and 213(1) of the Solvency II Directive.

9.571 It is also underlined that the clarification on the application of Article 40 of the Solvency II Directive at group level would also solve the current regulatory gap in Article 246 of the Solvency II Directive, where it is not clear which entity and board is really responsible for the group governance requirements.

9.572 In particular, if it is clarified that Article 40 of the Solvency II Directive is applicable at group level, the AMSB of the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company would become - by default - responsible for setting adequate internal governance requirements across the group, that is appropriate to the structure, business model and risks of the group and of its related entities. A different entity and related board can be identified according to the approach outlined above (see the following paragraphs on Article 246 of the Solvency II Directive).

Article 246 of the Solvency II Directive

9.573 Supervision of the system of governance for groups applies to the cases of application of group supervision defined under Article 213 of the Solvency II Directive.

9.574 Article 246 of the Solvency II Directive requires (re) insurance groups to apply with the regulations on the system of governance mutatis mutandis (e.g. the obligations laid down in Articles 41 to 50 of the Solvency II Directive which are applicable to solo entities should equally be, applicable directly at the level of the group.

9.575 However, the mutatis mutandis application of solo requirements on system of governance may raise difficulties and uncertainties as noted by supervisory authorities regarding the following issues:

The identification of the administrative, management or supervisory body (AMSB) of the group.

9.576 The AMSB which has the ultimate responsibility, within a group, for the compliance with the obligations of governance set out in the Directive is not currently clearly identified in the regulations.

9.577 Some countries, in their national transposition, have clarified that the AMSB of the ultimate participating (re)insurance undertaking or insurance holding company or mixed financial holding company (i.e. ultimate parent company) has to set an adequate system of governance at the level of the group, taking into account the structure, the business model and risks of the group and solo undertakings belonging to the group in order to allow a sound and prudent management of the group.

9.578 EIOPA is also aware that there may be cases where the identification of the group AMSB responsible for group requirements is challenging for example, where the parent undertaking is outside the EEA or in cases of horizontal groups with no common parent company, or where at the top there is a participating (non-controlling) undertaking.

9.579 In those cases, it would be important for the group supervisor to have the power, where necessary, to identify a different responsible entity (see advice in section 9.3.18), and to ask the group to restructure or to create an undertaking designated to be the ultimate parent undertaking for the group requirements including governance ones (see policy issue 2 of section 9.3.1).

The identification of the persons who effectively run the group and the group's key functions holders (KFHs)

9.580 The persons who effectively run the group and the group KFHs are not clearly identified either in the regulations. Some supervisory authorities have further indicated that:

- the persons who run the group are to be identified in the AMSB and in the senior management of the ultimate parent undertaking;
- the AMSB of the ultimate parent company has the responsibility to define the group key functions and the persons who effectively will be designated as group KFHs within the group.

9.581 Therefore it can happen that the group KFHs are simultaneously the KFHs of the same undertaking at solo level. In such cases, cumulating of functions at group and solo level is subject to strict conditions (i.e. availability of the KFH for the entities he is responsible for, materiality of the key functions' management for each entity). Furthermore, any potential conflict of interest between the two roles held by a KFHs should be addressed in a group policy and effectively monitored by the risk management system and internal control systems.

9.582 From the survey to supervisory authorities, it is also noted that in some cases, there are national specific particularities for insurance groups to address the challenges encountered with the application of Pillar II requirements. For instance, there is a provision in a member state which states that the majority of the board of a subsidiary must be independent from its parent undertaking. In another member state, there are some particularities at group level regarding the maximum number of mandates an AMSB member may perform. In this case, persons who are already members of the management board of two insurance undertakings, pension funds, insurance holding companies or special purpose insurance companies cannot be appointed as a board member of another insurance undertaking. If the insurance undertaking belongs to a group, the supervisory authority may allow an exception from the before mentioned.

Fit and proper (F&P) at group level

9.583 The fulfilment of fit and proper requirements has to be ensured at the level of the ultimate parent company, where clearly called to set up the group governance requirements.

9.584 The scope of the F&P assessment should take into account the broader perimeter of the business model and complexity of the group.

The definition of the group system of governance (SoG) and its articulation with solo SoG within the group.

9.585 In relation to **group policies**, there is no precision on policies are applicable at group level and how to coordinate the policies set up within a group. Although, it is expected that group should be compliant with all policies as required for solos, however it appears that there are some questions among supervisors. How can the parent undertaking make sure that the policies set up at solos levels are compliant with the ones define at group level? To solve this issues, it would be important for the legislation to include a provision that requires consistency between the written policies of all the entities within the group and the group's policies to avoid of conflict of interest (the mutatis mutandis principles refers to Article 41(3) of the Solvency II Directive);

9.586 As regards to group **risk-management system** and the own risk solvency assessment, it may seem obvious but it is uncertain for some supervisory authorities what the risk management system at group levels is meant to cover in some cases. Some of the questions derived from supervisory cases encountered relate to how ensure an effective risk management system for all undertakings in the scope of the group supervision, in particular when Article 44(2) of the Solvency II Directive requires that the risk management system should cover all risks included in the calculation of the (group) solvency requirements; and there are related undertakings that are not regulated and therefore no subject to solo supervision, and/or there are other undertakings that are subject to other regulatory regimes? Furthermore, should group risk management only limit its monitoring to risks that are specific to the group and rely on the solo risk management function to monitor the solo risks that can pose risks at group level?

9.587 The framework should be revised to unequivocally state that the ultimate parent undertaking should make sure that the group has an effective risk management system, proportionate to the nature, scale and complexity of the activity exercised by the group companies which includes at least the definition and review of:

- risk management policy and strategies;
- risk appetite and the risk tolerance limits, also with a medium-long term view, consistently with the group's strategic guidelines.
- suitable processes and procedures to assure the adequate identification, measurement, assessment, monitoring, management and representation, with adequate frequency, of the current and prospective risks, to which the group and its entities are exposed and, when possible, the related interdependencies. Particular attention at group level should be paid to risks that could affect the group as a whole and the risks posed by companies in third country, not regulated ones or other regulated undertakings;

9.588 About the **internal control and internal audit** deployed at group level, there is no precision on the management of internal control and internal audit at group level and how a group should monitor its entities. For instance, does the parent undertaking just define a framework for internal control to coordinate the internal control of the solo entities and relies on the work done at solo level or does it have to act with a more hands-on approach as a control function within the group? To resolve such issues, it seems prudent that group SoG must ensure consistency between policy and decisions adopted at group and solo levels about the internal control and internal audit level to ensure adequate independence and effectiveness of the internal control system and other elements of the system of governance.

9.589 Regarding the **outsourcing of any functions within a group or outside of the group**, the articulation between solo and group assessment and the assessment of the group outsourcing decision does not seem to be clearly interpreted in all cases. In spite of Guideline 62 of the EIOPA Guidelines on system of governance requiring for critical or important functions or activities that are outsourced within the group to be adequately documented to ensure that the performance of the critical or important functions or activities concerned at the level of the undertaking is not impaired by such intra-group arrangements, some supervisors still encounter challenges with the adequacy of intra-group arrangements and management of conflict of interest between the group and a solo undertaking. Furthermore, some of the supervisory questions and challenges encountered are related to questions such as can the parent undertaking give advice or even object a decision of a solo undertaking within a group to outsource a function? How the parent undertaking analyse the decision to outsource any functions at group level? To solve the above issues, it will be prudent for group SoG to ensure consistency between policy and decisions adopted at group and solo levels about the outsourcing of any key functions within or outside of the group to avoid any conflict of interests.

9.590 Application of proportionality principle on intra-group outsourcing is possible subject to supervisory judgment. Based on some of the supervisory experience described in the next paragraphs, it is noted that supervisory authorities consider proportionality in particular for groups with a lower risk profile.

The application of the proportionality principle to group governance issues

9.591 From the discussions with supervisory authorities on proportionality and a survey issued on the application of the proportionality principle, it is noted that consideration of the principle on proportionality principle is taken into account by supervisory authorities when applying their supervisory review process to solo undertaking and groups, however they also indicate that application of proportionality should not be translated by stakeholders as a no application of the requirements. Thus, groups should be compliant at all times with the system of governance in the same way as it is envisaged for solo undertakings.

9.592 Majority of supervisory authorities apply the proportionality principle when supervising the system of governance at group level in the same way. In some cases, the supervisory authorities noted that the application of Pillar II requirements take into account the group structure, in particular the different nature of undertakings and links among them and the country where the undertakings are located, EEA or non-EEA (potentially includes specific group structure such as the horizontal group or undertakings belonging to more than one group).

9.593 There are some common questions among supervisory authorities about the application of the proportionality principle on group governance issues. For instance, if it is appropriate or not to reduce the level of obligations on governance for less significant groups and to enhance exigencies for significant groups. In particular, the proportionality question often relates to how group governance requirements are applied to non-controlled participations within a group, and how consistency of application and a level playing field can be ensured in the absence of a dedicated SoG for groups. In this regard, it is also noted that some stakeholders are of the view that related undertakings other than a subsidiary should be subject only to a limited group governance provisions likely to be applied considering the effective influence of the parent undertaking over the participated undertaking.

9.594 Given the lack of detailed European provisions on groups' system of governance, some supervisory authorities have defined some indicators, which would allow the ultimate parent company to ensure a more tailored definition and application of the governance tools according the group specificities. These frameworks include the following indicators to be taken into account in the calibration of the governance system:

a) the links among undertakings: if there is a control, the ultimate parent company is in a better position to impose stricter requirements and to monitor their application;

b) the activities carried out by the undertakings and the nature of companies (if regulated or not);

c) the risk profile of each undertaking and their contribution to the riskiness of the group;

d) the possible listing on the stock exchange;

e) the location of the undertaking, if it is in a third country.

9.595 Additionally, the ultimate parent undertaking is required to self-assess its group's risk/complexity profile in order to apply a more or less complex system of governance. The self-assessment is based on a mixed criteria of (i) quantitative (e.g. size measured as the amount of technical reserves or premiums), and (ii) qualitative elements (e.g. use of an internal model for the calculation of the Group Solvency Capital Requirement; complexity of the asset management strategies; complexity of the ownership structure; complexity of the technical risks undertaken and of other sector specific risks;

substantial cross-sector operations, especially if carried out in countries outside the EEA; risk appetite at group level).

9.596 It is noted that in some cases, at least one member state has communicated to its market the possibility of some simplified solutions for groups with a low risk profile and some stricter expectations are issued for higher risk profile group.

9.597 With reference to the concrete application of the proportionality principle within the group, some supervisory authorities indicated that some stricter requirements would be expected for higher risk profile groups, on the contrary some simplified solutions could be allowed for groups with a lower risk profile. Examples of stricter requirements are:

- non-executive role of the chair of the group AMSB;
- setting up of committees such as remuneration and risk committees;
- appointment of different key functions holders for each key function and set up of different unit for each key function;
- designated groups (for example group relevant for financial stability reporting) have to draw up and send to the Supervisor a group emergency plan (so called "recovery plan"). The minimum contents of the plan have been defined, including, among other things, indications regarding the prospective management of liquidity risk;
- remuneration issues (as the identification of a percentage of the remuneration to be deferred, to be awarded in shares etc.).

9.598 Examples of simplified solutions applied by some supervisory authorities for the undertakings that are part of the group and for the ultimate parent company are:

- internal committees set up (such as the Remuneration or Risk Committee) at the ultimate parent company level (UPC) and not at the level of the subsidiaries, if the group Committee is adequate to cover also the risk profile of the solo level undertaking;
- key functions set up at the level of the ultimate Parent undertaking and not at the level of the subsidiaries, if they are adequate also for the controlling tasks at solo level undertaking without prejudice to the appointment of the KFH in the subsidiaries and to the responsibility of each undertakings to ensure the compliance with the solo level provisions on the governance system;
- outsourcing of key functions into the group (UPC and subsidiaries): the regime applicable to the key function outsourcing is more flexible within the group (including only the subsidiaries);
- possibility to merge into a single organizational unit the key functions other than the internal audit and to appoint an unique key function holder for different key functions;

- combination of key functions within the group or a solo entity if the group or the solo entity is below the indicative size thresholds defined.

9.3.18.5 Policy Options

Policy Issue: Lack of clarity regarding the mutatis mutandis application of solo governance requirements to groups- Article 40 of the Solvency II Directive (definition of the AMSB for groups); and Mutatis Mutandis under Article 246 of Solvency II Directive

9.599 For the overall policy issue on the lack of clarity regarding the mutatis mutandis application of solo governance requirements to groups – Article 40 of the Solvency II Directive (definition of the AMSB for groups); and mutatis mutandis under Article 246 of the Solvency II Directive, the policy options consider two policy options (1) no change; (2) Clarify the provisions regarding responsibility for governance requirements at group level, and setting principles to reduce SoG mutatis mutandis issues (preferred option).

Option 1: No Change

9.600 No change to, the text of Article 40 of the Solvency II Directive would remain not explicitly applicable at group level. The implicit interpretation of Article 40 of the Solvency II Directive leads to an unlevel playing field as it is open to different interpretations.

9.601 No change to, the text of Article 246 of the Solvency II Directive means that the lack of clarity due to mutatis mutandis will remain for the systems of governance at group level.

Option 2: Clarify the provisions regarding responsibility for governance requirements at group level, and setting principles to reduce SoG mutatis mutandis issues at group level (preferred option).

9.602 In relation to Article 40 of the Solvency II Directive, EIOPA advises to amend the Solvency II Directive to ensure that Article 40 of the Solvency II Directive also applies to insurance groups within the reading of the issues presented above. In particular, the legal text should state clearly that the AMSB of the parent (re)insurance or IHC or MFHC at top of the group would be responsible for the compliance with all group requirements.

9.603 The group supervisor should be granted power to designate a different company of the group or a specific company in the case of horizontal group, groups with multiple points of entry or multiple groups hold by the same individual or legal entity (where the parent company is not clearly identifiable or the group supervisors assess that the designated company is not adequate)

9.604 The responsibility primarily rests with the group to designate – subject to the consent of the group supervisor – the group undertaking responsible for governance and reporting requirements. However, where the group fails to designate an undertaking that would be adequately responsible to implement a group-wide system of governance, the group supervisor should be granted power to designate, where appropriate and as last recourse, a different company of the group or a specific company in the case of horizontal group, groups with multiple points of entry or multiple groups hold by the same individual or legal entity as the responsible entity.

9.605 Please also refer to the advice made for sections 9.3.1 on the need to facilitate the application of group supervision under Article 213 of the Solvency II Directive in the case of horizontal groups, groups with multiple points of entry in the EEA, and multiple groups held by the same individual or legal entity; as well as the advice on section 9.3.2 on Article 214(1) of the Solvency II Directive and the need of powers over holdings.

9.606 In relation to Article 246 of the Solvency II Directive, EIOPA advises the European Commission for the regulations at level two at level two to be more specific regarding the system of governance requirements at group level to avoid some of the mutatis mutandis issues identified for this issue regarding the Articles 41 to 50 of the Solvency II Directive.

9.607 Without prejudice of the principles defined in Articles 41 to 50 of the Solvency II Directive, Article 246 of the Solvency II Directive and or supporting level two provisions should, at least, clarify the expectations on the SoG for groups by setting out principles to cover the following:

- The responsible undertaking for group governance requirements (and other types of requirements) is the ultimate parent undertaking as referred to in Article 213 and Article 215 of the Solvency II Directive. This requirement corresponds to Article 40 of the Solvency II Directive.
- The persons who effectively run an insurance group are the persons who effectively run the responsible parent undertaking (Corresponds to Article 42 and 43 of the Solvency II Directive);
- The group key functions holders are the key function holders of the responsible parent undertaking or the persons, under its responsibility, designated by the responsible parent entity as such within the group. In case of accumulation of key functions of a solo entity and the ones of the group, the competencies and functions have to be clearly distinguished and justified to avoid any conflict of interest (Corresponds to Article 41(1) of the Solvency II Directive) ;
- The undertaking responsible for group governance should define policies so that they can ensure necessary consistency between the policies of all the entities within the group, even those which are not subject to the Solvency II regime, and modified in accordance with the requirements set out in Article 41(3) of the Solvency II Directive. Consistent

implementation of policies requires application of Article 246(1) of the Solvency II Directive.

- The undertaking responsible for group governance should also ensure that those policies are formally enacted and applied consistently within the group (this corresponds to Article 41 and Article 246(1) of the Solvency II Directive);
- Group level own risk solvency assessment and risk management system should cover at least all key activities conducted at group level and the risks that are relevant at group level. In addition, the ultimate parent undertaking shall keep a regular degree of monitoring of all its entities (including non-regulated entities) and the level of monitoring should be proportionate to the risks these entities' generate at group level.
- Additionally, the group needs to adequately mitigate all risks to avoid conflict of interests, in particular when group control functions also simultaneously provide or share a KFH function with the local entities. Clear roles and responsibilities as well as adequate reporting lines and escalation procedures between the group and the solo ASMB should support compliance at group and solo level (an adaptation of Article 246(1) of the Solvency II Directive and Article 258 of the Delegated Regulation would be required).
- In addition, the KFHs of the group have to ensure, in their own field, the harmonisation of the group's policies, and assess the proper implementation of policies defined at group level (this corresponds to Article 41 and Article 246 (1) of the Solvency II Directive) and the group has to ensure that key control functions fulfil an effective SoG;
- The group needs to ensure that a harmonized set of documentation for all relevant areas is available to build the basis for transparent and informed decisions and that supports the identification of group-specific risks (this corresponds to Article 246 of the Solvency II Directive and Articles 258 to 267 of the Delegated Regulation);
- The group ensures a clear and transparent group governance structure which prevents explicitly and implicitly conflicts of interest; and that it guarantees efficient supervision of SoG for the group; (this corresponds to Article 41 and Article 246 (1) of the Solvency II Directive and Articles 258 to 275 of the Delegated Regulation).
- In case of a related undertakings that are no subsidiaries, the supervisory expectation is that such undertakings are still subject to the SoG as long as they are included in the scope of group supervision. The extent to which the SoG will be applied are subject to the interlinked activities between the ultimate parent and the related undertaking (this to be aligned with Article 246 of the Solvency II Directive and supporting articles in the Delegated Regulation).

- In the case of joint-controlled participations[208] (as defined under IFRS) between two different groups, each group has the responsibility to ensure that the joint-participation is compliant with both system of governance policies. The ultimate parent of each group will need to ensure that the policies of the participating undertaking are compliant with the SoG. In practice, this could be done through a memorandum / contract between the groups (as in the case of joint ventures) or through ad hoc decisions (this to be aligned with Article 246 of the Solvency II Directive and supporting articles in the Delegated Regulation).

[208] Joint control involves the contractually agreed sharing of control and arrangements subject to joint control are classified as either:
-a joint venture (JV)- representing a share of net assets and equity accounted or
-a joint operation (JO) - representing rights to assets and obligations for liabilities, accounted for accordingly.

10. Freedom to provide services and freedom of establishment

10.1 Extract from the call for advice

3.13. Freedom to provide services and freedom of establishment
EIOPA is asked to assess whether the current supervisory powers at the disposal of the home National Supervisory Authorities and EIOPA are sufficient to prevent failures of insurance companies operating cross-border through freedom to provide services and the freedom of establishment and to properly assess the fit and proper requirements.

10.2 Previous advice

10.1 On 7 June 2018, based on Article 242(2) of the Solvency II Directive, the European Commission asked EIOPA to identify challenges and divergent practices on group supervision, as well as in the supervision of freedom of establishment and freedom to provide services.[209]

10.2 On 18 December 2018, EIOPA submitted to the European Commission the Report on Group Supervision and Capital Management of (Re)Insurance undertakings and specific topics related to freedom to provide services (FoS) and freedom of establishment (FoE) (Article 242 Report).[210]

10.3 Article 242 Report concluded that the tools developed by EIOPA to strengthen the supervision of cross-border issues contributed to a substantial progress in the convergence of practices of National Competent Authorities (NSAs), but that significant challenges remain.

10.4 Another important document to mention is the Special Report of the European Court of Auditors (ECA) on EIOPA's actions to ensure convergence between national insurance supervisory systems in the EU between 2015 and 2017.[211] In the field of the supervision of cross-border insurance business, the ECA noted that "Systemic weaknesses in the current supervisory system for cross-border business remain, but EIOPA made an effort to protect policyholders" and provides an example explaining that "several NSAs approached EIOPA about an insurance company that was doing cross-border business in their markets but offering unusually low premiums and showing evidence of fast growth. As the home supervisor chose to not to focus its supervisory activities on cross-border business, it did not regard the insurance company as a priority. Following EIOPA's intervention, the home

[209] Link to the letter and the Annex
[210] Link to the letter and the Report
[211] Link to the Report

supervisor found that the insurance company was not viable, was in a distressed financial position and did not fulfil its capital requirements. As a result, the company's authorisation for new business was withdrawn."

10.5 More in particular, the ECA recommended EIOPA to[212]:

(a) co-operate with the Commission and the co-legislators to address systemic weaknesses in the supervision of cross-border business, e.g. by improving legal provisions through the ESAs' review process. In particular, it should aim to ensure an equal level of supervision for companies running their business in another Member State, regardless of the chosen business model;

(b) in parallel to these efforts, continue to protect consumers by acting through cooperation platforms and by monitoring cross-border activities.

10.3 Relevant legal provisions

10.6 The legal provisions in place to take into account for this Advice are:

- Solvency II Directive, in particular Article 18 (Conditions for authorisation), Article 23 (Scheme of operations), Article 25 (Refusal of authorisation), Article 153 (Language).

10.7 Furthermore EIOPA considered the recent amendments of the EIOPA Regulation[213] and the Solvency II Directive as a result of the ESAs review, namely:

- The new Articles 152a (Notification) and 152b (Collaboration platforms) under the new 'Section 2a Notification and collaboration platforms' of the Solvency II Directive;
- The amended Article 16 (Guidelines and recommendations) of the EIOPA Regulation.

10.4 Other regulatory background

10.8 From other regulatory background the following is considered for this Opinion:

- EIOPA Board of Supervisors' Decision on the Collaboration of the insurance supervisory authorities (EIOPA-BoS-17/014) (Decision on collaboration).[214]

10.5 Identification of the issues

10.9 EIOPA advices to address the issues, in relation to the supervision of the cross-border business, reported in Article 242 Report and also reflected in the Special Report of the ECA, without jeopardising the home country financial supervision approach.

[212] See Recommendation 2 – Strengthen the supervision of cross-border companies.

[213] Regulation (EU) No 1094/2010

[214] Link to the Decision and to the Annex

10.10 EIOPA concludes in the Article 242 Report that the reliance on the home country financial supervision approach requires strong collaboration among home and host supervisors to avoid arbitrage and to ensure a similar level of protection to policyholders across the EEA regardless of the location of the undertaking's head office.

10.11 The advice aims at further optimising the cooperation between home and host supervisor, in the phase of authorisation and during the ongoing supervision, especially through:

- Efficient information gathering during the authorisation process;
- Information exchange between home and host supervisors in case of material changes in the FoS activities;
- Enhanced role for EIOPA in complex cross-border cases where NSAs fail to reach a common view in the collaboration platform;
- Cooperation between home and host NSAs during the ongoing supervision;
- Explicit power of the host supervisor to request information in a timely manner;
- Enhanced reporting requirements and exchange of information.

10.12 The proposals further facilitate the sharing of information between home and host supervisor to optimise effective cooperation. The outcome of the amendment should ensure an equal level of supervision for companies running their business in another Member States, regardless of the chosen business model as requested by the ECA audit.

10.13 The above mentioned issued are presented and assessed, together with the proposed amendment of the legal framework, in the next paragraphs.

10.6 Efficient information gathering during the authorisation process

Issue identified

10.14 Cooperation between home and host supervisors and timely and effective information exchange are sometimes hindered during the authorisation process. In particular, information on former rejections by other NSAs is relevant in this context.

10.15 Some recent concrete cases indicated that some undertakings had not been authorised by the home supervisor to take up business in a certain Member state or decided to withdrawn their application after discussion with the supervisor on the conditions for authorisation. The same undertakings then decided to submit the application to the NSA of another Member State with the intention to operate exclusively (or almost exclusively) in the Member State that originally refused the authorisation.

Analyses

10.16 The principle of the single authorisation foreseen by the Solvency II Directive and more in general the entrepreneurial freedom cannot jeopardize the objective of the protection of policyholders/beneficiaries.

10.17 By adding to the Solvency II Directive the requirement, currently foreseen by the Decision[215], on the applicant to inform the NSA on rejections/withdrawals of former requests for authorisation, the NSA who received the application will be in a better position to assess the condition for authorisation and collaborate with the NSA that rejected the authorisation in the past. This will ultimately prevent supervisory arbitrage and contribute to supervisory convergence.

Policy issue	Options
1. Efficient information gathering during the authorisation process	1.1._No change implying a General policy for NCAs to ask the applicant for earlier rejections on the basis of the Decision on collaboration. 1.2. Legal requirement for the applicant to inform the NCA on earlier rejections for authorisation in line with the Decision on collaboration. (preferred)

Comparison of options

Policy issue 1

10.18 The preferred policy option for this policy issue is option 1.2. Accordingly, a legal obligation in the Solvency II Directive should be introduced to provide information on former rejections for authorisation to the supervisory authority where the request for authorisation is submitted. An obligation for submission of this essential documentation in the legislation is the best assurance to have the relevant information delivered and opens the possibility for sanctions in case the information is hold back or incomplete. The other option considered have been disregarded because the obligation for NSAs to request the information under the Decision on collaboration does not create a clear legal obligation across the EEA for the industry to submit that information.

10.19 The selection of the preferred option has required a trade-off between the current obligation for NSAs to ask the information on former rejections of authorisation on the basis of the Decision on collaboration and the legal obligation for the industry to submit the information. More weight has been given to a strong legal basis for the submission of this crucial information.

[215] See paragraph 2.5.1.

10.7 Information exchange between home and host supervisors in case of material changes in the FoS activities

Issue identified

10.20 The principle of single authorisation permits undertakings who received the authorisation from the home supervisor to pursue business for entire internal market (EEA) through FoS.

10.21 It is a common practice that undertakings communicate their intention to pursue their activities under FoS in several other Member States, but often after that, they do not commence cross-border activities.

10.22 Where cross-border activities commence only some years after the notification to the host supervisor or in case the activity change materially from the original plan[216], the host supervisor becomes aware of activity pursued in its territory with some delay, for instance at the moment of the distribution of some information regarding cross-border business by EIOPA.

10.23 There may be cases where the undertakings change their initial business plan operating exclusively, or almost exclusively, in other Member States on FoS basis[217]. In such case, no specific exchange on information between home and host supervisor is explicitly foreseen.

Analyses

10.24 In view of the situation described above, there is a risk that the host supervisor is informed too late that the undertaking has commenced a material part of its business in its territory.

10.25 In order to promote a preventive and effective supervision, the home supervisor should receive relevant information on the starting of any material cross border business in a timely manner and inform the host supervisor without delay.

2. Information exchange from home to host supervisor in case of material changes in the FoS activities	2.1 No change 2.2. Legal requirement for home supervisor to inform the host supervisor of substantial and material changes in

[216] For FoE the undertaking has to inform the home supervisor if the new activities coming under FoE do not fit the original plan of operations (Article 145 (4) of the Solvency II Directive).

[217] If such situation occur in the phase of initial notification, par. 3.2.1.3 of the Decision on collaboration requires the home supervisor to communicate additional information to the host supervisor on a non-systematic basis. Furthermore, new Article 152a of the Solvency II Directive, proposed in the context of ESAs review, states that: "*Where the supervisory authority of the home Member State intends to authorise an insurance or reinsurance undertaking whose scheme of operations indicates that a part of its activities will be based on the freedom to provide services or the freedom of establishment in another Member State and where the scheme of operations also indicates that these activities are likely to be of relevance with respect to the host Member State's market, the supervisory authority of the home Member State shall notify EIOPA and the supervisory Authority of the relevant host Member State."*

	the plan of operations where relevant for the host supervisor. (preferred)

Comparison of options

Policy issue 2

10.26 The preferred policy option for this policy issue is option 2.2. to have a legal obligation in the Solvency II Directive for information exchange from home to host supervisor in case of material changes in the FoS activities. It applies also where the nature of the risks or commitments does not change or might change. Currently the information available to host supervisors is only updated by the home supervisor if the nature of the risk or commitments is changed (Article 149 of the Solvency II Directive), which leads to a risk that supervisory issues can only be observed and cannot be prevented. The negative effects might have consequences for the policyholders. The other option considered has been disregarded because the alternative of sharing updates on changes in FoS activities between home and host supervisors is not to request this information.

10.27 The selection of the preferred option has required a trade-off between requesting the home supervisor to inform the host supervisor of material changes against no exchange of information. More weight has been given to preventing supervisory issues because timely information exchange reduces the risk of damage to policyholders and reduce the need for supervisory actions.

10.8 Enhanced role for EIOPA in complex cross-border cases where NSAs fail to reach a common view in the cooperation platform

Issue identified

10.28 In view of the risks and challenges posed by the current system of supervision for cross-border insurance business, EIOPA has made efforts to protect policyholders/beneficiaries by establishing cooperation platforms since 2016.

10.29 In the absence of colleges of supervisors, cooperation platforms[218] are set up when EIOPA and the relevant NSAs see the merit in strengthening cooperation in case of material cross-border business in order to promote a sound internal market. Cooperation platforms provide direct benefit for both home and host supervisors in sharing information and acting on commonly agreed measures, where appropriate.

[218] The use of cooperation platforms is based on the Decision on the collaboration

10.30 In the ECA's view, as reported in its Special Report, "*EIOPA's platforms provided a helpful ad hoc solution to tackling problems arising from cross-border services. In several cases, EIOPA helped to facilitate between NSAs and successfully pushed for solutions*".

10.31 As reported in the EIOPA "Report on Supervisory Activities in 2018"[219], by the end of 2018 nine cooperation platforms were operational with the involvement of 19 national supervisory authorities. The home supervisors of the operational platforms are Bulgaria, Denmark, Ireland, Romania, Slovakia and United Kingdom overseas territories (Gibraltar).

10.32 EIOPA is pleased to note that in the ESAs review new articles on notification and cooperation platforms has been proposed to the Solvency II Directive. This proposal on cooperation platform, which is fully in line with EIOPA's practices and with one of the conclusions of the Article 242 Report[220], enables EIOPA to set up - on its initiative or at request of one or more NSAs - collaboration platforms to facilitate further cooperation where needed.

10.33 EIOPA notes that in several cases where cooperation platforms have been established, due to the complexity of the supervisory issues or different factors considered as priorities by NSAs in cross-border business, the concerned NSAs failed to reach a common view on how to act or follow up on certain actions.

Analyses

10.34 Based on the experience gained in the cooperation platforms since 2016, EIOPA is of the view that the proper functioning of the cooperation platform can be further optimised by adding an explicit reference in the Solvency II Directive to EIOPA's power to:

- issue a recommendation in accordance with Article 16 of the revised EIOPA Regulation

3. Seek solutions in complex cross-border cases where NCAs fail to reach a common view on how to follow up on supervisory issues.	3.1No change 3.2 Specific reference in Article 152b of the Solvency II Directive to EIOPA's powers under Article 16 of the EIOPA Regulation to give a recommendation in a deadlock situation. (preferred)

Comparison of options

Policy issue 3

10.35 The preferred policy option for this policy issue is to have an explicit reference in the Solvency II Directive to the EIOPA Regulation. This would be a clear legal basis to provide solutions through an EIOPA recommendation in

[219] Link to the Report

[220] See par. 3.418 of the Report.

complex cross-border cases where NSAs fail to reach a common view on how to follow up on supervisory issues. The timeframe of two months to follow up on the recommendation as provided for in Article 16 of the EIOPA Regulation aims to end a dead-lock, where policyholders are at risk because of supervisory inaction.

10.9 Cooperation between home and host NSAs during ongoing supervision

Issue identified

10.36 When an insurance and reinsurance undertaking pursues business on cross-border basis under FoE or FoS, the undertaking might not have a clear understanding of the risks that it faces, or may face, in the host territories. Also the home supervisor might face some challenges relating to: the need for local market knowledge, an understanding of the specific local insurance products, relevant laws and requirements, knowledge of local claims environment, awards and court systems, and knowledge of local intermediaries used to distribute the products.

10.37 According paragraph 27 of the Special Report of the ECA this leads to a situation where NSAs supervise business in other Member States without having to bear the consequences of poor supervision, because it has no impact on the home market.

Analyses

10.38 When an insurance and reinsurance undertaking pursues business on cross-border basis under FoE or FoS, the home supervisor should cooperate with the host supervisor to understand, within its continuous supervisory review process, whether the undertaking has a clear understanding of the risks that it faces, or may face, in the host territories.

10.39 EIOPA recommended home/host supervisors to establish and keep a close cooperation in the Decision on collaboration[221] and more recently in an Opinion[222], published in December 2018, in relation to non-life cross border insurance business of a long-term nature.

2. 4. Cooperation between home and host NSAs	4.1 No change 4.2 In case of material cross-border insurance business under the right of establishment or the freedom to provide services, the supervisory authority of the home Member State shall actively cooperate with the supervisory authority of the host Member State to assess whether the insurance undertaking has a clear understanding of the risks that it

[221] See par. 4.1.1.2 and 4.1.1.3

[222] Link to the Opinion.

	faces, or may face, in the host Member State and to integrate this process in the SRP process. (preferred)

Comparison of options

Policy issue 4

10.40 The preferred policy option for this policy issue is to have a legal obligation in the Solvency II Directive for the home supervisor to contact the host supervisor if there are material changes in the cross-border business to the host state. The proposal is in line with Part IV 'supervision on a continuous basis' of the Decision on collaboration, especially with paragraphs 4.1.1.1 to 4.1.1.3.

10.41 The selection of the preferred option has required a trade-off between keeping the current info package shared via the EIOPA Hub and making use of the extra data coming from the enhanced reporting requirements stemming from the 2020 Review. More weight has been given to the most efficient and cost effective way of data sharing ensuring that all host supervisors receive the data of the same quality and at the same time.

10.10 Explicit power of the host supervisor to request information in a timely manner

Issue identified

10.42 Under Article 153 of the Solvency II Directive, there is no requirement for undertakings nor their branches to provide information on conduct of business issues to host supervisors in a timely manner.

10.43 The issue was also reported in 'Article 242 Report'[223]. Several NSAs mentioned that in their role as a host supervisor, they are often facing difficulties in obtaining (timely) answers on questions regarding conduct of business or specific product information directed to insurance undertaking operating under the FoS and FoE, as such undertakings do not consider themselves obliged to provide the host supervisor directly with information on request.

10.44 The host supervisor may approach the undertaking and request data relating to the host Member State, but is not able to oblige the undertaking without recourse to the home Member State, which leads to the conclusion that there is a lack of mandate to enforce these information requests in a timely manner. The current Solvency II framework does not foresee deadlines or enforcement measures regarding the lack of cooperation.

[223] Par. 3.376 of the Report.

Analyses

10.45 In many cases, it is expected that the host supervisor contact the home supervisor.

10.46 There might be cases though, where the host supervisor should be empowered to ask undertakings for some information within a reasonable timeframe in order to perform the conduct of business supervision more effectively.

5. Explicit power for the host supervisor to request information in a timely manner	5.1 No change 5.2 Information on FoE and FoS to host supervisors to be provided in a reasonable timeframe. (preferred)

Comparison of options

Policy issue 5

10.47 The preferred policy option for this policy issue is option 5.2 which aims to have a legal obligation in the Solvency II Directive for timely answers to information requests from host supervisors to undertakings with cross-border business since there is no specific requirement for timely answers in the current legislation.

10.48 The selection of the preferred option has required a trade-off between setting a timeframe and not setting a timeframe for industry to answer information requests from host supervisors. More weight has been given to requesting a reasonable timeframe without mentioning a specific timeframe as to keep flexibility to set the timeframe in light of the content of the request.

10.11 Enhanced reporting requirements and exchange of information

10.49 In 'Article 242 Report', EIOPA concludes "information regarding cross-border business should be enhanced in the Solvency II reporting package given its importance from a prudential perspective. The current requirements were designed to comply solely with Article 159 of Solvency II which is mainly addressing statistical needs and should be reviewed having in mind prudential needs of both home and host supervisors".

10.50 On this regard, it is worth mentioning that EIOPA addressed this topic in the consultation package on supervisory reporting and public disclosure.

10.51 Furthermore, EIOPA is considering to improve the information exchange between the home and host supervisor via the EIOPA hub. For instance, EIOPA is considering to share with the host supervisor the Individual Quantitative Reporting Templates on product-by-product information for life contract (S.14.01), where individual host country is reported, and the percentage of cross-border business per undertakings and host country.[224]

[224] This will require a decision taken at level of EIOPA Board of Supervisors to exchange additional confidential data.

11. Macroprudential policy

11.1. Extract from the call for advice

> ***3.10. Macro-prudential issues***
>
> *EIOPA is asked to assess whether the existing provisions of the Solvency II framework allow for an appropriate macro-prudential supervision. Where EIOPA concludes that it is not the case, EIOPA is asked to advise on how to improve the following closed list of items:*
>
> - *the own-risk and solvency assessment;*
> - *the drafting of a systemic risk management plan;*
> - *liquidity risk management planning and liquidity reporting;*
> - *the prudent person principle.*
>
> *This assessment should be based on strong supporting evidence, also assessing the possible impact of such additional specifications of insurers' behaviour and possible interactions with other Solvency II instruments.*

11.1 In addition, section 3.11 of the call for advice addresses recovery and resolution aspects. It also includes recovery and resolution planning, which is also an element considered in the context of the macroprudential tools and measures.

11.2 EIOPA will cover in this section all the tools included in the call for advice. However, EIOPA has also identified other tools that should be part of the macroprudential framework to effectively reduce systemic risk too. Guidance is also provided on these additional tools, based on previous work done.[225]

11.3 In EIOPA's view, the financial crisis revealed that no appropriate tools existed to address systemic risk, and that the microprudential measures that were used to address system-wide risks were not successful or sufficient to mitigate these risks in the financial sector.[226] Lim *et al.* (2011) consider that tackling

[225] Furthermore, based on the preliminary lessons learned from the COVID-19 crisis, EIOPA has broadened its advice to include potential measures that could be useful in light of similar crisis in the future.

[226] See EIOPA (2018a): *Systemic risk and macroprudential policy in insurance,* EIOPA, first paper on macroprudential policy in insurance.

one specific risk by combining multiple instruments has the advantage of addressing it from different angles, reduces the scope for circumvention and increases the effectiveness.[227] In summary, sufficient macroprudential tools need to be available to be effective in the achievement of the operational objectives and mitigation of systemic risk.

11.2. Relevant legal provisions

11.4 EIOPA is competent to work on systemic risk and macroprudential policy in insurance in relation to its responsibilities under the EIOPA Regulation,[228] in particular:

- The third sub-paragraph of Article 1(6) thereof, requiring from EIOPA in the context of the exercise of its powers to pay particular attention to any potential systemic risk posed by financial institutions, the failure of which may impair the operation of the financial system or the real economy;
- Article 8(1)(i) thereof, providing among other things for EIOPA's task to contribute to "the monitoring, assessment and measurement of systemic risk";
- Article 18(1) thereof, requiring from EIOPA to actively facilitate and, where deemed necessary, coordinate any actions undertaken by the relevant national competent supervisory authorities in the case of adverse developments which may seriously jeopardise the orderly functioning and integrity of financial markets or the stability of the whole or part of the financial system in the Union;
- Article 22(1) thereof, seeking from EIOPA to consider and address any systemic risk and risk of disruption in financial services;
- Article 23 thereof, providing that EIOPA has to, in consultation with the ESRB, develop criteria for the identification and measurement of systemic risk.

11.3. Identification of the issue

11.5 The 2007-2008 financial crisis has shown the need to further consider the ways in which systemic risk is created and/or amplified, as well as the need to have

[227] Lim, C., Columba, F., Costa, A., Kongsamut, P., Otani, A., Saiyid, M., Wezel, T. and Wu, X. (2011): "Macroprudential Policy: What Instruments and How to Use Them?, *IMF Working Paper* WP/11/238.

[228] Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/79/EC (OJ L 331, 15.12.2010, p. 48).

proper policies in place to address those risks. So far, most of the discussions on macroprudential policy have focused on the banking sector due to its prominent role in the recent financial crisis.

11.6 Given the relevance of the topic, EIOPA initiated the publication of a series of three papers on systemic risk and macroprudential policy in insurance with the aim of contributing to the debate and ensuring that any extension of this debate to the insurance sector reflects the specific nature of the insurance business (Box 11.1).

Box 11.1: EIOPA's work on systemic risk and macroprudential policy in insurance

EIOPA started the work in an effort to see whether Solvency II could serve to address macroprudential concerns as well. In this respect, EIOPA followed a step-by-step approach, seeking to address the following questions:

1. *Does insurance create or amplify systemic risk?* In the first paper entitled "Systemic risk and macroprudential policy in insurance",[229] EIOPA identified and analysed the sources of systemic risk in insurance and proposed a specific macroprudential framework for the sector.

2. *If yes, what are the tools already existing in the current framework, and how do they contribute to mitigate the sources of systemic risk?* In the second paper, "Solvency II tools with macroprudential impact",[230] EIOPA identified, classified and provided a preliminary assessment of the tools or measures already existing within the Solvency II framework, which could mitigate any of the systemic risk sources that were previously identified.

3. *Are other tools needed and, if yes, which ones could be promoted?* The third paper, "Other potential macroprudential tools and measures to enhance the current framework",[231] comprises an initial assessment of other potential tools or measures. Therefore, EIOPA analysed four categories of tools: a) Capital and reserving-based tools; b) Liquidity-based tools; c) Exposure-based tools; and d) Pre-emptive planning. EIOPA also considered whether these tools should be used for enhanced reporting and monitoring or as intervention power.

[229] EIOPA (2018a), *op. cit.*

[230] EIOPA (2018b): *Solvency II tools with macroprudential impact*, EIOPA, second paper on macroprudential policy in insurance.

[231] EIOPA (2018c): *Other potential macroprudential tools and measures to enhance the current framework*, EIOPA, third paper on macroprudential policy in insurance.

The publication of the three EIOPA papers on systemic risk and macroprudential policy in insurance constituted an important milestone by which EIOPA defined its policy stance and laid down its initial ideas on several relevant topics.[232]

In a subsequent step, EIOPA launched in April 2019 a public consultation based on a Discussion paper that essentially summarised the three papers previously published.[233] 13 stakeholders provided feedback.

The policy proposals included in this Opinion build upon this previous work and should be considered in conjunction with it.

11.7 In EIOPA's view, the fact that topics around systemic risk and macroprudential policy in insurance are less developed in comparison with the banking sector constitutes a deficiency that may manifest itself in upcoming crises. Indeed, the lack of a comprehensive macroprudential framework does not allow to properly address the different sources of systemic risk in insurance.

11.8 This deficiency can lead to considerable costs if macroprudential policies cannot be fully implemented. To the extent that these policies achieve their objectives, they will contribute to minimising the social costs of financial crises.

11.9 As a starting point, EIOPA has sought to lay down the status of the discussion in insurance regarding systemic risk and macroprudential policy in insurance. This can be summarised as follows:[234]

- It is widely acknowledged that the traditional insurance activities are generally less systemically important than banking. However, insurance can also potentially create or amplify systemic risk. Therefore, a macroprudential approach seems justified beyond banking, including insurance.
- Macroprudential policies for insurance could also have the benefit of crisis prevention. They should, however, be tailored to insurance.
- A balance between the entity-based and activity-based approaches also needs to be struck in insurance. Special attention should be devoted to the systemic risk arising from certain activities or products.[235]

[232] It should be noted that the ESRB has also identified a shortlist of options for additional provisions, measures and instruments, which reaches broadly similar conclusions as EIOPA (see ESRB (2018): *Macroprudential provisions, measures and instruments for insurance*, November 2018 and ESRB (2020): *Enhancing the macroprudential dimension of Solvency II*, 26 February 2020).

[233] EIOPA (2019): *Discussion paper on systemic risk and macroprudential policy in insurance*, EIOPA-BoS-19/131, 29 March 2019.

[234] Relevant references to support these statements can be found in EIOPA (2018a), *op. cit*.

[235] As will be explained in Section 11.3.1, EIOPA distinguishes three sources of systemic risk, i.e. entity-based, activity-based and behaviour-based sources of systemic risk.

- Sufficient tools need to be in place to address the sources of systemic risk.
- There could be a risk of regulatory arbitrage if insurance is not included within the wider macroprudential framework.

11.10 These statements are generally accepted at international level. In particular, it is worthwhile highlighting the International Association of Insurance Supervisors (IAIS) work on the Holistic Framework for Systemic Risk in the Insurance Sector to assess and mitigate systemic risk in the insurance sector.

11.11 The purpose of EIOPA's proposal contained in this Opinion is to overcome the current lack of a macroprudential framework for the insurance sector. This requires, as a first step, a) a proper understanding of the sources of systemic risk in insurance; b) the development of a macroprudential framework to address them; and c) the consideration of how the current Solvency II framework contributes to the macroprudential objectives defined, and which gaps do exist. These issues are briefly introduced below, based on the work done by EIOPA so far.

11.12 As a preliminary remark, there are currently different institutional models for the implementation of macroprudential policies across the EU, in some cases involving different parties (e.g. ministries, supervisors, etc.). This Opinion adopts a neutral approach by referring to the generic concept of the "relevant authority in charge of the macroprudential policy", which should encompass the different institutional models existing across jurisdictions. Sometimes a simplified term such as "the authorities", "the competent authorities" or "national supervisory authorities" (NSAs) is used. EIOPA notes, however, that this issue should also be addressed at some point in time to ensure a more harmonised and efficient way of implementing macroprudential policies.

11.3.1 Understanding systemic risk in insurance

11.13 Several studies have pointed out that insurance might originate or amplify systemic risk under certain circumstances. EIOPA has provided an overview of relevant literature and developed a conceptual framework, which is broadly in line with other relevant studies by the ESRB or the IAIS.[236]

11.14 As depicted in Figure 11.1, the approach developed by EIOPA to understand systemic risk in insurance considers that a "triggering event" initially has an impact at entity level, affecting one or more undertakings through their "risk profile". Potential individual or collective distresses may generate systemic

[236] See EIOPA (2018a) and ESRB (2018) *op. cit.* and IAIS (2019): *Holistic Framework for Systemic Risk in the Insurance Sector*, November 2019.

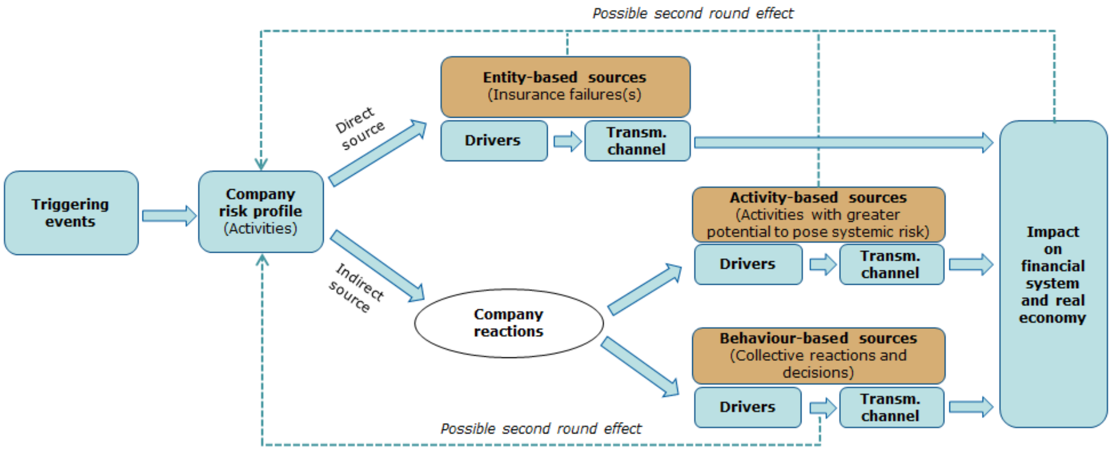
implications, the relevance of which is determined by the presence of different "systemic risk drivers" embedded in the insurance undertakings.

11.15 In EIOPA's view, systemic events could be generated in two ways.

i. The "direct" effect, originated by the failure of a systemically relevant insurer or the collective failure of several undertakings generating a cascade effect. This systemic source is defined as "*entity-based*".

ii. The "indirect" effect, in which possible externalities are enhanced by engagement in potentially systemic activities *(activity-based sources)*[237] or the widespread common reactions of undertakings to exogenous shocks *(behaviour-based source)*.

Figure 11.1: An approach to systemic risk in insurance


Possible second round effect
Entity-based sources
(Insurance failures(s)
Drivers
Transm. channel
Direct source
Triggering events
Company risk profile
(Activities)
Activity-based sources
(Activities with greater potential to pose systemic risk)
Drivers
Transm. channel
Impact on financial system and real economy
Indirect source
Company reactions
Behaviour-based sources
(Collective reactions and decisions)
Drivers
Transm. channel
Possible second round effect

11.16 Potential externalities are transferred to the rest of the financial system and to the real economy via specific "transmission channels" and could induce changes in the risk profile of undertakings, eventually generating second-round effects.

11.17 In annex 11.1, an overview of possible examples of triggering events, risk profiles, systemic risk drivers and transmission channels is provided. It should therefore not be considered as a comprehensive list of elements.

[237] The idea is not to label specific products or activities as intrinsically systemic. Instead, the focus is put on the design and management by insurance undertakings.

Box 11.2: Why is systemic risk important in insurance? – Some facts

Aside from relevant literature on the topic,[238] there are two main facts that explain why systemic risk is also important in insurance.

- *The relevance of the insurance sector*. Insurance and pensions fulfil an important role in the society. When they function well, they take on risks and contribute to economic growth and financial stability, ultimately bringing greater financial security to citizens. With assets worth 11.7 trillion or 70% of EU Gross Domestic Product (GDP),[239] the EU insurance sector plays an important role in different markets, in particular, the bond market. With liabilities involving millions of policyholders and comprising one third of European households' wealth, consumers depend on parts of the insurance sector for their security and future income. Therefore, severe distresses in the insurance sector may have an impact on the financial system and the real economy.
- *The available evidence*. There are real examples where the sources of systemic risk could materialise:

- From an entity-based point of view, some undertakings in the EU required public intervention to avoid potential systemic disruptions in different Member States during the past financial crisis.[240] Furthermore, the exposure to common shocks may eventually act as a trigger leading to collective failures. An example is the protracted low interest rate environment, which is considered as an important source of systemic risk particularly for the life insurance sector.
- From an activity-based perspective, the widely known case of AIG illustrated the risks of moving away from core insurance activities and engaging in certain

[238] See, for example, IAIS (2011): *Insurance and Financial Stability*, November 2011; Eling and Pankoke (2014): "Systemic Risk in the Insurance Sector: Review and Directions for Future", *Working Papers on Finance No. 2014/21*, Institute of Insurance Economics, November 2014; or Hufeld, F., Koijen, R.S.J. and Thimann, Ch. (eds.) (2017): *The Economics, Regulation, and Systemic Risk of Insurance Markets*, Oxford University Press, UK.

[239] Data from Q3 2018, source: https://eiopa.europa.eu/financial-stability-crisis-prevention/financial-stability/statistics.

[240] This was the case for some large groups such as Ethias Group in Belgium or AEGON, ING Group and SNS Reaal in the Netherlands. See EIOPA (2017a): *Opinion to Institutions of the European Union on the Harmonisation of Recovery and Resolution Frameworks for (Re)insurers across the Member States,* EIOPA-BoS/17-148, July 2017.

activities or products such as speculative derivative trading, which might compromise the stability of the financial system.

- From a behaviour-based point of view, excessive risk taking as a reaction to the above-mentioned low interest environment may trigger riskier investment strategies in "search for yield". EIOPA has identified a number of trends that could be associated with a search for yield behaviour.[241] Furthermore, the IMF has put forward the idea of a "tsunami" view of systemic risk, whereby even solvent undertakings may propagate or amplify shocks to the rest of the financial system and the real economy.[242] The IMF considers that the systemic risk contribution of insurance has increased, due to a rise in common exposures not only within the insurance sector itself, but also with the rest of the economy.

EIOPA is in favour of supplementing the current prudential framework with additional macroprudential provisions that provide authorities with relevant tools and measures to address systemic risk in insurance.

Indeed, EIOPA considers that a *preventive* approach is preferred as compared with the *reactive* approach of taking regulatory actions only once different systemic risk events have occurred.

11.3.2 Addressing systemic risk. A macroprudential framework for insurance

11.18 Given that, under certain circumstances, insurance can originate or amplify systemic risk, a macroprudential approach is justified for the insurance sector.

Box 11.3: Some remarks on the effectiveness of macroprudential policy

The experience in the banking sector shows that it is quite challenging to provide sound empirical evidence of the effectiveness of macroprudential policies implemented after the financial crisis in the banking sector in a number of countries.

[241] EIOPA (2017b): *Investment behaviour report,* EIOPA-BoS-17/230, 16 November 2017.

[242] IMF (2016): *Systemic Risk from Insurance Product Features*, 16 June 2016.

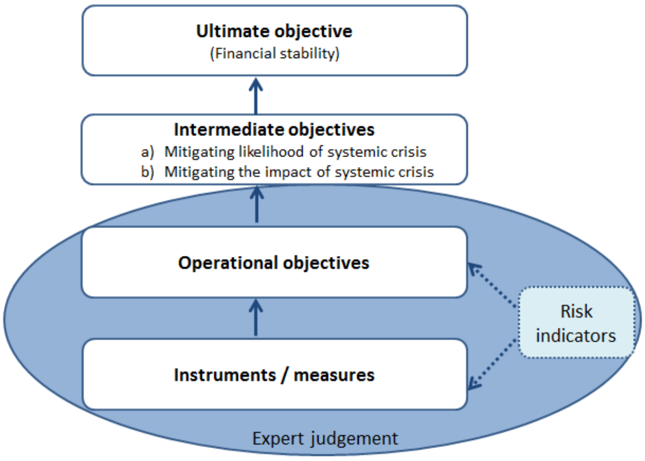
Understanding the effectiveness of macroprudential policies is still rather preliminary and limited.[243] Nevertheless, some available evidence in the banking sector seems to point out that in general, macroprudential policy has contributed to achieve its main objectives.

The challenge to provide sound empirical evidence also applies to insurance. There is, however, a certain consensus on the need to have macroprudential frameworks in place also for the insurance sector. This has been stressed by EIOPA in different recent publications.[244] Furthermore, the ESRB and IAIS have also called for an enhancement of the existing frameworks to also address macroprudential concerns in insurance.[245]

As stressed before, EIOPA is of the view that a comprehensive macroprudential framework addressing the specific sources of systemic risk identified for the insurance sector should be implemented in the context of the Solvency II review.

11.19 A macroprudential framework should lay down the essential elements of the macroprudential strategy and allow for a coherent decision-making process. EIOPA proposes a framework for the insurance sector shown in Figure 11.2.

Figure 11.2: EIOPA’s macroprudential strategy


Ultimate objective
(Financial stability)
Intermediate objectives
a) Mitigating likelihood of systemic crisis
b) Mitigating the impact of systemic crisis
Operational objectives
Instruments / measures
Risk indicators
Expert judgement

11.20 The main elements of EIOPA’s framework are the following:

[243] Akinci, O. and Olmstead-Rumsey, J. (2015): “How effective are macroprudential policies? An empirical investigation”, *Board of Governors of the Federal Reserve System International Finance Discussion Papers 1136*, June 2015.

[244] See EIOPA, 2018(a,b,c) *op. cit.*

[245] ESRB (2018) and IAIS (2018), *op. cit*.

- The consideration of three layers of objectives: (1) the ultimate objective, i.e. to ensure financial stability; (2) the intermediate objective in which the ultimate objective is split, i.e. mitigating the *likelihood* and the *impact* of systemic crises; and (3) the operational objectives, which should be pursued by authorities.
- A set of instruments to be used by the relevant authorities in charge of the macroprudential policy to achieve the operational objective. These instruments could either be available in the current regulatory framework or be new.
- Other relevant elements that complete the framework, such as risk indicators and the need to leave room for expert judgement.

11.21 The operational objectives — a cornerstone of the framework — should be defined to specifically address the sources of systemic risk in insurance that have been previously identified. Table 11.1 provides an overview of the sources of systemic risk and the operational objectives proposed.

Table 11.1: Sources of systemic risk and operational objectives

Sources of systemic risk	Operational objectives
Entity-based related sources – Direct sources	➢ Ensure sufficient loss-absorbency capacity and reserving ➢ Discourage excessive involvement in certain products and activities ➢ Discourage excessive levels of direct and indirect exposure concentrations ➢ Limit procyclicality ➢ Discourage risky behaviour
• Deterioration of the solvency position leading to failure(s) of systemically important insurers or collective failures, the latter as a result of exposures to common shocks	
Activity-based related sources – Indirect sources (i)	
• Involvement in certain activities or products with greater potential to pose systemic risk	
• Potentially dangerous interconnections	
Behaviour-based related sources – Indirect sources (ii)	
• Collective behaviour by undertakings that may exacerbate market price movements (e.g. fire-sales or herding behaviour)	
• Excessive risk-taking by insurance undertakings (e.g. “search for yield” and the “too-big-too fail” problem)	

• Excessive concentrations	
• Inappropriate exposures on the liabilities side (e.g. as a result of competitive dynamics)	

11.3.3. Solvency II and macroprudential policies. The need to further develop the framework

11.22 Following the step-by-step approach, EIOPA considered the how the Solvency II framework contributes to mitigating the sources of systemic risk as well as the gaps that would need to be overcome.

11.23 Although Solvency II is not a macroprudential framework, it contains several elements that may have financial stability impact. The impact of these elements was analysed first in order to determine whether additional tools, or changes to the existing ones, were needed for macroprudential purposes.

11.24 Solvency II has macroprudential impact in three different ways:

- The design of the framework itself. Solvency II is a comprehensive microprudential regime. Capital is held against market risk, credit risk, underwriting risk and operational risk. In itself, this regime is designed to ensure sufficient loss absorbency capacity and reserving, one of the operational objectives identified relevant for insurance. Furthermore, significant emphasis is given to the identification, measurement and proactive management of risks, which provides ground for the operational objectives to discourage risky behaviour and excessive levels of direct and indirect exposure concentrations.
- Some elements in the framework with *indirect* macroprudential impact. Solvency II has some additional elements with indirect macroprudential impact that should not be ignored. These instruments, which were not primarily designed as instruments to mitigate systemic risk, could contribute to different operational objectives (e.g. discourage excessive levels of direct and indirect exposure concentrations or discourage excessive involvement in certain products and activities that are more risky and could also be more prone to systemic risk) when considered at an aggregated level. The main ones are the prudent person principle (PPP), the own risk and solvency assessment (ORSA) and the capital add-on under specific circumstances.
- The elements with *direct* macroprudential impact. The tools with direct macroprudential impact that were identified and further analysed in EIOPA's

second paper are essentially the long-term guarantees measures and measures on equity risk shown in Table 11.2.[246]

11.25 In addition, another measure allowing authorities to prohibit or restrict certain types of financial activities was also considered. This measure, which is not part of Solvency II, is included because it pursues similar objectives and applies EU-wide.

11.26 The assessment carried out by EIOPA shows that the tools with direct macroprudential impact contained in Solvency II essentially contribute to limiting procyclicality (Table 11.2).[247] Indeed, these tools seek to address the risk of collective behaviour by undertakings that may exacerbate market price movements. In addition, prohibiting or restricting certain types of financial activities is linked to the operational objectives of discouraging excessive involvement in certain products and activities as well as risky behaviours.

Table 11.2: Solvency II tools with macroprudential impact

Tools with direct macroprudential impact	Sources of systemic risk addressed	Operational objectives
➢ Symmetric adjustment for equity risk ➢ Volatility adjustment ➢ Matching adjustment ➢ Extension of the recovery period ➢ Transitional measure on technical provisions	• Collective behaviour by undertakings that may exacerbate market price movements	• Limit procyclicality
➢ Prohibit or restrict certain types of financial activities	• Involvement in certain activities or products with greater potential to pose systemic risk • Excessive risk-taking by insurance undertakings	• Discouraging excessive involvement in certain products and activities • Discourage risky behaviours

[246] EIOPA (2018b) *op. cit.* Given that Solvency II entered into force in 2016, there is not an extensive amount of experience. This analysis should only be considered as a first step. Further work might be needed at a later stage, once more information and data are available.

[247] EIOPA (2018b), *op. cit*.

11.27 As explained in EIOPA (2018b), the tools considered may have limitations from a macroprudential perspective as well. Furthermore, some of the sources of systemic risk identified do not seem to be sufficiently addressed with the existing tools.

11.28 In summary, while some measures of Solvency II can be considered to contribute to the mitigation of systemic risk, EIOPA concludes that Solvency II is lacking a comprehensive macroprudential toolbox, and that additional tools and measures are strongly needed.

11.29 In EIOPA's view, Solvency II should include a specific provision covering macroprudential policy and surveillance. As defined by the IAIS,[248] the primary objective would be limiting or mitigating systemic risks and, in turn, maintaining financial stability. In contrast to microprudential supervision, a market-wide perspective should be adopted with the aim of minimising negative externalities. "Macroprudential *surveillance* is predicated on: (i) the assessment of system-wide vulnerabilities and the accurate identification of threats arising from the build-up and unwinding of financial imbalances; (ii) the assessment of system-wide vulnerabilities from shared exposures to macro-financial shocks; and (iii) possible contagion or spillover effects from individual institutions and markets due to direct or indirect connectedness". Based on this surveillance, some tools or measures should be designed to mitigate systemic risk.

11.30 The proposals included in this Opinion primarily focus on the principles or fundamental elements of each tool, trying to explain their rationale, providing technical details to the extent possible, and including a cost-benefit analysis. As such, it does not cover all the operational aspects/challenges of each tool (e.g. calibration, thresholds, etc.) in a comprehensive manner. Similar to the approach followed for other legislative initiatives, the full technical details could be addressed by means of technical standards, guidelines or recommendations, once the relevant legal instrument has been enacted.

11.4. Analysis

11.31 In this section, EIOPA analyses the different options regarding the tools and measures that have been considered to enhance the current prudential framework from a macroprudential point of view. EIOPA has analysed the costs and benefits of the main options listed in the table 11.3 below.

Table 11.3: Macroprudential policy issues and options

[248] IAIS (2013): *Macroprudential Policy and Surveillance in Insurance*, 18 July 2013.

Policy issues	Options
1. Capital surcharge for systemic risk ➢ *[Capital-based tool]*	1.1 No change, i.e. not granting NSAs with the power to require a capital surcharge for systemic risk. **1.2 Grant NSAs with the power to require a capital surcharge for systemic risk.**
2. Additional measures to reinforce the insurer's financial position ➢ *[Capital-based tool]*	2.1 No change, i.e. not granting NSAs with additional measures to reinforce the insurer's financial position. **2.2 Grant NSAs with additional measures to reinforce the insurer's financial position.**
3. Concentration thresholds ➢ *[Exposure-based tool]*	3.1 No change, i.e. not to granting NSAs with the power to define "soft" concentration thresholds. **3.2 Grant NSAs with the power to define "soft" concentration thresholds.**
4. Expansion in the use of the own risk and solvency assessment (ORSA) report**(*)** ➢ *[Exposure-based tool]*	4.1 No change, i.e. the ORSA would remain as it currently is. **4.2 Expand the use of the ORSA to include the macroprudential perspective.**
5. Expansion of Prudent Person Principle (PPP)**(*)** ➢ *[Exposure-based tool]*	5.1 No change, i.e. the PPP would remain as it currently is. **5.2 Expand the PPP to take into account macroprudential concerns.**
6. Pre-emptive recovery and resolution plans**(*)** ➢ *[Pre-emptive planning]*	6.1 No change, i.e. Solvency II would not be supplemented with the requirement for pre-emptive recovery and resolution planning. 6.2 Require pre-emptive recovery and resolution planning from all undertakings subject to Solvency II. **6.3 Require pre-emptive recovery and resolution planning from undertakings covering a very significant (for recovery planning) and significant (for resolution planning) share of the national market.**

7. Systemic Risk Management Plan (SRMP)(*) ➢ *[Pre-emptive planning]*	7.1 No change, i.e. Solvency II would not be supplemented with the requirement for SRMPs. 7.2 Require SRMPs from all undertakings subject to Solvency II. **7.3 Require SRMPs from a subset of undertakings.**
8. Liquidity risk framework ➢ *[Liquidity-based tool]*	8.1 No change, i.e. not granting NSAs with additional mitigating measures to address system-wide liquidity risk. **8.2 Grant NSAs with additional mitigating measures in case vulnerabilities in respect to system-wide liquidity risk have been identified.**
9. Liquidity risk management plans (LRMP)(*) ➢ *[Pre-emptive planning / Liquidity-based tool]*	9.1 No change, i.e. Solvency II would not be supplemented with the requirement for LRMPs. 9.2 Require LRMPs from all undertakings subject to Solvency II. **9.3 Require LRMPs with the possibility to waive undertakings.**
10. Temporary freeze on redemption rights ➢ *[Liquidity-based tool]*	10.1 No change, not granting NSAs with this power. **10.2 Grant NSAs with the power to impose a temporarily freeze on redemption rights in exceptional circumstances.**

(*) Considered specifically in the European Commission's call for advice.

11.32 As stressed in EIOPA's first paper, in some cases, no borders between microprudential policies and macroprudential consequences can be established.[249] For example, instruments that may have been designed as microprudential may also have macroprudential consequences and contribute to mitigate systemic risk.

11.33 EIOPA would like to highlight six main principles when considering the use of the proposed tools to be included in the macroprudential framework:

- *Proportionality*. The tools and measures should be applied in a proportionate way, taking into account the costs and benefits. Applying this

[249] EIOPA (2018a), *op. cit*.

principle should, however, not hinder a consistent application across Member States.

- *Cooperation.* Several measures exposed in this Opinion imply a high level of coordination not only between NSAs but potentially also between other institutions or bodies (e.g. ministry of the economy and finance or banking supervisors). Proper governance and cooperation arrangements should be developed where needed.
- *Cross-border implications*. In line with the previous principle, the impact of certain macroprudential measures may also have implications for other Member States. Some kind of reciprocation arrangements might be needed for some measures, as already done in banking through the ESRB voluntary reciprocation framework.
- *Trade-off between national flexibility and consistent application at procedural level* in the EU. Taking into account the differences between the national insurance sectors across EU, flexibility at national level is required. However, in order to assist consistent conditions of application at procedural level, EIOPA should develop technical standards or guidelines where needed.
- *Principle-based framework*. The establishment of the macroprudential framework should keep the essence of a principle-based framework like Solvency II. Automatic triggers or hard thresholds are therefore avoided. Moreover, whenever changes are proposed to existing tools, these are not meant to modify the underlying principles, but to supplement them with macroprudential considerations.
- *Avoid distortions*. The use of any macroprudential tools should seek to avoid, to the extent possible, any potential distortion in the social and long-term investor role of insurance. Nor should it put undertakings at a competitive disadvantage compared to other financial institutions.

11.34 In the analysis of the different tools and options, two considerations should be made:

- EIOPA has taken into account the work developed at a global level. This refers, in particular, to the IAIS *Holistic Framework for Systemic Risk in the Insurance Sector*.
- The selection of objectives against which the different options are assessed is based on EIOPA's third published paper "*Other potential macroprudential tools and measures to enhance the current framework*".

11.35 A relevant aspect around the application of macroprudential measures refers to the reciprocation of measures. This Opinion includes some references to reciprocation in different parts, where a specific tool could have cross-border implications, or in case a similar risk in different countries could indeed call for such reciprocation (see Box 11.4).

Box 11.4: Reciprocation of measures[250]

Macroprudential measures taken in one Member State would apply only to the risks of undertakings in that Member State, i.e. domestic undertakings and subsidiaries of foreign undertakings. In other Member States, insurers exposed to same risk are not automatically covered by the same macroprudential measure. Reciprocity is the policy instrument that ensures that these risks would also be covered.

Reciprocation would occur when the relevant authority in one Member State would apply the same, or equivalent, macroprudential measure as another Member State to address a similar risk. Reciprocation should ultimately ensure that the macroprudential measure applies to all undertakings within the EU exposed to the targeted risk, regardless of where they are located.

The reciprocation of macroprudential measures enhances the effectiveness and consistency of macroprudential policy in the EU. It also contributes to a level playing field in the Single Market.

In the banking sector, the ESRB put in place a framework of voluntary reciprocity for macroprudential policy measures. The reciprocity framework lays the basis for a coordinated approach to the reciprocation of macroprudential measures for which EU legislation does not foresee compulsory reciprocation.[251] The reciprocation process is started by a formal request from the relevant authority initially activating the measure. If deemed justified, the ESRB will issue a recommendation. In response to the ESRB recommendation, Member States will subject the financial institutions in their jurisdiction to the same, or equivalent, macroprudential measure. Following the proportionality principle, Member States may exempt financial institutions with non-material exposures (so called “de minimis exemption”).

11.4.1. Capital surcharge for systemic risk

- *Description of the proposal*

[250] See https://www.esrb.europa.eu/national_policy/reciprocation/html/index.en.html

[251] The reciprocity framework is based on the following documents: Recommendation ESRB/2015/2; Article 5 of Decision ESRB/2015/4; and Chapter 11 ("Cross-border effects of macroprudential policy and reciprocity") of the ESRB Handbook on operationalising macroprudential policy in the banking sector.

11.36 A capital surcharge tool should grant NSAs with the power to increase the capital requirement with the aim of ultimately creating an additional buffer to withstand shocks, therefore avoiding the deterioration of the solvency position of undertakings potentially leading to insurance failure(s). Such a tool could also be useful to de-incentivise the involvement of undertakings in certain activities or products or the excessive risk-taking by insurance undertakings (e.g. "search for yield" and the "too-big-too fail" problem).

11.37 A capital surcharge could be triggered to address the sources of systemic risk identified, i.e. entity-, activity- and behavioural-based sources. A capital surcharge for systemic risk should meet the following conditions:

- Discretion of NSAs. NSAs should have the discretion to make use of this tool, whenever they deem it necessary, i.e. if it mitigates an identified systemic risk or the build-up thereof. Therefore, this tool should not be triggered automatically.
- Clear rationale. Supervisors should clearly document the rationale for the surcharge, including the specific systemic risk it is intended to mitigate or to protect against and explaining why other tools were considered less effective. A capital surcharge should only be considered if no other regulatory instrument covers and mitigates sufficiently the targeted source of systemic risks. While it is important that the tool is duly justified, it is also important that it is operationalized in a timely manner so that its implementation does not occur at a time when the identified systemic risk has already materialized. Further work might be needed to reflect how this balance could be achieved.
- Proportionality. Proportionality should be ensured by clearly defining and explaining why the undertakings are subject to this tool as well as the amount of the surcharge.
- Timing considerations. A capital surcharge for systemic risk is generally not intended to be a permanent uplift, but rather a measure of transitory nature. This will of course depend on the specific source, which will determine its length.[252] In any case, the uplift should be subject to regular reviews (e.g. on a yearly basis) and be removed as soon as the conditions

[252] Indeed, if the source of systemic risk is entity- or activity-based, the surcharge should remain in place as long as this situation persists. In case the surcharge has been triggered because of the involvement in certain activities, a reduction or a discontinuation of these activities should be taken into account to either reduce or remove the surcharge. A capital surcharge triggered by a shock that leads to common behaviour (behavioural-based source) should be removed as soon as the potential systemic risk created by this shock has disappeared.

that lead to the imposition have changed. To limit procyclicality under stressed market conditions, NSAs must take into account procyclicality considerations when considering the timing of this tool.

11.38 As can be seen in the "Report on the use of capital add-ons during 2017",[253] NSAs have made use of the existing capital add-on based on similar conditions as the one highlighted above. Overall, the usage seems very limited in line with "exceptional" conditions. NSAs use it when duly justified, and the capital add-on is reviewed on a regular basis and at least once a year.

11.39 Such a tool also has several operational challenges that require further technical work. Table 11.4 summarises them together with the main elements of the proposal.

Table 11.4: EIOPA proposal and main challenges

EIOPA proposal according to the trigger	Scope of institutions	Responsibility	Main challenges
Possibility of authorities to apply a surcharge to systemically important insurers	• Formerly identified global systemically Important insurers[254]	• FSB	• Not clear if the identification will continue in the future. Pending review by the FSB, the identification has been suspended. EIOPA is closely monitoring the developments in this field.
	• Domestic systemically important insurers or other criteria at national level (e.g. insurers with	• NSAs	• Guidance needed to ensure level playing field at EU level • Level and calibration of the surcharge is to be defined

[253] EIOPA (2017c): *Report on the use of capital add-ons 2017*, EIOPA-BoS/17-336 rev2, 21 December 2017.

[254] The FSB decided to suspend the identification of global systemically important insurers (G-SIIs) in 2018, following an IAIS's recommendation. In November 2022, the FSB will, based on the initial years of implementation of the IAIS Holistic Framework for Systemic Risk in the Insurance Sector, review the need to either discontinue or re-establish an annual identification of G-SIIs in consultation with the IAIS and national authorities. Even if the identification of G-SIIs by the FSB were to continue after 2022, an enhanced capital requirement for these undertakings would not (directly) be in place as this would depend on an IAIS decision on this matter.

	total assets larger than a certain amount)		
Possibility of authorities to apply a surcharge based on the involvement of undertakings in certain types of activities that are more prone to create systemic risk	• Those involved in the specific activities	• NSAs	• Agreement at EU level on the activities that should be subject to such measure or approach to identify activities. Some kind of threshold might also have to be defined, which poses several challenges • Level and calibration of the surcharge is to be defined by NSAs
Possibility of authorities to apply a surcharge based on the collective behaviour of insurance undertakings	• Those subject to a domestic shock	• NSAs	• Identification of common macroprudential shocks • Point in time in which this tool would be activated/de-activated • Level of the surcharge • Distinction between domestic and EU shocks, which would activate EIOPA's coordinating role
	• Those subject to an EU shock	• NSAs but under the coordination of EIOPA and potentially the ESRB	

11.40 Given the difficulties of identifying macroprudential shocks that trigger "common behaviour" and, therefore, to activate the surcharge in a pre-emptive way, a capital surcharge might not be easy to implement to address behaviour-based sources of systemic risk.

11.41 In order to address the main challenges, a similar approach as the one used for the existing Solvency II capital add-on could be used, i.e. to assist consistent conditions of application. EIOPA could be required to develop technical standards or guidelines on the procedures for decisions to set, calculate and remove the capital surcharge. EIOPA is of the view that coordination at EU level is fundamental to maintain a level playing field in the Single Market.[255]

11.42 Furthermore, there are four fundamental issues to make this tool operational, i.e., the factors and triggers determining the capital surcharge, its integration in Solvency II, the need of being consistent with the global developments and reciprocation aspects.

11.43 The capital surcharge could work like the existing capital add-on (Article 37 of the Solvency II Directive), i.e. the SCR calculated via a (partial) internal model or the standard formula would be increased to reflect macroprudential risks regardless of the amount of eligible own funds. In case of need, the new capital requirements could essentially be met by raising capital, restricting dividends or taking de-risking measures. A deeper analysis on how the capital surcharge could work would need to follow.

11.44 It should be noted that a macroprudential capital surcharge for systemic risk would be in line with developments at the level of the IAIS and would contribute to ensure a level-playing field. This refers, in particular, to the IAIS Holistic Framework for Systemic Risk in the Insurance Sector, which explicitly refers to Insurance Core Principle (ICP) 10 on *Preventive Measures, Corrective Measures and Sanctions*.[256] ICP 10 allows the supervisor to take measures to reinforce the insurer's financial position including those requiring an increase in capital (ICP 10.2.6). Although different in nature, the tool would have similar objectives to that proposed by the ESRB in its 2020 paper on "Enhancing the macroprudential dimension of Solvency II" and in its reply to EIOPA's public consultation on the Opinion on the 2020 review of Solvency II (see Box 11.5.).[257]

11.45 The need for reciprocation arrangements will depend on the trigger and on the specific circumstances. In case the surcharge is triggered to address entity-based sources, reciprocation does not appear relevant. If, however, the capital surcharge is triggered to address an activity-based source of systemic risk, reciprocation in another Member State where undertakings are involved in that activity could be considered. In similar terms, if the surcharge is triggered to address a behaviour-based source, reciprocation could also be considered in

[255] Furthermore, where deemed necessary, some interaction with the ESRB might be needed, e.g. where there is a risk of arbitrage for other financial sectors.

[256] IAIS (2019): Holistic Framework for Systemic Risk in the Insurance Sector, 14 November 2019 and IAIS (2019): Insurance Core Principles and Common Framework for the Supervision of Internationally Active Insurance Groups, 14 November 2019.

[257] ESRB (2020): Enhancing the macroprudential dimension of Solvency II, February 2020.

case the undertakings in other Member States behave similarly, e.g. as a result of common exposures or common shocks.

Box 11.5 ESRB's proposal for a Sectoral Risk Buffer

In its 2020 report on "Enhancing the macroprudential dimension of Solvency II" and in its reply to EIOPA's public consultation on the Opinion on the 2020 review of Solvency II, the ESRB proposes the introduction of a sectoral systemic risk buffer (SRB) in the insurance regulatory framework to allow targeting of sectoral and sub-sectoral exposures that could lead to systemic risk. This would increase the resilience of (re)insurers to risks that are not captured by the SCR standard formula and that also might not be reflected in internal models. An insurance-specific SRB would be added under the market risk module of the SCR standard formula and be based on the same principles as those of the market risk concentration sub-module.

Although, the ESRB's and EIOPA's approaches can to a great extent achieve similar results, the SRB appears to be narrower in scope, as it focuses on concentrations. EIOPA's capital surcharge seems to be more general as it could eventually be triggered by one or more of the three identified sources of systemic risk - entity-, activity- and behavioural-based. In terms of operationalisation, the SRB would be a specific surcharge as part of the market concentration risk module. The diversification effects would be taken into account once the capital requirements are aggregated, i.e. after the surcharge is applied. The capital surcharge for systemic risk would work following the same approach as the currently existing capital add-on, i.e. the SCR calculated via a (partial) internal model or the standard formula would be increased to reflect macroprudential risks regardless of the amount of eligible own funds.

- *Options considered*

11.46 Two options are being considered:

1. No change, i.e. not granting NSAs with the power to require a capital surcharge for systemic risk.
2. Grant NSAs with the power to require a capital surcharge for systemic risk to mitigate an identified systemic risk. NSA should be able to impose a capital surcharge to address one of the three sources of systemic risk, i.e. entity-, activity- and behaviour-based sources. The approach to be followed for the capital surcharge could be similar to the currently existing Solvency II capital add-on.

11.47 EIOPA also considered the possibility of a broad-based capital buffer that would operate anticyclically (i.e. buffers are built up during upswings of the credit cycle and run down during periods of financial market stress) as typically designed for the banking sector. Given the risk of overlaps with the countercyclical features of Solvency II, and the operational difficulties, a broad-based countercyclical capital buffer was not further considered. EIOPA concluded that a more targeted capital tool such as the capital surcharge for systemic risk, to be used as an intervention power at the discretion of NSAs could be more appropriate than tools based on automatic triggers.

11.48 The costs and benefits assessment of both options on the different stakeholders is analysed in the impact assessment.

➢ *Comparison of options*

11.49 The comparison of the option to grant NSAs with the possibility to impose a capital surcharge for systemic risk against the baseline scenario (i.e. no change) has been based on its contribution to mitigate the sources of systemic risk identified and to achieve the following objectives:

	Main source(s) of systemic risk	**Operational objective(s)**
Capital surcharge for systemic risk	• Deterioration of the solvency position leading to: ○ Failure of a systemically important insurer ○ Collective failures of non-systemically important institutions as a result of exposures to common shocks • Involvement in certain activities or products • Excessive risk-taking by insurance undertakings (e.g. "search for yield" and the "too-big-too fail" problem) • Inappropriate exposures on the liabilities side (e.g. as a result of competitive dynamics)	➢ Ensuring sufficient loss absorbency capacity and reserving ➢ Discourage excessive involvement in certain products and activities ➢ Discourage risky behaviour

11.50 The preferred policy option is to give NSAs the power to impose a capital surcharge for systemic risk, which they could trigger to address the entity, activity- and behaviour-based sources of systemic risk. This would provide authorities with a targeted capital-based Pillar 2 tool to increase the solvency requirements of undertakings, which would leave flexibility to undertakings as to what strategy they should follow. Indeed, unless they are close to a breach of the SCR, any surplus held above the SCR is to a certain extent at undertakings' discretion. Should they want to keep a similar SCR, they would have different options such as raising capital, ceasing dividend payments or de-risking measures.

11.51 In the decision to opt for this policy option, more weight has been given to the benefits of having this tool available. The reason is that having this Pillar 2 tool at the disposal of NSAs does not immediately imply using it, but rather having the flexibility to do so in case of need.

11.52 In addition, the option chosen is preferred to other capital-based tools, such as a countercyclical capital buffer, which in EIOPA's view is less suitable for insurance.[258]

11.4.2. Additional measures to reinforce the insurer's financial position

- *Description of the proposal*

11.53 In addition to requiring an increase in capital, the IAIS Guidance under ICP 10 states that the supervisor should also have the power to issue, and enforce directions:[259]

- Restricting or suspending dividends or other payments to shareholders; and
- Restricting the purchase of the insurer's own shares.

11.54 Article 141 of the Solvency II Directive allows authorities to take all measures necessary to safeguard the interests of policy holders in the case of insurance contracts, or the obligations arising out of reinsurance contracts in situations of continued deterioration of the solvency position. There is however no explicit reference to the possibility of dividend restriction in this circumstance.

[258] See EIOPA (2018c) *op. cit*. for further information.

[259] Among the directions to reinforce the insurer's financial position, ICP 10 considers the following: requiring measures that reduce or mitigate risks; requiring an increase in capital; restricting or suspending dividend or other payments to shareholders; and restricting purchase of the insurer's own shares. The same logic could however apply to other distributions that result in a lower level or lower quality of capital and loss absorbing capacity, such as variable remunerations or profit sharing.

11.55 Solvency II, in turn, includes defined mechanisms for the automatic cancellation or deferral of dividends/distributions when the SCR/MCR is breached. From a Pillar II perspective, supervisors could also challenge an undertaking's medium-term capital management plan, including the impact of their dividend policy. When the undertaking is above the SCR level, Solvency II does not provide supervisors with specific powers to cancel/defer distributions.

11.56 Restricting significant intra-group transactions as defined in Article 377 of the Delegated Regulation, including dividend distributions, should also be considered whenever these may materially influence the solvency or liquidity position of the group or of one of the undertakings involved, as was the case in EIOPA's statement (Box 11.6). Article 377 includes, but does not limit, the scope of intra-group transactions to the following:

- investments;
- intercompany balances, including loans, receivables and arrangements to centralise the management of assets or cash;
- guarantees and commitments such as letters of credit;
- derivative transactions;
- dividends, coupons, and other interest payments;
- reinsurance operations;
- provision of services or agreements to share costs;
- purchase, sale or lease of assets.

Box 11.6: EIOPA's and ESRB's statements and recommendation on distribution of dividends

EIOPA's statement on dividends distribution of 2 April 2020 urged (re)insurers to temporarily suspend all discretionary dividend distributions and share buy backs aimed at remunerating shareholders.

The statement also urged that this prudent approach is applied by all (re)insurance groups at the consolidated level and also regarding, whenever these may materially influence the solvency or liquidity position of the group or of one of the undertakings involved. The materiality of this impact should be monitored jointly by the group and solo supervisors.

In a similar line, the ESRB has also recommended that at least until 1 January 2021 relevant authorities request financial institutions under their supervisory remit to refrain from undertaking any of the following actions: (a) make a dividend distribution or give an irrevocable commitment to make a dividend distribution; (b) buy-back ordinary shares; (c) create an obligation to pay variable remuneration to a material risk taker, which has the effect of reducing the quantity or quality of own funds at the EU group level (or at the individual level where the financial institution is not part of an EU group), and, where appropriate, at the sub-consolidated or individual level.

11.57 The proposal is to include these powers as a macroprudential tool, to be applied in exceptional circumstances in case of sector-wide shocks, with due regard to proportionality and taking into account the risk profile of undertakings, and as long as the underlying reasons that justify the measure are present. The application of the measure should be regularly reviewed (e.g. every 3 months), and removed as soon as the underlying conditions that motivated the measure disappear.

11.58 The main operational aspect is to establish what constitutes an exceptional circumstance. It should be noted that in the recent EIOPA statement on the low interest rate environment, the power to restrict the distribution of dividends was reported by four NSAs.[260]

11.59 The expected impact, once activated, is high as it helps ensuring that the capital position of undertakings is preserved. The objective is similar to the capital surcharge for systemic risk, but the goal is achieved directly and undertakings are not allowed flexibility in deciding how to raise capital. Precisely because of this, it is also more invasive. Depending on the situation, the capital surcharge for systemic risk could be more effective when applied *ex- ante* to the emergence/materialisation of the systemic risk, while the restriction to the distribution of dividends or purchases of insurer's own shares would be applied *ex-post* or during stress, which may not be considered suitable for the capital surcharge if it leads to procyclicality.

11.60 Another relevant issue is the level at which the measure should be implemented. In this regard, and in the context of the current protracted low interest rate environment, EIOPA considers that this prudent approach, which aims at preserving an efficient and prudent allocation of capital within insurance groups and the proper functioning of the Single Market, should be applied by all (re)insurance groups at the consolidated level and also regarding significant intra-group dividend distributions or similar transactions, whenever these may materially influence the solvency or liquidity position of the group or of one of the undertakings involved.[261]

[260] https://www.eiopa.europa.eu/content/supervisory-statement-impact-ultra-lownegative-interest-rate-environment

[261] https://www.eiopa.europa.eu/content/eiopa-statement-dividends-distribution-and-variable-remuneration-policies-context-covid-19_en

- *Options considered*

11.61 Two options are considered:

1. No change, i.e. not granting NSAs with additional measures to reinforce the insurer’s financial position.
2. Grant NSAs with additional measures to reinforce the insurer’s financial position. The aim is reducing the risk that in extreme circumstances and uncertainty a deterioration of the financial conditions puts the insurer at risk.

11.62These measures aim to prevent the premature distribution of profits under exceptional circumstances, which could lead to a substantial deterioration of the undertaking’s solvency position. According to the circumstances, these measures can be applied to the whole market or undertakings with potentially vulnerable risk profiles. In the latter case, the decision should be supported by the evidences resulting from the supervisory process (e.g. results of stress tests, forward looking assessments, etc.).

11.63 In some circumstances undertakings may have committed the distribution of dividends to shareholders, which they may be willing to honour despite the adverse situation. The measures proposed should be able to override those commitments on a temporary basis, with the aim of preserving the capital position and ensure an adequate protection of policyholders.

11.64 The implementation of this measure requires a sound legal assessment to avoid potential legal consequences, given that it would affect, even if on a temporary basis, the right of shareholders. Due regard should be paid to the principle of proportionality. Regulatory arbitrage should be avoided. NSAs should ensure that any of the measures do not entail disproportionate adverse effects on the whole or parts of the financial system in other Member States or in the Union as a whole. NSAs should regularly assess the impact of restrictions on distributions.

11.65 The costs and benefits assessment of both options on the different stakeholders are analysed in the impact assessment.

- *Comparison of options*

11.66 The comparison of the option to grant NSAs with additional measures to reinforce the insurer’s financial position against the baseline scenario (i.e. no change) has been based on its contribution to mitigating the sources of systemic risk identified and achieving the following objectives:

	Main source(s) of systemic risk	Operational objective(s)
Additional measures to reinforce the insurer’s financial position	• Deterioration of the solvency position leading to: ○ Failure of a systemically important insurer ○ Collective failures of non-systemically important institutions as a result of exposures to common shocks	➢ Ensuring sufficient loss absorbency capacity and reserving ➢ Promoting good risk management

11.67 The preferred policy option for this issue is granting NSAs with additional measures to reinforce the insurer’s financial position in exceptional circumstances, to address sector-wide shocks. These measures should consist of the possibility of restricting or suspending dividend or other payments to shareholders and the possibility of restricting the purchase of the insurer’s own shares. This would contribute to maintaining the capital position of undertakings in an environment of a quickly unfolding crisis with high uncertainty, avoiding a deterioration of their solvency that, in extreme cases, might even lead to default, e.g. in case the crisis and its lengths are more acute than initially expected. Furthermore, the implementation of the measures in exceptionally adverse situations would also support a more prudent risk management by the company.

11.68 NSAs should have the discretion to make use of these tools. In the decision, more weight has been given to the benefits of having this tool available. The reason is that having the tool at the disposal of NSAs does not immediately imply using it, but rather having the flexibility to do so when needed.

11.69 The main risk of implementing this measure is the potential investors’ reaction after disclosing them, which may result in stock volatility.[262] The current COVID-19 crisis provides an interesting insight on this topic. Insurance share prices have fallen sharply and their volatility increased. Apart from the potential for large claims, investors have been worried about the impact of the economic slowdown on the insurers’ investment portfolios. In addition to that,

[262] Another potential risk is the lack of level-playing field, if the measure is not implemented in the different countries.

some investors might hold insurance companies' shares largely for their dividends rather than capital gains. Disclosing a measure such as a cut in dividends may trigger some investors' reactions. However, it is expected that despite this negative effect for the investors in the short-term, it should be rather positive news for medium and long-term investors that are maximizing their profit over longer horizon. The reason is that preserving firms' capital in the time of financial and economic crises will allow a company to move through this period without any serious consequences that might lead, in extreme case, to default. In addition, these measures could help to reduce uncertainty on potential inadequate solvency positions that would not allow absorbing shocks implied by potential future negative consequences of the Covid-19 outbreak.

11.70 For example, the publication of EIOPA's statement requesting (re)insurers to suspend all discretionary dividend distributions and share buy backs suggests that there were indeed negative drops in equity markets in some cases, but these drops were not statistically significant for the overall European insurers' equity market.[263] The impact could of course be more pronounced in the short-term if, instead of a recommendation, the cut in dividends is a binding measure implemented across-the-board. At the same time, however, as mentioned above, the measure is aimed at maintaining the capital of undertakings throughout a difficult period and, therefore, positive for medium to long-term investors.

11.4.3. Concentration thresholds

- *Description of the proposal*

11.71 Excessive concentrations were identified as one of the potential sources of systemic risk by EIOPA. In line with the current Solvency II approach, this risk should be addressed in a first instance by putting the emphasis on enhancing risk management practices and, in general, accurate application of the prudent person principle and appropriate implementation of own risk assessment functions by the undertakings. This should foster proper diversification and avoid unintended implications, such as fire sales or pro-cyclical behaviour, especially in time of stress.[264]

[263] Jakubik, P. (2020): "The impact of EIOPA statement on insurers' dividends: Evidence from equity markets", *EIOPA Financial Stability Report*, Spring 2020.

[264] At the same time, however, there could also be some procyclicality concerns if undertakings approaching the threshold start to collectively sell a certain asset class. This risk should however not be very high, given that the proposal only refers to soft thresholds.

11.72 Several provisions in the Solvency II Directive provide for supervisory actions in case of excessive concentrations in undertakings' investment portfolios. For example Article 44(2) provides that the risk management system covers concentration risk and that there is a respective policy which likely includes internal concentration risk thresholds. Furthermore in the context of group supervision, Article 244 is dedicated to the supervision of risk concentrations.

11.73 However, EIOPA is of the view that Solvency II should be completed by granting NSAs with the power to define some thresholds or benchmarks on (the growth of) certain types of exposures that are being identified, in order to understand, monitor and eventually avoid excessive (direct and indirect) concentrations at market level.

11.74 There are two types of thresholds that could be considered: "hard thresholds" and "soft thresholds". Hard thresholds are regulatory limits that cannot be breached. For example, if the exposure limit to a specific asset class is set at a certain percentage of the investment portfolio, undertakings are simply not allowed to exceed this limit. Hard thresholds are not deemed appropriate in a principle-based framework like Solvency II and are therefore not further considered.[265]

11.75 Soft thresholds are, in turn, less stringent tools. They are effectively used for monitoring as part of the day-to-day supervision. This implies the identification of benchmarks to refer to when examining specific concentrations, which would show if certain exposure increases dramatically and/or reaches a significant level. Soft thresholds can therefore be exceeded, but would raise special awareness of NSAs, who would take action when they believe there is a material risk to the stability of the financial system.

11.76This approach goes in line with the IAIS' *Holistic Framework for Systemic Risk in the Insurance Sector*, in particular Insurance Core Principle (ICP) 10 on *Preventive Measures, Corrective Measures and Sanctions*.[266] According to ICP 10, requiring measures that reduce or mitigate risks (e.g. restricting exposures, through either hard or soft limits, to individual counterparties, sectors or asset classes) is part of the powers supervisors should have to reinforce the insurer's financial position.

11.77 In EIOPA's view, the power should be understood in the following sense:

— The power would be considered by supervisors on a discretionary basis (i.e. without any kind of automatic trigger) in the day-to-day supervision

[265] See EIOPA (2018c), *op. cit*.

[266] IAIS (2019), *op. cit.*

if deemed necessary. It could lead to intervention/actions in case the monitoring exercise has provided a material risk warning; and

— An important element to consider is that high concentrations *per se* do not point at a risk to financial stability, a pre-condition for supervisors to intervene.

11.78 Aside from microprudential concerns on specific undertakings, from a macroprudential/sector-wide perspective, NSAs should essentially intervene where there is a risk to financial stability. If such a risk is identified, the first action to be taken by NSAs would be intensifying monitoring, and/or requiring additional or more frequent reporting for specific undertakings. Other measures to de-incentivise high concentrations could also be considered if the risk to financial stability would persist.

11.79 Soft concentration thresholds at market level should be considered as a supplement to other existing tools in Solvency II, such as the ORSA and the PPP, which are essentially microprudential in nature. The criteria and conditions for soft concentration risk thresholds should be fixed at EU level, and some kind of guided discretion mechanism should be set at first. The inclusion of the ability to put in place "reciprocity arrangements" can help authorities avoid regulatory arbitrage and spill over from tools set at national level. These arrangements can be complex and onerous to implement but there are examples of it working successfully in the banking sector.

11.80 It should be noted that there have been recent cases in which a measure adopted to address the risk of large exposures in a specific Member State was – in the view of the ESRB – potentially less effective because it could not be implemented in the insurance and asset management sectors.[267] In EIOPA's view, this is a limitation of the current framework that would be solved with the current approach.

- *Options considered*

11.81 EIOPA has followed a sequential approach regarding concentration thresholds. In a first step, potential concentrations were identified and

[267] The ESRB assessed the intention of the French High Council for Financial Stability to adopt a national measure so as to limit concentration risk with regard to highly indebted large French non-financial corporations. It concluded the following: "Another potential channel that may affect the effectiveness of the measure consists of the insurance and asset management sectors, which are reported to hold a substantial amount of French corporate debt, but which are nevertheless not covered by the measure. The ESRB notes that for now the French authorities do not consider the risks associated with the exposures of these sectors to large NFCs to be excessive; furthermore, the HCSF lacks the relevant macroprudential tools to address such risks if they do start to emerge".

monitored. In EIOPA's view, the following asset-side exposures could be considered to assess excessive concentrations, but do not constitute an exhaustive list:[268]

- Exposures to certain asset classes and issuers:
  - Government and corporate bonds;
  - Equity;
  - Real estate, including mortgages and loans;
- Exposures to assets issued by undertakings (or governments) in emerging markets;
- Exposures to certain sectors, in particular, the banking sector;
- Derivatives:
  - Exposure to banks;
  - Counterparty concentration;
  - Intragroup transactions using derivatives;
  - Gross notional amount outstanding by type of risk (interest rates, equity, FX, other).

11.82 The possibility of establishing certain soft thresholds for action at market level by national authorities if a certain exposure increases dramatically and/or reaches a significant "risky level", was considered in a subsequent step.

11.83 Regarding concentration thresholds, two options are being considered:

1. No change, i.e. not granting NSAs with the power to define soft concentration thresholds.
2. Grant NSAs with the power to define soft concentration thresholds or benchmarks and intervene accordingly where deemed necessary.

11.84 The two options are summarised in the impact assessment, together with the costs and benefits for all relevant stakeholders.

➢ *Comparison of options*

11.85 The comparison of the option to include a reference to concentration thresholds against the baseline scenario (i.e. no change) has been based on

[268] These concentrations have been analysed by EIOPA in an internal research. Specific indicators were defined with the aim of providing an initial overview of the main exposures at country level. Other alternative investments, illiquid assets or indirect concentrations (e.g. investment funds) could also be considered relevant in this context.

its contribution to mitigating the sources of systemic risk identified and achieving the following objectives:

	Main source(s) of systemic risk	Operational objective(s)
Concentration thresholds	• Excessive concentrations	➢ Discourage excessive levels of direct and indirect exposure concentrations ➢ Promoting good risk management

11.86 The objective "promoting good risk management" in the context of soft thresholds should also be understood in terms of achieving a better diversification.

11.87 The preferred policy option for this issue is granting NSAs with the power to define soft concentration thresholds or benchmarks on certain types of exposure concentrations and intervene where there is a risk to financial stability. After the analysis of benefits and costs, EIOPA considers that this option strikes a good balance between the current situation and a more prescriptive approach of defining hard thresholds, which is not considered suitable in the current principle-based framework.

11.4.4. Expand the use of the ORSA to include the macroprudential perspective

- *Description of the proposal*

11.88 In an ORSA, an undertaking is required to consider all material risks that may have an impact on its ability to meet its obligations to policyholders. In doing this, a forward-looking perspective is also required. The ORSA supervisory report documents the results of the ORSA assessment to supervisory authorities. The ORSA supervisory report is one of the elements of the regular supervisory reporting in Solvency II, as stated in Article 304(1)(c) of the Solvency II Delegated Regulation. Article 306 of that Regulation specifies the content of the ORSA supervisory report, including the qualitative and quantitative results of the ORSA and the conclusions drawn by the insurance or reinsurance undertaking from those results as well as the methods and main assumptions used.

11.89 Undertakings are required to include in their ORSA an assessment of their overall solvency needs including the risks the undertaking is or could be exposed to, taking into account potential future changes in its risk profile due to the undertaking's business strategy or the economic and financial environment, as provided in Article 262(1)(a) of the Solvency II Delegated Regulation.

11.90 Although conceived to serve mainly as a microprudential tool, the consideration of macroprudential aspects in the ORSA by undertakings and supervisors could be further developed. The proposal is to use the microprudential approach currently existing in Solvency II and seek to enhance the macroprudential dimension. The main channel for this would be the ORSA report and the regular supervisory dialogues.

11.91 Further developing the macroprudential dimension of ORSA and ORSA report would be for the benefit of supervisors and undertakings:

1. Supervisors and the authority in charge of macroprudential policy should be able to extract more easily relevant information from ORSA supervisory reports which, on an aggregate basis, should provide relevant market-wide/macroprudential information to be feed-backed to undertakings.
2. Undertakings, in turn, would benefit from the input received from supervisors, which could then be incorporated into subsequent ORSA exercises. In particular undertakings could receive information on macroprudential risks related to the economic and financial environment which might be relevant for their overall solvency needs assessment.

11.92 Box 11.7 provides two examples of how ORSA could be used from a macroprudential perspective.

Box 11.7: Examples of macroprudential use of ORSA

- The Italian experience (for more details please refer to EIOPA, 2018c *op. cit.*)

With the entering into force of Solvency II Directive, IVASS issued Regulation 32/2016,[269] which basically transposes the principles of the specific EIOPA guidelines and take into consideration Italian specificities. The regulation further details the methods of application stated in Solvency II in particular regarding the reference date, transmission time of the ORSA Supervisory Report, as well as a minimum set of expectation relative to the content of the report. To this end IVASS provided a scheme so to structure in a uniform manner (key areas) and make more explicit the minimum set of information expected form undertakings. The undertaking are nevertheless free to develop the relative contents. When implementing the guidelines, the proportionality principle apply according to undertakings specific riskiness and operational complexity. The ORSA reports

[269] https://www.ivass.it/normativa/nazionale/secondaria-ivass/regolamenti/2016/n32/Regolamento_32_del_9_novembre_2016_ORSA_1.pdf?language_id=3

should adequately describe the contribution of the key functions to the process concerned and to the drafting and finalisation of the ORSA report.

This approach fosters a thorough assessment that serves both at micro- and at macroprudential level. The macroprudential comparative analyses allow to detect the presence on the market of concentration risk, common behaviours or use of similar methodologies and processes. By aggregating information received it is possible to detect a) similar/different approaches in managing specific risks by market; and b) common elements that have an influence on the managers choices also under a forward looking perspective, likely to result in common behaviour. Indeed, although the ORSA expresses subjective consideration of risks – as well as subjective management approaches – it reveals attitudes of the operators that may drive or justify some strategic choices.

So far, undertakings were invited to include the following elements in their own analysis:

A) Consideration of the macroeconomic situation and potential sources of systemic risk. For example, ORSA has been considered as the best way to monitor sovereign risk and undertakings were invited to evaluate in their own risk analysis whether they would be forced to sell government bonds under stress situation –to take spread basis risk into account.

B) Consideration of assumptions used to stress specific risks. Undertakings were invited to integrate the ORSA report with a document that clarified the results of the analysis carried out regarding the potential impact of the 2016 EIOPA Stress Test scenarios (low for long/double hit), depending on the risk profile of undertakings.

The output of the analysis carried out by IVASS is then made public on the Authority web page through a "letter to the market" where the main aggregated results are shared together with improvement IVASS expect to see relative to the following ORSA report in the year to come.[270]

In summary, the experience in Italy proves that the ORSA can indeed go beyond its original microprudential use and also address concerns that are more macroprudential in nature. Eventually it should be considered that the role ORSA has in mitigating/addressing risky situation at micro level can be translated into macro one, once the effects are aggregated at market level.

- The Austrian experience

Following the "structured dialogue" with the industry and ahead of the introduction of Solvency II, FMA set up an ORSA guidance about the key elements of this new

[270] https://www.ivass.it/normativa/nazionale/secondaria-ivass/lettere/index.html (available in Italian only).

tool. Based on practice examples the guidance covers the following aspects among others: role of the board, proportionality, frequency and forecast time horizon, evaluation of the solvency requirement, deviation of the risk profile from the standard formula, assumptions and documentation.[271]

For the year 2016 and to set the new SCR figures into perspective, FMA conducted an in-depth sector-wide analysis of ORSA reports covering the following elements:

- Methods and assumptions of the own risk assessment (scenarios, time horizon, tools, adjustments to the standard formula), group-wide approaches;
- Consistency with and integration of the ORSA in the management strategy (e.g. limit systems, investment strategy, key risk indicators);
- Reasons for deviations from the standard formula;
- Summary of main findings (e.g. strongest risk drivers, main weaknesses, or best estimate calculation).

Supported by FMA's specialists for risk management, the analysis was conducted by undertaking analysts and integrated into the analysis tool available to insurance supervisors via intranet. The results were subject to discussion in the regular management meeting. Since then ORSA reports are subject to annual scoring by analysts, who define further supervisory steps if applicable. Given the in-depth discussion of the capital requirements and sources of risk, the ORSA analysis enables to identify micro- but also macroprudential sources of risk for the largest undertakings.

11.93 As explained in EIOPA (2018c, *op. cit.*), authorities in charge of the macroprudential policy should be able to use the ORSA supervisory reports of undertakings within their jurisdictions to enhance the macroprudential approach by carrying out three different tasks (see Figure 11.3):

1) Aggregation of information. The aggregation of information should be a structured process whereby the relevant authority in charge of the macroprudential policy would receive and compile the individual information provided by undertakings. In order to be operational, authorities should be able to easily identify the relevant sections of ORSA.

2) Analysis of the information. Once aggregated, the relevant authority in charge of the macroprudential policy would seek to extract and analyse relevant information from macroprudential perspective and detect common major risks for the financial stability of the whole market. As shown in the Italian case, this information may allow detecting the

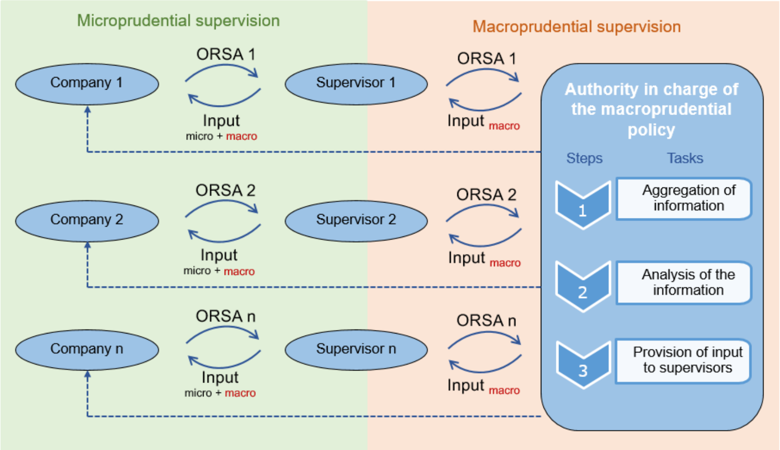
[271] https://www.fma.gv.at/fma/fma-leitfaeden/#17.

presence of risk concentration, common behaviours or use of similar methodologies and processes to manage specific risks. Additionally, a peer analysis focusing on a share of the market that e.g. have similar business models might reveal that they are actually presenting diverging views on the risks they are exposed to and the way they are managed. This might trigger further supervisory action.

3) Provision of certain information or parameters to undertakings to channel macroprudential concerns. As a result of this analysis, the relevant authority in charge of macroprudential policy would provide input to the supervisor on elements to be considered by undertakings to include, in their ORSAs, particularly macroprudential risks.

11.94 As part of the supervisory process of ORSA carried out by the supervisors, undertakings would be expected to use this input as an additional source of macroprudential information to the extent that it is relevant to them.

Figure 11.3: Incorporating the macroprudential perspective into ORSA


Microprudential supervision
Macroprudential supervision
Company 1
ORSA 1
Input
micro + macro
Supervisor 1
ORSA 1
Input macro
Company 2
ORSA 2
Input
micro + macro
Supervisor 2
ORSA 2
Input macro
Company n
ORSA n
Input
micro + macro
Supervisor n
ORSA n
Input macro
Authority in charge of the macroprudential policy
Steps
Tasks
1
Aggregation of information
2
Analysis of the information
3
Provision of input to supervisors

11.95 The main question is how the ORSA process and the ORSA supervisory report would be affected if macroprudential considerations are to be further developed. With regard to the structure of the ORSA supervisory report, the aim should not be prescribing a rigid structure to undertakings. A certain level of harmonisation would, however, be desirable so that authorities in charge of macroprudential policies are able to identify the relevant information (e.g. key areas such as emerging risks considered, assumptions made on the evolution of the markets, eventual macroeconomic stresses applied).

11.96 Content-wise, the principle that the ORSA is an undertaking's own tool should be kept. However, it is expected that undertakings consider the macroprudential input provided by the supervisors when performing their

ORSA assessment to the extent and the awareness that it is relevant for them as well.

- *Options considered*

11.97 Two options are being considered:

1. No change, i.e. the ORSA would remain as it currently is.
2. Expand the use of the ORSA to include the macroprudential perspective.

11.98 Both options are summarised in the impact assessment, together with the costs and benefits for all relevant stakeholders.

➢ *Comparison of options*

11.99 The comparison of the option to expand the ORSA against the baseline scenario (i.e. no change) has been based on its contribution to mitigating the sources of systemic risk identified and achieving the following objectives:

	Main source(s) of systemic risk	**Operational objective(s)**
Expansion of the use of the ORSA	• Excessive concentrations • Deterioration of the solvency position leading to: ○ Failure of a systemically important insurer ○ Collective failures of non-systemically important institutions as a result of exposures to common shocks	➢ Discourage excessive levels of direct and indirect exposure concentrations ➢ Ensure sufficient loss-absorbency capacity and reserving ➢ Promoting good risk management

11.100 The preferred policy option, i.e. to expand the use of ORSA to include the macroprudential perspective is also based on the limited costs identified particularly for undertakings, which are clearly outweighed by the potential benefits this tool could yield. The current proposal would not lead to a detailed ORSA template but would complement current micro analysis with macroprudential evaluation. It would only translate into further expectations on the content of the report, at least for the undertakings for which the macroprudential risks to be taken into account are material. Moreover, to the extent that prudently managed undertakings already take into account all risks (including systemic risk) in their own risk and solvency assessment as prescribed in Solvency II, no fundamental change should be expected. As a result, the adaptation costs are not expected to be material for undertakings.

11.4.5. Expand the prudent person principle to take into account macroprudential concerns

- *Description of the proposal*

11.101 The prudent person principle (PPP) states that undertakings shall only invest in assets and instruments whose risks the undertaking concerned can properly identify, measure, monitor, manage, control and report, and appropriately take into account in the assessment of its overall solvency needs. Its focus is therefore microprudential, and can basically address investment risks at individual level. Macroprudential concerns such as herding behaviour in investments or excessive exposure concentrations at the sectoral level can only be targeted through coordinated individual interventions.[272]

11.102 As will be explained in the course of this section, EIOPA proposes to expand the prudent person principle to also cover macroprudential concerns. The relevant authority in charge of the macroprudential policy would seek to extract relevant information on the investment strategy of undertakings, analyse it together with other relevant information that might be available and provide input to supervisors and undertakings on potential macroprudential risks. The potential impact of expanding the PPP would work in two different ways:

- In the investment strategy of undertakings. As stated by the ESRB (2018, *op. cit.*), undertakings could be incentivised to consider macroprudential concerns when analysing the diversification and liquidity of their own investment portfolios. This could include, for example, taking into account the potential behaviour of other market participants, macroprudential risks (such as credit cycle downturns, or reduced market liquidity) or excessive concentrations at sector level;
- As part of the supervisory review process. The PPP is a soft tool with corrective power. As part of the supervisory review process, NSAs are expected to also take into account macroprudential concerns when assessing whether the undertaking complies with the PPP.

11.103 In terms of content, the proposal does not change the approach of the PPP. Nor seeks it to impose an undue degree of prescriptiveness. Instead, it seeks to reinforce the need to take macroprudential concerns into consideration. Moreover, to the extent that these concerns are already considered by

[272] ESRB (2018), *op. cit*.

undertakings as part of their investment strategies, the suggested approach would not imply major changes.

- *Options considered*

11.104 Two options are being considered:

1. No change, i.e. the PPP would remain as it currently is.
2. Expand the PPP to take into account macroprudential concerns.

11.105 Both options are summarised in the impact assessment, together with the costs and benefits for all relevant stakeholders.

➢ *Comparison of options*

11.106 The comparison of the option to expand the PPP against the baseline scenario (i.e. no change) has been based on its contribution to mitigating the sources of systemic risk identified and achieving the following objectives:

	Main source(s) of systemic risk	**Operational objective(s)**
Expansion of the PPP	• Excessive concentrations • Involvement in certain activities or products with greater potential to pose systemic risk	➢ Discourage excessive levels of direct and indirect exposure concentrations ➢ Discourage excessive involvement in certain products and activities ➢ Promoting good risk management

11.107 The preferred policy option, i.e. to expand the PPP to take into account macroprudential concerns is also based on the limited costs identified, particularly for undertakings, that are clearly outweighed by the potential benefits that this tool could yield in the long-term.

11.4.6. Pre-emptive recovery and resolution planning

- *Description of the proposal*

11.108 In a pre-emptive recovery plan, which is drafted in normal times, the undertaking itself describes the possible measures it would adopt to restore its financial position following a significant deterioration caused by potential scenarios of stress. In a resolution plan, in turn, the competent authority considers how to resolve an undertaking without severe systemic disruption and without exposing taxpayers to loss, by identifying a range of resolution actions which may be taken if the undertaking enters into resolution.

11.109 By requesting undertakings and competent authorities to draft pre-emptive recovery and resolution plans respectively, this measure should contribute to the operational objective of ensuring sufficient loss absorbency capacity and reserving. This approach is consistent with chapter 12 on Recovery and Resolution.

- *Options considered*

11.110 Three options are being considered:

1. No change, i.e. the existing situation of different national practices is maintained. Solvency II would not be supplemented with the requirement for pre-emptive recovery and resolution planning as well as resolvability assessments.
2. Require pre-emptive recovery and resolution planning (as well as resolvability assessments) from all undertakings subject to Solvency II to be drafted, respectively, by undertakings and competent authorities.
3. Require these plans from undertakings covering a very significant (for recovery planning) and significant (for resolution planning and resolvability assessment) share of the national market. The decision as to which undertakings would be subject to the requirements should be based on a list of harmonized criteria, such as size, business model, risk profile, cross-border activities, interconnectedness and substitutability of undertakings.

11.111 The three options are summarised under sections 12.3.4.1 and 12.3.5.3, together with the costs and benefits for all relevant stakeholders. The comparison of the option to require recovery and resolution planning (as well as resolvability assessments) covering a (very) significant and significant share of the market respectively against the baseline scenario (i.e. no change) has been based on its contribution to achieving the different policy objectives. From a macroprudential point of view, these are the following:

	Main source(s) of systemic risk	**Operational objective(s)**
Requirement of pre-emptive recovery and resolution plans	• Deterioration of the solvency position leading to: ○ Failure of a systemically important insurers	➢ Ensuring sufficient loss absorbency capacity and reserving ➢ Promoting good risk management

	○ Collective failures of non-systemically important institutions as a result of exposures to common shocks	

- *Advice*

See chapter 12 on recovery and resolution

11.4.7. Systemic risk management plans

- *Description of the proposal*

11.112 The proposal is requiring undertakings to draft systemic risk management plans (SRMPs) in which they present all applicable measures they intend to undertake to address the systemic risk that the institution may pose to the financial system.

11.113 By requesting undertakings to draft SRMPs, this measure contributes to the operational objectives of discouraging excessive involvement in certain products and activities as well as discouraging excessive levels of direct and indirect exposure concentrations.

11.114 Such a power is also considered in the IAIS *Holistic Framework for Systemic Risk in the Insurance Sector*, in particular in ICP 10, which states that the supervisor should have the power to issue and enforce directions requiring the insurer to prepare a report describing actions it intends to undertake to address specific activities the supervisor has identified, through macroprudential surveillance, as potentially posing a threat to financial stability.[273]

- *Options considered*

11.115 A key aspect refers to the scope of application of this measure, i.e. the undertakings that should be required to draft SRMPs. EIOPA considers that the measure should be applied to undertakings that are more likely to create and/or amplify systemic risk through an entity, activity or behavioural channel. This would also be aligned with the international standards developed by the IAIS.

11.116 Three options are being considered:

1. No change, i.e. Solvency II would not be supplemented with the requirement for SRMP.

[273] IAIS (2019): *op. cit.*

2. Require SRMPs from all undertakings subject to Solvency II.
3. Require SRMPs only from a subset of undertakings considering several aspects such as the size of the undertaking, its global activity, the interconnectedness with the financial system, potential substitutability concerns as well as the nature of exposures, scale, and complexity of the undertaking's activities. In order to assist consistent conditions of application EIOPA should be required to issue guidelines to further specify the scope of undertakings subject to SRMP.

11.117 These three options are further analysed in the impact assessment, elaborating on the costs and benefits of all the options for all relevant stakeholders.

➢ *Comparison of options*

11.118 The comparison of the option to require SRMPs to a subset of undertakings against the baseline scenario (i.e. no change) has been based on its contribution to mitigating the sources of systemic risk identified and achieving the following objectives:

	Main source(s) of systemic risk	**Operational objective(s)**
Requirement of SRMP	• Involvement in certain activities or products with greater potential to pose systemic risk • Potentially dangerous interconnections	➢ Discourage excessive involvement in certain products and activities ➢ Discourage excessive levels of direct and indirect exposure concentrations ➢ Promoting good risk management

11.119 The preferred policy option for this policy issue is to require SRMPs to specific undertakings only, based on the expert judgement of NSAs. Requiring SRMPs to all undertakings has been disregarded because of the resource consumption it would imply for both undertakings and NSAs compared to relatively low benefits for a large proportion of undertakings.

11.4.8. Liquidity risk framework

- *Description of the proposal*

11.120 Liquidity risk in insurance is acknowledged to be of a different nature to banking.[274] The inverted production cycle generates a stable cash flow to undertakings and makes the traditional insurance business less dependent on short-term funding.

11.121 Although much less pronounced than in banking, a market-wide liquidity problem cannot be ruled out. In the current regulatory framework, liquidity risk is only partially covered.[275] Article 44 of the Solvency II Directive addresses risk management, stressing the areas that need to be covered. Liquidity and concentration risk management are among those areas explicitly listed. However, there are no quantitative requirements covering liquidity risk. Furthermore, the quantitative reporting does not contain all necessary information for the supervisor to be able to fully assess and monitor sector-wide liquidity risk.

11.122 EIOPA considers the monitoring of liquidity risk essential for undertakings and NSAs. Thus, there is a need to develop a meaningful set of liquidity risk indicators to monitor and assess liquidity risk. Stress testing is an important tool to assess insurance undertakings' resilience to liquidity risk and to oversee the evolution of liquidity risk in the broader insurance industry, especially given the current absence of standardised metrics and of a regular homogeneous reporting to assess the liquidity position of (re)insurance undertakings.

11.123 In case vulnerabilities are identified by means of monitoring and stress-testing, potential mitigating measures should be considered. Such an approach would be similar to that proposed by the ESRB and described in Box 11.8 and also consistent to the requirements and guidance considered in the IAIS ICPs related to the Holistic Framework.

Box 11.8 – IAIS and ESRB references to liquidity stress testing and liquidity measures

IAIS references

IAIS ICP 16 on Enterprise Risk Management for Solvency Purposes and, more specifically ICP 16.9, mentions that supervisors should have powers to require undertakings, as necessary, to establish more detailed liquidity risk management processes as part of its ERM framework, including liquidity stress testing. The use

[274] See IAIS (2011), *op. cit.*

[275] EIOPA (2018c), *op. cit.*

of stress testing or scenario analysis should help undertakings to assess their resilience against severe but plausible liquidity stresses.

Guidance under ICP 24 on Macroprudential Supervision also recommends that the supervisor should have in place an appropriate form of stress testing, which is applied to the insurance sector as a whole or to a significant sub-sample of insurers, selected according to the exposures to specific risks to be assessed. Based on the stress test, the supervisor should discuss potential mitigating actions with the relevant insurers.

IAIS Guidance considered in ICP 10 on Preventive Measures, Corrective Measures and Sanctions also considers that the supervisor may have other powers available, including incentivising the use of a system-wide lending facility, when available, for market-wide liquidity issues extending to insurers.

Moreover, the IAIS is developing a liquidity metric for assessment of liquidity risk as part of its work on the implementation of the Holistic Framework.

ESRB references

The ESRB's reply to EIOPA's public consultation on the 2020 review of Solvency II stressed that the Solvency II provisions on managing liquidity risk should be reinforced, in particular with a requirement for (re)insurers to perform internal stress testing, and that this should be complemented by supervisory stress tests that incorporate liquidity risk.

Where liquidity shortfalls exist, as identified based on the abovementioned stress testing or as part of a proposed enhanced liquidity reporting and measurement, Pillar 2 provisions should be enhanced to enable supervisors to require individual (re)insurers with a vulnerable profile to hold a buffer of cash or high-quality liquid assets (HQLA).

11.124 These measures should incentivise insurers to reinforce their liquidity position (e.g. via reduction in exposures more prone to liquidity risk and/or incentivise insurers to increase the available liquidity) and would be set only when national supervisors have enough evidence regarding the existence of the liquidity risk vulnerabilities as well as the efficiency of the proposed measures for these identified.

11.125 EIOPA was initially not in favour of mitigating measures to increase the available liquidity (see EIOPA's 2018c). Although so far no fundamental system-wide liquidity issue has been witnessed, in EIOPA's view, however, the outbreak of the COVID crisis has stressed the need for supervisory authorities to have a proper risk monitoring and stress-testing framework in place, as well as to count with mitigating measures in case vulnerabilities are identified.

11.126 The introduction of potential mitigating measures, which should only be considered if vulnerabilities have been identified, could entail several operational challenges. Currently no quantitative liquidity requirements apply to the insurance sector, where the consideration of liquidity risk at macro level is still incipient. Therefore, a commonly-agreed definition at European and also international level should be developed in light of existing liquidity metrics or requirements already under discussion at the EIOPA, ESRB and IAIS levels. As regards to EIOPA's work in this matter, the Opinion on the Solvency II Review already encompasses a liquidity condition based on high-quality liquid assets (HQLA) for non-life liabilities as part of the requirements for long-term equity investments (specifically, Article 171a) in the calculation of the equity risk sub-module.[276]

11.127 Given their macroprudential nature, mitigating measures, for example in the form of a buffer should target companies that based on the proposed enhanced liquidity monitoring and/or stress testing, exhibit particularly vulnerable profiles (e.g. very liquid liabilities or illiquid assets) and the potential to affect overall financial stability.

- *Options considered*

11.128 Two options are being considered:

1. No change, i.e. not granting NSAs with additional mitigating measures to address system-wide liquidity risk.
2. Granting NSAs with additional mitigating measures in case vulnerabilities in respect to system-wide liquidity risk have been identified.

11.129 The two options are further analysed in the impact assessment, elaborating on the costs and benefits of all the options for each of the stakeholders.

➢ *Comparison of options*

11.130 The comparison of the option to grant NSAs with additional mitigating measures in case vulnerabilities have been identified against the baseline scenario (i.e. no change) has been based on its contribution to mitigating the sources of systemic risk identified and achieving the following objectives:

[276] Included in the "Technical specification of the information request on the 2020 review of Solvency II - Holistic impact assessment".

	Main source(s) of systemic risk	Operational objective(s)
Liquidity risk framework	• Involvement in certain activities or products with greater potential to pose systemic risk • Excessive concentrations • Potentially dangerous interconnections • Collective behaviour by undertakings that may exacerbate market price movements (e.g. fire-sales or herding behaviour)	➢ Discourage excessive involvement in certain products and activities ➢ Discourage excessive levels of direct and indirect exposure concentrations ➢ Limit procyclicality ➢ Promoting good risk management

11.131 The preferred policy option is to grant NSAs with additional Pillar 2 mitigating measures. If set up properly, these tools should allow supervisors to have an adequate response in case risks are identified, safeguarding the rights of policyholders and overall financial stability. These tools would contribute to achieve four operational objectives of macroprudential policy, including to discourage excessive involvement in certain products and activities and excessive levels of direct and indirect exposure concentrations, limit procyclicality and promoting good risk management. It is acknowledged that the potential introduction of mitigating measures to incentivise insurers to increase the available liquidity, while contributing to limit procyclicality in a preventive way – by limiting collective behaviour by insurance undertaking with potential to exacerbate market price movements – it can also contribute to procyclicality in asset allocation and increase common asset exposures.

11.4.9. Liquidity risk management plans

- *Description of the proposal*

11.132 Liquidity risk is one of the key risks to be included in the ERM framework. ICP 16.8 states that supervisors should require the insurer’s ERM framework to “address liquidity risk and to contain strategies, policies and processes to maintain adequate liquidity to meet its liabilities as they fall due in normal and stressed conditions”.

11.133 Liquidity planning is, therefore, an essential element of an adequate liquidity management, and it can be reasonably be expected that prudently managed undertakings already have some kind of liquidity risk management processes and metrics in place (in line also with ICP 16.8.2), which are properly documented.[277] Box 11.9 provide some additional information on the ERM for solvency purposes.

Box 11.9: Extracts from the IAIS ICP 16 ERM for Solvency Purposes

The principle states that an insurer shall establish within its risk management system an enterprise risk management (ERM) framework for solvency purposes to identify, measure, report and manage the insurer's risks in an ongoing and integrated manner. The framework includes a specific standard (16.9) to be applied under the principle of proportionality, which covers liquidity risk management aspects.

An insurer, upon supervisor's request should establish more detailed liquidity risk management processes, as part of its ERM framework that include:

- liquidity stress testing;
- maintenance of a portfolio of unencumbered highly liquid assets in appropriate locations;
- a contingency funding plan; and
- the submission of a liquidity risk management report to the supervisor.

These requirements are mandatory and further enhanced for International Active Insurance Groups (IAIGs) as reported in the Common Framework 16.9:

- IAIG's resilience shall be assessed against severe but plausible liquidity stresses to determine whether current exposures are within the IAIG's liquidity risk appetite. The assessment should be forward looking and tailored to the nature, scale and complexity of the IAIG's exposure to liquidity risk.
- IAIG are requested to establish and maintain an adequate level of unencumbered highly liquid assets in appropriate locations
- The head of the IAIG shall maintain a contingency funding plan to respond to liquidity stress events
- The head of the IAIG to report, at least annually, on its management of liquidity risk. The report includes at least: a liquidity risk appetite statement; established liquidity risk limits; a discussion of the current liquidity position of the IAIG in relation to its liquidity risk appetite and limits; a summary of strategies, policies and processes that the IAIG has in place to manage

[277] The IAIS plans to complement the guidance on the liquidity management with a specific Application Paper whose publication is planned in 2020.

liquidity risk; a discussion of potential vulnerabilities in the IAIG's liabilities as well as the means of enhancing the liquidity position; and the IAIG's approach to, and results of, liquidity stress testing.

11.134 EIOPA's proposal is to make the link between liquidity management and liquidity planning more explicit by requesting liquidity risk management plans to be drafted by undertakings in a proportionate way, which should also help to enhance reporting and monitoring of liquidity risk.

- *Options considered*

11.135 With the current proposal of requesting LRMP's to insurance undertakings, EIOPA seeks to enhance the current regulatory framework which is essentially based on the general provision in Article 44 and Pillar 2 requirements.

11.136 As with the other plans, the key operational aspect is broadening the scope to cover a sufficiently large number of undertakings while taking into account proportionality concerns.

11.137 Against this background, three options are being considered:

1. No change, i.e. Solvency II would not be supplemented with the requirement for LRMPs.
2. Require LRMPs from all undertakings subject to Solvency II.
3. Require LRMPs with possibility to waive the requirement for some undertakings based on a set of harmonized criteria such as the nature of the exposures as well as the scale and complexity of the undertaking's activities that make them more vulnerable to liquidity stresses. In order to assist consistent conditions of application EIOPA should be required to issue guidelines to specify when undertakings would be exempt from drafting a LRMP.

11.138 These three options are further analysed in the impact assessment, elaborating on the costs and benefits of all the options for each of the stakeholders.

- *Comparison of options*

11.139 The comparison of the option to require LRMPs with the possibility to waive undertakings against the baseline scenario (i.e. no change) has been based on its contribution to mitigating the sources of systemic risk identified and achieving the following objectives:

	Main source(s) of systemic risk	**Operational objective(s)**

Requirement of LRMP	• Involvement in certain activities or products with greater potential to pose systemic risk • Potentially dangerous interconnections	➢ Discourage excessive involvement in certain products and activities ➢ Discourage excessive levels of direct and indirect exposure concentrations ➢ Promoting good risk management

11.140 The preferred policy option is to require LRMPs with the option for NSAs to waive the requirements for some undertakings. The starting assumption should be that all undertakings are within scope, but NSAs should have the power to waive the requirements for some of them based on certain criteria and proportionality considerations. Requiring LRMPs from all undertakings has been disregarded because of the resource consumption it would imply for both undertakings and for NSAs.

11.4.10. Temporary freeze on redemption rights

- *Description of the proposal*

11.141 From a macroprudential point of view, a power to temporary forbid or limit lapses in exceptional circumstances would be applied to the whole or part of the market, in order to give the vulnerable entity or entities some time to implement necessary measures to reduce their liquidity risks without affecting the stability of the financial system. It could therefore be useful to address the risk of collective behaviour by undertakings that may exacerbate market price movements, such as fire-sales or herding behaviour.

11.142 This tool links the micro- and macroprudential concerns. Indeed, while this section essentially covers the macroprudential approach, the tool could be applied from a microprudential perspective, affecting one or a few specific undertakings that are subject to a severe liquidity stress which, however, would by themselves not compromise the stability of the financial system.[278] The only difference is, therefore, the type of risk that it is expected to address, i.e. a market-wide liquidity stress (macroprudential approach) or an individual liquidity risk (microprudential approach).

[278] See chapter 12 on recovery and resolution.

11.143 The IAIS also considers this option.[279] According to the IAIS Holistic Framework, in particular ICP 10, temporarily delaying or suspending, in whole or in part, the payments of the redemption values on insurance liabilities is a power supervisors may have available.

11.144 Having the right of temporarily freezing the redemption rights is a measure that could be used in exceptional circumstances to address macroprudential concerns. From that point of view, EIOPA considers that this tool would be a supplement (and not a replacement) to the requirement to hold capital for mass lapses at undertaking level, as part of the standard formula.

11.145 However, EIOPA considers a balanced approach in the application of this tool is necessary.[280] Potential self-inflicted problems should be avoided, i.e. freezing the redemption rights should not be seen as a way to solve bad management or pricing decisions. Therefore, a thorough analysis about the reasons of the increased lapse risk should be carried out in order to ensure the measure to be an appropriate reaction and not a simplistic cure of symptoms while the underlying reasons are not properly addressed. This refers, in particular, in case that unsustainable guarantees were promised. Additionally, as pointed out in EIOPA 2018,[281] cases of surrender arbitrage, i.e. if the cash-flow of a product (consisting of the commissions to the insurance intermediaries, the premiums and the guaranteed surrender or accumulation value) has an internal interest rate higher than observable ones (see EIOPA 2017),[282] need an appropriate supervisory reaction which should go beyond a measure to freeze the rights of policyholders.

11.146 Furthermore, the exercise of this power should be preceded by, or linked to, the prohibition of distributing dividends, bonuses and other types of variable remuneration to management or shareholders.

11.147 As with some of the other tools, reciprocation aspects should be duly considered in the context of this tool. Where this power is applied, reciprocation would avoid that redemption rights be used by policy holders located in another Member State.

11.148 EIOPA is of the view that the measures should ideally be applied consistently across the financial sector beyond insurance, such as asset management.

[279] IAIS (2019), *op. cit*.

[280] EIOPA (2018c), *op. cit*.

[281] EIOPA (2018c), *op. cit*.

[282] EIOPA (2018a), *op. cit.*

Currently, existing EU regulation for AIFs and UCITS gives NCAs the power to require the suspension of the issue, repurchase or redemption of units in the interest of the unit-holders or of the public.[283] A consistent treatment of redemptions across the financial sector would prevent situations where insurance companies are hit by a liquidity shock on both their asset (e.g. via suspension of fund redemptions) and liability sides (e.g. via unit-linked redemptions by policyholders), while having no tools to properly counteract the shock. Ensuring that NSAs have this power at the EU level would effectively mitigate the potential associated liquidity risks for insurers regarding their unit-linked business, identified by the last ESRB letter to EIOPA on addressing liquidity risks for insurers.

- *Options considered*

11.149 This tool temporarily freezes the rights of policyholders to surrender. It should therefore be carefully considered by authorities, and only applied in exceptional circumstances i.e. as a measure of last resort, when other measures are ineffective or inappropriate. This could be the case where there is a serious threat to policyholders or the stability of the financial system. An example could be when the risk of mass lapse on multiple undertakings implying forced sales of non-liquid assets is identified, e.g. as a result of a sudden increase of interest rates or in case of panics.

11.150 The measure should be activated only for a limited period of time, to prevent risks representing a strong threat for the financial stability of the whole insurance market or of the financial system. The period of time in which the measure remains active would depend on the triggering event. The measure should be reviewed on a regular basis (e.g. on a monthly basis).

11.151 A key operational challenge of this measure is the cross-border implication of this measure when undertakings operate in other Member States by means of freedom to provide services and freedom of establishment. It should be avoided that policyholders in the host country would be negatively affected by the application of the measure in the home country. This and other operational challenges are discussed in detail in Box 11.10, suggesting that this tool should be used only in exceptional circumstances and with great care.

[283] Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010, and Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS).

Box 11.10 Operational challenges related to the temporary freeze of redemption rights

The introduction of a supervisory power to temporarily freeze policyholder's redemption rights entails some operational challenges, including:

- Conduct and consumer protection effects: While the exercise of this tool also aims at ensuring "collective consumer protection", it raises fair treatment concerns for individual policyholders. To a certain extent some policyholders may be temporarily deprived of their savings, at a time they might need them the most – i.e., facing financial difficulties – and this may be the consequence of the lack of proper application of conduct requirements (e.g., product oversight and governance, suitability assessment) by insurance undertakings rather than policyholders' mis-judgement.
- Reputational effects. The activation of the tool might reinforce the stress that the insurance undertaking(s) is (are) already suffering and have a long lasting reputational impact. In this regard, it seems relevant that the application of the tool is linked to, or preceded by, the prohibition of distributing dividends, bonuses and other means of variable remuneration to management and stakeholders.
- Cross-border implications. In cases where a significant share of policyholders is in another jurisdiction, due care should be given to also protect policyholders in that jurisdiction. EIOPA should play a relevant role to ensure the correct application of the tool and to ensure that policyholders in both home and host jurisdictions are adequately protected.
- Cross-sectoral coordination. Any restrictions to policyholders' redemption rights must be coordinated across the different financial sectors, in particular with the fund management industry. This would prevent situations where the application of redemption suspension measures in the fund industry, causing insufficient liquidity in assets backing unit-linked business, cannot be accompanied by similar measures in the insurance industry, resulting in liquidity pressures for insurers that are forced to meet surrender claims.

11.152 On this tool, EIOPA considered two main options:

1. No change, i.e. this power should not be available to NSAs in exceptional circumstances.
2. NSAs should be empowered to temporarily freeze the redemption rights in exceptional circumstances.

11.153 These two options are further analysed in the impact assessment, elaborating on the costs and benefits of all the options for each of the stakeholders.

- *Comparison of options*

11.154 The comparison of the option to grant NSAs with the power to temporary freeze the redemption rights against the baseline scenario (i.e. no change) has been based on its contribution to mitigating the sources of systemic risk identified and achieving the following objectives:

	Main source(s) of systemic risk	Operational objective(s)
Temporary freeze on redemption rights	• Collective behaviour by undertakings that may exacerbate market price movements (e.g. fire-sales or herding behaviour)	➢ Limit procyclicality ➢ Policyholder protection

11.155 While it is acknowledged that this option also has side effects, the preferred option is to grant NSAs with the power to temporarily freeze the redemption rights in exceptional circumstances. In the decision, more weight has been given to the benefits of having this tool available. The reason is that having the tool at the disposal of NSAs does not immediately imply using it, but rather having the flexibility to do so in case of need.

11.4.11. Other measures

11.156 In addition to the above proposed tools and measures, EIOPA is working on other improvements to the reporting framework from a macroprudential point of view.

– Enhancing the reporting framework from a macroprudential point of view

11.157 EIOPA sees a need to enhance the reporting framework with the aim of detecting potential market-wide liquidity stresses.[284] This need has also become clearer during the Covid-19 crisis, which led EIOPA to implement an

[284] The relevance of liquidity risk stress-testing should also be highlighted in this context (see Box 5, EIOPA, 2018c, *op. cit.*). Such exercises allow supervisors to identify potential vulnerabilities that should be addressed either at micro level or at macro level and thus reinforces the resilience against liquidity risk.

ad-hoc data collection and monitoring framework to assess liquidity risk in the insurance sector (Box 11.11). Any potential changes to the reporting framework that could improve the ability of NSAs and EIOPA to perform an assessment of liquidity risk on a more complete and regular basis would be beneficial. Such changes should not disproportionately increase the reporting burden for insurance undertakings, therefore the scope of the undertakings targeted by an enhanced reporting could be limited, e.g. to the Financial Stability reporting sample.

11.158 A liquidity risk monitoring framework which is not based on detailed cash flows would require information such as:

- Cashed premiums
- Paid claims
- Non-earned premiums
- Net reinsurance flows
- Surrender values
- Pay-out window
- Best estimate of the portfolio split by buckets of surrender penalties
- Contractual incentives (guarantees included or profit sharing)
- Economic impact of early termination for policyholders (e.g. penalties, exit fees or taxation related disincentives)

11.159 A high granularity of the classification of the liabilities is recommended. The ad-hoc data collection in order to address data gaps during the Covid-19 crisis as part of the EIOPA’s common framework for the assessment of insurers’ liquidity position (Box 11.11) showed that a binomial dissection of the liabilities might not be sufficient.

11.160 The information thereof allows to have:

- a stock analysis (based on balance sheet information)
- a flow analysis (based on the premium, claims, surrender values and pay-out time) that assesses the sustainability of the cash flows from a portfolio perspective.

11.161 The set of proposed information deliberately does not include cash flows. Cash flows are relevant information for the assessment of the liquidity position of undertakings, however to minimise the reporting burden on the undertakings, it is proposed to refrain from including it in the regular reporting. It is advised to consider including it in a “contingent reporting” to be activated under specific adverse circumstances (identified based on e.g. undertaking level or sector-wide triggers).

Box 11.11: EIOPA's common framework for the assessment of insurers' liquidity position under COVID-19 crisis

The COVID-19 crisis, if protracted in time, could generate liquidity distress in the insurance industry stemming from shocks that might materialise over different time horizons. Against this background, and given the nature and speed of the Covid-19 crisis, EIOPA implemented a common approach to monitor the liquidity of insurers at EU level, namely by defining a common framework for data collection and indicators.

The framework is intended to assist European supervisors in the monitoring of liquidity risk within their jurisdiction by developing a simple quantitative framework, building on the experience of NCAs who already have such frameworks in place, while at the same time avoiding lack of convergence in the monitoring of liquidity risk. It also aims to enable EIOPA and its members to monitor liquidity levels at the EU aggregate and country basis, allowing comparisons and, most importantly identifying the build-up of potential liquidity concerns at an early stage, taking preventive measures under coordinated action.

The approach combines a static balance sheet based analysis of the assets and of the liabilities with a cash flow-like analysis of the inflows and outflows projected over relevant time horizons. The Flows template focuses on the in- and outflows stemming from the traditional life business, unit-linked and index-linked business, non-life business, investments, other operational income and expenses and intra-group movements of cash over the next 30 and 90 days. The Stocks template collects information on liquid assets such as cash and equivalents, government related securities, exposures to central banks, high quality covered bonds, corporate debt securities, equities, collateralised securities and CIUs. Specific haircuts are applied according to the EU implementing regulation on the liquidity coverage requirement (LCR) for the banking sector adapted to the Solvency II specificities. The in-force portfolio of the traditional life liabilities and unit-linked and index-linked business is classified according to the tax and economic surrender penalties. For the liabilities the surrender value is also collected.

The liquidity position of the undertakings is assessed by the following indicators: i) net cash flows, ii) liquid assets to total assets, iii) liquid liabilities to total liabilities, and iv) liquid liabilities to liquid assets.

The approach consists of three steps:

1. NCAs are requested to undertake and submit to EIOPA an assessment of the liquidity risk in their own jurisdiction and should highlight which (re)insurers might potentially have or develop liquidity issues and are worth being monitored;

2. (Re)insurers identified by the NCAs in the previous step are requested to provide the Flows template to the supervisor with monthly frequency. The first submission shall also be complemented with a submission of the Stocks template;

3. The third step is conditional and activated by the NCA only for those solo undertakings whose step 2 information shows liquidity issues. In that case, additional qualitative/quantitative requirements might be triggered, such as the monthly submission of the Stocks template and information on the liquidity management plan.

The result of the analysis suggests that the liquidity situation emerging from the cross-sectional and trend analysis is not a source of concern so far.

11.162 The elements above are relevant information to assess potential liquidity risk stresses in the insurance sector. Reporting gaps around them should therefore be avoided, given that they could lead to two of the sources of systemic risk identified by EIOPA, i.e. the risk of insurance failure(s) as well as the risk of collective behaviour by undertakings that may exacerbate market price movements, such as fire-sales.

11.163 The risk of market-wide under-reserving is another area where enhancing the reporting is needed. The aim is identifying potential deviations of the assumptions from the actual experience in the calculation of the technical provisions. The information in the variation analysis templates is currently not granular enough to allow supervisors to detect problematic reserving, where it occurs and should therefore be enhanced. Additional information should be collected on the profit or losses that result from deviations of assumptions to actual experience from one year to another with regard to interest rate; longevity/mortality; lapse; disability; reinsurance, cost charges; currencies as well as on the impact of changes of assumptions (non-economical and economical) and new business.

11.164 Any proposal in the field of reporting is considered as part of the overall review on reporting, which will take place in light of the Solvency II review.

– Borrower-based measures

11.165 In its 2020 report on "Enhancing the macroprudential dimension of Solvency II", the ESRB highlights that the main objective of borrower-based measures is to increase the resilience of both borrowers and financial institutions originating loans, by reducing the funding available to riskier borrowers through limits on the loan – via either the value of underlying collateral (LTV) or disposable income of the borrower (LTI, DSTI).[285]

11.166 Given that in several jurisdictions insurance undertakings also grant or invest in portfolios of residential mortgage loans, the ESRB considers they

[285] ESRB (2020): *op. cit.*

should also be in the scope of borrower-based measures to ensure the effectiveness of macroprudential policy across the financial sector.

11.167 EIOPA supports the ESRB proposal of bringing (re)insurers within the scope of borrower-based tools. Given the broad remit that the ESRB has in terms of macroprudential oversight in the EU, covering among others banks, insurers and asset managers, the ESRB is better placed to further develop and ensure cross-sectoral consistency in the implementation of this proposal.

12. Recovery and resolution

12.1 Introduction

12.1.1 Extract from the call for advice

> ***3.11. Recovery and resolution***
>
> *EIOPA is asked to assess whether the Solvency II rules on the recovery of undertakings in stressed situations should be further developed, including harmonised early intervention powers and preventive recovery planning. EIOPA is further asked to advise on which elements and rules should be added.*
>
> *Similarly, EIOPA is asked to advise on whether there is a need for minimum harmonised rules regarding resolution of insurance or reinsurance companies, including resolution planning. In addition, EIOPA is asked to advise on which tools should be created to address the failure or the risk of failure of insurance or reinsurance companies as well as on what the scope of resolution planning should be.*
>
> *Furthermore, EIOPA is asked, taking into account the experience with supervisory powers in cases of non-compliance with the Solvency Capital Requirement and the Minimum Capital Requirement, to advise on what the appropriate triggers for early intervention, entry into recovery and entry into resolution should be.*

12.1.2 Relevant legal provisions

12.1 EIOPA's tasks and powers in the area of recovery and resolution of insurance undertakings are set out in Article 8(1)(i) of the EIOPA Regulation.[286] This article states that EIOPA is responsible for *"[…] the development and coordination of recovery and resolution plans, providing a high level of protection to policy holders, to beneficiaries and throughout the Union, in accordance with Articles 21 to 26".*

12.2 Other relevant articles in this context are:

- Article 24(2) of the EIOPA Regulation provides EIOPA with the responsibility to contribute to ensuring coherent and coordinated crisis management and resolution regime in Europe.

[286] Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/79/EC (OJ L 331, 15.12.2010, p. 48).

- Article 25(2) of the EIOPA Regulation provides that *"[EIOPA] may identify best practices aimed at facilitating the resolution of failing institutions and, in particular, cross-border groups, in ways which avoid contagion, ensuring that appropriate tools, including sufficient resources, are available and allow the institution or the group to be resolved in an orderly, cost-efficient and timely manner."*

12.3 In July 2017, EIOPA published an Opinion on The harmonisation of recovery and resolution frameworks for (re)insurers across the Member States (hereafter referred to as EIOPA Opinion (2017)).[287] The Opinion was addressed to the EU Institutions and issued on the basis of Article 34 of the EIOPA Regulation, which lays down that EIOPA *"may, […] on its own initiative, provide opinions to the European Parliament, the Council and the Commission on all issues related to its area of competence."*

12.4 The EIOPA Opinion (2017) called for minimum harmonised and comprehensive recovery and resolution framework for (re)insurance undertakings to deliver increased policyholder protection and financial stability in the EU. It argued that harmonisation of the national frameworks and, particularly, the establishment of a common approach to the fundamental elements of recovery and resolution would avoid fragmentation and facilitate cross-border cooperation.

12.5 EIOPA proposed four building blocks for a European recovery and resolution framework, i.e. preparation and planning, early intervention (now referred to as "preventive measures"), resolution and cross-border cooperation and coordination.

12.6 Finally, EIOPA advised to align a harmonised recovery and resolution framework with Solvency II and to apply the framework in a proportionate manner.

12.7 The views expressed in the EIOPA Opinion (2017) served as a basis for developing the current Opinion; where necessary, the views have been further elaborated.

[287] See EIOPA Opinion to Institutions of the European Union on The harmonisation of recovery and resolution frameworks for (re)insurers across the Member States, July 2017.

12.2 Identification of the issue

12.2.1 Background

12.8 One of the lessons learned from the past financial crisis is the need to have adequate recovery and resolution measures in place in order to be able to manage failing institutions in an effective and orderly manner.

12.9 At global level, the G20 and the Financial Stability Board (FSB) have developed an extensive agenda for stabilising the financial system and the world economy more broadly. Initially, the focus was on the banking sector as banks were at the epicentre of the past financial crisis. In November 2011, the leaders of the G20 endorsed the recommendations issued by the FSB for a more effective resolution regime to deal with failing financial institutions: "Key Attributes of Effective Resolution Regimes for Financial Institutions" (hereafter, referred to as the "Key Attributes").[288] The 2014 update of the Key Attributes included an insurance-specific annex.

12.10 At EU level, the legislators adopted the Bank Recovery and Resolution Directive (BRRD)[289] in 2014 in response to the banking failures and unprecedented level of public intervention. The financial crisis revealed that the existing frameworks were unsuitable to deal with banks in crisis.[290] The BRRD introduced a harmonised framework with common European rules for the recovery and resolution of troubled credit institutions and investment firms in the EU.

12.11 The focus has, however, soon been extended to financial institutions other than banks. At the global level, the FSB supplemented the Key Attributes by including guidance on how the core principles for an effective resolution regime should be applied to the insurance sector.[291] The International Association of Insurance Supervision (IAIS) has been revising the Insurance Core Principles

[288] Press release of the FSB.

[289] Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012, of the European Parliament and of the Council (OJ L 173, 12.6.2014, p. 190).

[290] European Commission, EU Bank Recovery and Resolution Directive (BRRD): Frequently Asked Questions, 15 April 2014.

[291] FSB Key Attributes of an Effective Resolution Regime for Financial Institutions.

(ICPs) on the resolution of insurance undertakings.[292] The purpose of this was to improve the recovery and resolution measures available to national authorities.

12.12 In the EU, the European Commission consulted stakeholders on the possible framework for the recovery and resolution of non-bank financial institutions, including central counterparties (CCPs), central securities depositories (CSDs) and (re)insurance undertakings in 2012.[293] Following the consultation process, the European Commission decided to work on a proposal for an effective recovery and resolution regime for CCPs. For the insurance sector, it was decided back then to continue to monitor the situation.[294]

12.13 In 2017 and 2018, the European Systemic Risk Board (ESRB) published two reports in which it argued that a harmonised recovery and resolution framework is also essential in insurance.[295] It stated "*Given the importance of the insurance sector, a comprehensive regulatory framework is needed to help ensure that the sector can fulfil its essential role, even during times of crisis. Such a framework consists of a number of elements that complement each other: microprudential regulation and supervision […], recovery and resolution regimes […], and macroprudential policy […]" (ESRB (2018)).*

12.14 Finally, EIOPA has been proactively contributing to the discussions on the need for a harmonised recovery and resolution framework in insurance. The EIOPA Opinion (2017) called for the establishment of a harmonised and effective framework for the recovery and resolution of (re)insurance undertakings in the EU.

12.2.2 The risks of the current fragmentation in the EU

12.15 In EIOPA's view, the main issue that needs to be addressed is the currently existing fragmentation in the EU, which has negative implications for policyholders and for stability of the financial system as a whole.

[292] Revised ICP12 and ComFrame.

[293] Consultation document of the European Commission (2012) "Consultation on a possible recovery and resolution framework for financial institutions other than banks".

[294] Extract from speech by former Commissioner Jonathan Hill on 2016 priorities for an approach to resolution for CCPs, Centre for European Policy Studies.

[295] ESRB report, "Recovery and resolution for the EU insurance sector: a macroprudential perspective, August 2017.

ESRB Report "Macroprudential provisions, measures and instruments for insurance", November 2018.

12.16 The lack of EU legislation governing the process of insurance resolution and of Insurance Guarantee Schemes (see item 13) has resulted in a fragmented landscape of national recovery and resolution frameworks. The EIOPA Opinion (2017) showed that there are substantial differences between national recovery and resolution frameworks.[296] There are differences in terms of legal framework, powers and tools available to national authorities, conditions under which these powers can be exercised and objectives pursued when resolving undertakings.

12.17 Prior to the introduction of the BRRD, the landscape of national recovery and resolution frameworks for banks was likewise fragmented which was seen as a significant impediment to the management of the past financial crisis. The financial crisis "*highlighted the lack of arrangements to deal effectively with failing banks that operated in more than one Member State*", according to the European Commission.[297] Additionally, the crisis revealed "*serious shortcomings in the existing tools available to authorities for preventing or tackling failures of systemic banks".*

12.18 EIOPA is of the view that the absence of an effective harmonised recovery and resolution framework could similarly cause impediments to the orderly resolution of failing (re)insurance undertakings.

12.19 Furthermore, the ESRB argued that the current fragmented landscape could pose a risk for the financial stability and advocated the implementation of a harmonised recovery and resolution framework in insurance for macroprudential reasons.[298] In fact, the ESRB is of the view that *"a more harmonised approach towards recovery and resolution across the EU would help manage the failure of a large cross-border insurer or the simultaneous failure of multiple insurers in an orderly fashion."*

[296] See EIOPA Opinion to Institutions of the European Union on The harmonisation of recovery and resolution frameworks for (re)insurers across the Member States, July 2017, Annex I.

[297] European Commission, EU Bank Recovery and Resolution Directive (BRRD): Frequently Asked Questions, April 2014: "*The crisis also highlighted the lack of arrangements to deal effectively with failing banks that operated in more than one Member State. It was thus agreed that greater EU financial integration and interconnections between institutions needed to be matched by a common framework of intervention powers and rules. The alternative would be fragmentation and inefficiency in EU banking and financial services, something which would harm the single market and would impair its advantages for consumers, investors and businesses"*.

[298] ESRB report, "Recovery and resolution for the EU insurance sector: a macroprudential perspective, August 2017.

12.2.3 Lack of an effective recovery and resolution framework

12.20 Moreover, the FSB Key Attributes prescribe the core elements of an effective resolution regime. The EIOPA Opinion (2017) showed that most of the existing national frameworks do not contain these core elements.[299]

12.21 In fact, in most Member States the measures available to national authorities are usually limited to normal insolvency procedures. Consequently, twelve NSAs reported that they have identified some gaps and shortcomings in their national frameworks.

12.22 The identification of gaps and shortcomings has led to initiatives to reinforce the national frameworks in some Member States.[300] Table 12.1 shows examples of national initiatives aimed at strengthening the existing frameworks.

12.23 The emergence of national initiatives poses a risk for an increasing fragmentation of national frameworks in the EU, whereby the differences between Member States, especially with those lagging to reinforce their frameworks in line with the FSB Key Attributes, will grow. This might have further implications for the effective resolution of cross-border insurance groups.

Table 12.1: Examples of national initiatives to reinforce or establish national recovery and resolution frameworks for insurance undertakings

	France	The Netherlands	Romania
Action	• A recovery and resolution framework for insurance undertakings was introduced in 2017. • Regime introduced pre-emptive recovery and resolution planning for certain insurers; resolution powers, in particular the power to transfer	• A recovery and resolution framework for insurance undertakings is applicable from 2019. • Framework introduced pre-emptive recovery and resolution planning and	• A recovery and resolution framework for insurance undertakings was introduced in 2016. • Framework introduced of pre-emptive recovery and resolution

[299] See EIOPA Opinion to Institutions of the European Union on The harmonisation of recovery and resolution frameworks for (re)insurers across the Member States, July 2017, Annex I.

[300] According to EIOPA's Opinion (2017), seven NSAs indicated that there are plans to reinforce national recovery and resolution frameworks.

	insurance portfolios and to create a bridge institution. - The NSA will continue to have the power to write down life insurance liabilities prior to a portfolio transfer, if needed to facilitate the transfer.	resolution powers. - The power to bail-in shareholders, creditors and policyholders is part of the framework.	planning, early intervention and resolution. - Amendment in insurance guarantee fund to funding of resolution actions.
Reason for action	- To introduce an efficient resolution regime (the former framework was mainly limited to (judicial) winding-up proceedings). - To foster a dynamic at EU level. - To comply with international standards, in particular with the commitment of the G20 to adopt a resolution regime for all financial institutions that could be systemically significant if they fail. - However, this was only a trigger to take action, as the intended scope goes beyond insurance undertakings that are or could be systemic at the point of failure.	- To avoid the bail-out of insurance undertakings. - To ensure an orderly wind-up of a failing insurer with limited impact on society, financial markets and the economy.	- Primarily a response to adverse developments in the Romanian insurance market in 2014. - To enhance consumer protection, strengthen market conduct and address further adverse evolutions.

Source: Information is gathered from the respective NSAs.

12.3 Analysis

12.3.1 Introduction

12.24 The objective of this section is twofold:

- To assess whether the Solvency II rules on the recovery of (re)insurance undertakings in stressed situations should be supplemented with additional harmonised rules on pre-emptive planning and preventive measures; and
- To consider whether there is a need for minimum harmonised rules regarding the resolution of (re)insurance undertakings. Finally, EIOPA analyses what appropriate triggers for entry into resolution could be.

12.25 Prior to the assessment, it is necessary to touch upon the concepts of recovery and resolution. This is explained in Box 12.1.

Box 12.1: The concepts of recovery and resolution

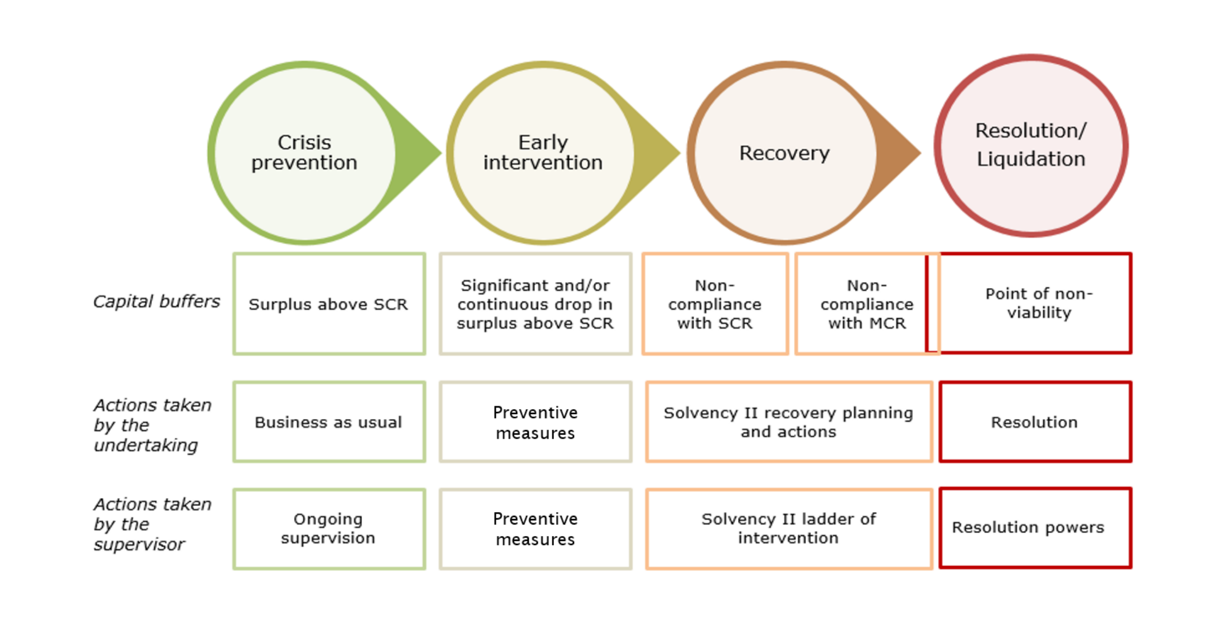
The notions of "recovery and resolution" have become widely-used terms when dealing with failing financial institutions since the outbreak of the financial crisis and the subsequent work carried out by the international bodies. These terms are not included (or at least not in the way they are being used nowadays) in the existing legislative frameworks (e.g. Solvency II).

Recovery and resolution refer to different stages of a crisis management process and should be seen as part of a continuum of supervisory or resolution activities (see figure below). In simple terms, recovery relates to the situations where undertakings are in "going concern", whereas resolution refers to situations where they have moved into "gone concern", i.e. an undertaking is no longer viable or likely to be no longer viable.

Recovery could therefore be seen as the stage where the undertaking is still in charge of the operations, whereas in resolution a national authority in charge of the resolution process will have likely (implicitly or explicitly) taken over the control from the undertaking.

The FSB uses the term "non-viability" to identify the transition from going concern to gone concern (i.e. from recovery to resolution). The FSB Key Attributes state that resolution should be initiated when an undertaking is no longer viable or likely to be no longer viable, and has no reasonable prospect of becoming so. This means that all possible recovery measures must have been exhausted and failed or ruled out.

Figure: Crisis management flow



	Crisis prevention	Early intervention	Recovery		Resolution/ Liquidation
Capital buffers	Surplus above SCR	Significant and/or continuous drop in surplus above SCR	Non-compliance with SCR	Non-compliance with MCR	Point of non-viability
Actions taken by the undertaking	Business as usual	Preventive measures	Solvency II recovery planning and actions		Resolution
Actions taken by the supervisor	Ongoing supervision	Preventive measures	Solvency II ladder of intervention		Resolution powers

The inclusion of a recovery and resolution framework in line with the international standards as also reflected in this Opinion would therefore require an analysis and alignment of the resolution-related provisions in the Solvency II Directive and, in particular, of Title IV on Reorganisation and winding-up of insurance undertakings.

12.3.2 Policy options

12.26 EIOPA has duly analysed the costs and benefits of the options considered from a qualitative perspective. The list of options is included in the table 12.2 below. EIOPA's preferred option is depicted in bold.

12.27 Proportionality is a key principle that should be applied adequately throughout these options. Where applicable, the application of the proportionality principle is described in the relevant sections below.

Table 12.2: Overview of policy options

Policy issue	**Options**
Harmonisation of recovery and resolution	
1. Harmonised rules for recovery and resolution of (re)insurance undertakings	1.1 No change **1.2 Minimum harmonised rules for recovery and resolution** 1.3 Maximum harmonised rules for recovery and resolution

Recovery measures	
2. Introduction of pre-emptive recovery planning	2.1 No change 2.2 Require pre-emptive recovery planning from all undertakings subject to Solvency II **2.3 Require pre-emptive recovery from undertakings covering a very significant share of the national market**[301]
3. Introduction of preventive measures	3.1 No change **3.2 Introduce preventive measures**
Resolution measures	
4. Introduction of resolution planning, including resolvability assessment	4.1 No change 4.2 Require resolution planning from all undertakings subject to Solvency II **4.3 Require resolution planning for undertakings covering a significant share of the national market**[302]
5. Introduction of resolution powers	5.1 No change **5.2 Grant resolution authorities a set of harmonised resolution powers**
6. Establishment of cross-border cooperation and coordination arrangements for crises	6.1 No change **6.2 Establish cross-border cooperation and coordination arrangements for crises**
Trigger framework	
7. Definition of triggers for the use of preventive measures	7.1 No change 7.2 Rules-based triggers for the use of preventive measures

[301] In the calculation of the market coverage level, the subsidiaries belonging to a group domiciled in the EU could be taken into account if the subsidiaries are covered in the group pre-emptive recovery plan.

[302] In the calculation of the market coverage level, the subsidiaries belonging to a group domiciled in the EU could be taken into account if the subsidiaries are covered in the group resolution plan.

	7.3 Judgment-based triggers for the use of preventive measures
8. Definition of triggers for entry into resolution	8.1 No change 8.2 Rules-based triggers for entry into resolution **8.3 Judgment-based triggers for entry into resolution**

12.3.3 Harmonised rules for recovery and resolution

Assessment of need for harmonised rules for resolution

12.28 The introduction of Solvency II was a significant step forward, which has highly improved the supervision of (re)insurance undertakings with its risk-based and forward-looking approach. It can reasonably be expected that the risk of failures or near-failures has diminished, but has not been fully eliminated. Therefore, it is important that national authorities have an adequate framework in place to resolve failing undertakings in an orderly manner.

12.29 Currently, the lack of a European framework for the recovery and resolution of (re)insurance undertakings has resulted in a fragmented landscape of national frameworks across the Member States.[303] The banking experience has proven that this fragmentation could result in impediments to the orderly resolution of failing institutions.

12.30 Furthermore, the EIOPA Opinion (2017) showed that a majority of the Member States do not have an effective recovery and resolution framework in place, as defined by the FSB in the Key Attributes.[304] According to the statistics in the EIOPA Opinion, twelve NSAs have identified gaps and shortcomings in their existing frameworks to deal with failing undertakings.

12.31 Moreover, the past financial crisis has also highlighted the importance of cross-border cooperation and coordination in times of crisis.[305] Cross-border cooperation and coordination is essential when dealing cross-border failures.

[303] This can be explained by different factors, such as different consumer preferences, taxation or different traditions regarding saving and pension products.

[304] See EIOPA Opinion to Institutions of the European Union on The harmonisation of recovery and resolution frameworks for (re)insurers across the Member States, July 2017, Annex I, Section 6. Gaps and shortcomings.

[305] Please refer to European Commission, EU Bank Recovery and Resolution Directive (BRRD): Frequently Asked Questions, April 2014. (See link: http://europa.eu/rapid/press-release_MEMO-14-297_en.htm?locale=en).

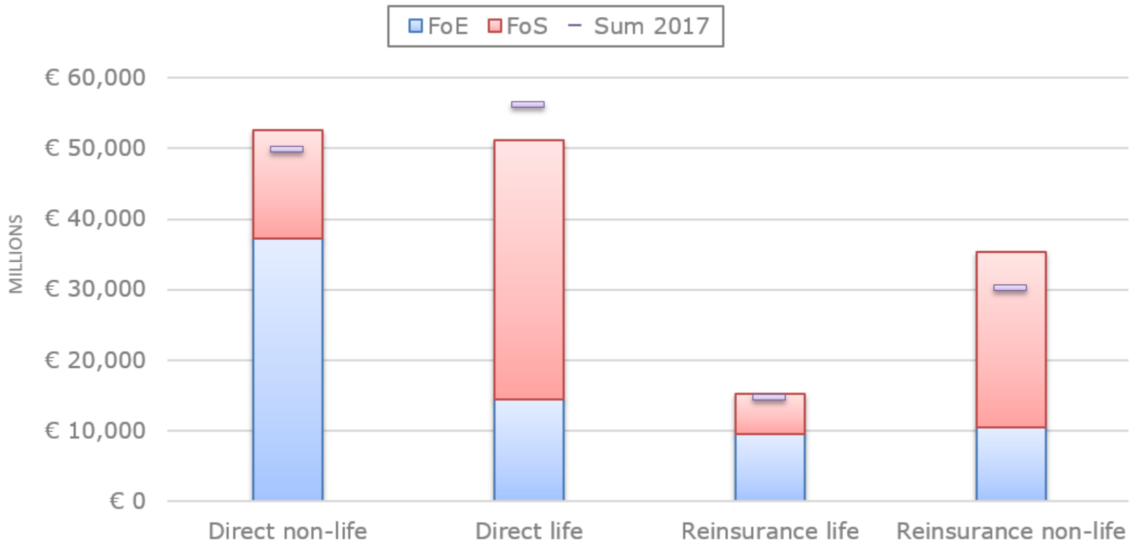
In order to avoid impediments to the resolution of cross-border groups, national authorities in the affected Member States should work together.

12.32 A fragmented recovery and resolution landscape and different approaches, objectives and tools do not foster the required cross-border cooperation and coordination, which results in inefficient and competing resolution approaches by national authorities. This would ultimately affect the functioning of the single market in the EU and lead to suboptimal results for all affected stakeholders and policyholders.

12.33 A common set of resolution powers with consistent design, implementation and enforcement features would foster cross-border cooperation and coordination during crises and help to avoid any unnecessary economic costs stemming from uncoordinated decision-making processes between different jurisdictions.

12.34 The continued increase of cross-border activity in insurance emphasises the importance of cooperation and coordination between Member States. At year-end 2018, in the EEA, EUR 82.5 billion gross written premiums (GWP) were reported as written via freedom to provide services (FoS) and EUR 71.7 billion via freedom of establishment (FoE) (see figure 12.1). This compares to about 1.55 trillion GWP written in the whole EEA in the same period.

Figure 12.1: Cross-border insurance business at year-end 2018



Source: EIOPA Annual Solo

Analysis of options

12.35 The following options are considered:

1. No change
2. Minimum harmonised rules for recovery and resolution of (re)insurance undertakings.
3. Maximum harmonised rules for recovery and resolution of (re)insurance undertakings.

Option 1: No change

12.36 This option means that the existing situation of fragmentation is maintained.

Option 2: Minimum harmonised rules for recovery and resolution of (re)insurance undertakings

12.37 This option introduces a minimum degree of harmonisation in the field of recovery and resolution of (re)insurance undertakings. Minimum degree of harmonisation means that Member States remain to have sufficient flexibility to adopt additional measures at the national level, subject to these measures being compatible with the minimum principles and objectives set at the EU level.

Option 3: Maximum harmonised rules for recovery and resolution of (re)insurance undertakings

12.38 This option introduces a maximum degree of harmonisation in the field of resolution of (re)insurance undertakings. Maximum harmonisation aims achieving the greatest level of convergence between the Member States of the EU.

Comparison of options

12.39 EIOPA's preferred option is to establish minimum harmonised rules at the EU level for recovery and resolution of (re)insurance undertakings. Please see Box 12.2 for the application of recovery and resolution rules to reinsurance.

12.40 Solvency II has significantly improved the supervision, but the risk of failures and near failures still exist. It is therefore essential that Member States have effective recovery and resolution measures in place to mitigate the risk and, ultimately, deal with failing undertakings. The past financial crisis has proven the importance of having adequate measures in place for the prevention and orderly resolution of failing institutions. Currently, there is no harmonised framework for the recovery and resolution of (re)insurance undertakings in the EU.

12.41 This has resulted in a fragmented landscape in the EU, whereby a few Member States have adopted a recovery and resolution regime at the national level. However, majority of the Member States do not have an effective framework in place, which contains the core elements as identified by the FSB in the Key Attributes.

12.42 An EU initiative aimed at introducing effective recovery and resolution measures at the EU level would contribute to ensuring that all Member States have an effective framework in place and avoid the undesirable situation of fragmented practices across the EU.

12.43 A fragmented landscape complicates cross-border cooperation and coordination, which is essential to avoid impediments to an orderly resolution process and suboptimal outcomes at the EU level. Moreover, the current dispatch of national approaches is not in line with the principles of the single market and distorts the level playing field in the EU.

12.44 Minimum harmonisation entails the definition of a common approach to the fundamental elements of resolution (i.e. recovery planning, preventive measures, resolution planning, resolution authority, resolution objectives, resolution triggers, resolution powers, resolution funding and cross-border cooperation and coordination).

12.45 However, it also leaves room for Member States to adopt additional measures at national level, subject to those measures being compatible with the principles, minimum requirements and objectives set at EU level. These additional measures at national level might be required in order to better address the specificities of the national markets. A minimum degree of harmonisation is therefore preferred over a maximum degree of harmonisation, which also requires further supervisory convergence.

12.46 Furthermore, EIOPA advises to carefully assess the application of a recovery and resolution framework to insurers which are part of a financial conglomerate. A consistent approach should be followed taking into account the already existing recovery and resolution framework for banks and the potential harmonised framework for insurers.

Box 12.2: Recovery and resolution in reinsurance

I) Introduction

Reinsurance is a business to business activity, where reinsurance undertakings deal with professional corporate counterparties, such as primary insurance undertakings, reinsurance brokers or multinational corporations and their own insurance undertakings, i.e. captive insurance undertakings. This poses the question if and to what extent reinsurance should be part of the recovery and resolution framework.

II) Need for harmonisation of recovery and resolution

Some reinsurance undertakings are large and global companies and the risk concentration on their balance sheets may be considerable. Therefore, a failure of a reinsurance undertaking, to the extent that it may affect several primary insurers, is more likely to have an impact on the financial system and potentially financial consumers.

According to the ESRB (2015), reinsurance undertakings pose systemic risk through the following three sources:

- a higher risk of contagion between insurance and reinsurance and within the reinsurance market;
- the high concentration in the reinsurance market, raising concerns about the substitutability of these activities;
- the creation of additional links between (re)insurance undertakings and financial markets stemming from the transfer of risks to capital markets.

Given the potential impact on financial stability, the failures of reinsurance undertakings should also be dealt with in an orderly manner. The identified sources of systemic risk make clear that the failure of reinsurance undertakings could directly or indirectly have an impact on insurance undertakings.

A higher interconnectedness between insurance and reinsurance undertakings and in the reinsurance market leads to a higher risk of spill-overs in case of a failure of a reinsurance undertaking. Moreover, reinsurance undertakings frequently reinsure their risks with other reinsurance undertakings (i.e. retrocession) hence, the failure of a reinsurance undertaking may in a similar fashion have a direct impact on other reinsurance undertakings.

The failure of a reinsurance undertaking may impact the insurance sector also in a more indirect way. For example, when the failure of a (large) reinsurance undertaking leads to a loss of confidence in the (re)insurance sector or results in insurance undertakings or other financial institutions having to take a loss on their investments in reinsurance undertakings.

Furthermore, it needs to be considered that primary insurance and reinsurance undertakings write reinsurance business in proportions (in terms of premiums / risks borne etc.) that are not limited by regulation. Excluding reinsurers from the framework would thus result in treating reinsurance differently, depending on whether it is assumed by a (pure) reinsurer — a “reinsurance undertaking” as defined by the Solvency II Directive —, or by an insurance undertaking through the dedicated line of business. Moreover, reinsurance undertakings have considerable holdings in related undertakings at solo level, primarily due to the specific group structure of reinsurance groups.

Against this background, EIOPA is of the view that the framework should also be applied to reinsurance in a proportionate way.

III) Specificities in application of measures to reinsurance undertakings

Given that reinsurance is a different business compared to insurance, EIOPA has considered how the different building blocks of the proposed framework should apply to these companies in order to take into account their specific features. For instance:

- In the pre-emptive recovery and resolution planning for reinsurance undertakings, more focus should be given to the potential impact of failures on other (re)insurance undertakings and financial stability as a whole.
- To define the scope of resolution planning, resolution authorities should evaluate the impact of the resolution actions on cedents, third parties and financial stability in general. For instance, it should be assessed whether identified resolution strategies would result in indirect losses for policyholders, contagion effect to other insurance and reinsurance undertakings, or a material adverse impact on economic activity. The latter could be caused by a disruption to the continuity of reinsurance cover and payments, a forced sale of distressed assets and/or by a lack of cedents' confidence.
- In the resolvability assessment, resolution authorities should also assess the concentration risk and to what extent the diversification in reinsurance is affected. The findings of which should be taken into account when designing the resolution strategy.
- In the exercise of the resolution powers, the nature of the business as well as the liabilities need to be taken into account, particularly with respect to the power "restructure, write down or limit (re)insurance liabilities". In reinsurance, a write down of reinsurance liabilities is more feasible than a restructuring of reinsurance liabilities.

IV) Conclusion

EIOPA is of the view that the recovery and resolution measures proposed in this Opinion should apply to both insurance and reinsurance undertakings. It is clear, however, that the risks and implications of a reinsurance failure are different than the failure of a primary insurance undertaking. Therefore, the specific characteristics of the reinsurance business should be taken into account in the different building blocks of the proposed framework. Some initial considerations are already provided in this box.

12.3.4 Recovery measures

12.3.4.1 Pre-emptive recovery planning

Assessment of need for pre-emptive recovery planning in Solvency II

12.47 In a pre-emptive recovery plan, an undertaking describes the possible measures it would adopt to restore its financial position following a significant deterioration caused by potential scenarios of stress. Pre-emptive plans are drafted by undertakings during normal course of business and aim to increase awareness of and preparedness for adverse situations.

12.48 The pre-emptive nature of these plans is an important difference with the recovery plan required by the Solvency II Directive in case of a breach of the SCR. Pre-emptive recovery plans could therefore be regarded as an element of the risk management process of an undertaking, which already includes the ORSA[306] and contingency planning[307]. Pre-emptive plans also differ from the ORSA. Box 12.3 provides an overview of the main differences between ORSA and pre-emptive recovery plans.

Box 12.3: Difference between pre-emptive recovery plans and Solvency II recovery plans and ORSA

Pre-emptive recovery plans and Solvency II recovery plans compared

A pre-emptive recovery plan is not the same as the recovery plan envisaged in Article 138 of the Solvency II Directive. According to that provision II, undertakings are required to develop a recovery plan within two months after non-compliance with the SCR. These recovery plans are submitted to the NSA for approval and set out the measures the undertaking will take to achieve the re-establishment of the compliance with the SCR within six months.

In contrast, a pre-emptive recovery plan is drafted during normal times of business, i.e. before a non-compliance with the SCR. The pre-emptive recovery plan sets out the potential measures the undertaking could take in an adverse situation. Pre-emptive recovery planning stimulates undertakings to review their operations, risks and recovery options in potential stress scenarios. It therefore allows undertakings to make informed and timely decisions in times of crises.

It is expected that pre-emptive recovery plans help undertakings be more prepared in case they breach the capital requirements and have to develop a Solvency II recovery plan as per Article 138 of the Solvency II Directive. Indeed, if this is the case, undertakings will have already identified and assessed the

[306] Article 45 of the Solvency II Directive.

[307] Article 41(4) of the Solvency II Directive.

range of recovery measures available in terms of effectiveness, timely implementation and impact. Even if such recovery measures may need to be fine-tuned or recalculated when having to draft a Solvency II recovery plan, the bulk of the work would already have been done while preparing the pre-emptive plan.

Interaction between pre-emptive recovery plans and ORSA

The ORSA differs from pre-emptive plans in objective and nature. The objective of the ORSA is to prevent an undertaking from breaching its SCR and coming under severe stress, whereas in a pre-emptive recovery plan the undertaking envisages to be under severe stress and identifies the actions needed to restore its financial position.

In the ORSA, undertakings assess the adequacy of their risk management and capital to support current and anticipated business operations as a going concern. Pre-emptive recovery plans are designed for eventual breaches of prudential requirements (contemplating not only capital breaches, but also non-solvency related issues, such as liquidity). The focus is on the identification of possible measures to be adopted in severe stress scenarios to restore the financial position of the undertaking. These stress scenarios are likely to be broader and/or more severe in nature compared to those included in the ORSA.

12.49 Currently, there is no requirement for the development of pre-emptive recovery plans at EU level. Some Member States, however, have introduced this requirement at national level. Table 12.3 shows these Member States and indicates the scope of the requirement, which varies significantly across the jurisdictions.

Table 12.3: Pre-emptive recovery planning requirement in the EU

Member State	Scope of pre-emptive recovery planning
Denmark	All undertakings subject to Solvency II
France	14 insurance groups with a balance sheet size / total assets value of more than EUR 50 billion
Germany	Undertakings representing around 80% of the German market
Netherlands	All undertakings subject to Solvency II
Romania	Undertakings with gross technical reserves exceeding 5% of the total gross technical reserves in the market OR undertakings with a market share of at least 5%.
Italy	Undertakings with more than 12 billion of total assets (currently 8 groups)

12.50 These divergent approaches in the Member States are not in line with the principles of supervisory convergence in the EU and raises concerns about the level playing field in insurance.

12.51 The introduction of pre-emptive recovery plans in Solvency II would mean that all Member States have a requirement for pre-emptive recovery planning.

12.52 Pre-emptive recovery plans are developed at group level or at the level of an individual insurance entity, which is not part of a group. However, EIOPA believes that the development of pre-emptive recovery plans at group level should not prohibit the possibility for solo supervisors to require the development of such plans for individual undertakings or at solo level for entities belonging to a group. In the latter case, close collaboration with the group supervisor should exist.

12.53 The pre-emptive recovery plans should contain a few elements, including a strategic analysis of the group or undertaking, a set of possible recovery options to be used across a range of stress scenarios and a communication strategy.[308]

- The strategic analysis should include a detailed description of the undertaking's legal structure, business model and core business lines. A detailed description of the risks that could lead to insolvency should be included. If necessary, a description of the functions whose disruption could harm the financial system and/or real economy should also be covered.
- Undertakings should consider severe stress scenarios in pre-emptive plans. Stress scenarios should combine adverse systemic and idiosyncratic conditions and identify the available recovery options and their feasibility in the stressed scenario. In the stress scenarios the potential detriment to policyholders, including potential recovery measures to mitigate this risk, should be assessed. The focus of the assessment should be on the available recovery options and their feasibility in the stressed environment. Such measures could include de-risking and/or actions to increase liquidity and capital.
- The plans should include an assessment of the necessary steps, including the governance aspects (such as decision-making process or the access to information), and of the time needed to implement the recovery measures (such as the raise of capital), including the risks associated with the implementation of the measures. This assessment should also determine whether any preparatory actions might be needed to ensure that the recovery measures can be implemented in an effective and timely manner.

[308] For further recommendations and guidance about recovery planning the IAIS has published an Application Paper on Recovery Planning in November 2019 that complement its Core Principles.

- The communication strategy should set out the communication with internal and external stakeholders.

12.54 Pre-emptive recovery plans should be submitted for review to the NSA. NSAs should check the completeness of the plans and assess whether the recovery options are credible and realistic. Where the supervisor identifies material deficiencies in the plan or impediments in its implementation, the undertaking should re-evaluate its recovery plan and amend accordingly.

12.55 Moreover, pre-emptive recovery plans should be updated on a regular basis (e.g. annually) or when there are material changes which could have an impact on the pre-emptive recovery plans. These may include, but are not limited to, changes in the risk profile, business model or group structure of an undertaking.

Analysis of options

12.56 The following options are considered:

1. No change
2. Require pre-emptive recovery planning from all undertakings subject to Solvency II.
3. Require pre-emptive recovery planning from undertakings covering a very significant share of the national market

Option 1: No change

12.57 This option means that the existing situation of different national practices is maintained. Solvency II would not be supplemented with the requirement for pre-emptive recovery planning.

Option 2: Require pre-emptive recovery planning from all undertakings subject to Solvency II

12.58 In this option, the Solvency II framework is supplemented with a requirement for all undertakings within the scope of Solvency II to develop and maintain pre-emptive recovery plans.

Option 3: Require pre-emptive recovery planning from undertakings covering a very significant share of the national market

12.59 In this option, the Solvency II framework is supplemented with a requirement for undertakings to develop and maintain pre-emptive recovery plans. The undertakings should cover a very significant market level in each national market. Focusing on a specific market share (in this case characterised as "very significant") aims at leaving sufficient flexibility to NSAs to address national specific features, while still ensuring a certain degree of harmonisation across EU countries. However, further work may be needed to carefully determine the exact definition of the very significant market coverage level.[309]

12.60 EIOPA is of the view that NSAs should decide upon the undertakings subject to the requirement on the basis of a set of harmonised criteria. The criteria include the size, business model, risk profile, cross-border activities, interconnectedness and substitutability of undertakings (see table 12.4).

12.61 Based on these criteria, NSAs could decide to waive undertakings from the requirement, whereby in principle all Solvency II undertakings are within scope. An alternative approach is that NSAs determine the scope of recovery planning by designating the eligible undertakings that will be subject to the requirement. This is currently the practice in two Member States.

12.62 The eligibility of undertakings in both approaches should be based on the harmonised criteria. NSAs could base their decision on one or more criteria. For instance, the size of undertakings might be a decisive factor for NSAs' decision to waive or make undertakings subject to the requirement. Nonetheless, EIOPA believes that other criteria might be equally relevant and should be taken into consideration by NSAs.

12.63 In the exceptional situation that the pre-defined market coverage level determined at the EU level is not reached in a Member State, the NSA should report to EIOPA the reasons for non-compliance. Non-compliance could be the result of specificities of national market. For instance, the need to require a plan from a disproportionate number of very small undertakings with a simple business model and highly substitutable products could be regarded as a reason for the NSA.

Table 12.4: List of harmonised criteria

Criteria	**Assessment questions**
Size	To assess the size, NSAs should consider the following aspects at a minimum: • What is the size of the undertaking measured in terms of number of individual policies, total assets, technical provisions (TP) and gross written premiums (GWP)?

[309] In the calculation of the market coverage level, the subsidiaries belonging to a group domiciled in the EU could be taken into account if the subsidiaries are covered in the group pre-emptive recovery plan.

	• What is the market share in terms of GWP or TPs (including TP or GWP attached to FoE and FoS business written from this jurisdiction)?
	Illustrative assessment: if the size of an undertaking is (relatively) large, the undertaking should be within the scope of the requirement.
Business model	To assess the business model, NSAs should consider the following aspects at a minimum: • Does the undertaking have a stable business model? • Does the undertaking have a sustainable business model, i.e. is the business model "future-proof"? • Which segments of markets does the undertaking target? • Which countries does the undertaking target? • Which customers does the undertaking target, i.e. does the undertaking target mainly consumers?
	Illustrative assessment: if the business model of an undertaking is complex and/or deemed to be unsustainable for future developments, the undertaking should be within the scope of the requirement.
Risk profile	To assess the risk profile, NSAs should consider the following aspects at a minimum: • What are the risk limits/risk appetite of the undertaking? • What is the investment profile of the undertaking? • What is the complexity of the products offered by the undertaking? • Does the undertaking offer a (wide) range of non-traditional types of insurance products? • Is there a high degree of volatility in earnings/capital?[310] • What is the expected impact and potential risks for the financial system or the European, national or regional market if the undertaking fails?

[310] This could also be an indicator for the business model analysis.

	Illustrative assessment: if the risk profile of an undertaking is (relatively) high, the undertaking should be within the scope of the requirement.
Interconnectedness	To assess the interconnectedness, NSAs should consider the following aspects at a minimum: • Is the undertaking part of a financial conglomerate? • Does the undertaking have large exposures to a certain financial institution (undertaking or bank)? • Is the undertaking listed on the stock exchange market? • Does the undertaking have cross-border activities or a dominant market share in a country other than its home country? • Is the undertaking particularly active on financial markets, using derivative instruments and/or lending/borrowing securities (e.g. through repos)?
	Illustrative assessment: if the undertaking is highly interconnected with the financial markets, the undertaking should be within the scope of the requirement.
Cross-border activity	To assess the cross-border activity, NSAs should consider the following aspects at a minimum: • Does the undertaking have (material) cross-border activities via FoE or FoS (measured as GWPs)? • Does the undertaking have a dominant market share in a country other than its home country via subsidiaries? • Does the undertaking undertake cross-border activities in multiple countries? • Does the undertaking write businesses or have subsidiaries in countries outside Europe?
	Illustrative assessment: if the undertaking has (material) cross-border activities, the undertaking should be within the scope of the requirement.
Substitutability	To assess the substitutability, NSAs should consider the following aspects at a minimum:

	• Is there any noticeable concentration in the (national) insurance market? • Are there any barriers to entry for new providers in the (national) insurance market? • Is the undertaking active in a certain niche market? • Is the undertaking particularly active and important for a specific line of business; or are other players in the market offering similar or alternative products? • Does the undertaking have a relatively high or even a monopolistic market share in one market? • Does the undertaking have a special role in the operation of a relevant marketplace (e.g. the provision of expertise, capital or data, acting as lead undertaking, etc.)?
	Illustrative assessment: if the products offered by the undertaking are less substitutable, the undertaking should be within the scope of the requirement.

Comparison of options

12.64 EIOPA's preferred option is option 3, i.e. to further develop Solvency II with pre-emptive recovery planning with a proportionate application.

12.65 The inclusion of this requirement in Solvency II removes the supervisory divergence in this area and ensures a level playing field in the EU. Moreover, the requirement for developing and maintaining recovery plans in a pre-emptive manner is included in the FSB Key Attributes and, hence, is considered a core element for effective recovery and resolution.

12.66 Pre-emptive recovery planning is a good risk management practice. It enhances the awareness of and preparedness for adverse situations of undertakings. This allows them to take informed and timely remedial actions when needed. As stressed in the IAIS application paper on recovery planning, pre-emptive recovery plans can be based on both micro- and macroprudential grounds. "*For instance, such a requirement could be related to microprudential considerations such as an insurer's risk profile, legal form, nature or structure of business, or scope and complexity of activities. In addition, from a macroprudential perspective, it may be based on the (relative) systemic* *importance of an insurer or its activities or exposures that may lead to potential systemic risk*".[311]

12.67 The importance of adequate preparation for crisis been highlighted by the outcome of the EIOPA stress test of 2018.[312] The stress test results confirmed the significant sensitivity to market shocks for the European insurance sector. Insurance groups are vulnerable to low yields and longevity risk as well as to a sudden and abrupt reversal of risk premia, combined with an instantaneous shock to lapse rates and claims inflation. In the stress test recommendations addressed to NSAs, EIOPA recommended that NSAs should encourage insurance groups to prepare themselves by considering severe stress scenarios and identifying the range of actions, which could be taken if these stress scenarios would occur.

Proportionality principle

12.68 The proposed requirement for pre-emptive planning should, however, be applied in a proportionate manner in order to avoid excessive (administrative) burdens. Proportionality is essential and can be achieved by different means, such as the scope of undertakings subject to the requirement, or the consideration of simplified obligations both regarding the development and maintenance phases of the plans.[313]

12.69 Regarding the scope, EIOPA advises to apply the proportionality principle by allowing NSAs to define the undertakings subject to the requirement (based on the same harmonised criteria as shown in table 12.4 above), provided that the market coverage level set at the EU level is met or non-compliance has been reported to EIOPA.

12.70 Proportionality can also be achieved in the development phase of the plan by:

- Allowing the undertaking to use a phased approach for the development of a recovery plan, by submitting a high-level draft initially and taking a more extended period of time to prepare the complete document;
- Allowing the undertaking to align the timing of the development process with that of existing tools to minimise the needed resources; or

[311] IAIS Application Paper on Recovery Planning, November 2019, p. 9.

[312] EIOPA Stress test 2018.

[313] Regarding the application of proportionality to the development and maintenance, EIOPA strictly follows the approach developed by the IAIS in its Application Paper on Recovery Planning, November 2019, p. 10.

- Varying the level of detail and content requested in the plan, for instance by allowing the undertaking to omit some of the elements, or by detailing fewer recovery options and stress scenarios in the plan.

12.71 Furthermore, although pre-emptive recovery plans are different in nature and broader in scope as compared to ORSA, they could be regarded as a natural extension of the ORSA and contingency planning. The ORSA and contingency planning could therefore serve as a source of input for the drafting of the pre-emptive recovery plan. In order to avoid excessive administrative burdens, undertakings should assess to what extent the information in other reports could be used in pre-emptive recovery plans. For instance, the stress tests developed in the context of the ORSAs might be relevant for the pre-emptive recovery plans.

12.72 Lastly, proportionality may also be achieved in the maintenance of the plan, for example:

- Varying the frequency for the regular update of the recovery plan (e.g. every second year), especially when key relevant characteristics have not changed materially year on year; or
- Allowing the undertaking to monitor some of the indicators in the recovery plan less frequently, such as the status of any non-material entities within a group.[314]

12.3.4.2 Preventive measures

Assessment of need for preventive measures in Solvency II

12.73 Chapter VII of the Solvency II Directive lists the rules on what to do when undertakings are in difficulty or in an irregular situation.

- Article 136 requires that undertakings have procedures in place to identify deteriorating financial conditions and immediately notify the NSA when such deterioration occurs.

[314] An option could be that the recovery plan determines which entities are deemed immaterial for the group (and why). The plan would then only cover those entities that have been identified by the group as relevant.

- Article 138 prescribes the actions to be taken when undertakings are non-compliant with the SCR.[315]
- Article 139 prescribes the actions to be taken when undertakings are non-compliant with the MCR.[316]
- Notwithstanding Articles 138 and 139, Article 141 grants NSAs the power to take all measures necessary to safeguard the interests of policyholders where the solvency position of undertakings continues to deteriorate.
- Article 144 grants NSAs the power to withdraw the authorisation of undertakings in certain circumstances.

12.74 Solvency II is designed to allow for an early intervention by the supervisor. It includes a ladder of supervisory intervention between the Solvency Capital Requirement and the Minimum Capital Requirement, which represents the absolute amount of capital to provide a minimum assurance for the financial capacity and soundness of the insurer. This ladder of intervention provides for a proportionate and timely supervisory intervention.

12.75 However, Solvency II remains silent on the actions to be taken when NSAs are informed of a deterioration in the financial conditions of undertakings in accordance with Article 136. This could be described as a situation where undertakings are still compliant with the capital requirements, but observe a severe, progressive, and structural (i.e. non-cyclical or temporary) deterioration in their condition. Interventions by NSAs at this stage are defined as "preventive measures" (see also Section 12.4.1 Triggers for the use of preventive measures).

12.76 It should be stressed that in previous publications, EIOPA referred to these measures as "early intervention powers". However, given the nature of the measures considered and in order to align the terminology with the IAIS Insurance Core Principle 10, EIOPA prefers to discontinue the use of this term and refer to "preventive measures" instead.[317]

[315] Non-compliance with the SCR is described as the situation where undertakings "observe that the SCR is no longer complied with, or where there is a risk of non-compliance in the following three months."

[316] Non-compliance with the SCR is described as the situation where undertakings "observe that the MCR is no longer complied with, or where there is a risk of non-compliance in the following three months."

[317] ICP 10.2 states that "The supervisor requires preventive measures if the insurer seems likely to operate in a manner that is inconsistent with regulatory requirements".

12.77 As stated in EIOPA's report regarding Article 242(2) of the Solvency II Directive,[318] 43% of the NSAs reported to have powers under local legislation to take preventive measures. Furthermore, the EIOPA Opinion (2017) showed that the list of preventive measures (formerly referred to as "early intervention powers") available to NSAs ranges from powers aimed at restoring capital adequacy, powers affecting the management and governance, powers affecting the business and organisation and powers affecting the shareholders.[319]

12.78 Moreover, the EIOPA Opinion (2017) stated that ten NSAs have identified gaps and shortcomings in the existing frameworks with respect to preventive measures. Two of these NSAs explained that the powers they have currently at their disposal are not explicitly provided for in the regulation, while another NSA mentioned that the conditions for exercising the powers could be widened.

12.79 These diverging approaches of NSAs are not in line with the principles of supervisory convergence in the EU and raises concerns about the level playing field in insurance.

Analysis of options

12.80 The following options are considered:

1. No change
2. Introduce preventive measures.

Option 1: No change

12.81 This option means that the existing situation of different national practices is maintained. Solvency II would not be supplemented with preventive measures.

Option 2: Introduce preventive measures

12.82 In this option, the Solvency II rules on recovery are further developed with the introduction of preventive measures.

12.83 Preventive measures by NSAs aim at changing the undertaking's behaviour through moral suasion or through supervisory actions, already while the undertaking still meets the SCR (see also Section 12.4.1 Triggers for the use of preventive measures).

[318] EIOPA's Report to the European Commission on Group Supervision and Capital Management with a Group of Insurance or Reinsurance Undertakings, and FoS and FoE under Solvency II, December 2018.

[319] See EIOPA Opinion to Institutions of the European Union on The harmonisation of recovery and resolution frameworks for (re)insurers across the Member States, July 2017, Annex I, charts 3-6.

12.84 The preventive measures are linked to a closer and more intensive supervision. It should not result in a new capital requirement. The following set of preventive measures for NSAs is proposed to be introduced in Solvency II:

a) Require more intensive dialogue with the (re)insurance undertakings, scheduling regular meetings with the company's management in order to better understand the strategy of the company, recent technical and financial results, recent changes in insurance products and investment and their impact on the solvency position, as well as to have up to date information on measures taken or measures to be taken by the company in order to improve the SCR coverage ratio (e.g. conservative dividend policy, increase of own funds, de-risking), including any recent dialogue between the undertakings and its qualifying shareholders/owners on possibility of capital support;

b) Require additional or more frequent reporting;

c) Require the administrative, management, or supervisory body of the undertaking to take preventive measures within a specific timeframe in case of concrete risk of progressive and structural deterioration of its capital position that may put the undertaking under stress and the undertaking's inaction leads to an increased risk to policyholders. This could also include a requirement to update the pre-emptive recovery plan when assumptions set out in the initial plan do not appear realistic, and to take the measures set out in the updated plan;

d) Require the undertaking to limit variable remuneration and bonuses.

12.85 Examples of measures that undertakings could be expected to take under (c) are:

- Actions to raise own funds by using net profits to strengthen the solvency position, including a prudent dividend policy;
- Reinforcement of governance arrangements, internal controls and risk management systems;
- Limit or restrict certain business lines and operations (e.g. to avoid certain risks, such as concentration, operational or liquidity risks);
- Limit intra-group asset transfers and transactions and limit asset transfers and transactions outside the group.

12.86 It is possible that preventive measures, if known to the market, may trigger public concerns. Given that the undertaking is still compliant with the capital requirements, and to avoid unjustified market reactions or policyholder concerns, the preventive measures should be kept confidential to the extent deemed necessary by the supervisor.[320]

Comparison of options

12.87 EIOPA’s preferred option is to further develop Solvency II with the introduction of preventive measures.

12.88 The main advantage of this option is that it removes the divergence in supervisory practices with respect to the measures taken before the breach of the SCR. As stated in the Solvency II Directive *“it is necessary to promote supervisory convergence not only in respect of supervisory tools but also in respect of supervisory practices”* (Recital 40 of the Solvency II Directive).

12.89 This approach is also aligned with ICP 10, which states that “if the insurer operates in a manner that is likely to impact its ability to protect policyholders’ interests or pose a threat to financial stability, the supervisor should act more urgently in requiring preventive measures”.

12.90 Lastly, it reduces level playing field issues in this field and contributes to enhanced policyholder protection as preventive measures aim to avoid the escalation of problems.

Proportionality principle

12.91 Preventive measures by NSAs should be appropriate and proportionate to the nature of the circumstances and be based on a forward-looking and risk-based approach. This means that NSAs should adapt the measures to the actual risk and take into account the nature of the undertakings and the circumstances that led to the deterioration in the solvency position, especially in the presence of market-distorting factors. NSAs should consider the possibility of the markets normalising again and the impact that may have on the solvency position of the undertakings.

12.3.5 Resolution measures

12.3.5.1 Resolution authority

12.92 For an orderly resolution process, it is essential to have an officially designated administrative resolution authority or authorities for the resolution of (re)insurance undertakings. A clear mandate, allocation of roles and responsibilities as well as a high degree of coordination is needed in Member States where there are more than one authority in charge of the resolution.

[320] Given that the Solvency and financial condition report is a public document, the use of preventive measures should therefore not be disclosed there.

The authority should have in place statutory responsibilities, transparent processes, sound governance and adequate resources.

12.93 According to EIOPA, Member States should be given the flexibility to decide which authority to designate as the resolution authority for insurance undertakings. This could - for instance - be the NSA or the national central bank that operates as the NSA for insurance or a specially appointed resolution authority.

12.94 Notwithstanding the choice of Member States, the operational independence of the designated resolution authorities should be ensured. This is particularly relevant when resolution authorities are established within the NSAs. In these cases, appropriate checks and balances should be put in place in order to avoid supervisory forbearance, i.e. the risk that NSAs may procrastinate the decision to put an undertaking into resolution as this could be regarded by external observers as a sign of improper supervision.

12.3.5.2 Resolution objectives

12.95 The objectives for resolution should be clearly set out and consistent with the objectives for regulation.[321]

12.96 EIOPA is of the view that resolution authorities should consider the following objectives:

- To protect policyholders, beneficiaries and claimants;
- To maintain financial stability, in particular, by preventing contagion and by maintaining market discipline;
- To ensure the continuity of functions whose disruption could harm the financial stability and/or real economy;
- To protect public funds.

12.97 EIOPA is of the view that resolution authorities should have the flexibility to balance these objectives as appropriate to the nature and circumstances of each situation. An ex-ante ranking of the objectives is therefore not recommended. Nonetheless, EIOPA expects that, in practice, the protection of policyholders will likely take precedence in most resolution cases. There could, however, be instances where other objectives, such as maintaining the financial stability, are of higher importance.

[321] *"The main objective [of Solvency II] is the adequate protection of policyholders and beneficiaries. Financial stability and fair and stable markets are other objectives of insurance and reinsurance regulation and supervision which should also be taken into account but should not undermine the main objective" (*Recital 21 of the Solvency II Directive). This is further substantiated by Article 27 and Article 28 of the Directive.

12.98 Furthermore, when pursuing these objectives, resolution authorities should try to minimise the cost of resolution and avoid destruction of value unless necessary to achieve the resolution objectives.

12.3.5.3 Resolution planning

Assessment of need for resolution planning, including resolvability assessments

12.99 Pre-emptive resolution planning consists of two elements: the development of resolution plans and resolvability assessments.

12.100 The purpose of resolution plans is to reduce the impact of potential failures on by preparing for such scenarios. National resolution authorities draft these plans in a pre-emptive manner. This allows national authorities to make informed and swift decisions when needed without exposing taxpayers to loss and without severe systemic disruption.

12.101 Resolvability assessments are part of the resolution planning process and aim to identify any impediments to the resolvability of undertakings.

12.102 Currently, there is no requirement for resolution planning at EU level. Some Member States, however, have introduced this requirement at national level. Table 12.5 shows these Member States and indicates the scope of the requirement, which varies significantly across jurisdictions.

Table 12.5: Resolution planning requirement in the EU

Member State	Scope of resolution planning
France	14 insurance groups with a balance sheet size / total assets value of more than EUR 50 billion
Germany	G-SIIs
Netherlands	Undertakings that are likely to meet the public interest test upon failure (indicative thresholds: undertakings with over 1 million policyholders or over EUR 1 billion technical provisions).
Romania	Undertakings with gross technical reserves exceeding 5% of the total gross technical reserves in the market OR undertakings with a market share of at least 5%.

12.103 These divergent approaches in the Member States are not in line with the single market principle.

12.104 The introduction of a minimum set of harmonised principles for resolution planning at the EU level would mean that the requirement applies in all Member States. Resolution plans should be developed for insurance groups and individual insurance entities that are not part of a group. The development of group resolution plans, however, should not prohibit the possibility to develop resolution plans for solo-entities belonging to a group or to individual undertakings. Close cooperation with the resolution authority responsible for the group resolution plan is essential in these cases.

12.105 EIOPA believes that pre-emptive resolution plans should contain a few elements, including:

- Various stress scenarios, including idiosyncratic or market-wide (systemic) scenarios. Examples of market-wide scenarios are persistent low interest rates or a major catastrophic event;
- Resolution strategy: the resolution authority should list the potential resolution actions for each of the scenarios, paying special attention to the risk of losses for policyholders;
- An assessment of critical functions or other functions that are material for the financial system or the real economy at European or national level (e.g. a relevant number of policyholders materially affected in proportion to the respective market) and considerations on how to ensure continuity (if appropriate);
- An assessment of the potential need for resolution funding, the sources of funding, the operational and practical arrangements for ensuring continuity of coverage and payment under insurance policies;
- An assessment of the critical shared services, group structure and intra-group transactions; and
- A communication plan covering the communication strategy of resolution authorities with the undertaking, supervisory authorities, other resolution authorities, IGSs, and other relevant stakeholders.

12.106 EIOPA believes that resolvability assessments should contain an evaluation of the feasibility and credibility of the resolution strategies identified in the resolution plans. Resolvability assessments should also provide insights into the potential impediments to the resolvability of undertakings. These could, for instance, be structural (interconnectedness in the group structure), financial (intra-group liabilities or guarantees) or operational (IT, human resources).

- In the feasibility assessment, resolution authorities should assess aspects such as the sources of support, the continuity of different service agreements, the availability of a transferee or purchaser for the undertaking’s portfolio, the capacity of an IGS or resolution fund to finance a potential transfer and the availability of human resources to run the resolution process.

- In the credibility assessment, resolution authorities should evaluate the impact of the resolution actions on policyholders, third parties and financial stability in general. Resolution authorities should assess whether identified resolution strategies would result in losses for policyholders or a material adverse impact on economic activity. The latter could be caused by a disruption to the continuity of insurance cover and payments, a forced sale of distressed assets and/or by a lack of policyholder confidence.

12.107 An important element of resolvability assessments is the power to require the removal of material impediments to the resolvability. This is a power to resolution authorities. The decision to impose any such requirement should take account of the effect on the soundness and stability of an undertaking's ongoing business. The exercise of the power should be surrounded with safeguards and a mechanism by which an undertaking can challenge the decision of the resolution authority and seek impartial review of the proposed use of this power.

12.108 EIOPA is of the view that the main elements and the assumptions of the resolution plan and resolvability assessment should be transparent to the concerned undertaking. This dialogue between authority and undertaking could enhance the credibility and feasibility of both the resolution plan and the resolvability assessment.

Analysis of options

12.109 The following options are considered:

1. No change
2. Require resolution planning, including resolvability assessments, for all undertakings subject to Solvency II
3. Require resolution planning, including resolvability assessments, for undertakings covering a significant share of the national market

Option 1: No change

12.110 This option means that the existing situation of different national practices is maintained. At the EU level, no harmonised rules for the requirement of resolution planning will be introduced.

Option 2: Require resolution planning (including resolvability assessments) for all undertakings subject to Solvency II

12.111 This option introduces a requirement for resolution authorities to develop and maintain resolution plans and conduct resolvability assessments in a pre-emptive manner for all undertakings subject to Solvency II.

Option 3: Require resolution planning (including resolvability assessments) for undertakings covering a significant share of the national market

12.112 In this option, resolution authorities are required to develop and maintain resolution plans and conduct resolvability assessments in a pre-emptive manner for undertakings. The undertakings should cover a significant market level in each national market.

12.113 Further work may be needed to carefully determine the exact definition of the significant market coverage level.[322]

12.114 Similar to the approach for pre-emptive recovery planning, EIOPA is of the view that resolution authorities should decide upon the undertakings on the basis of a set of harmonised criteria. The criteria include the size, business model, risk profile, cross-border activities, interconnectedness and substitutability of the business (table 12.4 above in section 12.3.4.1 Pre-emptive recovery planning).

12.115 Nonetheless, some additional considerations might be relevant in the case of resolution planning. For instance, the need for resolution planning is less evident or non-existing if the resolution authorities, after a careful analysis, assess the prospect of resolution to be remote or where normal insolvency proceedings would be the preferred strategy. Therefore, EIOPA believes that the scope for resolution planning would be smaller than the scope for pre-emptive recovery planning.

12.116 In the exceptional situation that the predefined market coverage level is not reached in a Member State, the resolution authority should report to EIOPA the reasons for non-compliance. Non-compliance could be the result of specificities of national market.

Comparison of options

12.117 EIOPA's preferred option is option 3, i.e. to require resolution authorities to develop and maintain resolution plans in a pre-emptive manner for undertakings covering a significant share of the national market. This includes the assessment of the resolvability of undertakings.

12.118 The introduction of this requirement at EU level removes the divergent approaches in the EU and contributes to the single market. Pre-emptive resolution planning enhances the awareness of and preparedness for adverse situations of resolution authorities. This allows them to take informed and timely actions when needed.

[322] In the calculation of the market coverage level, the subsidiaries belonging to a group domiciled in the EU could be taken into account if the subsidiaries are covered in the group pre-emptive resolution plan.

12.119 The requirement should, however, be applied in a proportionate manner in order to avoid excessive (administrative) burdens. Option 2 is therefore not preferred, as this would require resolution authorities to draft resolution plans for all undertakings subject to Solvency II. EIOPA is of the view that resolution authorities should be able to define the undertakings within the scope, provided that the minimum market coverage level is met.

Proportionality principle

12.120 In order to avoid excessive burdens on resolution authorities and undertakings, it is essential that the proportionality principle be properly applied to the requirement – both to the scope and to the content of the requirement.

12.121 EIOPA advises to apply the proportionality principle to the scope by allowing resolution authorities to define the undertakings submitted to the requirement, provided that the market coverage level set at the EU level is met or non-compliance has been reported to EIOPA. In fact, EIOPA believes that the outcome of this assessment will be that the scope for resolution planning is smaller than the scope for pre-emptive recovery planning.

12.122 Furthermore, EIOPA believes that the option to use simplified obligations with respect to the content of the plans and/or frequency of updating should be introduced. The decision to allow the use of simplified obligations should be based on the criteria listed in table 12.4 in Section 12.3.4.1 Pre-emptive recovery planning. It might not always be the case that simplified obligations would be applied for both recovery and resolution planning.

12.123 The existence of critical functions and, more generally, other functions that are material for the financial system or the real economy at European or national level, have to be taken into account for the consideration of the need for a proportionate resolution planning. EIOPA should issue guidelines at a later stage (if the European Commission takes on board EIOPA's approach in the legislation) in accordance with Article 16 of the EIOPA Regulation to further specify the criteria to identify the functions to be preserved in resolution that are critical or material for the financial system or the real economy. The assessment process, to be detailed in EIOPA guidelines, should ensure consistency in the determination of the scope of the resolution planning and should be based on supervisory experience, taking into account elements stated in Box 12.4 below.

12.124 The criteria set up by the guidelines should allow the resolution authorities to consider not only a function strictly "critical" at insurance group level, but also the functions which might be considered sufficiently important for the national economy, e.g. having a material impact on a relevant number of policyholders.

Box 12.4: Elements to be considered in the assessment process to identify the functions to be preserved in resolution because critical or material for the financial system or the real economy

The assessment process that would be further elaborated by means of specific guidelines at a later stage (if the European Commission takes on board EIOPA's approach in the legislation) to identify the functions to be preserved in resolution because critical or material for the financial system or the real economy should be based on a two steps-approach:

1) In a first step, the aim is to identify a group of undertakings whose failure might be material; and

2) Subsequently, the resolution planning process should allow to further investigate the resolvability aspects and consider the public interest test.

This assessment process should take into account the following elements:

(i) The nature and reach of the activity and the material impact on third parties to carry out economic activity. Relevant aspects are the European or national reach, volume and number of transactions; the number of customers and counterparties materially impacted; the number of customers for which the insurer is a significant insurance partner;

(ii) The relevance of the insurer, on a European or national level, as appropriate for the market concerned. The relevance of the insurer may be assessed on the basis of the size, market share, external and internal interconnectedness, complexity, and cross-border activities of the insurer as already proposed in the Opinion;

(iii) The nature of the customers and stakeholders affected by the function, such as but not limited to retail customers, corporate customers and public entities, taking into account possible reputational effect on the insurance sector;

(iv) The potential impact of the disruption of the function on markets, infrastructures, customers and public services; or

(v) The potential losses to taxpayers, as well as possible pressures for government interventions if the insurer fails.

12.125 The governance process around developing, maintaining and updating the resolution plan should benefit from the participation of all relevant authorities involved in supervision and resolution of an insurer, and were appropriate, CMGs and the insurer itself. Whereas resolution authorities decide the company subject to resolution planning are in the lead of the resolution planning process, supervisors play a fundamental role in terms of providing support to resolution authorities. Supervisors have to provide all relevant information that the resolution authority may need to draft, maintain and update the plan, as well as communicating any material change to the legal or organizational structure of the institution or to its business or financial position. EIOPA expects cooperation and coordination between resolution authorities and supervisors.

12.126 Given that – in line with the option chosen – resolution plans are not drafted on a pre-emptive way for all insurers, in cases where an insurer not subject to such requirement is approaching the resolution triggers or is put in resolution, an "ad-hoc resolution plan", providing additional information, e.g. on the decisions taken, the resolution powers available or the next steps would be needed.

12.127 Whereas the resolution authority is in charge of implementing the pre-emptive resolution plan, or drafting the ad-hoc resolution plan in case the former does not exist and, more generally, exercising the resolution powers, the NSA should ensure continuous compliance with the Solvency II provisions applicable during the resolution process. Both authorities should cooperate regularly and exchange all relevant information.

12.3.5.4 Resolution powers

Assessment of need for introducing harmonised resolution powers

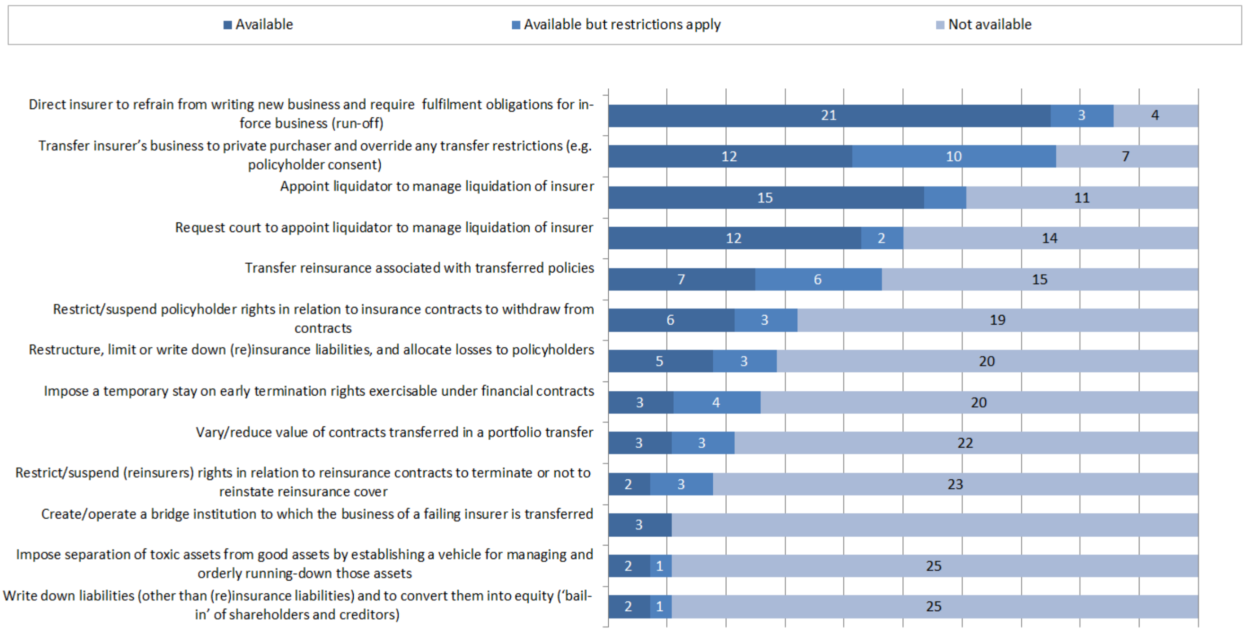
12.128 For an orderly resolution of failing undertakings, it is essential that resolution authorities have a broad set of resolution powers at their disposal.

12.129 Currently, national authorities across the EU are not equipped with similar powers. In some jurisdictions, the set of available powers is even rather limited. Figure 12.2 shows the availability of the resolution powers listed in the FSB Key Attributes across the Member States.

12.130 It can be concluded from the figure that most of the resolution powers are not widely available. For instance, the power to impose a temporary stay on early termination rights in insurance or financial contracts is only available in a limited number of jurisdictions. For those powers that are listed to be available in Member States, a court approval is often needed to use these powers.

12.131 In the EIOPA Opinion (2017), eleven NSAs reported to have identified gaps and shortcomings in the powers available to them to resolve failing undertakings. Commonly, it was mentioned that the set of powers is rather limited.

Figure 12.2: Availability of resolution powers across the Member States



Source: EIOPA Opinion (2017)

Analysis of options

12.132 The following options are considered:

1. No change
2. Grant resolution authorities a set of harmonised resolution powers

Option 1: No change

12.133 This option means that the resolution powers available to national resolution authorities across the Member States are not harmonised. Every resolution authority has to rely on the powers granted to them by their national legislation.

Option 2: Grant resolution authorities a set of harmonised resolution powers

12.134 This option provides national resolution authorities across the Member States with a common set of resolution powers with consistent design, implementation and enforcement features.

12.135 At a minimum, the set of common resolution powers should include, subject to adequate safeguards:

- Prohibit the payment and allow the recovery of variable remuneration to administrative, management, or supervisory body, Senior Management, key persons in control functions and major risk-taking staff, including claw-back of variable remuneration;

- Withdraw the authorisation granted to an insurance undertaking and put all or part of the insurance business contracts into run-off (i.e. requirement to fulfil existing contractual policy obligations for in-force business);
- Sell or transfer the shares of the undertaking in resolution to a third party;
- Sell or transfer all or part of the assets and liabilities of the undertaking under resolution to a solvent undertaking or a third party (including a bridge institution or management vehicle);
- Create and operate a bridge institution to which the assets and liabilities of the undertaking in resolution is transferred;
- Override any restrictions to the (partial) transfer of the assets and liabilities of the undertaking in resolution under applicable law (e.g. requirements for approval by shareholders, policyholders' consent for transfer of insurance contracts or consent of the reinsurance undertaking for transfer of reinsurance);
- Temporarily restrict or suspend policyholders' rights to surrender their insurance contracts;
- Stay rights of reinsurers to terminate or not reinstate coverage relating to periods after the commencement of resolution of their contractual counterparties;
- Stay the early termination rights associated with derivatives and securities lending transactions;
- Impose a moratorium with a suspension of payments to unsecured creditors and a stay on creditor actions to attach assets or otherwise collect money or property from the undertaking in resolution;
- Ensure continuity of essential services (e.g. IT) and functions by requiring other entities in the same group to continue to provide essential services to the undertaking in resolution, any successor or an acquiring entity;
- Take control of and manage the undertaking in resolution, or appoint an administrator to do so;
- Restructure, limit or write down liabilities, including (re)insurance liabilities, and allocate losses to shareholders, creditors and policyholders[323].

[323] For examples of ways to restructure insurance liabilities, see the FSB Key Attributes Assessment Methodology for the Insurance Sector, in particular the EN 3 (s).

12.136 The order of the powers listed above should not be regarded as an indication of the sequence in which these powers could be exercised.

12.137 Furthermore, the exercise of the resolution powers should be subject to adequate safeguards:

a) Resolution powers should be exercised in a way that respects the hierarchy of claims, while providing the flexibility to depart from the general principle of equal (*pari passu*) treatment of creditors of the same class;

b) Creditors, including policyholders, should not incur a loss greater than they would have incurred in a winding-up under normal insolvency proceedings (the "no creditor worse off than in liquidation" (NCWOL) principle);

12.138 The NCWOL safeguard ensures that creditors, including policyholders, receive in resolution at a minimum what they would have received in a liquidation of the undertaking under normal insolvency procedures.

12.139 The exercise of certain resolution powers might need to be surrounded with additional safeguards. This is particularly true for the power to restructure, limit or write down insurance liabilities and allocate losses to policyholders (see box 12.5).

12.140 EIOPA is of view that the exercise of the power of suspending or limiting the right of policyholders to surrender their contracts on a temporary basis should be justified from the perspective of financial stability (i.e. the macroprudential approach) and/or policyholder protection (i.e. microprudential approach). Furthermore, the exercise of this power should be linked to the prohibition of distributing dividends and bonuses. Policyholders should be informed of the existence of this power and the possibility that it might be exercised in exceptional circumstances.[324]

12.141 Finally, EIOPA believes that traditional resolution tools, such as portfolio transfer or (solvent and insolvent) run-off, which have proven to be adequate in the past, should be given priority when resolving undertakings. Nevertheless, the appropriateness of the choice and use of resolution powers should be assessed on a case-by-case basis by resolution authorities. The use of the powers should be proportionate to the nature, scale and complexity of the undertaking and the circumstances.

[324] See item 11 on macroprudential policy in insurance, where this power is further developed.

Box 12.5: Additional safeguards for restructuring, limiting or writing down insurance liabilities and allocate losses to policyholders

When allocating losses to policyholders, resolution authorities should take into account the following safeguards:

a) The allocation of losses to policyholders should only take place as a last resort option, i.e. all other feasible measures and options that could have averted (further) losses for policyholders have been exhausted or have been deemed unlikely to be successful;

b) The exercise of the power is deemed necessary for other powers to be effective (for instance, to enable a portfolio transfer) and, hence, to limit the losses for policyholders;

c) Policyholders who are covered by IGSs or other mechanisms should be compensated to the extent possible.

Furthermore, EIOPA is of the view that policyholders should be informed of the existence of this power and the possibility that this power might be exercised in exceptional circumstances. This could be done, for instance, by including a clause in insurance contracts explaining the risks and financial consequences for policyholders.

Comparison of options

12.142 EIOPA's preferred option is to grant national resolution authorities with a common set of resolution powers.

12.143 In order to ensure an orderly resolution process, it is essential that resolution authorities are equipped with adequate and effective resolution powers. Moreover, it is important that resolution authorities across the EU have a minimum set of common powers at their disposal. Powers with consistent design, implementation and enforcement features, foster cross-border cooperation and coordination. This helps to avoid unnecessary economic costs stemming from uncoordinated decision-making processes in cross-border failures.

12.144 The appropriateness of the choice and application of the powers in each situation should be assessed on a case-by-case basis. The choice and application of the powers should be proportionate to the nature, scale and complexity of the undertaking and the circumstances.

12.3.5.5 Cross-border cooperation and coordination

12.145 Solvency II requires NSAs to cooperate and coordinate with each other through the establishment of supervisory colleges for cross-border insurance groups. The supervisory colleges are a platform for cooperation and coordination, including the exchange of (supervisory) information. The aim of these colleges is to foster a common understanding of the risk profile of the group (including entities) and to achieve a more efficient and effective supervision.[325]

12.146 Similar cross-border arrangements are equally essential for the efficient and effective resolution of failing undertakings. EIOPA is of the view that a platform for cross-border cooperation and coordination should also be established between national resolution authorities. This will help to deal with a crisis in an effective manner and facilitate the recognition and implementation of actions taken in different jurisdictions.

12.147 These platforms should be a means to ensure effective planning for crisis, decision-making and coordination during crises between national resolution authorities when dealing with cross-border insurance failures. Effective cross-border arrangements could also help to ensure that the interests of all affected jurisdictions, including those where the parent company is located as well as those where the subsidiaries and branches are located of a failed group, are given due consideration and are balanced appropriately.

12.148 These arrangements, which could be based on existing arrangements, could take the form of resolution colleges or crisis management groups (as currently existing for the global systemically important insurers (G-SIIs)). In the set-up of the cross-border arrangements, the materiality and proportionality principle should be taken into account. The participation, role and responsibility of each national (resolution and supervisory) authority could be made proportionate to, for instance, the materiality of the undertaking belonging to the insurance group for which the arrangements are in place, but also to the materiality of the insurance group's activities in the concerned Member States. The concept of materiality would need to be further defined.

12.149 More generally, the home authority should have the ability to arrange cross-border arrangements and meeting in different configurations to ensure that the coordination process is carried out in the most effective manner.

12.150 Furthermore, with respect to the involvement of EIOPA in these arrangements, EIOPA refers to Article 21(1) of the EIOPA Regulation. In accordance with this article, EIOPA has to contribute to promoting and monitoring the efficient, effective and consistent functioning of cross-border supervisory cooperation through the colleges of supervisors, which are based on coordination arrangements (Article 248(4) Solvency II). Moreover, EIOPA

[325] Recital 139 Solvency II of the Delegated Regulation.

has a leading role in ensuring the consistent and coherent functioning of these colleges for cross-border institutions across the EU.

12.151 In order to perform the abovementioned responsibilities, EIOPA recalls that Article 21(2) of the EIOPA Regulation recognises it as “competent authority”, and therefore EIOPA enjoys full participation rights in the colleges of supervisors for cross-border institutions across the EU.

12.4 Triggers

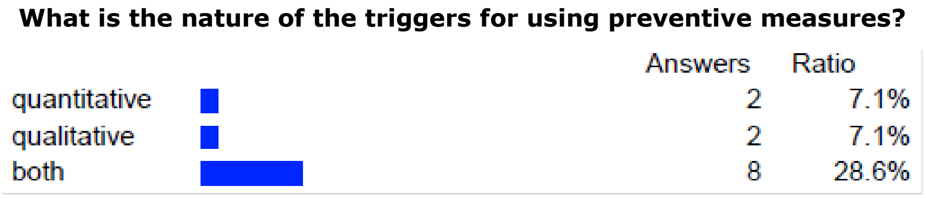
12.4.1 Triggers for the use of preventive measures

Assessment of need for triggers for the use of preventive measures

12.152 Preventive measures are those used in a stage where the solvency position of an undertaking started to deteriorate and where it is likely that it will continue to deteriorate and fall below the SCR and further if no remedial action is taken. Timely and effective preventive measures could avoid the escalation of problems and, hence, the need for more intrusive actions and potential losses for policyholders.[326]

12.153 Currently, some NSAs intervene preventively at an early stage to ensure troubled undertakings are back on track. Preventive measures are applied based on the NSAs’ assessment. Figure 12.3 shows the nature of the triggers used by these NSAs in their assessment. Eight NSAs use both quantitative and qualitative triggers for intervention, whereas four NSAs use either purely quantitative or qualitative triggers.

Figure 12.3: Nature of triggers for the use of preventive measures



What is the nature of the triggers for using preventive measures?

	Answers	Ratio
quantitative	2	7.1%
qualitative	2	7.1%
both	8	28.6%

Source: EIOPA Report (2018).

Note: The original question in the report referred to “early intervention powers”. The new wording seeks to align it with the current terminology.

[326] In small insurance companies MCR could be higher than SCR. This situation could be carefully taken into account in determining timeline and set of preventive measures.

12.154 Some of the triggers for preventive measures or factors that were reported to be taken into consideration by NSAs are:

- near breach of own funds requirements;
- quality of the own fund items;
- quantitative outcome of the Risk Assessment Framework;
- quality of the governance system;
- sufficiency of technical provisions;
- sufficiency of liquidity;
- departure of key people from the undertaking.

12.155 Other aspects proposed in the context of the public consultation that may also be worth considering are:

- Own fund recent evolution and recurrent need for capital over a limited period of time,
- Stability of the organization regarding key functions, or administrative, management or supervisory body (AMSB) members,
- Qualitative reports/assessments of business model viability and operational viability,
- Duration gap in life insurance,
- Amounts of risk buffers in local GAAP (investment reserves, surplus fund, own funds),
- Profitability indicators, or

Coverage of interest rate guarantees from regular sources.

12.156 EIOPA is of the view that the current divergence of national approaches is not in accordance with the principles set out in Solvency II and that a common approach towards the triggers for the use of preventive measures should be followed. These triggers should provide guidance for NSAs in their assessment to apply these measures.

Analysis of options

12.157 The following options are considered:

1. No change
2. Rules-based triggers for the use of preventive measures
3. Judgment-based triggers for the use of preventive measures

Option 1: No change

12.158 This option means that no harmonised triggers for the use of preventive measures are introduced at the EU level. Every NSA will base their decision to apply preventive measures on their own national triggers.

Option 2: Rules-based triggers for the use of preventive measures

12.159 Preventive measures are rules-based with quantitative triggers. There is a mechanistic decision-making process and not much room for judgment by the NSA.

Option 3: Judgment-based triggers for the use of preventive measures

12.160 The use of preventive measures is judgment-based with soft triggers that could include both quantitative and qualitative factors to be taken into consideration by NSAs. The triggers allow for a sufficient degree of supervisory judgment and discretion according to different products and national market specificities.

12.161 Relevant factors that would need to be taken into consideration by NSAs in their assessment for intervening preventively include, for instance:

- Solvency ratio and historical volatility of the SCR ratio;
- Trends in the financial statement figures;
- Business plan, including information about the products, risk mitigation techniques, investment plan and dividend policy;
- The possibility and likelihood for the undertaking to raise additional capital;
- ORSA, particularly, the three year projection of the SCR and MCR coverage ratios, the change in risk appetite and risk tolerance and the change in the investment strategy – business plan;
- Financial plans and strategy of the company, including recent changes in them that could cause risk of non-compliance with capital requirements;
- Impact of the sensitivity analysis on the SCR trigger and MCR trigger;
- Conclusions from inspections and meetings with the Administrative, Management or Supervisory Body (AMSB);
- Other issues or aspects (market triggers), such as interest rate volatility and the widening of the credit spread.

Comparison of options

12.162 EIOPA's preferred option is to define judgment-based triggers for the application of preventive measures.

12.163 The conditions for the use of preventive measures should be judgment-based to factor in the different nature of undertakings and changing economic circumstances. NSAs should use supervisory judgment and discretion to decide whether intervention is needed before the breach of the SCR. The conditions for the use of preventive measures should not lead to a mechanistic decision-making process by the NSA.

12.164 EIOPA is of the view that the definition of triggers for the use of preventive measures should not result in a new pre-defined intervention level or capital requirement, given that the current framework already has a quantitative intervention ladder. Hard, quantitative triggers, therefore, should be avoided. NSAs should assess each situation individually and decide upon the need for preventive measures based on the circumstances and their supervisory judgment of the situation and undertaking.

12.4.2 Triggers for entry into recovery

12.165 The Solvency II Directive defines the trigger for recovery as follows:

"Insurance and reinsurance undertakings shall immediately inform the supervisory authority as soon as they observe that the Solvency Capital Requirement is no longer complied with, or where there is a risk of non-compliance in the following three months." (Article 138 of Solvency II Directive)

12.166 In order to assess whether this is an appropriate trigger for entry into recovery, EIOPA conducted an information request among NSAs to collect their feedback. A majority of the NSAs confirmed that non-compliance with the SCR as defined in Solvency II is an appropriate trigger for recovery.

12.167 A minority of the NSAs replied that non-compliance with the SCR alone is not appropriate to trigger a recovery phase. Some of them mentioned that both quantitative and qualitative triggers should be considered, such as capital/solvency, liquidity, profitability, reserving, market-based and macroeconomic indicators.

12.168 A number of NSAs also referred to the need for actions before the breach of the SCR, i.e. preventive measures.

12.169 Based on this outcome, EIOPA is of the view that non-compliance with the SCR, as defined in Solvency II, is an appropriate trigger for entry into recovery. This should be combined with the introduction of triggers for the use of preventive measures.

12.4.3 Triggers for entry into resolution

Assessment of need for triggers for entry into resolution

12.170 In order to optimise outcomes for policyholders and financial stability, the timing of initiating a resolution process for failing undertakings is essential. This means that there should be adequate triggers for entry into resolution.

12.171 Winding-up/liquidation of an undertaking is a last resort resolution action and is usually initiated after an undertaking is declared insolvent. This could be based on either a balance sheet basis (i.e. the liabilities are greater than the assets), a cash-flow basis (the undertaking is unable to pay its debts as they fall due) or solvency basis (MCR is not met).

12.172 The triggers for entry into resolution should therefore be set before an undertaking is balance sheet insolvent.

Analysis of options

12.173 The following options are considered:

1. No change
2. Rules-based triggers for entry into resolution
3. Judgment-based triggers for entry into resolution

Option 1: No change

12.174 This option means that no harmonised triggers for entry into resolution are introduced at the EU level. Resolution authorities will base their decision to apply resolution powers on their own national triggers.

Option 2: Rules-based triggers for entry into resolution

12.175 Triggers for entry into resolution are automatic and rules-based. Once the triggers are hit, resolution authorities take resolution actions. There is not much flexibility for judgment.

Option 3: Judgment-based triggers for entry into resolution

12.176 Triggers for resolution are defined in such a way that they provide for timely and early entry into resolution before an undertaking is balance sheet or cash flow insolvent and before all equity has been wiped out. The triggers allow a sufficient degree of judgment by the resolution authorities; automatic resolution triggers are avoided.

12.177 Resolution authorities use their experience and expert judgment to assess whether the conditions for entry into resolution are met and to initiate the resolution process. In doing so, resolution authorities also assess whether normal insolvency proceedings might be a more adequate solution than initiating a resolution process.

12.178 In accordance with the triggers listed in the FSB Key Attributes, the triggers for entry into resolution are set as:

a) The undertaking is no longer viable or likely to be no longer viable and has no reasonable prospect of becoming so;

b) Possible recovery measures have been exhausted – either tried and failed or ruled out as implausible to return the undertaking to viability – or cannot be implemented in a timely manner;

c) A resolution action is necessary in the public interest.

12.179 With respect to condition (a), an undertaking could be considered to be no longer viable or likely to be no longer viable based on the following, non-exhaustive set of criteria:[327]

- The undertaking is in breach or likely to be in breach of the MCR and there is no reasonable prospect of compliance being restored;
- The undertaking is in breach or likely to be in breach of other prudential requirements (e.g. requirements on assets backing technical provisions), there is no reasonable prospect of compliance being restored and such non-compliance will likely lead to balance sheet or cash flow insolvency;
- There is a strong likelihood that a policyholders and/or creditors will not receive payments as they fall due.

12.180 With respect to condition (c), resolution actions should be considered necessary in the interest of the public if the resolution objectives are achieved to a greater extent by putting the undertaking into resolution than by liquidating the undertaking by means of regular insolvency proceedings.

12.181 For instance, the public interest could be related to the relevance of the business carried out by the undertaking in a certain market, also considering the features of this market. For instance, the public interest may exist when the failure of an undertaking could cause a consistent reduction of the number of insurance products offered in a certain geographic area, without the capacity of other undertaking to timely offer the same products. Therefore, when a particular business is considered a segment of relevant activities for the real economy (e.g. air and road circulation, medical practice), the reduction of insurance products in that segment could determine the interruption of

[327] Additional examples of non-viability are reported in the FSB Key Attributes Assessment Methodology for the Insurance Sector in particular to EN 3 (c).

essential services necessary for the orderly operation of important economic activities.

Comparison of options

12.182 EIOPA's preferred option is to define judgment-based triggers for resolution.

12.183 EIOPA believes that resolution actions should be taken before an undertaking is balance sheet or cash flow insolvent and before all equity has been wiped out. This requires a careful assessment of the situation and circumstances by resolution authorities, taking into account the evidences provided by the supervisor as part of its supervisory activities. Rules-based, hard triggers should therefore be avoided, as every situation is different.

12.184 Resolution authorities should have sufficient discretion to assess the need and timing for taking resolution actions. Judgment-based rules allow for this degree of flexibility and discretion.

13. Insurance guarantee schemes

13.1 Introduction

13.1.1 Extract from the call for advice

Insurance guarantee schemes (CfA 3.12)

EIOPA is asked to advise on whether there is a need for minimum harmonising rules for national insurance guarantee schemes. In particular, EIOPA is asked to advise on whether the rules in the following areas need to be harmonised: role and functioning of IGSs, their geographical coverage, cross-border coordination mechanisms, eligible policies, eligible claimants, funding, and policyholder information.

In the context of policies sold via free movement or services or branches, EIOPA is, in particular, asked to consider whether possibly harmonised rules for national insurance guarantee schemes should enable a recourse to the IGS of the home Member State in order to protect policy holders in the other Member States where the undertaking is operating.

Where EIOPA identifies a need to harmonise rules, it is asked to advise which principles should apply.

13.1.2 Relevant legal provisions

13.1 Article 26 of Regulation (EU) No 1094/2010[328] (the EIOPA Regulation) states that *"the Authority may contribute to the assessment of the need for a European network of national insurance guarantee schemes which is adequately funded and sufficiently harmonised".*

13.2 Other relevant articles in this context are:

- Article 8(1)(i) of the EIOPA Regulation sets out EIOPA's tasks and powers in the area of recovery and resolution of insurers by providing that EIOPA is responsible for *"[…] the development and coordination of recovery and resolution plans, providing a high level of protection to policy holders, to beneficiaries and throughout the Union, in accordance with Articles 21 to 26".*

[328] Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/79/EC, OJ L 331, 15.12.2010, p. 48.

- Article 24(2) of the EIOPA Regulation provides EIOPA with the responsibility to *"contribute to ensuring coherent and coordinated crisis management and resolution regime in the Union".*
- Article 25(2) of the EIOPA Regulation provides that *"[EIOPA] may identify best practices aimed at facilitating the resolution of failing institutions and, in particular, cross-border groups, in ways which avoid contagion, ensuring that appropriate tools, including sufficient resources, are available and allow the institution or the group to be resolved in an orderly, cost-efficient and timely manner."*

13.1.3 Scope of Opinion

13.3 In this Opinion, EIOPA did not consider the compensation bodies established under Directive 2009/103/EC[329] (the Motor Insurance Directive).

13.4 This Directive requires Member States in its Article 10 "*to set up or authorise a body with the task of providing compensation, at least up to the limits of the insurance obligation for damage to property or personal injuries caused by an unidentified vehicle or a vehicle for which the insurance obligation provided for in [this Directive] has not been satisfied"*. In May 2018, the European Commission presented a proposal to amend the Motor Insurance Directive[330].

13.5 Furthermore, the Opinion does not analyse the differences in national insolvency laws and other potential relevant national laws, such as insurance contract law. These areas deserve further attention and possibly also an assessment of the need for greater harmonisation in these fields.

13.6 Moreover, any references to differences in treatment of policyholders[331] in this Opinion is related to the differences caused by differences in national IGSs. Differences in policyholder treatment caused by other reasons, such as differences in national insolvency laws, are not taken into consideration.

[329] Directive 2009/103/EC of the European Parliament and of the Council of 16 September 2009 relating to insurance against civil liability in respect of the use of motor vehicles, and the enforcement of the obligation to insure against such liability, OJ L 263, 7.10.2009, p. 11.

[330] https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-3714481_en#pe-2018-3261.

[331] The term policyholders in the Opinion should be understood as also incorporating the beneficiaries, insured parties if different from the policyholders or injured parties of the policies. Please refer to section 13.3.2.4 Eligible claimants for further details.

13.7 For the sake of simplicity, EIOPA will use the term IGSs or policyholder protection schemes throughout this Opinion[332]. This should however be understood to include alternative mechanisms which pursue the same objective of protecting policyholders in the event of failure and achieve a similar outcome as IGSs.

13.2 Identification of the issue

13.2.1 Background

13.8 An IGS provides protection, partially or in full, to policyholders when insurers cannot meet their contractual commitments. At present, there are no harmonised EU rules for IGSs as a result of which Member States have chosen their own approach towards policyholder protection schemes.

13.9 A majority of the Member States have decided to establish one or more national IGSs or alternative mechanisms for the protection of policyholders. The table in annex 13.1 provides an overview of the existing national schemes and other mechanisms across the Member States. For completeness, the table also shows the compensation bodies established under Article 10 of the Motor Insurance Directive.

13.10 The decision to establish an IGS in the Member States has usually been prompted by (the risk of) insurance failures and the perceived need for policyholder protection in such situations. Some examples are listed below:

- In the early 1920s, the Austrian system was introduced and significantly improved after the failure of an insurance company;
- The origin of the Spanish system can be found in 1984, responding to the needs created in relation to the protection of the policyholders as a consequence of the market reorganisation due to the entrance of Spain in the European Community at that moment;
- The French life and health fund was created in 1999 following a near failure experience of a life insurer;

[332] The terms "IGSs" and "policyholder protection schemes" are used in the Opinion as synonyms. Along the paper, the "IGSs" are broadly mentioned, also in line with the terminology used by the Commission in the call for advice and with the Solvency II terminology in the field of the IGSs. Nevertheless, a few references to "policyholders protection schemes" have been included to take into account the terminology used in specific literature sources quoted in the Opinion (e.g. OECD (2013), "Policyholder Protection Schemes: Selected Considerations") or used at international level with regard to the same object (e.g. IAIS ICP 12).

- In Germany, the creation of the health scheme was an initiative of the health insurance sector that aimed at strengthening the trust in the sector following the financial crisis in 2002, despite no failure in the health insurance market until now has taken place. In similar terms, an IGS for life insurance was also introduced without having any failure in the life insurance market;
- In Greece, the scheme was established shortly after the failure of two large life insurers in 2009.

13.11 Although a majority of the Member States have set up an IGS, the approach they have followed for the design of the IGSs diverges quite substantially from each other. Differences can be observed in terms of the role and functions, geographical coverage, eligible policies, eligible claimants, funding and other features of IGSs (see sections below).

13.12 In contrast to the insurance sector, the guarantee schemes in other sectors of the financial system have been harmonised at the EU level. In banking, Directive 2014/49/EU[333] (the Directive on deposit guarantee schemes) have harmonised the rules for the protection of deposits, whereas Directive 97/9/EC[334] (the Directive on investor compensation schemes) has harmonised the rules for the protection of investment protection funds.

13.13 In 2010, the European Commission issued a White Paper on insurance guarantee schemes[335] and argued that the lack of a harmonised approach hinders the effective and equal consumer protection in the EU.

13.14 The variation in national approaches towards IGSs may have consequences for the protection of policyholders as well as the functioning of the internal market.

13.2.2 Different treatment of policyholders across the EU[336]

13.15 The differences in national approaches towards IGS have resulted in a situation where policyholders across the EU could have different level of

[333] Directive 2014/49/EU of the European Parliament and of the Council of 16 April 2014 on deposit guarantee schemes, OJ L 173, 12.6.2014, p. 149.

[334] Directive 97/9/EC of the European Parliament and of the Council of 3 March 1997 on investor-compensation schemes, OJ L 84, 26.3.1997, p. 22.

[335] White paper on insurance Guarantee Schemes /COM/2010/0370 final/, 12.07.2010, 52010DC0370.

[336] The differences in policyholder treatment in the event of insolvency refer to those differences caused by variation in level of IGS protection. Differences in policyholder treatment might already exist due to differences in insolvency law, including the provisions surrounding the creditor hierarchy.

protection in the event of liquidation. Firstly, not all Member States have created a safety net for the protection of policyholders, meaning that the policyholders of insurers located within these jurisdictions would not benefit from IGS protection in the event of failure. In contrast, policyholders with similar policies in other jurisdictions might benefit from IGS protection for potential losses in the event of liquidation.

13.16 Secondly, differences in policyholder treatment across or even within Member States could arise due to the dissimilarities in the technical design features of the national IGSs, such as the geographical coverage, eligible policies and compensation limits. The outcome of these differences in the design of the IGSs is that policyholders, while holding the same type of insurance policy, might benefit from a different level of IGS protection.

13.17 For instance, the geographical coverage of national IGSs determines whether the cross-border activities of insurers are covered by the national IGS. Depending on geographical coverage, policyholders insured with the same insurer and/or policyholders within the same Member State might benefit from a different level of protection on similar insurance policies in the event of liquidation.

13.18 Where an IGS follows the host-country principle, all policyholders within the home-jurisdiction of the IGS are protected, whereas policyholders of domestic insurers residing in foreign jurisdictions are excluded. This leads to the undesirable situation where policyholders insured with the same failed insurer would be treated differently following the failure of the insurer purely depending on their place of residence, even if they hold an identical insurance policy.

13.19 On the contrary, in Member States where the national IGS operates on the basis of the home-country principle, domestic policyholders would be protected by the national IGS only if the insurer they bought a policy from is headquartered in the same Member State. Policyholders buying a policy via the freedom of services (FoS) or freedom of establishment (FoE) from a foreign insurer, would therefore be protected by the IGS of the country of the foreign insurer if this IGS also follows the home-country principle, while they would not be protected by the IGS of their country of residence in the event of failure.

13.2.3 Implications for proper functioning of the internal market

13.20 The examples of the differences of policyholder protection in liquidation also show that the fragmentation in the IGS landscape might have implications for the level playing field in insurance and as a consequence for the proper functioning of the internal market. As described, policyholders in the EU have a different level of IGS protection (if at all) due to current patchwork of national approaches. This could bring a competitive advantage for insurers that are covered by an IGS over insurers whose policyholders would not have access to IGS protection[337]. An important assumption here is that the information is available to consumers and that they use this information when making a decision.

13.21 Additionally, the level playing field between the different sectors in the financial markets is being distorted. Currently, the consumers of banks and investment firms across the Member States are protected by harmonised EU rules for guarantee schemes, whereas consumers of insurers are lacking such EU harmonised rules. The sectorial differences in consumer protection arrangements could provide impact the level playing field for competing financial products, such as life insurance products versus saving products offered by banks.

13.3 Analysis

13.22 In this section, EIOPA analyses whether there is a need for harmonisation of national IGSs in the EU. Following this assessment, it analyses the main technical features of IGSs and the need for harmonisation of these features at the EU level.

13.23 EIOPA has duly analysed the costs and benefits of the main options considered from a qualitative point of view; these options are listed in the table 13.1 below. A quantitative analysis of the (funding) costs will be carried out at a later stage once the technical details of all options have been considered. EIOPA's preferred option for each policy option is depicted in bold.

Table 13.1: Overview of policy options

Policy issue	Options
1. Need for harmonisation of national IGSs in the EU	1.1 No change (maintain status quo) **1.2 European network of national IGSs (minimum harmonisation)**[338]

[337] At the same time, it should also be mentioned that insurer covered by an IGS will have to pay a levy to the IGS, so that it would expect to have to charge a higher premium than an insurer not covered by an IGS.

[338] The phrase "a European network of national IGSs" is used to refer to the system of national IGSs and to any potential underlying European regime laying down rules and/or standards for national IGSs (such as their scope and funding). As such, the reference to a European network should be regarded as a body of Union laws harmonising the standards for national IGSs.

	1.3 Single EU-wide IGS (maximum harmonisation)
2. Need for harmonisation of roles and functions of national IGSs	2.1 Full discretion to Member States 2.2 Compensation of claims 2.3 Continuation of policies **2.4 Continuation of policies and/or compensation of claims**
3. Need for harmonisation of geographical scope of national IGSs	3.1 Full discretion to Member States **3.2 Home-country principle** 3.3 Host-country principle 3.4 Host-country principle plus recourse arrangements
4. Need for harmonisation of eligible policies	4.1 Full discretion to Member States 4.2 Life policies only 4.3 Non-life policies only 4.4 Both life and non-life policies **4.5 Selected life and non-life policies**
5. Need for harmonisation of eligible claimants	5.1 Full discretion to Member States 5.2 Natural persons only **5.3 Natural persons and selected legal persons** 5.4 Natural persons and legal persons
6. Need for harmonisation of timing of funding	6.1 Full discretion to Member States 6.2 Ex-ante funding 6.3 Ex-post funding **6.4 Ex-ante funding complemented with ex-post funding**

13.3.1 Need for harmonisation of national IGSs at EU level

- *Analysis of options*

13.24 In most cases, the creation of national IGSs has been prompted by the failure of insurers. The assessment of the need for IGSs is therefore linked to the likelihood and impact of insurance failures taking account of other protection measures. The need for and scope of IGSs might vary across Member States depending on their national markets, including supervisory practices, national insolvency law (e.g. creditor hierarchy) and potential national recovery and resolution framework for insurers.

13.25 The focus of the assessment of EIOPA is therefore on the need for harmonisation in the field of policyholder protection schemes at the EU level.

EIOPA assessed the potential merits of a harmonised approach towards IGSs versus the merits of keeping the status quo.

- **Option 1: Maintaining the status quo.** No changes are made to the current situation.
- **Option 2: Establishing a European network of national IGSs, which are sufficiently harmonised.** A network of national IGSs is established across Member States. The national IGSs are sufficiently harmonised and adequately funded.
- **Option 3: Establishing a single EU-wide IGS.** A single EU-wide IGS is created at EU level to protect policyholders across the Member States.

Table 13.2: Overview of arguments

Arguments in favour of…		
… maintaining the status quo	**… a European network of sufficiently harmonised national IGSs**	**… a single EU-wide IGS**
(A) Risk of contagion in insurance is less pronounced	(A) More even protection of policyholders[339]	(A) Even protection of policyholders[340]
(B) Solvency II combined with a low frequency of failures makes IGSs redundant	(B) Cross-border cooperation and coordination between national IGSs	(B) Optimising level playing field
(C) Potential costs of IGSs are not incurred	(C) Minimise reliance on public funds by involving industry	(C) Minimise reliance on public funds by involving industry
(D) Moral hazard	(D) Improvement of confidence and choice of consumers	(D) Improvement of confidence and choice of consumers

[339] A full equal treatment of policyholders in liquidation cannot be guaranteed even where a harmonised approach to IGSs is achieved due to other differences in national legislation, such as national insolvency law.

[340] Also in this case, a full equal treatment of policyholders in liquidation cannot be guaranteed even where a single EU-wide IGS is achieved due to other differences in national legislation, such as national insolvency law.

Option 1: Maintaining the status quo

(A) Risk of contagion in insurance industry is less pronounced

13.26 One of the common arguments against the harmonisation of guarantee schemes in insurance is the comparison with the reasons for harmonising deposit guarantee schemes (DGSs) in the banking sector.

13.27 In banking, financial stability was one of the main reasons to establish a harmonised approach. The risk of a run on banks was an important driver, i.e. the risk that a large number of deposit holders withdraw their money from a troubled bank. This could result in a loss of consumer confidence and harm other banks and the financial stability as a whole.

13.28 In insurance, it is widely acknowledged that the traditional insurance activities are generally less systemically important than the activities on the banking side. In addition, the liquidity risk on insurers, in the form of mass lapses by policyholders, is perceived much more contained compared to the liquidity risk of banks.

13.29 Therefore, it is argued that the need for harmonisation of IGSs is less evident. Even if a run on insurers[341] materialises, there are safeguards in place to reduce the potential impact. For instance, the penalties on early termination and, traditionally, the lengthy cancellation procedures would help to dampen the impact of a run on insurers.

(B) Solvency II combined with a low frequency of failures makes IGSs redundant

13.30 The introduction of Solvency II is another argument used against the need for harmonisation of national IGSs. Solvency II is a risk-based, forward-looking approach to insurance supervision with a primary objective of adequate policyholder protection. As such, Solvency II has significantly improved the supervision of insurers.

13.31 Additionally, the number of failures in insurance has so far been limited and Solvency II has further reduced the likelihood of failures. This limits the need for IGS protection and harmonisation in this field. Therefore, the focus should be on the continuation of supervisory convergence in order to ensure a consistent application of Solvency II across Member States.

[341] The case of the Belgian insurer Ethias shows that a run on insurers can occur. Ethias suffered a significant number of cancellation of policies and withdrawals of savings during the 2008 crisis. Consequently, the Belgian Federal State and the Flemish and Walloon regions injected a capital of EUR 1.5 billion into the insurer (European Commission press release).

13.32 Furthermore, the priority given to insurance claims in liquidation, as laid down in Article 275(1) of the Solvency II Directive, limits the potential losses of policyholder in the event of insolvency.

(C) Potential costs of IGSs

13.33 An IGS is associated with costs. These include the initial set-up costs that are required to make the necessary legislative and structural changes, and the costs for operating the IGS, such as the costs for the staff and potential investment costs if the scheme is funded on an ex-ante basis. The main cost component is however the expected cost of protecting policyholders following a failure.

13.34 The costs of IGS protection could particularly be seen as a problem for small and concentrated markets, where the failure of a large insurer would have to be funded by the rest of the market or vice versa when many small undertakings failed and only one large insurer has to take the losses of many small insurers. In both cases, this could put the rest of the industry and their policyholders under financial strains and threaten the financial stability. This could put the rest of the industry under financial strains and threaten the financial stability.

13.35 Most of the NCAs responded to the survey (EIOPA survey 2018) that they do not hold record of the initial set-up costs, whereas the operational costs reported by NCAs differ quite substantially across Member States and largely depend on the design and structure of the IGS. The reported costs of IGS protection in past interventions show that these costs ranged from a few million up to EUR 1.3 billion.

(D) Moral hazard

13.36 The existence of an IGS could give rise to or increase moral hazard behaviour in insurance. This could be on the side of consumers, but less likely also on the side of insurers.

13.37 Consumers might be less incentivised to do a proper due diligence and not assess the riskiness of insurers when purchasing an insurance policy. Also, consumers might be more inclined to buy policies from insurers covered by an IGS despite their financial situation. This assumes that consumers are well informed and are able to act upon this information, which might only be the case for professional consumers (i.e. financial and non-financial companies).

13.38 The existence of an IGS is less likely to make insurers less prudent and incentivise them to take on excessive risks[342]: in effect, given that the IGS is expected to have a 100% recovery right against the failed insurer, the final cost of a failure for the insurer is not expected to vary whether an IGS exists or not. An opposite effect could even be expected, as an IGS is expected to recover its claim against the failed insurer in insolvency proceeding, more "effectively" than a large number of isolated policyholders.

Option 2: A European network of sufficiently harmonised national IGSs

(A) More even protection of policyholders

13.39 The main reason for establishing a network of harmonised national IGSs is to provide a minimum level of protection to policyholders against the effects of an insurance failure. In the previous section, it has already been shown that policyholders in the EU currently do not have a similar level of IGS protection (if any) even if they are consumers of the same insurer. Depending on their residence, policyholders could be treated differently, which is an undesirable situation from the perspective of policyholder protection and internal market.

13.40 A minimum degree of harmonisation would contribute to achieving a more equal protection of policyholders in the event of liquidation by ensuring that all Member States have an IGS in place with minimum harmonised features. The importance of national IGSs is underlined by the recent cross-border insurance failures in Box 13.1, which show the potential issues with unequal treatment of policyholders belonging to the same insurer.

13.41 Minimum harmonised features for national IGSs are also important from the perspective of the internal market. For instance, common rules about the geographical coverage of national IGSs would help to avoid the potential issues with cross-border activities via FoS and FoE as described in Box 13.1. The case studies show that the lack of common rules about the geographical coverage and funding could result in a financial burden in those Member States where the IGS operates on the basis of a host-country principle and where there is no recourse to the IGS of the home Member State of the failed insurer.

[342] The funding structure is an element that may have an impact on the insurer's incentives. In particular, the timing of the contributions could affect the incentive structure of owners and shareholders of an insurance company. See, for example, Bohn and Hall (1999), "*The Moral Hazard of Insuring the Insurers*", The Financing of Catastrophe Risk p. 363-390, NBER, University of Chicago Press and Dong, Gründl and Schlütter (2013), "*The Risk-Shifting Behavior of Insurers under Different Guarantee Schemes*", ICIR Working Paper Series No. 12/12, Goethe University, Frankfurt.

13.42 Furthermore, the speed at which payments can be made to policyholders in the event of insolvency is another benefit of establishing an IGS (OECD, 2013)[343]. Under normal insolvency procedures, policyholders might face long processes to recover the losses from the estate of the failed insurer. Despite the priority ranking of the claims, the long process of payments made could therefore adversely affect policyholders depending on the type of policies. For instance, the timely payment of claims of pension claims on life insurance policies would be essential.

Box 13.1: Case study – Denmark

Bankruptcy of Alpha Insurance A/S

- On 4 March 2018, Alpha Insurance A/S (Alpha) was placed in solvent liquidation.
- Alpha is a Danish-based insurance group that operated in Denmark, France, Germany, Greece, Ireland, Italy, Norway, United Kingdom and Spain. Alpha provided mainly insurance policies on motor, workers compensation, construction, legal expenses and general liability. Across Europe, Alpha had approximately 1 million policyholders.
- The Danish Guarantee Fund for non-life insurance undertakings announced that it would cover premium refunds on specific policies for eligible policyholders across the jurisdictions.

Bankruptcy of Qudos Insurance A/S

- On 20 December 2018, Qudos Insurance A/S (Qudos) filed for bankruptcy.
- Qudos is a Danish-based insurance group that operated in Denmark, France, Germany, Greece, Ireland, Italy, Malta, Norway, Sweden and the United Kingdom. Qudos mainly provided mainly insurance policies on motor, property, general liability and income protection insurance. Across the EU, Qudos had approximately 400,000 policyholders.
- EIOPA has been in close contact with the Danish NCA to trigger a timely intervention and to ensure equal treatment of affected policyholders throughout the EU who suffered significant losses due to the failure.*
- Following the failure of Qudos, the Danish NCA communicated that the Danish Guarantee Fund for non-life insurance undertakings will be

[343] OECD (2013), "Policyholder Protection Schemes: Selected Considerations", *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 31, OECD Publishing, Paris. http://dx.doi.org/10.1787/5k46l8sz94g0-en

triggered according to the bankruptcy procedure under the regulatory framework existing at that time. Therefore, the Guarantee Fund covers all eligible policyholders of Qudos, regardless of their residence.

Change in the Danish regulation on Guarantee Fund[**]

- This communication was important as the regulatory framework governing the Danish Guarantee Fund was amended in 2018. As of 1 January 2019, the Danish Guarantee Fund will only cover non-life insurance policies sold in Denmark, either via domestic insurers or through branches and FoS (i.e. the host-country principle).
- The consequence of this amendment is that policyholders of a failed Danish insurance group who live outside of Denmark are no longer (or remain to be un)protected by the Danish Guarantee Fund.
- This means that the policyholders of Alpha and Qudos residing outside of Denmark would have not been protected by the Danish Guarantee Fund, if the insurance groups had failed after this amendment, resulting in a situation where policyholders of the same insurer are treated differently in the EU.

[*] *Source:* EIOPA
[**] *Source:* Danish Guarantee Fund

(B) Cross-border cooperation and coordination between national IGSs

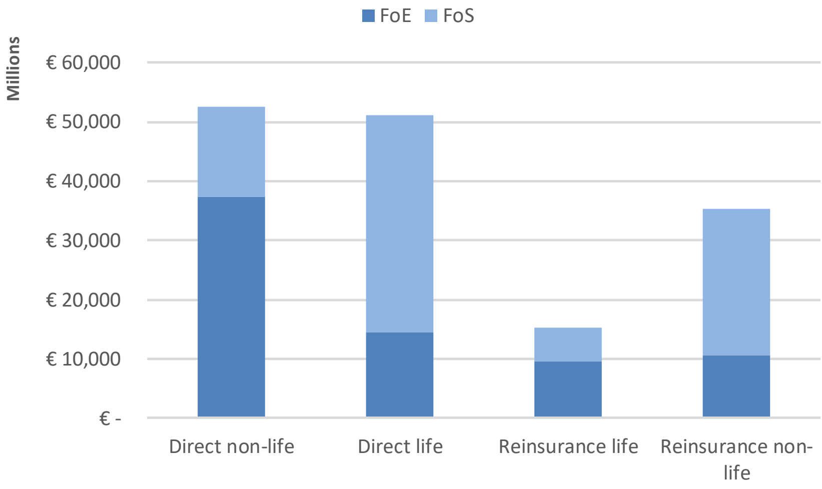
13.43 A minimum degree of harmonisation would also facilitate cooperation and coordination between national IGSs, as well as fostering supervisory convergence. Arrangements for cooperation and coordination between national IGSs is particularly relevant in case of cross-border failures. Cross-border cooperation and coordination contributes to removing obstacles to the effective and efficient process of providing IGS protection to policyholders.

13.44 The continued increase of cross-border activity in insurance emphasises the importance of a harmonised approach to consumer protection. In the EEA, EUR 66.5 billion gross written premiums (GWP) are reported via FoS and EUR 75.5 billion via FoE (see figure 13.1). This accounts for approximately 10% of all GWP in the EEA at the end of 2017, which is an increase of 25% compared to 2016 when the cross-border business accounted for 8% of GWP in the EEA.

13.45 Also in terms of the number of insurers engaging in cross-border business, an increase can be observed. Out of 2686 (re)insurers under Solvency II, 847 reported cross-border business within the EEA in 2017 compared to 750 in 2016.

13.46 The share of the cross-border business to the total EEA insurance market depends on the type of business. The share is 3.85% for direct business life and 3.21% for direct business non-life.

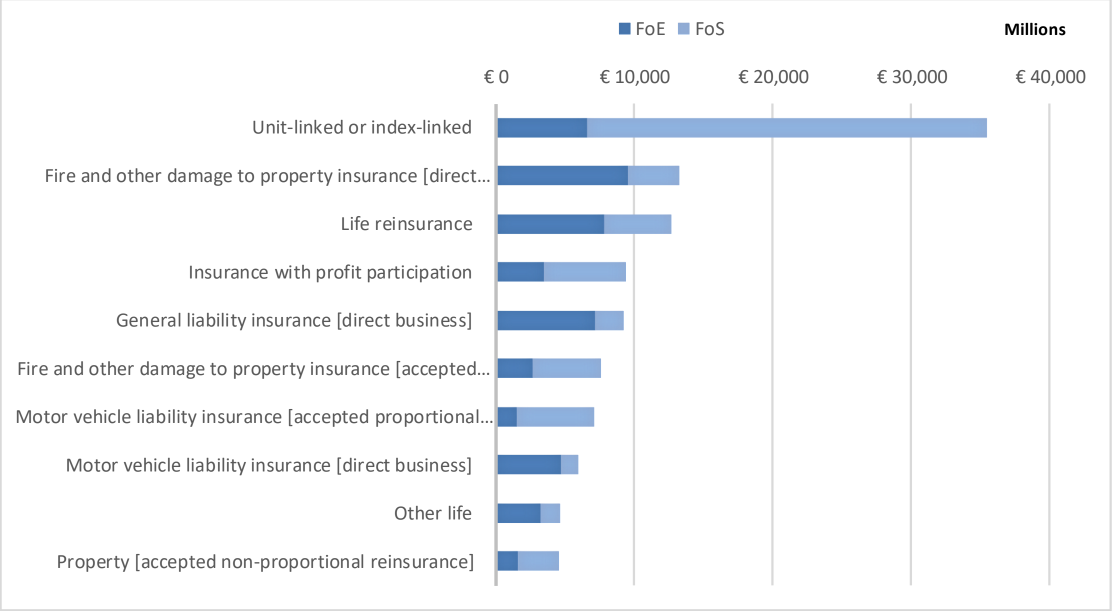
Figure 13.1: Cross-border insurance business (EUR mn) at year-end 2018



Source: EIOPA Annual Solo
Reference Date: 31/12/2018

13.47 Figure 13.2 shows the top 10 lines of business by GWP for cross-border business at year-end 2018.

Figure 13.2: Top 10 lines of business by GWP (EUR mn) for cross-border business at year-end 2018



Source: EIOPA Annual Solo
Reference Date: 31/12/2018

13.48 The case study of Romania (see Box 13.2) highlights some of the issues that domestic IGSs might face in cross-border failures and the underlines the need for cross-border cooperation and coordination.

Box 13.2: Case study – Romania

- In August 2015, the Romanian NCA withdrew the license of a Romanian insurance group and requested the initiation of a winding-up procedure.
- The insurer had cross-border activities via branches in three Member States. In total approximately 1.8 million, mainly Romanian, policyholders were affected.
- In Romania, any person with a right of claim against failed insurers is entitled to request the opening of a loss file against the national IGS between the date of the financial recovery procedure and the termination of their insurance contract.
- In order to deal with the claim files, the Romanian IGS concluded a Memorandum of Understanding (MoU) and agreed upon a common procedure on the operational aspects of the claim files handling with the national IGS in one of the affected Member States. A common procedure was agreed about the legal framework, scope, activity work-flow and payment issues.
- Thanks to this close cooperation, the authorities could avoid dissatisfaction of clients or any scandals, such as the opening of loss files in host country in the local language. Furthermore, another example of close cooperation is the fact that the host-IGS settled the claims and accounted with the home-IGS; the home-IGS refinanced the 50% of the claim (max. until the half of the own limit).
- Similar discussions had started between the Romanian IGS and one of the other IGSs, although these were not concluded before the required intervention of the Romanian IGS. The Romanian IGS faced several challenges hindering the payment of compensations to policyholders in this particular Member State. These include challenges relating to the compensation sharing, language of the documentation and banking transfer costs.
- Nevertheless, the Romanian IGS has been able to meet most of the claim requests of affected policyholders in this Member State.

(C) Minimise reliance on public funds by involving industry

13.49 The past financial crisis has shown that public intervention cannot be ruled out, especially, when governments are expected to intervene in troubled institutions in order to minimise the losses to consumers and/or maintain the financial stability. Over the course of the financial crisis, European insurers received a total of approximately EUR 6.5 billion from public authorities.[344]

13.50 An IGS could help to minimise the reliance on public funds by providing protection to policyholders in the event of an insurer's insolvency. Typically, the costs of an IGS are distributed to the industry and, to the extent these are incorporated into the premiums, the cost of protection is borne by all policyholders. The risk that taxpayers are exposed to cover the losses of insurance failures is therefore reduced, particularly, where there is also a harmonised and effective recovery and resolution framework for insurers.

13.51 The involvement of insurers in the funding of an insurance failure also gives them a direct financial stake in the behaviour of other insurers, the quality of the frameworks governing the supervision and resolution of insurers. This could lead to improvements in industry monitoring as well as in supervision and resolution (OECD, 2013)[345].

(D) Increase in consumer confidence and choice

13.52 A well-functioning IGS limits the losses for policyholders in the event of insolvency by compensating policyholders for their losses and/or ensuring the continuation of insurance policies. This additional layer of protection strengthens the confidence in the insurance sector and further promotes consumer demand for insurance products. However, an important condition is that the IGS is adequately funded to cover the policyholder claims.

13.53 The creation of a European network of harmonised IGSs should help to improve the choice of consumers. Harmonisation would further contribute to the level playing field across the Member States. The potential distortion in competition due to the discrepancies between national approaches to IGSs would be reduced and, hence, the consumers' choice will be improved. Policyholders could rely on a minimum level of IGS coverage no matter where in the internal market they purchase their policies. In addition, by improving the information disclosure would enable consumers to be better informed when taking decisions about purchasing insurance.

[344] EIOPA (2017), "Opinion to institutions of the European Union on the harmonisation of recovery and resolution frameworks for (re)insurers across the Member States" (see link here).

[345] OECD (2013), "Policyholder Protection Schemes: Selected Considerations", *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 31, OECD Publishing, Paris. http://dx.doi.org/10.1787/5k46l8sz94g0-en

Option 3: Single EU-wide IGS

13.54 The creation of a single EU-wide scheme has two main advantages: (i) it eliminates differences between Member States, hence, brings a higher degree of equality in IGS protection provided to policyholders across the Member States; and (ii) it further removes level playing field issues caused by differences in national IGSs.

13.55 Nonetheless, a single EU-wide IGS requires considerable further harmonisation in the field of supervisory practices, recovery and resolution, and – to a certain extent – national insolvency laws. Additionally, this might require the introduction of risk-sharing or compensation-sharing arrangements between Member States.

13.56 On the banking side, the creation of European deposit insurance scheme (EDIS) for bank deposits in the euro area was part of broader package of measures to deepen the economic and monetary union and to complete the banking union. In fact, EDIS is the third pillar of the banking union, which is still to be established.

- *Comparison of options*

13.57 EIOPA's preferred option is to establish a European network of national IGSs which are sufficiently harmonised across the Member States.

13.58 IGSs provide an additional level of protection to policyholders in the event of insurance failures. The current lack of harmonisation has resulted in a dispatch of national approaches across Member States. Due to the fragmented landscape of national IGSs, policyholders in the EU are currently treated differently in the event of failures.

13.59 Policyholders could get a different level of protection on similar insurance policies across or within Member States because of different rules governing national IGSs (if any). It could even be the case that policyholders of the same insurer are treated differently in the event of insolvency due to the location of their residence.

13.60 Although Solvency II has significantly improved the supervision of insurers and, hence, has reduced the likelihood of insurance failures in the future, it has not fully eliminated this risk. In fact, the recent failures of cross-border insurers, such as the failure of Gable Insurance in 2016, Alpha and Qudos Insurance in 2018, have proven that even in a Solvency II-environment, failures of insurers cannot be avoided. Therefore, the risk of policyholders being exposed to potential financial loss and/or social hardship remains real.

13.61 EIOPA is of the view that the creation of a European network of harmonised national IGSs, which are harmonised to a minimum degree would be beneficial for policyholders, industry and the overall financial stability in the EU. A

European network of national IGSs means that every Member State would need to have in place a national IGS or alternative mechanisms that meets the minimum harmonised features agreed at EU level. The harmonisation of national IGSs would result in a more even level of protection to policyholders in the event of failures across the Member States. Additionally, it would facilitate cross-border cooperation and coordination between national IGSs, which is essential for the effective and prompt functioning of IGSs in cross-border failures. This is particularly relevant when considering that the cross-border activities in insurance have been increasing over the years and are relatively high. Harmonisation would also contribute to the proper functioning of IGSs.

13.62 Furthermore, the existence of an effective protection mechanism is likely to enhance the confidence in the industry and, hence, contribute to enhancing the overall financial stability in the EU. Finally, the reliance on taxpayers' money would be further minimised if policyholders – to a certain extent – are protected by an IGS for the consequences of insurance failures.

13.63 The costs associated with a creation and management of an IGS feature among the drawbacks of IGSs. They could become an excessive financial burden for insurers, particularly when there are frequent failures or a failure of a sizeable insurer. However, it is more beneficial that the costs of an insurance failure are born by the insurance sector, rather than by public funds. Overall, the benefits such as greater confidence of policyholders in the insurance market would outweigh the costs.

13.64 Additionally, the existence of IGSs could lead to moral hazard on the side of insurers or policyholders, as they might become less prudent in, respectively, their risk management and insurer's selection process. These potential negative effects should be acknowledged and taken into account in the technical features of IGSs. The method of calculating insurers' contributions into an IGS could further mitigate any such moral hazard, e.g. by reflecting the risk profile of each contributing insurer.

13.65 The comparison of the options against the baseline scenario has been based on their contribution to achieving the following objectives: i) Effective and efficient policyholder protection in resolution and/or liquidation, ii) Ensuring a level playing field through sufficiently harmonised rules and iii) Improving transparency and better comparability. Additionally, the overall contribution to maintaining financial stability in the EU and reducing reliance on public funds has been taken into account.

- *Interlinkages with other areas*

13.66 However, the harmonisation of national IGSs should not be regarded in isolation and be considered in the context of recovery and resolution. Indeed, IGSs are closely linked to the resolution of insurers.

13.67 EIOPA is of the view that an effective and comprehensive recovery and resolution framework is essential to ensure the orderly resolution of failing insurers. An orderly resolution is likely to reduce the potential losses that policyholders would incur in insolvency and, generally, avoid destruction of value, which normally happens in insolvency. Subject to actual losses and in view of the no creditor worse off principle, IGSs could be expected to pay less in resolution than in insolvency.

13.68 In addition, IGSs might be an important tool in the resolution process, as resolution authorities might be less hesitant to use the powers at their disposal to ensure an orderly resolution if they know that policyholders will be able to recover potential losses (in full or in part) from an IGS. Furthermore, depending on their role and functions, the funds of national IGSs could also be used to facilitate a portfolio transfer, which is one of the resolution tools.

13.69 In this context, supervisory convergence is also essential for a harmonised approach towards IGSs. Supervisory convergence ensures a high, effective and consistent level of supervision across Member States, regardless of the location of the insurer's head office. A consistent application of Solvency II across Member States reduces the risk of insurance failures and, hence, the reliance on IGS protection. Any efforts to further strengthen supervisory convergence should therefore be continued. Nonetheless, the harmonisation of IGSs should not be made subject to reaching a certain level of supervisory convergence that is difficult to assess.

- *Proportionality principle*

13.70 In order to avoid excessive burdens on insurers and Member States, it is essential that the proportionality principle is properly taken into account in a harmonised approach.

13.71 The legal structure of policyholder protection mechanisms should for instance be left to the discretion of Member States. This means that Member States are able to decide to establish a separate legal scheme or set up an alternative mechanism that achieves the same objectives and a similar outcome. This is important from the perspective of proportionality as some Member States already have a well-functioning mechanism in place.

13.72 The application of the proportionality principle should also be taken into account when defining the harmonised features for IGSs (see sections below).

13.3.2 Minimum harmonised principles

13.73 The technical features of national IGSs determine their functioning and effectiveness in the event of failures. In a harmonised approach at EU level, it is therefore important to establish a minimum set of common principles and/or a common understanding to ensure that some of the issues caused by the current fragmented landscape could be alleviated.

13.74 In the following sections, EIOPA analyses the need for harmonisation of the following technical elements of an IGS:

- Role and functioning of IGSs;
- Geographical coverage;
- Eligible policies;
- Eligible claimants;
- Funding;
- Cross-border coordination mechanisms;
- Policyholder information.

13.3.2.1 Role and functioning of IGSs

13.75 EIOPA is of the view that an IGS should provide protection to policyholders when an insurer can no longer meet its contractual obligations.

13.76 EIOPA does not believe that the role of IGSs should include the prevention of insurance failures. This is the primary objective of insurance supervisions and widening the role of IGSs would mean an intervention in the supervisory process.

13.77 An IGS should therefore step in when other protection mechanisms have failed in order to prevent or to mitigate the impact of an insurer's failure. This could take several forms.

- *Analysis of options*

Option 1: Full discretion to Member States

13.78 This option means that there would be no harmonised features at the EU level to set the role of national IGSs. Member States would have full discretion to decide on the role and functions of their national IGSs as it is currently the case.

13.79 Figure 13.3 shows that the primary function of a majority of the existing schemes is to compensate policyholders for their losses in the event of liquidation. Only three IGSs have been reported to have other roles than compensating policyholders; these IGSs can ensure the continuation of insurance policies and do not pay compensation to policyholders.

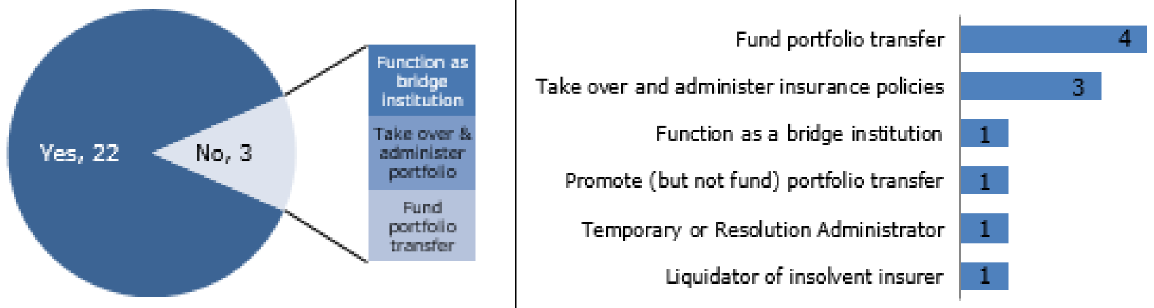
13.80 Additionally, the figure shows that eight IGSs have roles in addition to paying compensation to policyholders. These additional roles include aspects such as the funding or promotion of a portfolio transfer, taking over and administering insurance policies and acting as a temporary or resolution administrator. Nonetheless, the primary role of these eight IGSs is to compensate policyholders for losses when an insurer is insolvent.

13.81 EIOPA is of the view that the role and functioning of IGSs are essential elements which determine how policyholders are being protected in the event of liquidation. Despite the fact that most of the existing schemes have a similar role, the lack of any harmonised features governing the role and functioning could result in a situation of uneven levels of policyholder protection. This could be particularly problematic in the case of FoE or FoS.

Figure 13.3: Role of national IGSs

a) Compensation to policyholders

b) Additional roles of IGSs compensating policyholders (8 out of 22 IGSs)



Source: EIOPA Discussion Paper (2018)

Source: EIOPA Discussion Paper (2018)

Option 2: Compensation of claims

13.82 This option means that the only role of an IGS is to pay compensation to policyholders for their losses when an insurer fails. The benefit of this option is that it would be in line with the role and functioning of a majority of the existing IGSs.

13.83 Additionally, in accordance with the quantitative impact assessment performed by the European Commission for the White Paper on IGSs (2010), it was shown that the funding needs tend to be lower for IGSs that only pay compensation compared to IGSs that facilitate a portfolio transfer. Main reason for this is that compensation is only needed on those policies where policyholders have a claim against the insurer.

13.84 Nevertheless, from the perspective of policyholder protection, the continuation of policies might be more beneficial, especially for life policies.

Option 3: Continuation of policies

13.85 The continuation of insurance cover might be more beneficial for policyholders than the pure compensation of their losses, particularly for life or long-term non-life insurance policies where it might be more difficult to find equivalent cover (on similar terms) with an alternative insurer. This argument would be less relevant for most of the non-life policies with a relative short duration and a higher of substitutability level.

13.86 Nonetheless, the continuation of policies by facilitating a portfolio transfer to another insurer might enhance the confidence in the insurance sector and contribute to the overall financial stability.

13.87 Lastly, the continuation of policies should not be understood as a vehicle for the rescue of the insurer. The main objective of the IGS should be the protection of policyholders, and not to save (or act as a recovery measure of) the insurer.

Option 4: Compensation of claims and/or continuation of policies

13.88 According to this option, IGSs would be able to pay compensation to policyholders for their losses and/or ensure the continuation of policies.

13.89 EIOPA considers both functions as equally valid, given that they both meet the primary objective to protect policyholders. The use of one or other function may depend on the several aspects such as the way in which the IGS is designed or the specific situation.

13.90 In principle, paying compensation to policyholders should be the minimum and apply to all national IGSs unless their funds can be used to ensure the continuation of policies with the aim of policyholder protection.

13.91 In fact, EIOPA is of the view that the continuation of policies might be more beneficial to ensure policyholders protection, for example, when it facilitates a portfolio transfer to another insurer. This requires, however, some Member State flexibility and discretion, as the characteristics of the national market in combination with the particularities of the portfolio of the failed insurer will largely determine the possibility for facilitating the continuation of insurance policies.

Box 13.3: Continuation vs. Compensation

Life and non-life insurance are both forms of risk transfer, defined using the same term, but they are very different in terms of policies and duration. Both types can be linked to the different roles and functions assigned to the IGSs:

- **Continuation** can usually be linked to long-term contracts. It is thus "contract-related" protection and commonly associated to long-term policies.
- **Compensation** tends to be more likely to be linked to short-term contracts. It is thus "claims-related" protection and commonly associated to short-term policies.

All the harmonised features of an IGS proposed by EIOPA in the Opinion should be applied irrespective of the IGS function (i.e. compensation and continuation). However, their operational application could be different depending on the specific features of each of these two functions.

- *Comparison of options*

13.92 EIOPA's preferred option is to harmonise the role and functioning of IGSs to cover the continuation of insurance policies and/or compensation of policyholder claims.

13.93 The primary aim of IGSs should be to protect policyholders in the event of insurance failures. This objective can be achieved in several ways.

13.94 Ideally, the role of national IGSs should therefore not be limited to one role as the optimal IGS intervention depends on the circumstances. For instance, the continuation of policies might be in the best interest of policyholders for life or long-term non-life insurance policies, whereas the swift payment of claims might be the better option in other cases.

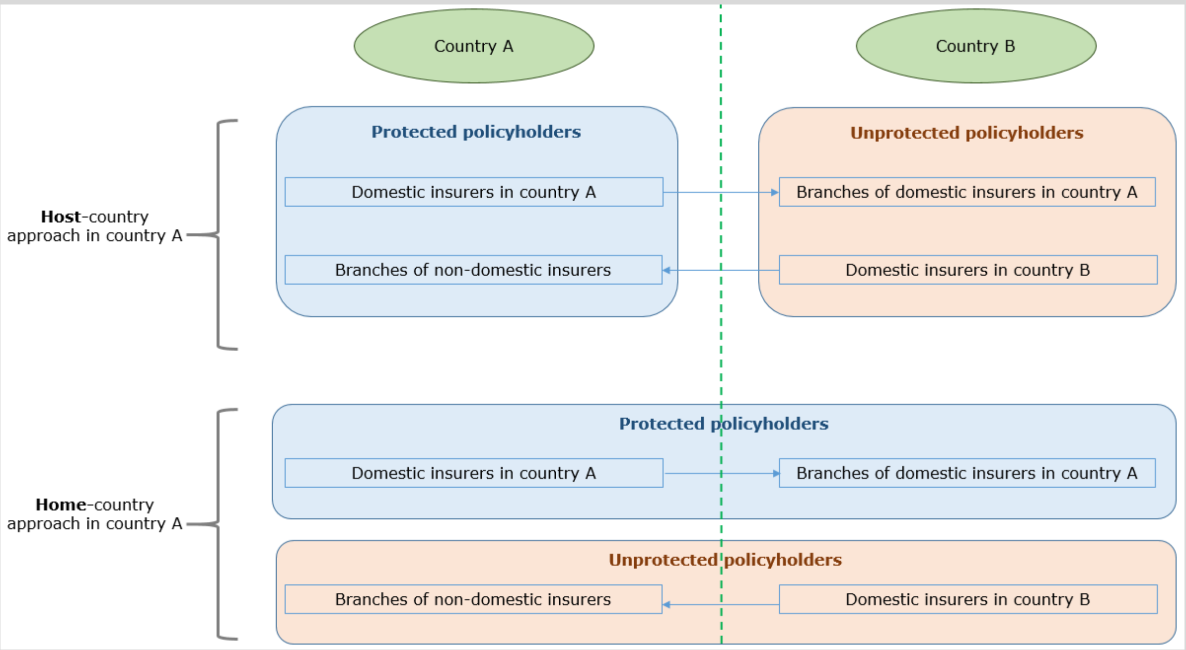
13.3.2.2 Geographical coverage

13.95 The geographical coverage determines whether policies sold via FoE or FoS are covered by the domestic IGS in a particular Member State. In principle, national IGSs could be operated based on the host-country principle and/or the home-country principle (see Box 13.4).

Box 13.4: Home- versus host-country principle

- **Host-country principle** applies when the domestic IGS covers policies issued by domestic insurers at national level and does not cover those sold in a cross-border context via FoS or FoE (outward). It also covers those policies issued via FoS or FoE of incoming insurers from other Member States (inward).
- **Home-country principle** applies when the domestic IGS covers policies issued by domestic insurers both at national level and abroad via FoS or FoE (outward). The home-country principle does not require incoming insurers, which operate via FoS or FoE (inward) to participate in the IGS.

The following illustration provides an overview of both approaches, from the perspective of country A.


Country A
Country B
Host-country approach in country A
Protected policyholders
Domestic insurers in country A
Branches of non-domestic insurers
Unprotected policyholders
Branches of domestic insurers in country A
Domestic insurers in country B
Home-country approach in country A
Protected policyholders
Domestic insurers in country A
Branches of domestic insurers in country A
Unprotected policyholders
Branches of non-domestic insurers
Domestic insurers in country B

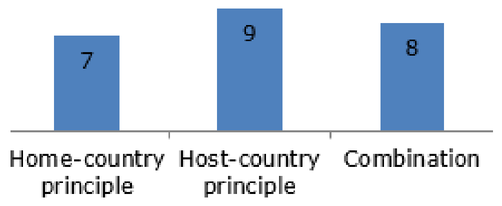
Analysis of options

Option 1: Full discretion to Member States

13.96 Figure 13.4 shows the geographical coverage of the existing national IGSs. Currently, nine IGSs are operated based on the host-country principle, seven on the home-country principle and eight IGSs on a combined approach.

13.97 For IGSs operated on a combined approach, one of the principles (host- or home-country principle) is usually dominant with some specific elements. For instance, three of the eight IGSs require EU branches to participate in the IGS only if the IGS of the insurer's home country does not provide (equivalent) protection as the domestic IGS.

Figure 13.4: Geographical scope of existing IGSs[346]



Source: EIOPA survey

13.98 From a cross-border perspective, setting harmonised features for the geographical coverage of IGSs is essential to ensure that policyholders in the

[346] The figure reflects the change of coverage of the Danish IGS from a home-country approach to a host-country approach as of January 2019.

EU are evenly protected. If there is no harmonisation of the geographical scope at the EU level, policyholder protection issues as described in Section 13.2.2 will remain.

Option 2: Home-country principle

13.99 The main advantage of the home-country principle is that it is aligned with the provisions that the home-country supervisor is responsible for the authorisation, prudential supervision and liquidation of insurers (i.e. the home-country control principle). From that point of view, it could be argued that it is fair that the costs of failure is paid by the industry (or policyholders) in the Member State responsible for the supervision of the insurers.

13.100 Additionally, the home-country principle prevents that policyholders of the same insurers are unevenly protected depending on their residence, as they would all be covered by the insurer's home country IGS.

13.101 A potential drawback of the home-country principle is that national IGSs might face (operational) challenges to locate and identify policyholders of the failed insurer who live abroad. In order to mitigate these challenges, the principles for cross-border cooperation and coordination, including information sharing, should be reinforced. For instance, the Host IGS could operate in cross-border cases as a "front office" to facilitate information transfer (such as consumer identification, or communication in local language). The Home IGS should still have the final responsibility to provide the necessary funding prior to pay out and compensate the Host IGS for the operational costs incurred, consistent with the home country principle.

13.102 In order to be effective, this approach should be associated with effective necessary harmonisation of the level of protection in all Member States.

13.103 Furthermore, an effective implementation of the home-country approach requires that the home-country authorities and/or IGSs are able to access host-country market information and to effectively access and understand risk elements of insurance being offered in the host-countries, both in isolation and in context of overall operations of relevant undertakings.

Option 3: Host-country principle

13.104 The main advantage of the host-country principle is that it ensures that policyholders within a Member States are evenly protected, as they will be covered by the domestic IGS regardless of the location of their insurer. Any potential competitive distortions among insurers operating in the same Member State would therefore be avoided.

13.105 One of the drawbacks of the host-country principle is that it requires insurers with cross-border activities via FoE or FoS to participate in all domestic IGSs of the Member States where they have operations. This could become an excessive administrative and financial burden for insurers. Moreover, the intervention of IGSs in cross-border failures might be difficult in practice as the authorities responsible for the winding-up proceedings are not identical to the authorities that operate the IGSs outside the home Member State of the insurance group.

13.106 When the choice is made not to require inward insurers to contribute, on the same terms than insurers in the host Member State to the host IGS, the host-country principle raises the issue of the need to introduce provisions for a recourse to the IGS of the home Member State of the failed insurance group.

13.107 Hence, the main drawback of the host-country principle may result that it obliges the industry of the host country to fund the failure of an insurer for which the host supervisor has no responsibility. This drawback appears particularly considerable when there is no recourse provision. The potential implications of the adoption of a host-country principle without a recourse to the IGS of the home Member States is illustrated below. The example of France shows that the consequence of having no recourse mechanism could result in a reduction of coverage, hence, a decrease in the protection provided to policyholders.

Box 13.5: Case study – France

Situation

- In year 2000 the coverage of the French non-life IGS (*Fonds de garantie des assurances obligatoires,* FGAO) was extended to all other mandatory non-life insurance provided by insurers headquartered in France. Previously, it was limited to cover motor liability insurance.
- The French IGS did not cover the insolvency of insurers headquartered in other EU countries, which also did not contribute to the IGS's financing.
- In 2015, the European Commission asked France to change the rules of the FGAO, taking the view that the IGS was discriminating against insurers based in other EU countries as it only covered insurers headquartered in France (see link below to the summary of the case).

Responses and actions

- In response to the Commission's 'reasoned opinion', the French authorities amended their legislation by extending the coverage of the French IGS to incoming EU providers (i.e. to the host-country principle).
- Simultaneously, they restricted the scope of the IGS to the following lines of business (LoBs): third party motor liability, dommage ouvrage (a LoB within construction insurance) and mandatory medical liability insurance.

- This restriction was necessary, as there was a concern that the French industry, and in the end the French policyholders, might have to pay for the failure of foreign insurers which are not supervised by the French NCA (ACPR), unless inward EU providers had been required to contribute to the IGS. A former bill even limited the scope to the French IGS to third party motor liability.
- In fact, the ACPR reported that in the past two years, the following EU insurers active in France through FoS in the LoBs covered by FGAO ceased writing business: Gable Insurance AG, Elite Insurance Company, CBL Insurance Europe DAC and Alpha Insurance. Four of these insurers were active in dommage-ouvrage.* During the same period, only one French insurer supervised by the ACPR failed.
- As a result of this amendment, French policyholders are no longer covered for all mandatory policies as of July 2018. The protection offered by the IGS has been reduced to three mandatory LoBs.

Conclusions

- This case study illustrates that a host-country principle without a right of claim against the IGS of the home Member State of the defaulting insurer may lead to a situation where the country's regulator takes measures to avoid paying the costs of foreign insurers failing. In the French case, the regulators decided to reduce the coverage of the IGS.
- This highlights the importance of the funding feature of IGSs and raises the question of the necessity to introduce rules around reimbursement where IGSs are operated based on a host-country principle.
- Furthermore, the case study demonstrates that policyholders within one Member State may not be protected equally, depending on whether the insolvency incurs with a domestic or a foreign insurer. Differences stemming from IGS coverage may here add to differences in insolvency laws.

In a dedicated study published on the ACPR's website, the market ratio for the LoB dommage ouvrage is about 78% on a 10-year period.

Source: Summary of the infringement case: http://europa.eu/rapid/press-release_MEMO-15-5162_EN.htm and information provided by the ACPR. The case 20144028 was closed.

Option 4: Host-country principle plus cooperation (incl. recourse) arrangements

13.108 This option introduces the possibility to have a recourse to the IGS of the home Member State of the failed cross-border insurer in order to protect the policy in the other Member States where the insurer is operating. This way the costs of failing are borne by the Member State where the insurer is domiciled.

13.109 One of the benefits of this option is that policyholders in the same Member State are protected by the domestic IGS. This also makes it more convenient for affected policyholders and beneficiaries, as they can present their claims in their country of residence.

13.110 For this option to be effective, it requires a certain degree of harmonisation of the financing of national IGSs in order to guarantee that the IGS of the host-country is paid within a reasonable period by the IGS of the insurer's home country.

13.111 Nonetheless, the setting up as well as the implementation of these recourse arrangements between Member States might be difficult and challenging in practice. This approach would require a close cooperation and coordination between Member States, and could be difficult, although not impossible, to implement for types of insurance that only exist in the host and not in the home country.

Option 5: Home- plus host-country principle (combined approach)

13.112 In a combined approach, one of the principles (host- or home-country principle) is usually dominant with some specific elements of the other principle, which need to be carefully designed. The existing national IGSs showed that the elements of the combined approach differs across the Member States.

13.113 The combined approach could be beneficial for Member States to adopt their approach to fit to their national needs. The combined principle however adds significant complexity to the functionality of IGSs without clear benefits when the national IGSs are harmonised across Member States.

- *Comparison of options*

13.114 EIOPA's preferred option is the home-country principle. The main advantage of this approach is consistency with the *home-country control principle* applied in insurance supervision. It is also the more relevant option considering the importance of the harmonisation of the geographical scope to ensure that issues of unequal policyholder treatment are limited. Moreover, it is also the principle used for the DGS and ICS contributing to the cross-sectoral consistency.[347]

13.115 EIOPA identified and assessed several ways for operationalising the home-country approach and come up with different options, as well as their related pros and cons:

- Option 1: The home country pays the policyholders of the host country following the rules of the host country.
- Option 2: The home country pays the policyholders of the host country following the rules of the home country.
- Option 3: The home country pays the policyholders the minimum EU harmonised coverage level for all business lines agreed at EU level. Host IGS to top-up if needed.
- Option 4: The home country pays the policyholders the minimum EU harmonised coverage level for all business lines decided by the host country. Host IGS to top-up if needed.[348]
- Option 5: The home country pays the policyholders the minimum EU harmonised coverage level for the business lines agreed at EU level, including the compulsory insurances of the host country paid at the coverage level of the host. Host IGS to top-up the non-compulsory business lines agreed at EU level if needed.

13.116 For further information on the different home country operationalisation options identified, and in particular the assessment of their pros and cons, please refer to annex 13.2: Options for operationalisation of the home-country principle.

13.117 Even if all the five options presented could be considered feasible for operationalising the home-approach principle, EIOPA considers Option 5 as a

[347] The Treaty on the Functioning of the European Union (TFEU), allocates the primary responsibility for social security and health care to Member States (Art. 168). The so-called Coordination Regulation (Regulation 883/2004 on the coordination of social security systems) determines which Member State is responsible for social security and health care.

If a Member State has insurance policies that fully or partially replace coverage provided by a statutory social security system, the proposal with regard to the Member State, responsible for settlement (including IGS), should be in line with this regulation. Otherwise, overlap or gaps arise as regards coverage and funding of social security and IGS systems.

Article 180 of the Solvency II Directive, acknowledges the protection of the general good in Member States, and ensures alignment between the Coordination Regulation and the Solvency II directive. In case the home principle is added as default option for IGS, the conflict with the Coordination Regulation, if applicable, should be solved by giving the Coordination Regulation priority.

[348] Please refer also to coverage level in section 13.3.2.5.

possible compromise, given that it allows to reach a balanced consistency with the *home-country control principle* applied in insurance supervision. This option, in particular:

i. Could allow to have a EU minimum harmonised coverage level ensured by all the Home IGSs for selected business lines agreed at EU level that meet the criteria identified in the section 13.3.2.3 and

ii. Could address negative implications for the policyholders due to the several cross-border failure cases which had already occurred in the EU, correcting the pass-porting issue because the Home IGS has to intervene for all the compulsory insurances sold in the host countries.

13.3.2.3 Eligible policies

- *Analysis of options*

Option 1: Full discretion to Member States

13.118 Figure 13.5 shows a categorisation of the existing IGSs split into general and special schemes based on the type of insurance policies covered. Most of the existing IGSs are special schemes covering typically one or two types of policies. Seven national IGSs cover a broad range of both life and non-life insurance policies, whereas the other seven schemes cover only life or non-life policies.

13.119 In order to ensure a minimum level of equal protection of policyholders it is essential to establish harmonised features for insurance policies eligible for IGS protection.

Option 2: Life policies only

13.120 Life insurance is characterised by long-term duration contracts with usually a savings or retirement objective. The financial consequences for policyholders could be significant if insurers cannot meet their contractual commitments on life policies, especially when they rely on the pay-outs of their policies, for instance, for their retirement. In addition, the typical long-term nature of life products in combination with the likely difficulties for policyholders to find replacement (against similar conditions) makes IGS protection on these policies essential. In this context, the eligibility of policies providing protection against biometric risks, such as term and whole life assurance, should be carefully considered.

13.121 Additionally, Figure 13.2 showed that the degree of cross-border insurance business is relatively high for life insurance business. It is therefore advisable to make life policies eligible for IGS protection.

Option 3: Non-life policies only

13.122 This option would only provide protection to eligible policyholders of non-life policies. Most non-life insurance is characterised by short duration contracts, which could be easily substituted in the event of liquidation of the insurer. Policyholders and/or third party claimants could however still suffer significant losses from the failure of a non-life insurer.

13.123 Although the losses on some contracts could be rather severe for policyholders and/or third party claimants, it is not advisable to restrict the coverage of IGSs to non-life policies only. The severe financial and/or social consequences that policyholders might face following the failure of life insurers should not be disregarded.

Option 4: Both life and non-life policies

13.124 This option extends the coverage of IGSs to both life and non-life policies and, hence, presents a more complete protection of policyholders. It can however be questioned whether IGS coverage would be necessary for all types of non-life insurance, particularly in case of commercial policies and/or where the financial hardship of losses from a failure can be expected to be manageable (e.g. in case of travel insurance).

Option 5: Specific life and specific non-life policies

13.125 This option mitigates some of the drawbacks of the other options by covering a specific range of life policies and non-life policies, based on the nature of the protection (be it contract-related or claims-related). This can also be linked to the concept of social hardship for policyholders and beneficiaries.

13.126 At a minimum, the following lines of business related to the abovementioned nature of the protection should be captured:

i. claims-related protection where the failure of an insurer could lead to considerable financial or social hardship for policyholders and beneficiaries (such as fire, accident, liability, suretyship if the beneficiary is a natural person);

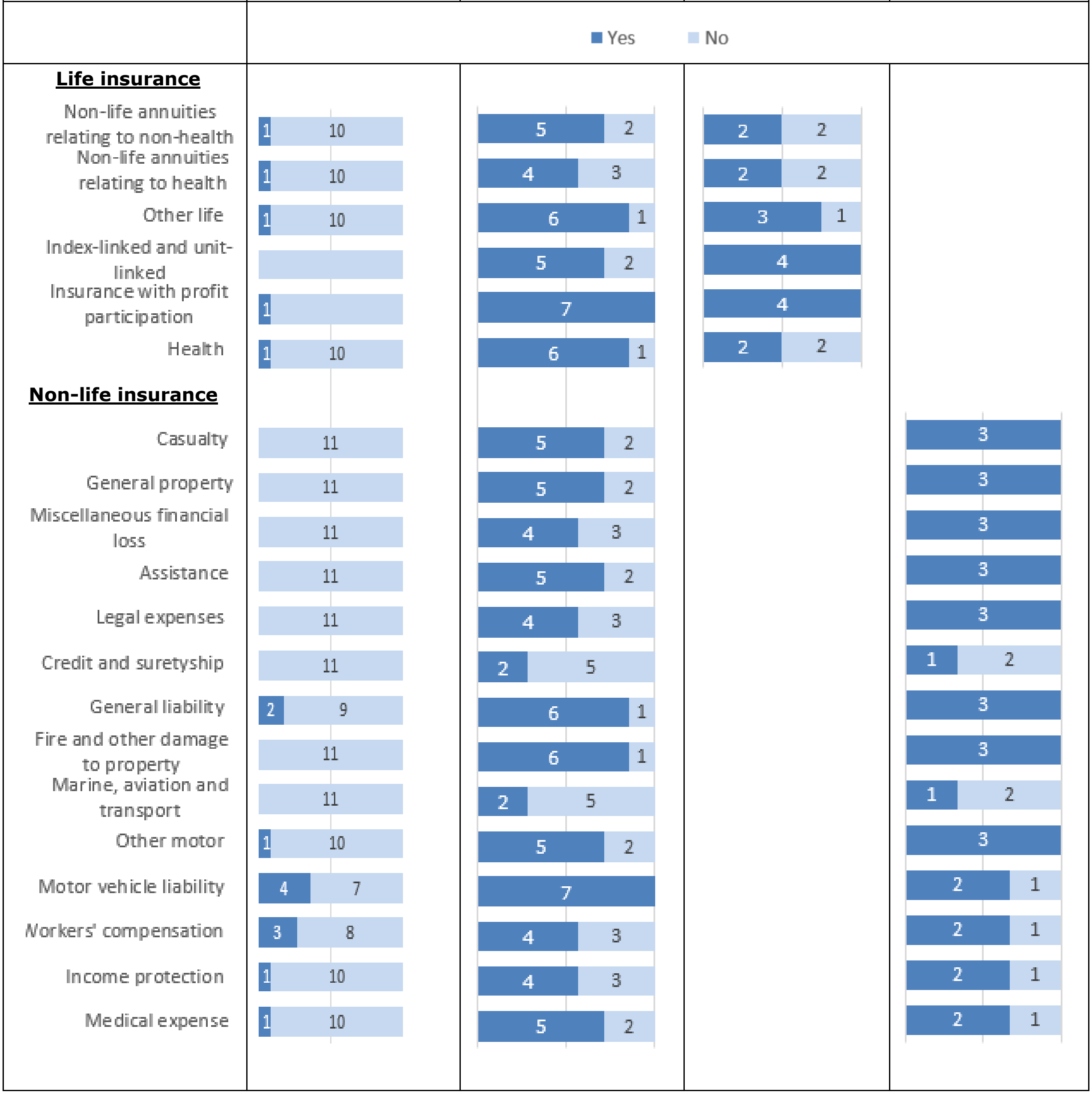
ii. contract-related protection (such as health and life, including occupational pensions by life insurers falling under Solvency II);

13.127 Member States should have the flexibility to go beyond the specific range of policies set at the EU level and extend the coverage to a broader range of policies.

13.128 Furthermore, it should be noted that the definition of eligible policies has a significant impact on the costs for IGSs (i.e. the wider the scope, the higher the costs). This should therefore be explicitly taken into account.

Figure 13.5: Eligible policies

Type of insurance contracts	Special scheme covering only specific insurance (11 IGSs)	General schemes covering life and non-life insurance (7 IGSs)	General scheme covering life insurance (4 IGSs)	General scheme covering non-life insurance (3 IGSs)



- *Comparison of options*

13.129 In order to have a more even level of policyholder protection across and within Member States, it is essential to set minimum harmonised rules for the policies eligible for IGS protection at the EU level.

13.130 EIOPA's preferred option is to extend IGS coverage to specific life and specific non-life policies, based on the nature of the protection (be it contract-related or claims-related). IGS protection for life policies is essential to alleviate the potential severe financial and social hardship for policyholders and beneficiaries, as detailed below. Although non-life policies are often short term in nature and more easily substitutable (against similar conditions), the failure of an insurer could cause significant damage to policyholders if they have an outstanding claim at the moment of failure. It is therefore advisable to include also particular type of non-life policies involving retail consumers.

13.131 More in particular, in the case of contract-related protection, the following eligible policies are examples of policies that should be covered:

(i) Health;

(ii) Savings and life, including occupational pensions by life insurers falling under Solvency II.

13.132 In the case of claims-related protection, the following business lines provided by the Solvency II Directive are examples of eligible policies that should be covered because of the social hardship criteria:

(i) Fire insurance (Class 8 - Annex 1 of Solvency II);

(ii) Liability insurance (Class 13 - Annex 1 of Solvency II);

(iii) Accident (e.g. damage to the driver) (Class 1 - Annex 1 of Solvency II);

(iv) Suretyship products (e.g. housing, construction business), where the beneficiary is a natural person;

(v) Sickness (Class 2 – Annex 1 of Solvency II);

(vi) Other damage to property (Class 9 – Annex 1 of Solvency II).

13.133 Unearned premiums should not be covered.

13.134 In addition, consistent with what was previously mentioned, the exact legal structure of the schemes should be left to the discretion of Member States, provided that the business lines that meet the social hardship criteria are covered by the home country. Member States should have the flexibility to identify the policies commercialized at national level, which correspond to the business lines provided by Solvency II Directive that should be covered at EU level because of the social hardship.

13.3.2.4 Eligible claimants

- *Analysis of options*

Option 1: Full discretion to Member States

13.135 Figure 13.6 shows that 13 of the existing national IGSs provide protection to natural persons solely, 11 schemes extend coverage to natural and micro- and small-sized entities and 2 IGSs cover all natural and legal persons.

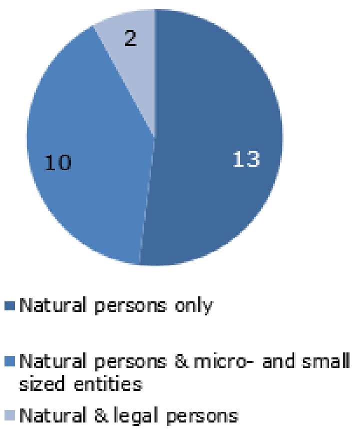
13.136 For a number of IGSs, the respective NCAs reported that there are some restrictions on claimants' eligibility.

13.137 Individuals or entities connected to the insurer, such as board members, directors, managers, including their spouses and relatives up to second grade, are for instance excluded from the scope.

13.138 In some cases, also shareholders holding more than 5% of the capital of the insurer and those responsible for auditing the financial statements of the insurer are excluded from IGS protection.

13.139 The lack of harmonisation in eligibility criteria creates an additional layer of complexity in the operation of IGSs, particularly in cross-border failures. For an even level of policyholder protection and the proper functioning of the internal market, the development of harmonised features for claimants eligible for IGS protection is necessary.

Figure 13.6: Eligible claimants



Source: EIOPA survey

Option 2: Natural persons only

13.140 This option restricts IGS protection to natural persons only. This covers policyholders but also beneficiaries and third parties (e.g. for non-life, the liability insurance focus should be on the "injured party").

13.141 This option would be in line with slightly more than half of the existing IGSs. Restricting the coverage to natural persons only limits the coverage and hence the potential costs of IGSs.

13.142 However, this option might raise concerns about the (uneven) protection for legal persons that resemble retail consumers.

Option 3: Natural persons and selected legal persons

13.143 This option extends IGS protection to include also selected legal persons that resemble retail consumers, such as micro-sized entities. It can be argued that IGS protection should capture retail and retail-type consumers who do not have the capacity nor resources to assess the financial soundness of insurers based on the information available.

13.144 Moreover, retail consumers and micro--sized entities are financially more vulnerable than corporate policyholders are. This option would also be in line with the coverage of roughly half of the existing IGSs.

13.145 The meaning of micro-sized entities is the one as defined by the European Commission.

13.146 Furthermore, in accordance with the policy of some national IGSs, it could be considered to exclude persons closely connected to the failed insurer from IGS protection. These include board members, directors and managers of the failed insurer who are responsible for the operations of the insurer, hence, could to some extent be held responsible for the failure of the insurer.

Option 4: Natural and legal persons

13.147 Extending IGS protection to cover all natural and legal persons could be an excessively expensive option. It may also not be fully justified in all cases to include corporate policyholders, as they are better equipped to make an informed judgement based on the information available, assess the financial soundness of insurers and have a greater capacity to manage their risks.

13.148 Furthermore, the extension to cover all legal persons would require a significant change in the coverage for many existing IGSs; as a far majority of the existing IGSs do not cover corporate legal persons except for micro- and small-sized entities.

- *Comparison of options*

13.149 The lack of harmonisation in eligibility criteria creates an additional layer of complexity in the operation of IGSs, particularly in cross-border failures. For an even level of policyholder protection and the proper functioning of the internal market, the development of harmonised features for claimants eligible for IGS protection is necessary.

13.150 EIOPA's preferred option is to make natural persons and selected legal persons (at least micro-sized entities) eligible for IGS protection.

13.151 This is considered to be the preferred option from the perspective of consumer protection as well as cost efficiency. The primary objective of IGS should be to protect retail (or retail-like) consumers, i.e., policyholders, including the beneficiaries and third-parties of the policies, provided that they are natural persons.

13.152 SMEs and large corporate policyholders are better equipped to assess the financial soundness of insurers and/or have access to a network of insurance brokers who can do the assessment on their behalf. This implies that, where the policyholder is a company not covered by the schemes (i.e. SME and large-size), its related beneficiaries or third parties should have the right to claim for compensation to the IGS (e.g. victims of an accident at work, airplane crash, etc.).

- *Proportionality principle*

13.153 The proportionality principle is taken into account by excluding large corporate policyholders from the scope of IGS protection.

13.3.2.5 Coverage level

13.154 It is essential to set a harmonised coverage level for claimants at the EU level. The coverage level determines the protection provided to policyholders and beneficiaries.

13.155 Currently, national IGSs have varying coverage levels. Table 13.3 shows examples of the (maximum) coverage levels in place for some of the existing IGSs.

Table 13.3: Examples of coverage levels of existing national IGSs or other mechanisms

Country	Coverage level	Policies covered[349]
Belgium	EUR 100,000 per claimant	Insurance with profit participation (Coverage levels for Fonds de garantie pour les services financiers / Garantiefonds voor financiële producten)
Romania	Approx. EUR 100,000 per claimant	All types of (re)insurance policies
Bulgaria	• Approx. EUR 5 million per event for non-pecuniary and pecuniary damages resulting from bodily injury or death; EUR 1 million for damage to property; • Approx. EUR 25 000 per injured person;	• Motor vehicle liability insurance, • Compulsory accident insurance for passengers in public transport vehicles • Insurance with profit participation, index-linked and unit-linked insurance and other life insurance

[349] See also annex 13.1 for a more detailed overview of the lines of business covered.

	- Approx. EUR 100 000 per insured person or beneficiary.	
France	- EUR 90.000 per claimant (health) - EUR 70.000 per claimant (life) - 100% for third party motor liability - 90% for third party medical malpractice - 90% for *assurance dommages-ouvrage*	- Health insurance policies - Life insurance policies - Third party motor liability: unlimited - Third party medical malpractice liability: 90% of the compensation that would have been awarded to the policyholder by failing insurer - *Assurance dommages-ouvrage* (covers the construction of a new building): 90% of the compensation that would have been awarded to the policyholder by failing insurer
Italy	Minimum amount of cover of the compulsory insurances	Motor vehicle and craft liabilities, General liability insurance for hunting victims
Germany	Policies are continued, and there is no limit included in the coverage level.	Life insurance and health insurance are compensated to 100%; all non-life policies are compensated on average between 98%-100%
Greece	100% or maximum of EUR 30,000 per claimant for life, 100% or maximum of EUR 60,000 for death and permanent total disability	Broad range of life policies (coverage levels for Private Life Insurance Guarantee Fund)
Latvia	100% or maximum of EUR 15,000 per claimant for life, 50% or maximum of EUR 3,000 for non-life	Broad range of life and non-life policies
Norway	90% or maximum EUR 2.1 million per claimant	Broad range of life and non-life policies
Malta	75% or maximum of approx. EUR 24,000 per claimant	Broad range of life and non-life policies
Ireland	65% or a maximum of EUR 825,000 per claimant	Broad range of non-life policies

13.156 The harmonised coverage level should be set at such a level that: (i) on the one hand, it does not leave policyholders and beneficiaries exposed to considerable financial or social hardship and (ii) on the other hand, the cost of funding of IGSs remains manageable.

13.157 In order to achieve this, EIOPA provides the main elements on how the coverage system should work, whilst taking into account the previously stated considerations for the eligible policies:

- Member States should guarantee up to 100% of a certain amount (e.g. EUR 100.000) for selected eligible policies associated to social hardship (e.g. health, savings). Beyond this EUR amount, a percentage cap of coverage level should be considered. No quantitative analysis has been carried out to determine the amount. An impact assessment would be required to determine the sustainability of the coverage level.
- For other policies, the maximum coverage in terms of a percentage cap could apply.
- In case of a continuation model, it may be that the above caps are not needed if no costs are involved. However, it is expected that some costs associated with the continuation of the policies can arise (e.g. administrative costs or potential haircuts).
- A deductible amount should also be defined for the eligible policies (e.g. EUR 100), which should act as a minimum threshold, below which no eligible policy would be covered by the IGS.

13.158 Furthermore, in line with the compromise proposed with the option 5 related to the operationalisation of the home country principle[350], also the compulsory insurance policies could be considered, given that in line with this option any compulsory insurance of the host country would be paid by the home IGS at the coverage level applicable in the host country. A mapping of the existing compulsory insurances across the Member States would be needed.

13.159 Member States should, however, remain to have the flexibility to increase the coverage in their jurisdictions and offer policyholders a higher level of protection, as part of the possibility to top up[351] the coverage at national level.

[350] Please refer to 13.3.2.2 Geographical coverage.

[351] In general, top-up should be understood as going beyond the minimum harmonised approach at the European level. Two approaches could be considered as "top-up":

- An increase of the coverage level by a home IGS for domestic and outbound underwriting above the EU minimum, and
- The local host IGS provides additional coverage to residents in the host Member State when the home Member State provides only the EU minimum level and this is not considered sufficient by the host Member State.

13.3.2.6 Funding

13.160 The financing of IGSs should be based on robust funding requirements. EIOPA is of the view that the funds need to be raised from the industry. Under exceptional circumstances, Member States could decide to raise the funds directly from policyholders, if such a fund raising mechanism is already in place and works efficiently (as currently the case in Spain).

13.161 This would be in line with the practice of most of the existing IGSs. Most of the existing schemes are currently funded by contributions from insurers. In a few cases, these contributions are supplemented by funds from policyholders and/or the government. Government funding is used to allow timely payments to policyholders and is paid back over time.

13.162 It is essential that the funding mechanisms are carefully designed. Ultimately, the level of protection that can be offered to policyholders is largely dependent on the amount of funding in the IGS, which also determines the cost to the industry.

13.163 The following aspects of the funding need to be considered in a harmonised approach: target level, timing of funding and contributions to IGSs.

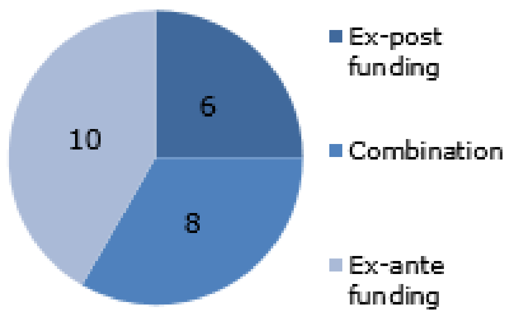
13.3.2.6.1 Timing of funding

Option 1: Full discretion to Member States

13.164 Figure 13.7 shows the timing of the funding of the existing IGSs. A small majority of the schemes are funded an ex-ante basis, six schemes are funded ex-post and eight schemes have both elements.

13.165 The absence of harmonisation at EU level means preserving the differences in the timing of the funding. These differences might have an impact on the protection of policyholders in Member States and do not contribute to enhancing the level playing field in the EU.

Figure 13.7: Timing of funding of existing national IGSs



Source: EIOPA Discussion Paper (2018)

Option 2: Ex-ante funding

13.166 In an ex-ante funded IGS, the funds are raised in anticipation of potential future insurance failures. The main advantage of this option is that it enables the IGS to intervene rapidly and is less subject to moral hazard risk as all insurers – including the failed insurer – would have contributed to the IGS. This approach also reduces the risk of pro-cyclicality at the time of an insurance failure.

13.167 Nevertheless, the industry could be faced with excessive costs, especially, in the start-up phase if the funding arrangements are not properly designed and managed. The introduction of a transitional period could for instance help to avoid overburdening the industry.

13.168 Additionally, the set-up and operational/management costs are likely to be higher for an ex-ante funded scheme compared to an ex-post funded scheme. Additionally, ex-ante raised contributions need to be properly managed and invested which requires suitable personnel.

Option 3: Ex-post funding

13.169 In an ex-post funded IGS, the funds are raised once a failure occurs and losses arise. The main advantage of ex-post funding are that the operational/management costs are limited and that the funds are collected based on actual need (outstanding claims).

13.170 Nevertheless, ex-post funding is more subject to moral hazard as failed insurers do not contribute to the IGS. This could be partially solved if adequate safeguards have been implemented beforehand (e.g. in the form of an agreement signed by insurers committing to mutualise losses in case of need). Furthermore, raising contributions following the failure of an insurer could potentially have a pro-cyclical effect on the industry.

Option 4: Ex-ante funding complemented with ex-post funding

13.171 EIOPA is of the view that an appropriate level of ex-ante funding, possibly complemented by ex-post funding arrangements in case of lack of funds should be preferred. This section will assume that this mixed approach is followed. Further work is needed in relation to specific situations where a pure ex-post funding model could potentially work, subject to adequate safeguards.

13.172 A mixed approach ensures that upon failure funds are immediately available allowing the IGS to intervene swiftly, while the complementary ex-post funding arrangements alleviate some of the concerns with ex-ante funding. The determination of the appropriate level of ex-ante funding needs further work and careful analysis.

13.173 In the context of ex-ante funding, the introduction of potential harmonised features on the governance, supervision, investment/risk management of IGSs should also be considered.

13.3.2.6.2 Financing of IGSs

13.174 Member States should ensure that IGSs have in place adequate systems to determine their potential liabilities. The available funding of IGSs should be proportionate to those liabilities. IGSs should be funded by contributions to be made by their members at least annually.

13.175 Furthermore, a harmonised target level for IGSs (minimum level of capital to be maintained in the scheme) should be determined in order to ensure that IGSs have sufficient capacity to absorb losses. Introducing a target level also has the advantage of avoiding that IGSs become a financial strain for the industry.

13.176 Currently, four national IGSs have been reported to have a target level. In one case it was specified that the capital of the scheme could not fall below one thousandths of the total net technical provisions all the insurers belonging to scheme.

13.177 In the White Paper on insurance guarantee schemes (2010), the European Commission advocated to introduce an initial target level of 1.2% of the gross written premiums. Over a transitional period a 10 years, this means an annual contribution of 0.12% of gross written premiums from each contributing member of the IGS.

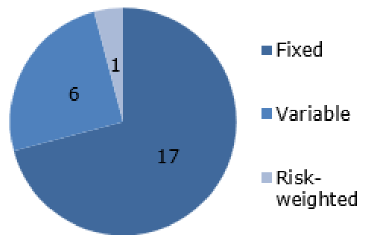
13.178 The determination of the target level requires further work whereby the characteristics of the national markets need to be taken into consideration.

13.3.2.6.3 Calculation of contributions to IGSs

13.179 The existing national IGSs raise their contributions often based on a fixed rate in proportion to the size of the insurers' business (see figure 13.8). Only in one case, the contributions are determined according to the risks of the insurers.

13.180 The contributions raised by some of the existing national IGSs are shown in table 13.4.

Figure 13.8: Contributions base of existing national IGSs



Source: EIOPA Discussion Paper (2018)

Table 13.4: Examples of contributions into existing national IGSs

Country	Contributions from industry
Belgium	0,15% of the inventory reserves

Germany	At most, 0.2‰ of net technical provisions (until a sum of 1‰ of the net technical provisions has been reached)
Greece	Up to 1,5% of GWP per class of life insurance
Latvia	0.1% of GWP
Malta	0.125% of GWP
Norway	1,5 % of GWP based on the three latest annual accounts
Romania	1% of gross earned premiums for non-life insurance, 0.4% of gross earned premiums for life insurance

13.181 In order to ensure a level playing field, it is essential to introduce some harmonised features at EU level with respect to the contributions into an IGS.

13.182 The calculation method of the contributions, including the contribution base, needs to be carefully designed and requires further work. The potential benefits and drawbacks of the different options should be duly considered.

13.183 For instance, contributions based on a fixed rate in proportion to the size of insurers’ business (measured in terms of gross written premiums or gross received premiums or technical or mathematical provisions) are simple and consistent with the way most IGSs are currently funded.

13.184 Additionally, this would prevent potential competitive distortions between small and large insurers and new entrants. Risk weighted contributions, however, lead to a fairer allocation of costs, as insurers with a higher risk profile, hence, a higher expected probability of default, would contribute more to the funding of IGSs.

13.185 Concerns about excessive contributions into an IGS could be further mitigated by introducing caps on the annual contributions by insurers.

13.186 Half of the existing IGSs have been reported to have some type of upper limit on the annual level of contributions that can be raised from an individual insurer or from the industry as a whole.

- *Proportionality principle*

13.187 The proportionality principle is essential when determining the funding aspects of IGSs. In order to not overburden the industry (in case of ex-ante and ex-post funding) and to avoid creating a system prone to contagion (in case of ex-post funding), a transitional period should be introduced. An appropriate transition period to achieve the target level would help to alleviate the burden on the industry.

13.188 Additionally, the amount of contributions raised from the industry should be proportional to their size and/or risks.

13.3.2.7 Disclosure

13.189 Disclosure and transparency promote policyholders' financial knowledge and contribute to better policyholder protection and strengthening the financial stability. Insurers and IGSs should contribute to achieving a higher degree of disclosure and transparency.

13.190 The introduction of Regulation (EU) No 1286/2014 (the PRIIPs Regulation)[352] has established uniform rules on transparency at EU level and ensures that a common standard for key information documents is established in a uniform fashion.

13.191 Article 8(3)(e) of the PRIIPs Regulation requires that the product information to retail investors should include (:*"under a section titled 'What happens if [the name of the PRIIP manufacturer] is unable to pay out?', a brief description of whether the related loss is covered by an investor compensation or guarantee scheme and if so, which scheme it is, the name of the guarantor and which risks are covered by the scheme and which are not;".*

13.192 In accordance with the PRIIPs Regulation, insurers should disclose to policyholders whether their insurance policy is covered by and IGS, and if so, specify which one. Additionally, they should provide basic information about the conditions and potential limitations to the coverage.

13.193 However, the disclosure requirements should not be used for marketing purposes and be proportionate. The aim of the requirements should be to inform consumers about the coverage of their policies by an IGS.
Additionally, the website of the IGSs should contain the necessary information for policyholders, in particular the information concerning the provisions regarding the process for and conditions of IGS protection.

13.3.2.8 Cross-border cooperation and coordination

13.194 Cross-border cooperation and coordination arrangements, including arrangements for the exchange of information, between national IGSs are essential to ensure the swift pay out to policyholders. These arrangements contribute to achieving greater policyholder protection.

13.195 Cross-border arrangements should also incorporate measures for cooperation in dealing with compensation claims at national level on behalf of other IGSs.

[352] Regulation (EU) No 1286/2014 of the European Parliament and of the Council of 26 November 2014 on key information documents for packaged retail and insurance-based investment products (PRIIPs), OJ L 352, 9.12.2014, p. 1.

13.196 Cross-border cooperation and coordination could also help to overcome potential legal and linguistic barriers in cross-border failures and, hence, mitigate some of the drawbacks of the home-country principle.

13.3.2.9 Core principles and transitional phase

13.197 The table below summarises the "core principles" that define an IGS or an alternative mechanism in terms of protecting policyholders, taking into account the key features of the existing IGSs and the list of common features developed in this Opinion that these IGSs and alternative mechanisms are expected to comply with.

Table 13.5: The core principles that define an IGS or an alternative mechanism

Elements of an IGS or similar mechanisms	EIOPA's minimum harmonised features required for the IGS or similar mechanisms
1) Protection of policyholders	
➢ The scheme should be designed to guarantee the payment of insurance claims to insured persons and injured third parties[353]	➢ The primary aim to protect policyholders, which can be achieved by: (i) paying compensation swiftly to policyholders and beneficiaries for their losses when an insurer becomes insolvent, and/or (ii) ensuring the continuation of insurance policies.
2) Geographical coverage	
➢ The mechanism should either work on a home or a host basis	➢ The geographical coverage of national IGSs or alternative mechanisms should be harmonised based on the home-country principle.
3) Business lines covered	
➢ No specific requirement in terms of life and/or non-life policies	➢ Specific life and non-life policies agreed at EU level. ➢ The protection should be claims-related and contract-related. ➢ In addition, an IGS or alternative mechanism might have a broader scope than just satisfying insurance claims in case of insolvency.
4) Eligible claimants	
➢ No specific requirement	➢ Agreed eligible claimants at EU level (i.e. policyholders and beneficiaries).
5) Coverage level	
➢ No specific requirement	➢ There should be a minimum harmonised coverage level for claimants as agreed at EU level.

[353] According to the Article 189 of Solvency II Directive, the IGS shall be "any scheme designed to guarantee the payment of insurance claims to insured persons and injured third parties".

	➢ The coverage level should be set so that it does not leave policyholders and beneficiaries exposed to considerable financial or social hardship, while bearing in mind the cost of funding of IGSs or alternative mechanisms.
6) Funding and mutualisation of losses	
➢ The IGS should funded by the contributions of all the undertakings operating the Member State where the IGS is established[354] ➢ Funding should be based on the mutualisation of losses	➢ The available financial means of IGSs or alternative mechanisms should be proportionate to their potential liabilities. ➢ IGSs or alternative mechanisms should be funded on the basis of ex-ante contributions by all the insurers operating in a specific line of business, possibly complemented by ex-post funding arrangements in case of capital shortfalls. Further work is needed in relation to specific situations where a pure ex-post funding model could potentially work, subject to adequate safeguards. ➢ Furthermore, in accordance with the article 189 of SII Directive (and in line with the Framework Guidance elaborated by IFIGS[355]), IGSs or alternative mechanisms funding should be based on the mutualisation of losses among home insurers operating in the market in order to enable the proper functioning of the ex-ante and ex-post funding arrangements and ensure available adequate funds and funding mechanisms necessary to guarantee a prompt covering of the costs of an IGS and an effective and timely access to its funds when required. [356]
7) Transparency	
➢ The IGS should disclose and publish appropriate information for stakeholders, especially policyholders, on a regular basis	➢ The IGS or alternative mechanisms should operate in a transparent manner and the national framework should provide requirements for the adequate, clear and comprehensive disclosure to consumers and policyholders about the existence of IGSs.
8) Cross-border coordination	

[354] According to the Article 189 of the Solvency II Directive, an IGS is usually funded by the contributions of all the undertakings operating the Member State where the IGS is established, given that the Host Member States "may require non-life insurance undertakings to join and participate in the IGS on the same terms as non-life insurance undertakings authorised in their territories".

[355] "Insurance Guarantee Schemes, Framework Guidance" of the International Forum of Insurance Guarantee Schemes (IFIGS), February 2020.

[356] As mentioned in the Opinion, under exceptional circumstances Member States could decide to raise the funds directly from policyholders. This could be the case, for instance, if such a fund raising mechanism already exists in a Member State that is well-functioning (this is currently the case in Spain).

➢ Formal information sharing and coordination arrangements should be in place among IGSs in relevant jurisdictions	➢ There should be a framework in place for the cross-border coordination of activities and information sharing between the national IGSs or alternative mechanisms, including arrangements for the exchange of information.

13.198 To ensure a certain degree of flexibility to the Member States in the compliance of the core principles, it is proposed to consider a transitional phase that should be sufficient long to allow for a comprehensive compliance with the proposed harmonised features, while ensuring an adequate convergence pace, whereby:

i. During this period, while the Member State transitions to a fully-fledged IGS or alternative mechanism that fulfils all the minimum set of harmonised features stated in EIOPA’s Opinion, it is possible to use alternative mechanisms. These mechanisms established within the Member State provide for an additional layer of policyholder protection despite not meeting all the harmonised features stated in EIOPA’s Opinion;

ii. In the “Final phase” it is required to have a fully-fledged IGS or alternative mechanisms established within the Member State, that fulfil all the minimum set of harmonised features stated in EIOPA’s Opinion.

13.199 At the beginning of the transitional phase, EIOPA should collect information from the NSAs and evaluate the degree of compliance of the mechanisms with the harmonised features. The complete implementation of all the harmonised features EIOPA should assess the compliance of all the harmonised features at the end of the transitional phase and should report the result of this assessment to the European Commission.

13.3.2.10 Review clause

13.200 EIOPA is of the view that a review clause should be adopted to assess the adequacy of the harmonised features and where necessary amend the rules. The review should be done at least every five years after becoming the harmonised features become effective.

14. Other topics of the review

14.1 Other transitionals

14.1.1 Extract from the call for advice

> ***3.3. Transitional measures***
>
> *Title VI Chapter I of the Solvency II Directive lays down a number of transitional provisions. EIOPA is asked to assess the ongoing appropriateness of the transitional provisions in terms of policyholder protection and level-playing field. This assessment should, where applicable, also assess whether the ongoing possibility for companies to newly apply for the transitional measures should continue. EIOPA may prioritise its work on the different transitional measures, provided that the advice states the reason for doing so. However, EIOPA's assessment should cover at least the transitional measures referred to in Articles 308b(12) and (13), Article 308c and Article 308d of the Solvency II Directive.*

14.1.2 Previous advice

14.1 EIOPA has not provided advice on the transitionals referred to in Article 308b of the Solvency II Directive.

14.1.3 Relevant legal provisions

14.2 The transitionals are set out in Article 308b of the Solvency II Directive. For the transitional set out in Article 308b(9) and (10) of the Solvency II Directive, Article 297(1)(f) of the Delegated Regulation requires undertakings to publicly disclose for each basic own-fund item that is subject to the transitional a description of the nature of the item and its amount. Article 311(1)(c) of the Solvency II Directive requires undertakings to report to NSAs their plans on how to replace basic own-fund items that are subject to the transitional arrangements.

14.1.4 Prioritisation

14.3 This section covers the transitionals referred to in Articles 308b(1) to (11) and (14) to (16) of the Solvency II Directive. The transitionals referred to in Article 308b(12) and (13), Article 308c and Article 308d of that Directive are dealt with in sections 5.10, 2.11, 2.6 and 2.6 respectively.

14.4 The following table provides an overview of the transitionals relevant for this section:

Legal basis	Topic
308b(1) to (4)	Exemption from Solvency II of run-off undertakings expected to terminate activity by 1 January 2019 or subject to reorganisation measures
308b(5) to (8)	Deferral of deadlines for reporting and disclosure
308b(9) to (10)	Recognition of certain Solvency I own fund items
308b(11)	Deleted
308b(14)	Treatment of SCR non-compliance at the beginning of Solvency II
308b(15)	Exemption from Solvency II of insurance business subject to Article 4 of IORP
308b(16)	Approval of internal models for sub-groups

14.5 The call for advice states that EIOPA may prioritise its work on the different transitional measures, provided that the advice states the reason for doing so. EIOPA has assessed the need to revise the transitionals listed above and decided to review only the transitional of Article 308b(15) of the Solvency II Directive. The reasons for not reviewing the other transitionals are provided below.

- Exemption from Solvency II of run-off undertakings expected to terminate activity by 1 January 2019 or subject to reorganisation measures

14.6 EIOPA has carried out an information request to NSAs on the application of Article 308b(1) to (4) of the Solvency II Directive at the end of 2018. One NSA reported one insurance undertaking that had been subject to Article 308b(1)(a) at the end of 2018, but terminated its business in the meantime. All other NSAs reported no application of the transitional at the end of 2018.

14.7 As no undertaking is subject to the transitional anymore, EIOPA does not consider useful a review of the transitional.

- Deferral of deadlines for reporting and disclosure

14.8 The transitional will expire at the end of 2019 before EIOPA will provide its technical advice. Therefore, EIOPA does not consider useful a review of the transitional.

- Recognition of certain Solvency I own fund items

14.9 The transitional provision allows insurance and reinsurance undertakings to recognise specific own fund items that could be used to meet the solvency margin of Solvency I as Tier 1 or Tier 2 basic own funds items under Solvency II. The duration of the transitional is 10 years.

14.10 EIOPA has assessed the application of the transitional based on the supervisory reporting for the reference date of 31 December 2018. Accordingly, 135 undertakings apply this transitional. Transitional own funds constitute 3% of overall own funds (before applying limits) of all undertakings. There are few undertakings which heavily rely on transitional provisions: for 12 undertakings the transitional provisions constitute more than 30% of their overall own funds (before applying limits). Comparison of application of the transitionals in national markets provided no indications of level playing field issues. More detailed results are set out in annex 14.1.

14.11 In view of the limited application of the transitional and that the Solvency II Directive already includes safeguard on the transitional, in particular Article 311(1)(c), EIOPA does not consider necessary the further review of the transitional.

- Treatment of SCR non-compliance at the beginning of Solvency II

14.12 EIOPA does not consider useful the review of the transitional because it expired at the end of 2017.

- Exemption from Solvency II of insurance business subject to Article 4 of IORP

14.13 In view of the relevance of the provision for policyholder protection and level playing field the transitional provision is reviewed, see following sections.

- Approval of internal models for sub-groups

14.14 The transitional allows NSAs to approve internal models at sub-group level. There is one insurance group that currently applies the transitional. The transitional will expire on 31 March 2022. EIOPA does not consider useful the review of the transitional because it has no relevant prudential impact, has limited application and is expected to expire soon.

14.1.5 Identification of the issue

Why was transitional introduced and why was it extended?

14.15 Directive 2003/41/EC (IORP Directive) introduced through Article 4 the option for Member States to apply the prudential requirements of the IORP Directive to the occupational pension business of life-assurance companies in order to avoid distortions of competition.[357]

14.16 The introduction of the Solvency II Directive resulted in a divergence between the risk-based solvency capital requirement (SCR) for life insurance undertakings and the regulatory own funds requirement for IORPs based on Solvency I. The relevant Solvency I requirements were copy-pasted into the IORP Directive (Articles 17 to 17c) through Article 303 of the Solvency II Directive. A transitional was included in Article 308b(15) allowing Member

[357] Recital 12 of the IORP Directive

States, which already did so on 23 May 2014, to continue applying to the occupational pensions business of life insurance undertakings the provisions referred to in Article 4 the IORP Directive as well as the capital requirements from Solvency I until 31 December 2019. This was anticipating that a "proper system of solvency rules" would be developed for IORPs at EU level.[358] The Commission was empowered to adopt delegated acts to amend the transitional period "where amendments to Articles 17 to 17c of Directive 2003/41/EC have been adopted before […]".

14.17 The review of the IORP Directive did not lead to an amendment of the (Solvency I) solvency rules applying to IORPs, renumbered as Article 15 to 18 in Directive (EU) 2016/2341 (IORP II Directive). The IORP II Directive explains that "no quantitative capital requirements, such as Solvency II or […] models derived therefrom, should […] be developed at the Union level with regard to IORPs" because this "is not realistic in practical terms and not effective in terms of costs and benefits, particularly given the diversity of IORPs within and across Member States" and "could potentially decrease the willingness of employers to provide occupational pension schemes"[359]. At the same time, "to ensure fair competition between institutions"[360], the transitional period in Article 308b(15) of the Solvency II Directive was extended to 31 December 2022.

What does the transitional provide?

14.18 The transitional is allowing Member States to apply the provisions of the IORP II Directive to the occupational pensions business of life insurance undertakings. The most notable exception are the solvency requirements, for which Member States are allowed to continue to apply the rules from Directive 2002/83/EC (Solvency I), as in force on 31 December 2015.

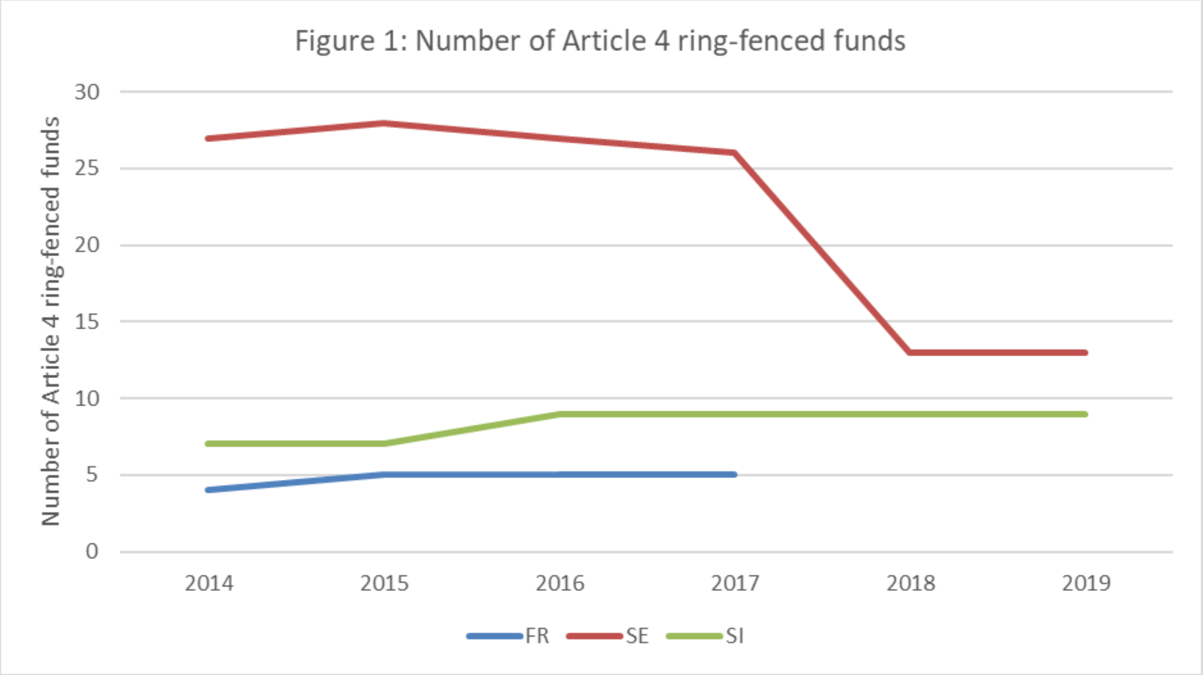
Application: Recent market developments in FR, SE and SI

14.19 The following findings are based on quantitative and qualitative information collected from NSAs in the context of the 2017 market development report[361] and additional information on Article 4 ring-fenced funds collected for 2017 and 2018[362].

14.20 'Article 4 ring-fenced funds' refers to the occupational retirement provision business of life insurance undertakings to which certain provisions of the IORP Directive are applied in accordance with Article 4 of the IORP Directive. Three member states choose to apply this option namely France, Sweden and Slovenia.

[358] Recital 138 of Solvency II Directive.
[359] Recital 77 of IORP II Directive.
[360] Recital 76 of IORP II Directive.
[361] https://register.eiopa.europa.eu/Publications/Reports/EIOPA-BOS-18-013-2017%20Market%20Development%20Report.pdf
[362] For France data on Article 4 ring-fenced funds for 2017 and 2018 were not available.

14.21 Aggregated, the number of Article 4 ring-fenced funds decreased over the past years. This is mainly due to a strong decrease in the number of Swedish Article 4 ring-fenced funds over 2018 (see figure 1).



14.22 In contrast to assets of Article 4 ring-fenced funds in Sweden, assets of the Article 4 ring-fenced funds are relatively small in both France and Slovenia (see figure 2). Therefore, changes in Sweden entirely dominate any aggregated findings. Figure 2 also shows that the amount of assets had decreased over the last two years in Sweden after a continuous increase over the three preceding years. This reduction was less prominent compared with the reduction of the number of IORPs over the same period. At the end of each year, no country showed an underfunding of the Article 4 ring-fenced funds at an aggregate level.

14.23 For Slovenia and despite the number of Article 4 ring-fenced funds remaining stable, the number of members increased with 10 percent over the past three years leading to 400,000 members and beneficiaries in total. Accurate data on membership was not available for France and Sweden. However, for Sweden, the estimated number of members was approximately two million at the end of 2016.

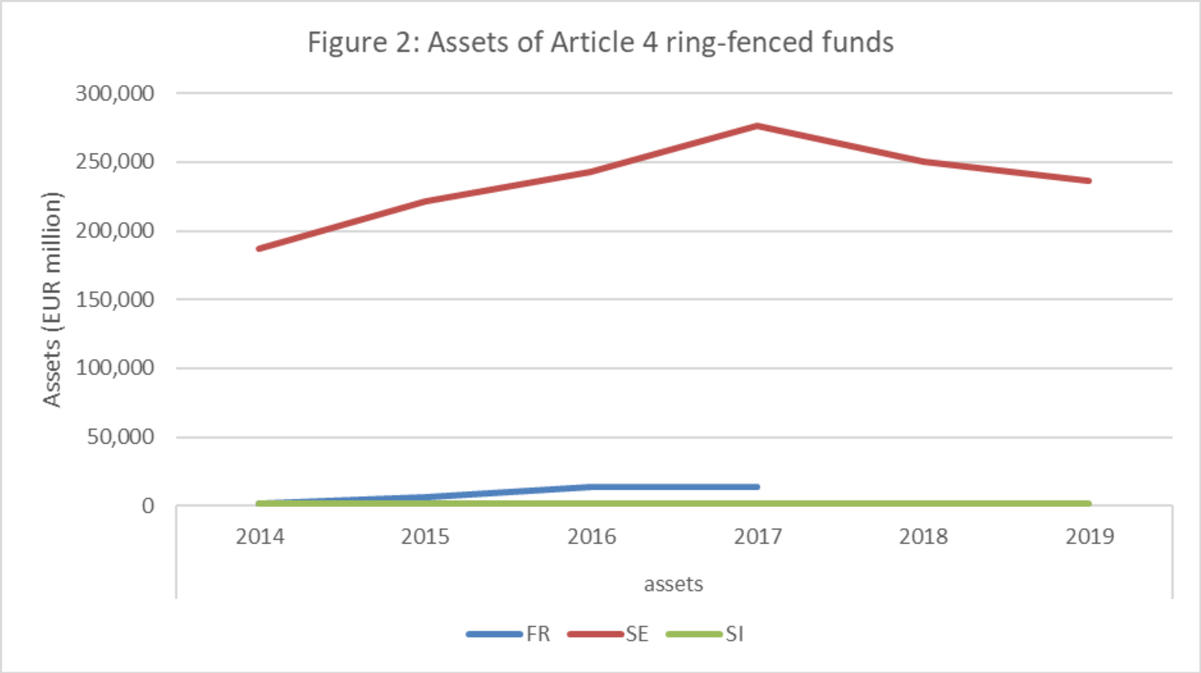


Figure 2: Assets of Article 4 ring-fenced funds

Application: Article 4 ring-fenced funds in FR, SE and SI will automatically cease to exist after 2022

14.24 France, traditionally a Member State without any IORPs, adopted a new legislation in 2017 allowing the creation of IORPs. The new legislation introduces a new type of vehicles (Fonds de Retraite Professionelle Supplémentaire - FRPS) subject to a framework compliant with the IORP Directive. The impact of the new legislation is already visible with the setup of a few IORPs.

14.25 The FRPS legislation also allows French life insurance undertakings to transfer their occupational pension plans into these new IORPs and was meant to allow the replacement of largely the current Article 4 ring-fenced funds. The French NSA believes that more IORPs will be created in the future and that life insurance undertakings will make use of these vehicles. Therefore, both the creation of the FRPS framework and the transposition of IORP II Directive should provide an appropriate framework to deal with pension engagements and a prolongation of the transitional becomes redundant.

14.26 A new Swedish occupational law implementing IORP II entered into force on 1 December 2019. As of then, Article 4 ring-fenced funds need to comply with either the national implementation of IORP II or Solvency II without an option to combine provisions of both directives. The Swedish NSA expects that five of the current Article 4 ring-fenced funds, which mainly conduct occupational business, will comply with the rules for IORPs. The assessment for the remaining eight ring-fenced funds is harder to make, but it is expected that life insurance undertakings will split their business and transform the ring-fenced fund into a new type of IORP. While an early withdrawal of the transition would probably interfere with the planning and transition of these entities there appears no need for a further extension after 2022.

14.27 Slovenia did not exercise the possibility offered in Article 308b (15) of the Solvency II Directive. The reasons were that the rules regarding the calculation of the SCR under the transitional were not very clear and life insurance undertakings had to calculate the SCR according to Solvency II rules in any case after the transitional ended. It had therefore decided that Slovenian life insurance undertakings needed to calculate the SCR for the whole undertaking, including the management of pension funds immediately. Consequently, as of 2019, Slovenia is not an Article 4 country.

14.1.6 Analysis

14.28 Two options can be distinguished with regard to the transitional:

Option 1: No change

14.29 The possibility for MS to apply Article 4 of the IORP II Directive and the Solvency I solvency requirements will cease to exist on 31 December 2022. The expected impact of this option is nil since the Member States using this possibility will all have stopped using this option by that date.

14.30 The "no change" option does not resolve the divergence in quantitative requirements between the Solvency II Directive and the IORP II Directive, constituting the main reason for having the Article 4 provision in IORP II and the transitional in Solvency II.

14.31 Occupational pension providers under Solvency II will be subject to harmonised capital requirements which are market-consistent and risk-based. Providers under IORP II may be subject to rules which are not market-sensitive and, where the IORP bears risk itself, based on the former Solvency I rules, which are not risk-based. This inconsistency may give rise to regulatory arbitrage and unequal conditions of competition.

14.32 In that respect, EIOPA refers to its Opinion to the EU institutions on a common framework for risk assessment and transparency.[363] In this opinion, EIOPA advises that harmonised solvency rules should not be introduced for IORPs at this point in time. The IORP sectors in Member States are very heterogeneous and experiencing varying challenges. As a consequence, a one-size-fits-all solvency regime would not be appropriate and less effective than the proposed common framework. The Opinion advises to strengthen the IORP II Directive with a common framework for risk assessment and transparency. This would allow for a better understanding of the risks and vulnerabilities IORPs, contributing to their resilience and sustainability and improving the protection of members and beneficiaries. Moreover, it would

[363] EIOPA, Opinion to EU Institutions on a Common Framework for Risk Assessment and Transparency for IORPs, EIOPA-BoS-16/075, 14 April 2016.

also increase cross-sectoral consistency between the IORP Directive and the insurance framework.

14.33 On 10 July 2019, EIOPA issued an Opinion on the practical implementation of the common framework for risk assessment and transparency for IORPs.[364] The Opinion advised the NSAs to make IORPs aware of the availability of the common framework as a tool for risk assessment and to stand ready to support IORPs in the application of this tool as well as to consider, in the context of their national specificities, to use the common framework as a tool for the supervisory review as laid down in the IORP II Directive.

Option 2: Extend duration of transitional

14.34 The duration of the transitional is extended beyond 31 December 2022 until the solvency rules in IORP II are adapted during the review of this Directive by 13 January 2023. This option would also have no impact because Member States will not make use of the transitional anymore by end 2022.

14.35 The recent legislative developments in French and Sweden also make clear that the transitional is redundant. Also without the transitional, Member States have the possibility to allow life insurance undertakings to establish vehicles (IORPs) for their occupational pensions business that are subject to the IORP II Directive.

14.36 Moreover, also under this option there would not be a level playing field between life insurance undertakings and IORPs. As advised by EIOPA and described under option 1, the introduction of a common framework for risk assessment and transparency for IORPs would increase cross-sectoral consistency and contribute to preventing regulatory arbitrage and to promoting equal conditions of competition.

14.2 Fit and proper requirements

14.2.1 Extract from the call for advice

3.13. Freedom to provide services and freedom of establishment

EIOPA is asked to assess whether the current supervisory powers at the disposal of the home National Supervisory Authorities and EIOPA are sufficient to prevent failures of insurance companies operating cross-border through freedom to provide services and the freedom of establishment and to properly assess the fit and proper requirements.

14.2.2 Previous EIOPA advice

14.37 Following a number of cross-border cases indicating a lack of harmonisation in relation to the propriety assessment across the European Economic Area (EEA), EIOPA reviewed national regulatory frameworks and

[364] EIOPA, Opinion on the practical implementation of the common framework for risk assessment and transparency for IORPs, EIOPA-BoS-19-246.

supervisory practices followed by NSAs to assess the propriety of administrative, management or supervisory body (AMSB) members (Peer review on propriety).[365]

14.38 The Peer review on propriety concluded that the legal powers for NCAs provided in the Solvency II Directive to do ongoing assessments of AMSB members and qualifying shareholders need to be clarified and therewith strengthened. Subsequently the NSA’s ability to take action in case a qualifying shareholder is not considered proper (following the approval of an acquisition) as well as the power to seek information from qualifying shareholders and other related parties. Furthermore, the Peer review on propriety highlighted a number of areas that could potentially result in impediments between countries in relation to propriety assessment within the internal market.

14.2.3 Relevant legal provisions

14.39 Directive 2009/138/EC (Solvency II Directive), in particular Article 19 (Close links), Article 24 (Shareholders and members with qualifying holdings), Article 29 (General principles of supervision), Article 36 (Supervisory review process), Article 42 (Fit and proper requirement for persons who effectively run the undertaking or have other key function), Section 4 (Qualifying holdings), Chapter IV, Title I (Articles 57 to 63).

14.2.4 Other regulatory background

14.40 The European Supervisory Authorities’ Joint Guidelines on the prudential assessment of acquisitions and increases of qualifying holdings in the financial sector (JC/GL/2016/01)[366]. The Joint Guidelines give guidance for among other things the elements to take into account for the propriety of qualifying shareholders.

14.2.5 Identification of the issue

14.41 Main focus in relation to the propriety of AMSB and qualifying shareholders is the legal basis in the Solvency II Directive for ongoing supervision and taking action in case AMSB members and qualifying shareholders are no longer proper as well as the provide clear power to NSAs to seek information form qualifying shareholders and other related parties to assess their propriety. Furthermore, this Opinion is seeking solutions in complex cross-border cases in relation to propriety assessment within the internal market

[365] Discover our peer reviews.

[366] https://esas-joint-committee.europa.eu/Publications/Guidelines/JC%20GL%202016%2001%20(Joint%20Guidelines%20on%20prudential%20assessment%20of%20acquisitions%20and%20increases%20of%20qualifying%20holdings%20-%20Final).pdf.

by offering joint propriety assessments and EIOPA's mediation when NSAs cannot agree on a common view.

14.2.6 Need for harmonisation concerning ongoing assessments of the propriety of AMSB members and persons with other key functions and qualifying shareholders

Issues identified

14.42 A number of cross-border cases have indicated a lack of harmonisation in relation to the propriety assessment of AMSB members and qualifying shareholders across the EEA. This lack of harmonisation led to potentially divergent outcomes in different countries in relation to the same persons. The Peer review on propriety was initiated on foot of these cases with an aim to examine the causes of a lack of harmonisation and recommended actions to enhance supervisory convergence in the area of (fitness and) propriety. Some of those cases also related to the differences in the ongoing assessment.

Analyses

Policy issue	Options
1. Need for harmonisation ongoing assessments of the propriety of AMSB members and qualifying shareholders	1.1 No change (maintain status quo = situation described in the EIOPA Peer Review report) 1.2 Clarify the Solvency II Directive text and thereby reinforce the powers of NSAs (preferred – solution proposed in the Peer Review on Propriety) (preferred)

14.43 More specifically the recent Peer review on propriety concluded that:

- There is still a lack of harmonisation in the ongoing assessment of AMSB and qualifying shareholders and recommended a number of NSAs to take action to avoid impediments in cross-border cases.
- Propriety assessments of AMSB members and qualifying shareholders are completed as a one-off task with very few NSAs performing any ongoing assessment as part of their supervisory activities.
- The compliance with the ongoing assessment requirement should be subject to supervisory examination in accordance with Article 29 and other related provisions of the Solvency II Directive.'

14.44 Initial assessment at appointment and ad-hoc or triggered assessment of AMSB members and qualifying shareholders receive sufficient attention from NSAs. The frequency of ad-hoc or triggered assessment generally depends on new evidence or facts brought to NSAs' attention by undertakings. Fitness and propriety assessment is not reviewed or examined as part of NSAs' ongoing supervisory activities. Therefore, twenty-five NSAs were recommended to carry out, using a risk-based and proportionate approach, ongoing assessment of propriety of qualifying shareholders and twelve NSAs to carry out ongoing assessment of propriety of AMSB members following the initial approval.

14.45 As explained in the peer review, the recommended actions are to be applied in a proportionate manner. Annex 3 of the Peer review on propriety outlines some examples from current supervisory practices of how an ongoing propriety assessment of AMSB members and qualifying shareholders can be implemented by using a risk-based and proportionate approach and without replicating the process used for initial or ad-hoc assessments. The Peer review focussed on AMSB members and qualifying shareholders but the above applies mutatis mutandis to key function holders as well.

a. Ongoing assessment of AMSB members

14.46 Twelve NSAs from EEA countries in smaller as well as larger insurance markets have received a recommended action following EIOPA's peer review to assure ongoing supervision of the propriety of AMSB members in a risk-based and proportionate manner.

14.47 One of the explanations is that one has to combine different articles of the Solvency II Directive to conclude that NSAs are expected and required to supervise the fit and proper requirements of AMSB. Article 42 of the Solvency II Directive requiring undertakings to fulfil the propriety requirements for AMSB members sets forth a direct obligation for undertakings fulfilled at all times. This assessment should be carried out as part of the NSAs' supervisory activities. The primary responsibility of the ongoing assessment of AMSB members is with the undertaking. However, the NSAs need to supervise if the undertaking is fulfilling this task. Article 42 expects that the condition is fulfilled at all times. Ongoing assessment is not equal to the re-assessment of each and every AMSB member neither it is a replication of the assessment of the undertakings. The ongoing assessment involves proactive engagement resulting from the NSAs' own initiative, as part of its supervisory activities, rather than waiting for new evidence or facts. Most importantly, this assessment should be carried out as part of the NSAs' supervisory activities in a proportionate manner, i.e. as part of an off-site review or on-site visits or a themed review or at the point of a renewal of mandates.

14.48 The NSAs have to supervise the undertakings on a continuous basis and in a pro-active manner on the basis of Article 29 of the Solvency II Directive. Clarification of this important task for NSAs in the Solvency II Directive could be achieved by some additional wording in Article 30.

b. Ongoing assessments of qualifying shareholders

14.49 As a result of the Peer review on propriety twenty-five recommended actions require twenty-five NSAs to carry out, using a risk-based and proportionate approach, ongoing assessment of propriety of qualifying shareholders.

14.50 The proposed option should clarify the Solvency II Directive text and thereby reinforce the powers of NSAs to:

- Collect information on qualifying shareholders and related undertakings directly from the undertakings concerned;
- Make ongoing supervision on (AMSB, other person that have key functions and) qualifying shareholders a clear part of the scope of supervision in Article 30 of the Solvency II Directive, (currently it is not mentioned); As mentioned above ongoing assessment is not equal to the periodic re-assessment of each qualifying shareholder or aimed to replicate the assessment by the undertaking.
- The possibility to remove a person from a position in case of AMSB and other persons that have key functions (in line with Article 91(1) of Directive (EU) 2019/878 (CRD)) and withdrawing an authorisation in case of qualifying shareholders not meeting the requirements of being fit and proper, are added as a supervisory tool.

14.2.7 Increase the efficiency and effectiveness of propriety assessments in complex cross-border cases

Issues identified

14.51 The Peer review on propriety concluded that *"In some complex cross-border cases, records or information about supervisory concerns are maintained in one country whereas the appointment application is lodged in another country. Since sharing of information, in particular information about concerns that could lead to refusal of application, is often quite a cumbersome process, in complex cases, NCAs from countries can support one another by conducting jointly assessments and interviews to ensure that the process is efficient as well as effective."*

Analyses

Policy issue	Options
2. Increase the efficiency and intensity of propriety assessments in complex cross-border cases and allow in exceptional cases for EIOPA to conclude	2.1 No change (maintain status quo) 2.2 To ensure in complex cross-border cases more efficient and intense information exchange by providing the possibility of a joint assessment and allow in exceptional cases for EIOPA to conclude (preferred)

14.52 As a follow up on the peer review on propriety, EIOPA considers the option to improve the quality of the information exchanged by adding the possibility to do a joint assessment of the propriety of a potential qualifying shareholder if the outcome is relevant for several NSAs in Article 60 of the Solvency II Directive. The joint assessment does not change the responsibilities of the home NSA for their final decision.

14.53 EIOPA also considers the option to take a steering role in the cases where NSAs have not been able to come to a solution in such complex cross-border cases. The Peer review on propriety also referred to a case study whereby an authorisation is rejected for a person Z in country A based on doubtful financial transactions (including alleged money laundering). A license is provided for person Z in country B from which the person Z wants to do business on the basis of FoE into country A. However, the fact that important new information was provided by the NCA of country A at a certain point to the NCA of country B has led to a request from EIOPA to the NCA of the country B to reassess the propriety of Z.

Annexes

Annex 2.1 – DLT assessment methodology

Components of the DLT assessment

A.1 The DLT assessment consists of the components set out in the following table:

Component	Purpose
DLT assessment of the swap market	Decision on relevant financial instrument (swaps/govies) and DLT maturities
DLT assessment of the government bond market	
Assessment of the bond market	Additional criteria in particular on the LLP
DLT assessment of the bond market	
Matching criterion	
20 years LLP for the euro	
Residual volume condition for the euro	
DLT assessment of the OIS market	Decision on use of OIS in the CRA calculation
Conclusion from components 1 to 4	

A.2 The components of the DLT assessment are the same as currently applied. New are the subcomponents a and b of the assessment of the bond market that reflect Article 77a of the Solvency II Directive and recital 30 of the Omnibus II Directive. The following sections set out proposals for the criteria to be used for the assessment.

DLT assessment of the swap market

Depth and liquidity

A.3 The assessment of depth and liquidity of the swap market should be carried out on the basis of swap trade data, in particular the number and notional amount of trades. In order to ensure an assessment that is consistent across currencies it should be made in accordance with criteria that are objective and clearly specified.

A.4 The assessment should be based on the following thresholds for depth and liquidity:

- the average daily notional amount traded is at least EUR 50 000 000,

- the average daily number of trades is at least 10.

A.5 Only single-currency fixed-to-floating swaps should be considered for assessing the criteria. The assessment should be made separately for each currency and maturity. Where possible the thresholds should be assessed on the basis of data that cover the period of one year.

A.6 These thresholds are the same that ESMA proposed for assessing liquidity for the purpose of MiFiD 2 (see page 92 of the draft RTS on transparency requirements for trading venues and investment firms in respect of bonds, structured finance products, emission allowances and derivatives: https://www.esma.europa.eu/sites/default/files/library/2015/11/2015-esma-1464_annex_i_-_draft_rts_and_its_on_mifid_ii_and_mifir.pdf).

A.7 In order to ensure the stability of the DLT maturities, a market assessed liquid in the past should only be considered to have become illiquid if it is at least 20% below one of the two thresholds set out above. A market assessed illiquid in the past should only be considered to have become liquid if it is at least 20% above the two thresholds set out above.

A.8 The swap trade data that EIOPA will have access to via EMIR covers the majority of the swap trade in EEA currencies. Trade numbers and notional amounts should be scaled up to allow for trade not covered by the data. Where data on the majority of swap trades is available for other currencies (e.g. most of the currencies of the American countries via the Dodd-Franck act of the US), the same approach should be taken. The scaling factors can be derived from the triannual OTC derivative statistics of the Bank for International Settlement.

A.9 For currencies where not sufficient swap trade data are available to assess the depth and liquidity, the assessment should primarily be based on the size of bid-ask spreads and on the swap rate volatility.

Transparency

A.10 The financial markets should be considered transparent for the swaps of a currency and maturity where up-to-date information on the market swap rates for that currency and maturity is available from a reliable data provider for each working day.

DLT assessment of the government bond market

Depth and liquidity

A.11 In order to improve the consistency of DLT assessment across currencies, the assessment of trade volume and trade frequency of government bonds should be mandatory for all currencies. Decision on depth and liquidity should be based primarily on these criteria. Where possible the assessment should be based on data that cover the period of one year.

A.12 This approach will also ensure consistency with the assessment of depths and liquidity of swap markets.

A.13 Where trade volume and frequency data are not available or their analysis not conclusive, other criteria should be assessed, including where possible, bid-ask spreads, the rate volatility, zero-trading days, the number of pricing sources and the number of quotes.

A.14 In particular with regard to non-EEA currencies the assessment of the government bond market should be proportionate to the size of exposure of European insurers and groups to that currency.

Transparency

A.15 The financial markets should be considered transparent for the government bonds of a currency and maturity where up-to-date information on market government bond rates for that currency and maturity is available from a reliable data provider for each working day.

Assessment of the bond market

A.16 The risk-free interest rates are derived from swaps or government bonds. The legal framework requires however that in addition to the depth, liquidity and transparency of swaps or government bonds also the general bond market should be assessed. On that assessment additional requirements for the DLT maturities and in particular on the LLP are based. In the following the relevant legal text is set out and proposals on the implementation of the legal text are made.

Legal basis

A.17 Recital 30 of the Omnibus II Directive:

The relevant risk-free interest rate term structure should avoid artificial volatility of technical provisions and eligible own funds and provide an incentive for good risk management. The choice of the starting point of the extrapolation of risk-free interest rates should allow undertakings to match with bonds the cash flows which are discounted with non-extrapolated interest rates in the calculation of the best estimate. Under market conditions similar to those at the date of entry into force of this Directive, the starting point for the extrapolation of risk- free interest rates, in particular for the euro, should be at a maturity of 20 years. […]

A.18 Article 77a of the Solvency II Directive:

Extrapolation of the relevant risk-free interest rate term structure

The determination of the relevant risk-free interest rate term structure referred to in Article 77(2) shall make use of, and be consistent with, information derived from relevant financial instruments. That determination shall take into account relevant financial instruments of those maturities where the markets for those financial instruments as well as for bonds are deep, liquid and transparent. For maturities where the markets for the *relevant financial instruments or for bonds are no longer deep, liquid and transparent, the relevant risk-free interest rate term structure shall be extrapolated.*

The extrapolated part of the relevant risk-free interest rate term structure shall be based on forward rates converging smoothly from one or a set of forward rates in relation to the longest maturities for which the relevant financial instrument and the bonds can be observed in a deep, liquid and transparent market to an ultimate forward rate.

A.19 Recital 21 of the Delegated Regulation:

Under market conditions similar to those at the date of adoption of Directive 2014/51/EU, when determining the last maturity for which markets for bonds are not deep, liquid and transparent anymore in accordance with Article 77a of Directive 2009/138/EC, the market for bonds denominated in euro should not be regarded as deep and liquid where the cumulative volume of bonds with maturities larger than or equal to the last maturity is less than 6 percent of the volume of all bonds in that market.

Components of the assessment of the bond market

A.20 With regard to the bond market the legal text sets out the following conditions on the DLT maturities and the LLP:

A.21 DLT conditions (Article 77a of the Solvency II Directive)

A.22 Matching criterion (recital 30 of the Omnibus II Directive)

A.23 20 years LLP for the euro (recital 30 of the Omnibus II Directive)

A.24 Residual volume condition for the euro (recital 21 of the Delegated Regulation)

A.25 The DLT conditions for the bond market can have an impact on the maturities and consequently the LLP used to derive the risk-free interest rates. The conditions can result in a lower LLP than found in the assessments of swap markets. It can also result in excluding some of the maturities lower than that LLP because the bond market is not DLT for those maturities.

A.26 The matching criterion, the specification of the 20 years LLP for the euro and the residual volume condition for the euro can result in a lower LLP than derived in the DLT assessment for the swap market or the government bond market. They do not affect the DLT maturities before that lower LLP.

A.27 The specification of the 20 years LLP and the residual volume condition are only relevant for the euro and should not be applied to other currencies.

A.28 It should be noted that three of the conditions are set out in recitals. Recitals do not establish requirements but rather explain the provisions in the articles of the law. On the other hand it has to be acknowledged that the recitals on the matching condition and on the 20 years LLP for the euro were part of the political compromise on the Omnibus II Directive.

Assessment of the bond market – DLT assessment

A.29 The depth, liquidity and transparency of the bond market should be assessed according to the same criteria as the depth, liquidity and transparency of the government bond market.

A.30 As the bond market includes the government bond market, the trade volume and trade frequency of the bond market are at least as high as those of the government bond market. Therefore, where the government bond market for a currency is DLT also the bond market for that currency should be considered DLT. Where the risk-free interest rates are derived from government bonds because the swap market is not DLT, this implies in particular that the DLT assessment of the bond market does not introduce further restrictions for the use of DLT maturities identified in the DLT assessment of the government bond market.

Assessment of the bond market – Matching criterion

A.31 In order to check the matching criterion the following cash-flows should be compared:

A.32 Bond cash-flows: expected payments of coupons and principal amounts of government bonds and financial and non-financial corporate bonds (but not of loans, securitisations, credit-linked notes or money-market funds)

A.33 Liability cash-flows: expected cash-flows of insurance and reinsurance obligations of insurance and reinsurance undertakings as accounted for in the best estimate provisions net of reinsurance (but not including cash-flows from technical provisions valued as a whole)

A.34 The narrow interpretation of “bonds” for the application of the matching criterion is based on a steer from the European Commission. The Delegated Regulation distinguishes between bonds and other assets like loans or securitizations (e.g. Articles 49 and 175 of the Delegated Regulation).

A.35 The matching criterion requires that the annual bond cash-flows are equal or larger than the annual liability cash-flows for all the maturities up to the LLP. However, a shortfall of bond cash-flows for one or several maturities up to the LLP is in line with the matching criterion provided that there is surplus of bond cash-flows for nearby larger maturities that outweighs that shortfall. For this purpose two maturities should be considered nearby if they differ not by more than 5 years. This threshold should be reviewed in the 2017 DLT assessment.

A.36 The matching criterion should be analysed separately for each relevant currency. However the euro and the currencies pegged to the euro should be treated as one currency for the analysis.

A.37 Bonds and insurance liabilities with currency clauses as described in paragraph 74(b) of the RFR technical documentation should be included in the analysis for the currency in which the payment under the currency clause is made.

A.38 The matching criterion establishes an upper bound for the LLP. An LLP that is lower than the last maturity for which liability cash-flows can be matched with bonds is in line with the matching criterion.

A.39 The liability cash-flows should be derived from the annual reporting templates.

Assessment of the bond market – 20 years LLP for the euro

A.40 The specification of the LLP for the euro to be 20 years applies under market conditions similar to those at the date of entry into force of the Omnibus II Directive (i.e. Q2 2014).

A.41 An indication for market conditions having changed compared to Q2 2014 should be that the application of the matching criterion or the DLT criteria suggest a LLP significantly different from 20. A significant difference from 20 years should be understood to be at least 5 years. This approach is in line with the possibility to change the LLP for the euro only by at least 5 years because the swaps with maturities between 15 and 20 years and between 20 and 25 years are currently not liquid.

Assessment of the bond market – Residual volume condition for the euro

A.42 According to recital 21 of the Delegated Regulation the residual volume criterion applies under market conditions similar to those at the date of adoption of the Omnibus II Directive (i.e. Q2 2014). Whether the market conditions are similar to those in Q2 2014 should be assessed in the same way as for the specification that the LLP for the euro is 20 years (see section 3.4.3).

A.43 The residual volume condition should be calculated on the basis of a comprehensive database for bonds denominated in euro. The database should comprise government bonds and financial and non-financial corporate bonds, but not loans, securitisations, credit-linked notes or money-market funds.

DLT assessment of the OIS market

A.44 The current approach to the DLT assessment has not given rise to any issues and is proportionate. It should therefore be left unchanged for the future.

A.45 During the annual DLT assessment possible data sources for the OIS rates should be identified. In accordance with paragraph 101 of the RFR technical documentation, the decision on whether the OIS market for a currency is DLT should be made in every monthly RFR production on the basis of the availability of OIS rates (not more than 20% of business days without OIS rates or corresponding swap rate).

A.46 In the annual DLT assessment it should be checked whether, in addition to the currently used OIS information, OIS rates for other currencies are available.

A.47 This simplified approach is justified because the calculation of the credit risk adjustment is based on one-year averages of OIS rates, not on the OIS rate for a single reference date. The averaging of the rates over one year will ensure the reliability of the calculation input.

Conclusions from the assessments

A.48 The results of the four components of the DLT assessment (swaps, government bonds, bonds, OIS) and of the subcomponents of the bond assessments (DLT assessment, matching criterion, residual volume condition for the euro, 20 years LLP for the euro) need to be combined to conclude on the instruments and maturities used to derive the risk-free interest rates.

A.49 The decision on the relevant instrument to derive the risk-free interest rates is made on the basis of the results of the DLT assessment for the swap and the government bond markets in accordance with Article 44 of the Delegated Regulation. According to that Article swaps are the default instruments.

A.50 Regarding the choice of the relevant financial instrument it should be taken into account that term structures based on swaps and government bonds for different maturities are problematic because the risk-free interest rates may jump at the maturities where the instrument changes when the interest rate levels of swaps and government bonds are significantly different. The resulting jumps in term structures are usually not in line with economic reality. In such a case a mixture of swaps and government bonds should be avoided. The DLT assessment should take account of overall soundness of resulting term structure.

A.51 The DLT assessment of the relevant instrument will inform about the DLT maturities that could be used in the derivation of the term structure. This outcome may need to be adjusted on the basis of the assessment of the bond market as follows:

A.52 Only maturities with a DLT bond market can be used to derive the risk-free interest rates (Article 77a of the Solvency II Directive).

A.53 The LLP has to meet the matching criterion. Where that is not the case the largest maturity that meets the matching criterion and where the markets for the relevant financial instrument and for bonds are DLT will be chosen as the LLP.

A.54 For the euro the additional restrictions to the LLP apply. As long as market conditions are similar to those in Q2 2014 the LLP is 20 years and needs to fulfil the residual volume condition. Where the market conditions are similar to those in Q2 2014 and the two requirements contradict each other the recital on the 20 years LLP takes precedence.

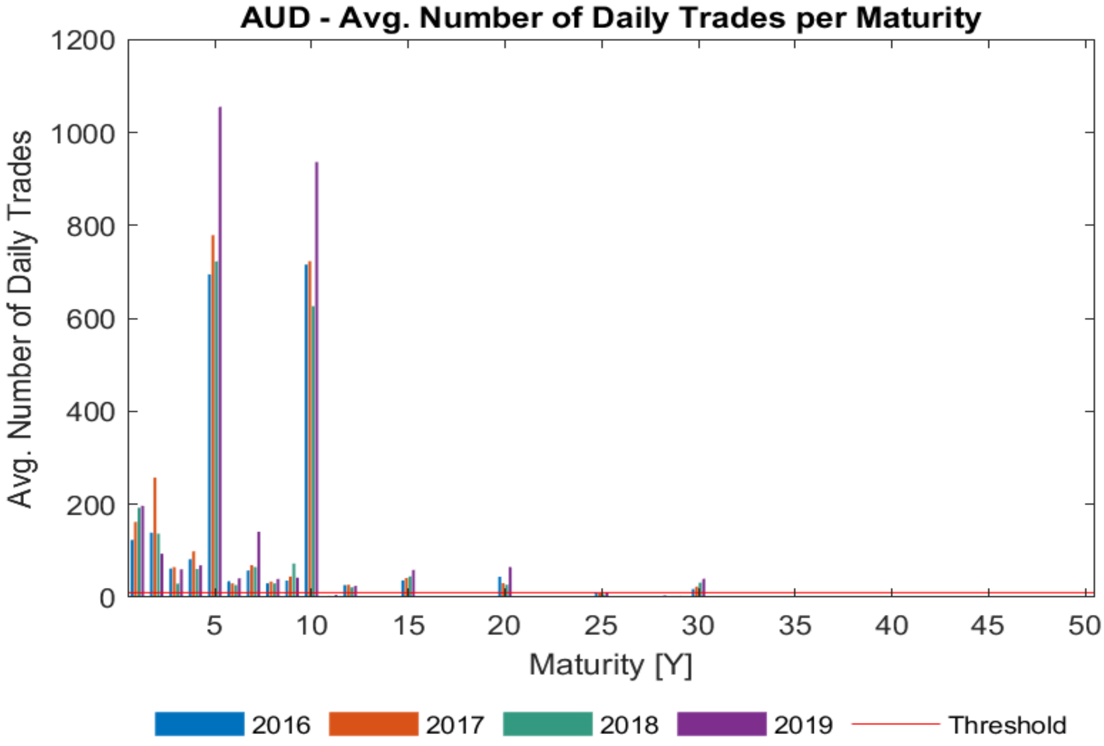
A.55 Where swaps are the relevant financial instrument and the OIS market is found to be liquid the OIS rates will be used in the calculation of the credit risk adjustment to the swap rates. Otherwise a proxy on the basis of the credit risk adjustment for the euro or the US dollar will be used.[367]

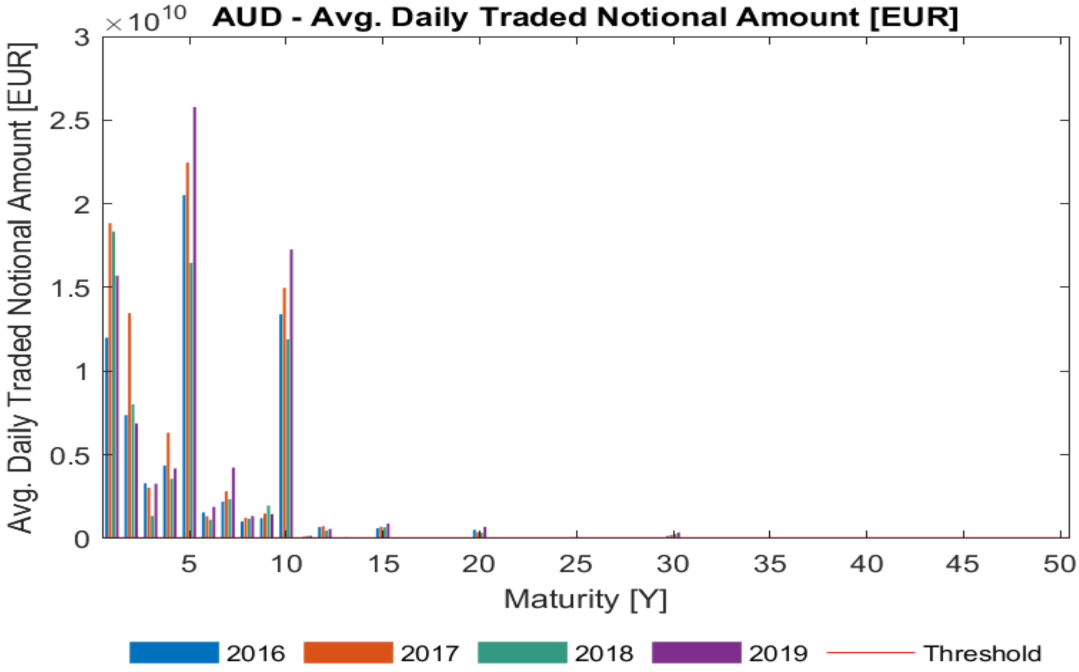
[367] See section 5.C of the RFR technical documentation.

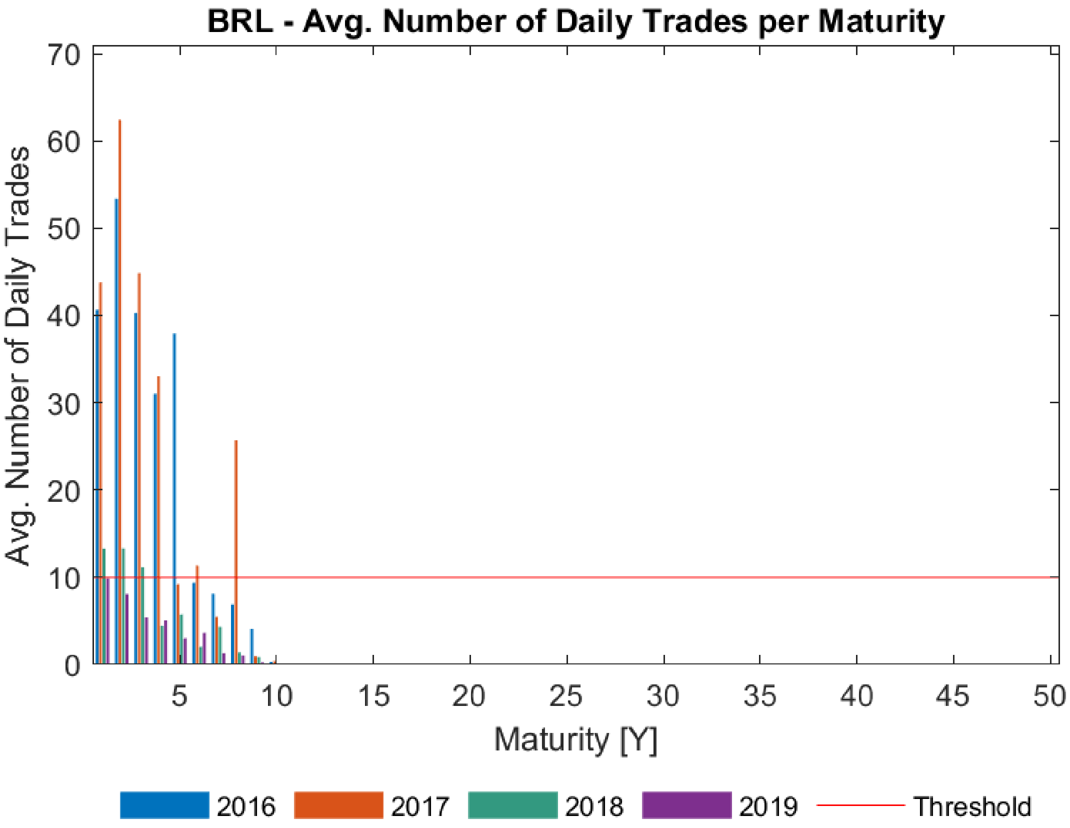
Annex 2.2 – Results of the DLT assessment

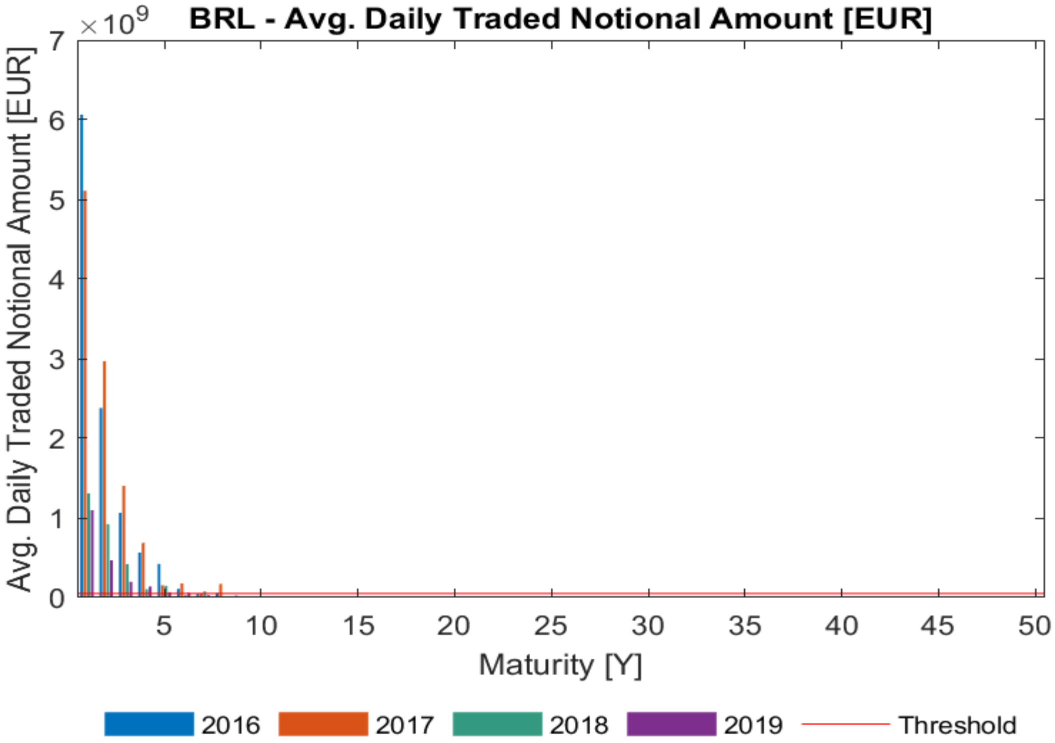
DLT assessment of the swap market

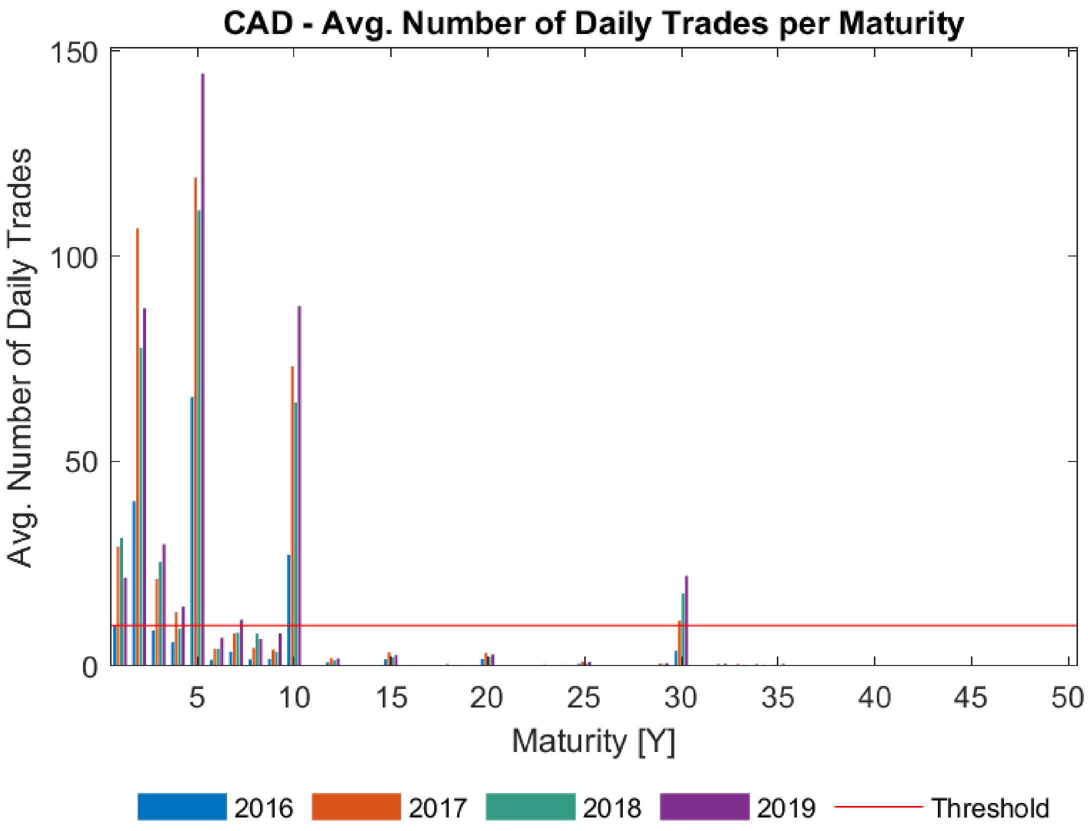
A.56 The following diagrams show the average daily swap trade volume and swap trade frequency during 2016, 2017, 2018 and 2019.

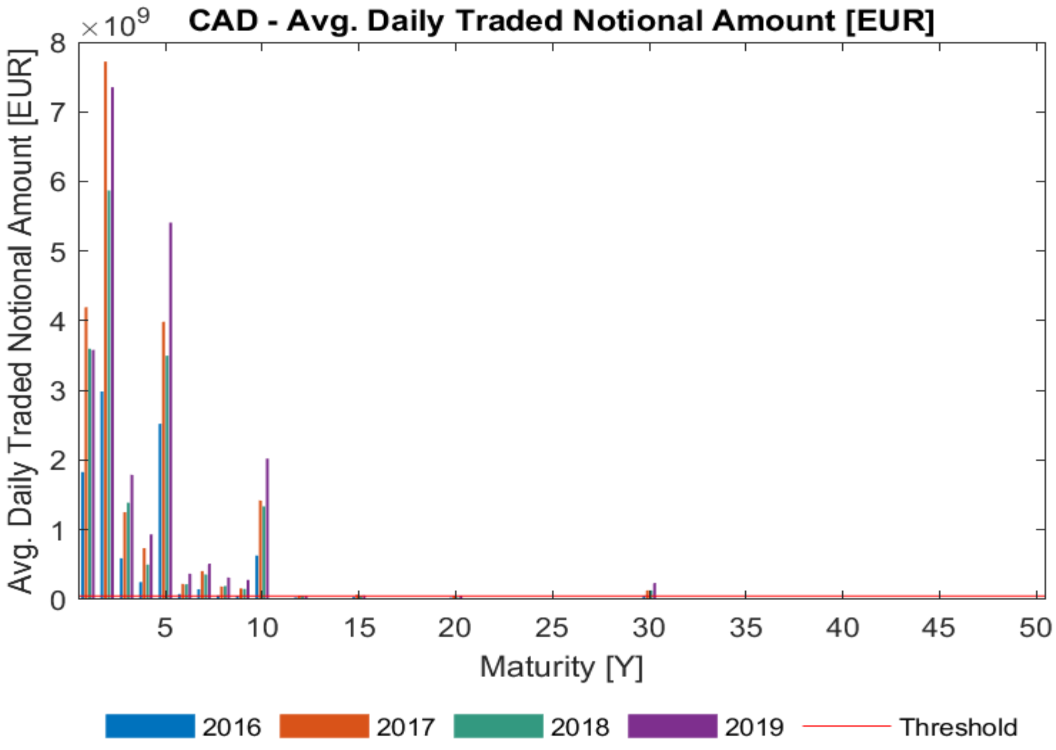


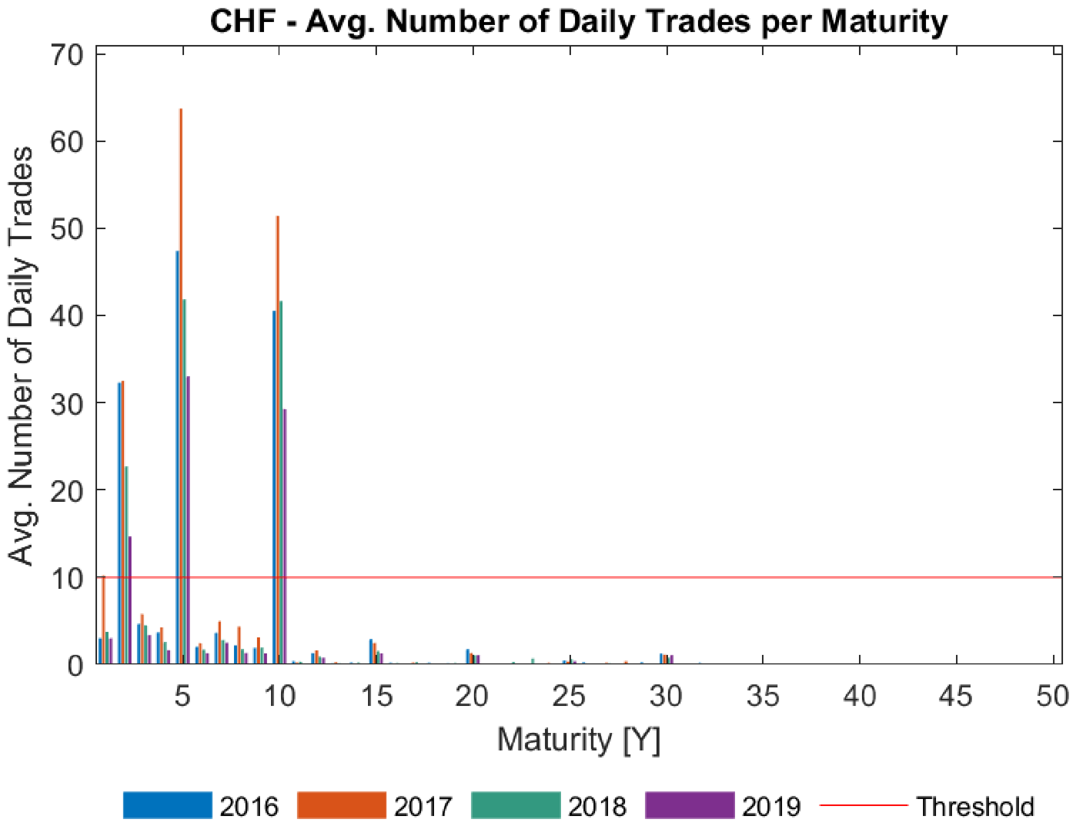


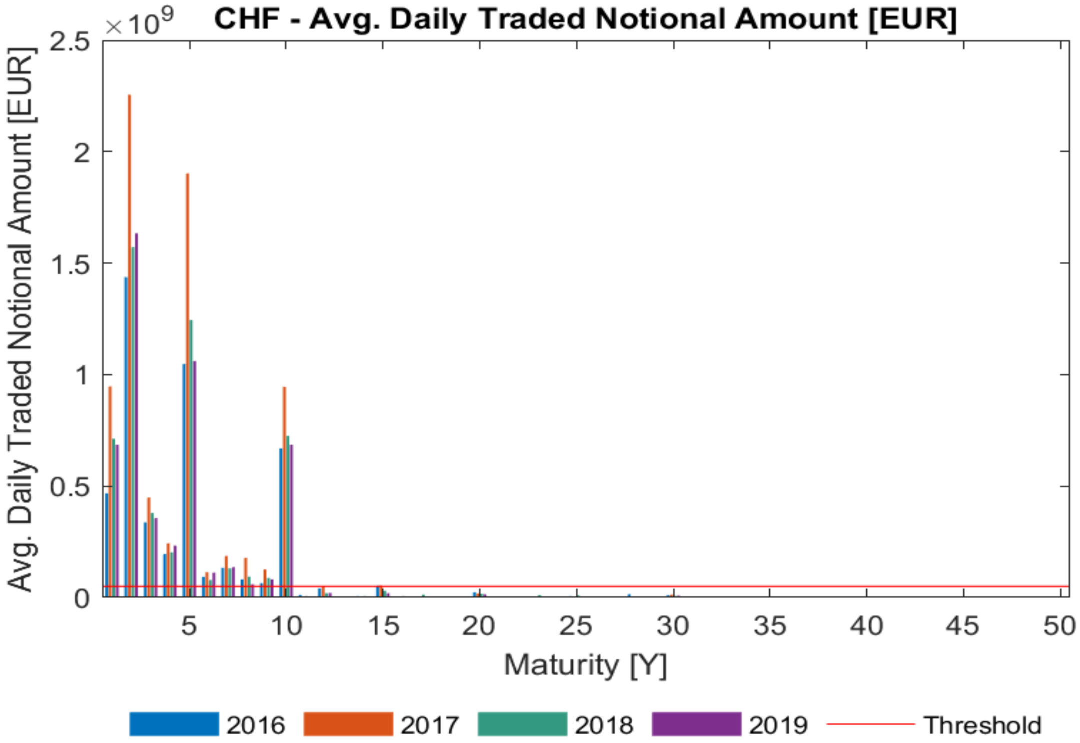

BRL - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
10
20
30
40
50
60
70
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

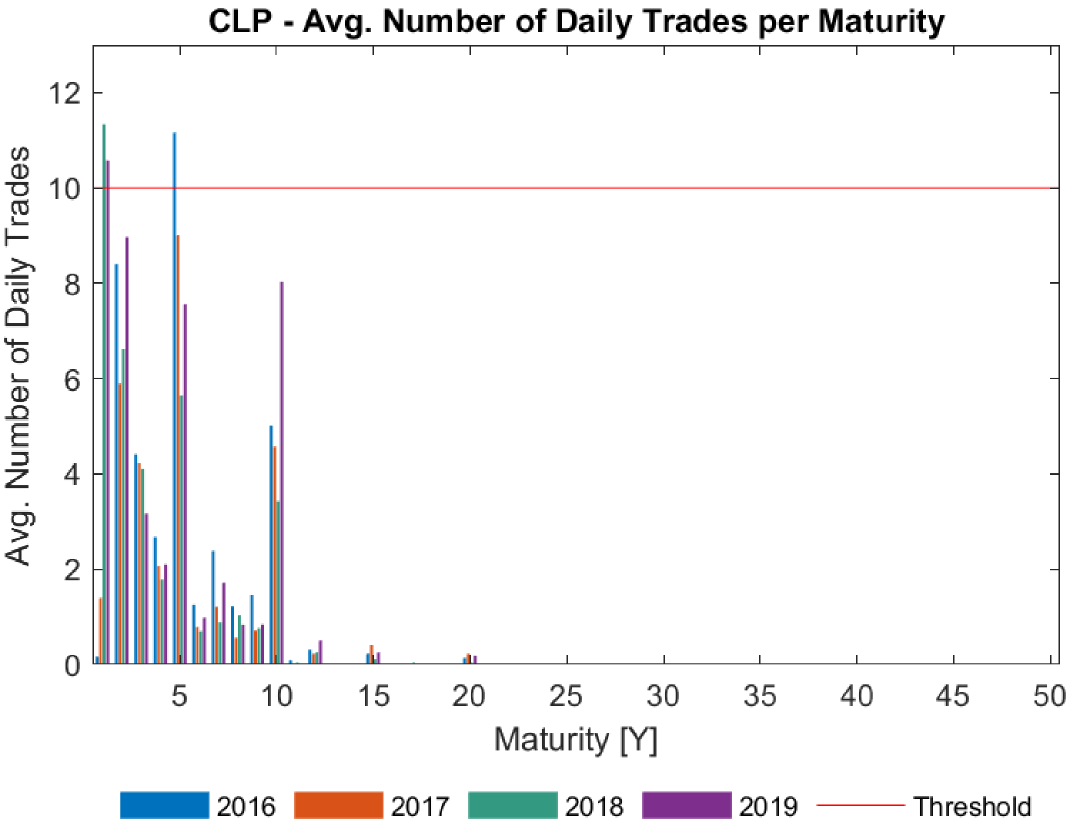

BRL - Avg. Daily Traded Notional Amount [EUR]
×10^9
Avg. Daily Traded Notional Amount [EUR]
0
1
2
3
4
5
6
7
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

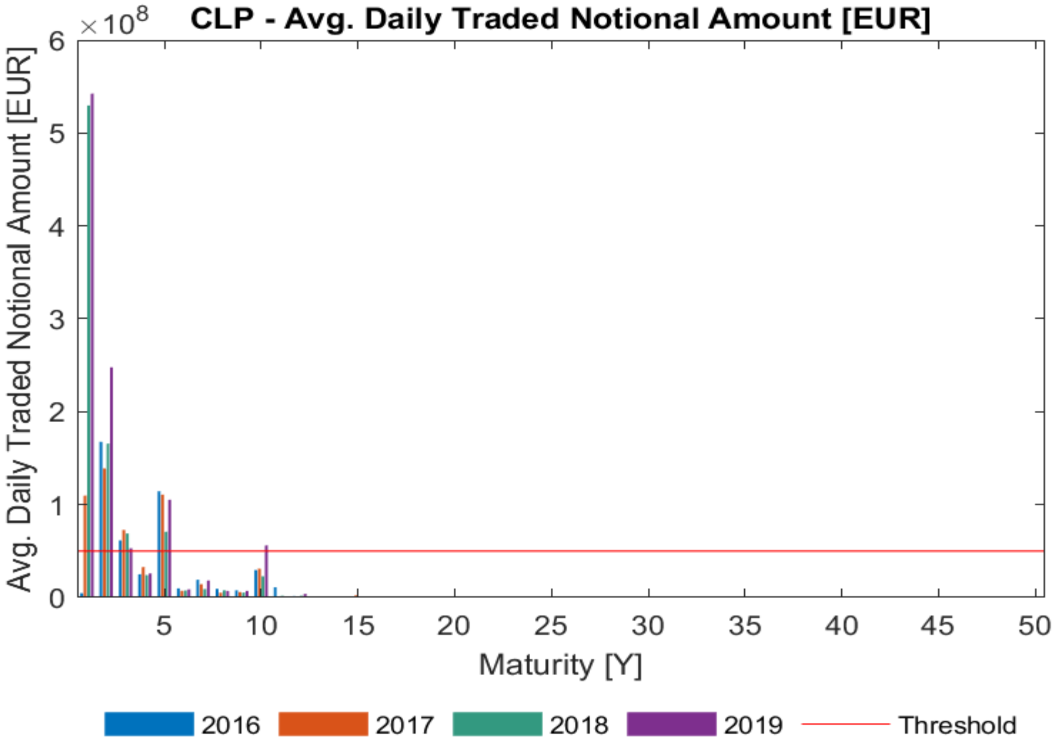

CAD - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
150
100
50
0
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

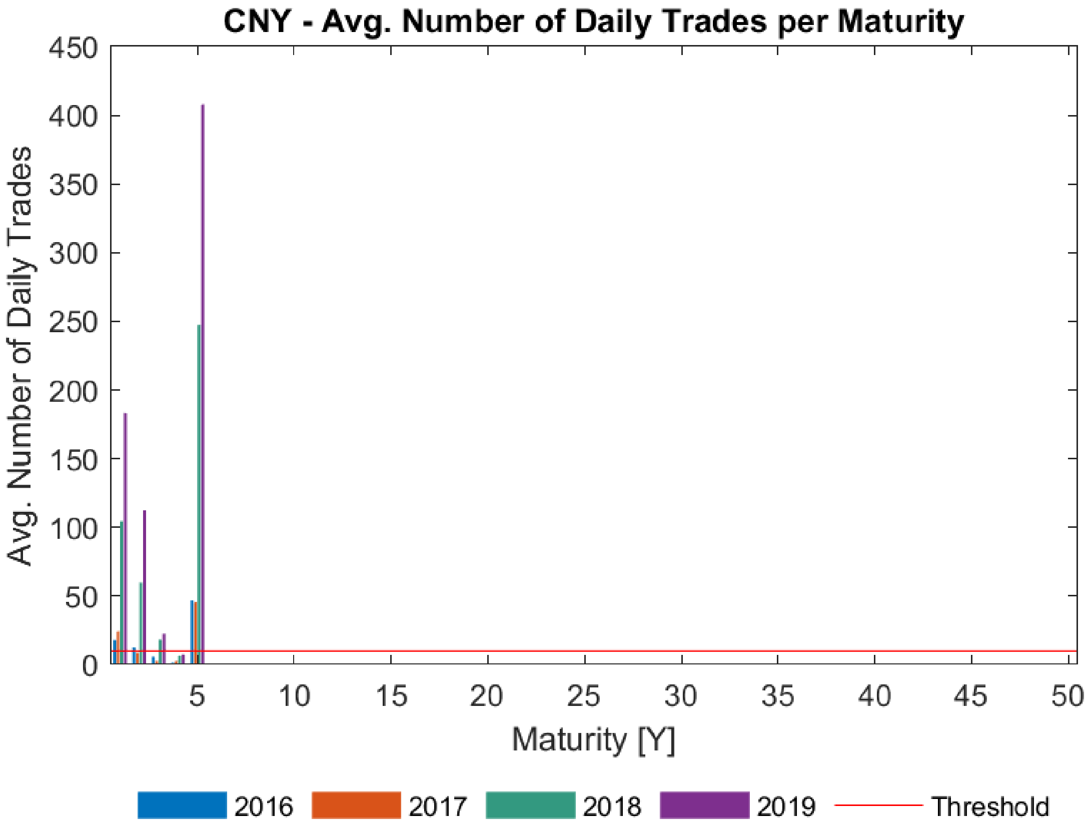

CAD - Avg. Daily Traded Notional Amount [EUR]
×10^9
Avg. Daily Traded Notional Amount [EUR]
8
7
6
5
4
3
2
1
0
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

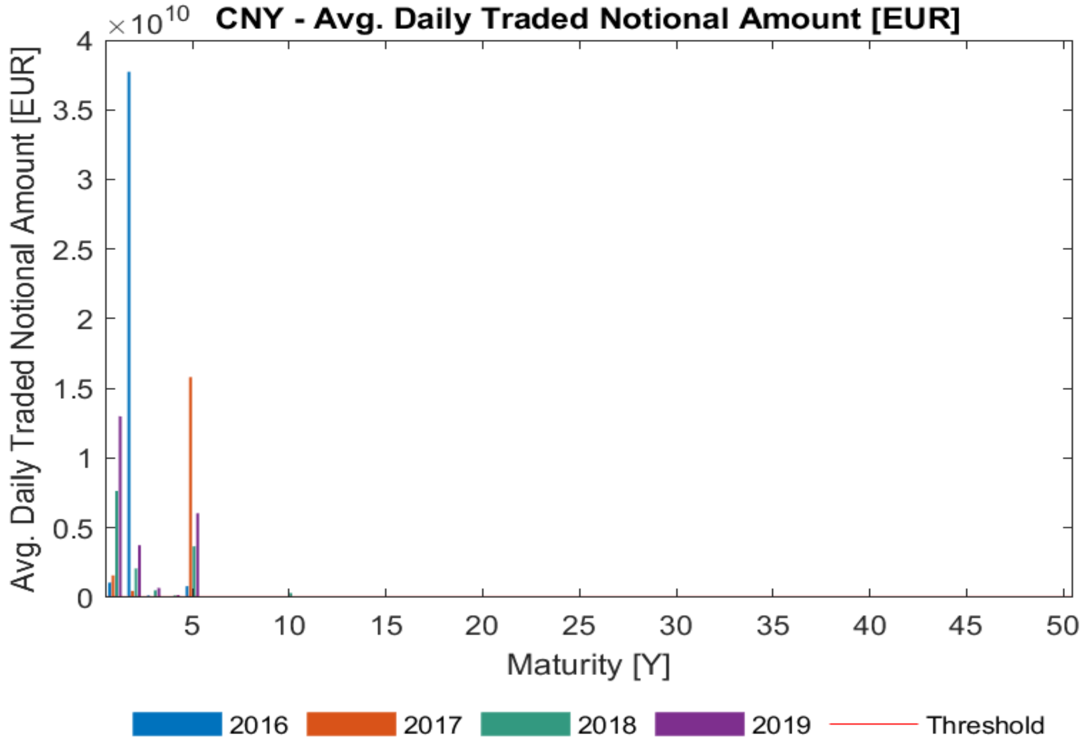

CHF - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
10
20
30
40
50
60
70
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

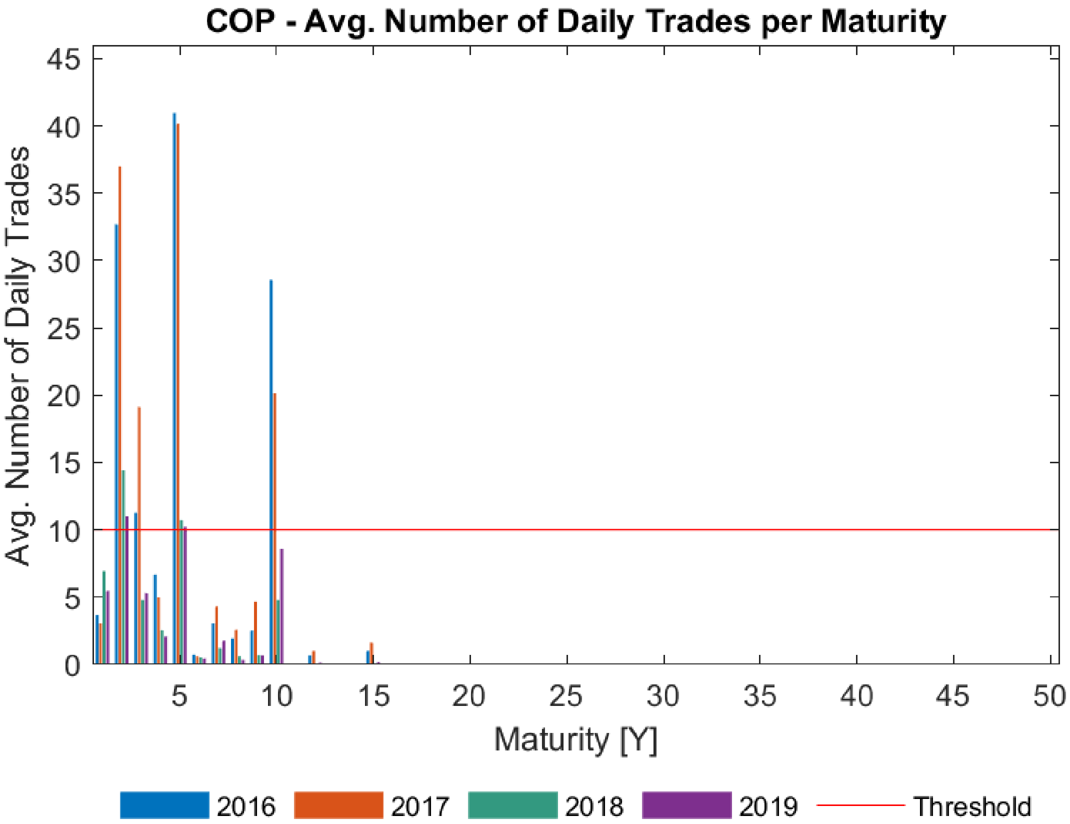

CHF - Avg. Daily Traded Notional Amount [EUR]
$\times 10^9$
Avg. Daily Traded Notional Amount [EUR]
0
0.5
1
1.5
2
2.5
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

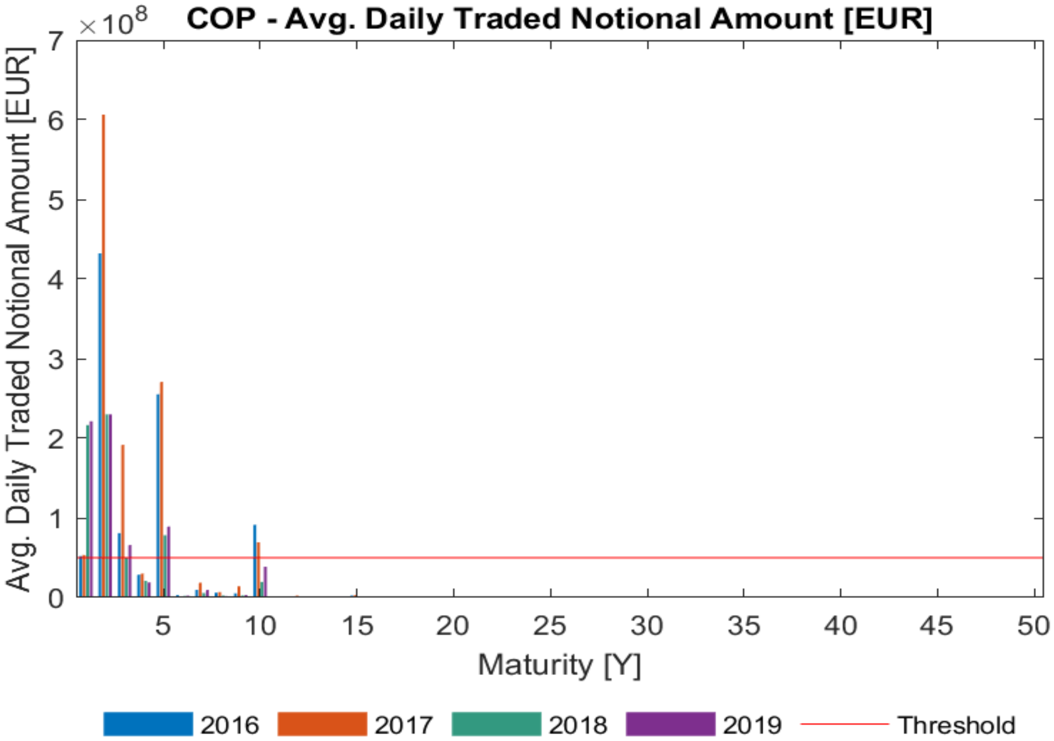

CLP - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
2
4
6
8
10
12
Maturity [Y]
5
10
15
20
25
30
35
40
45
50
2016
2017
2018
2019
Threshold

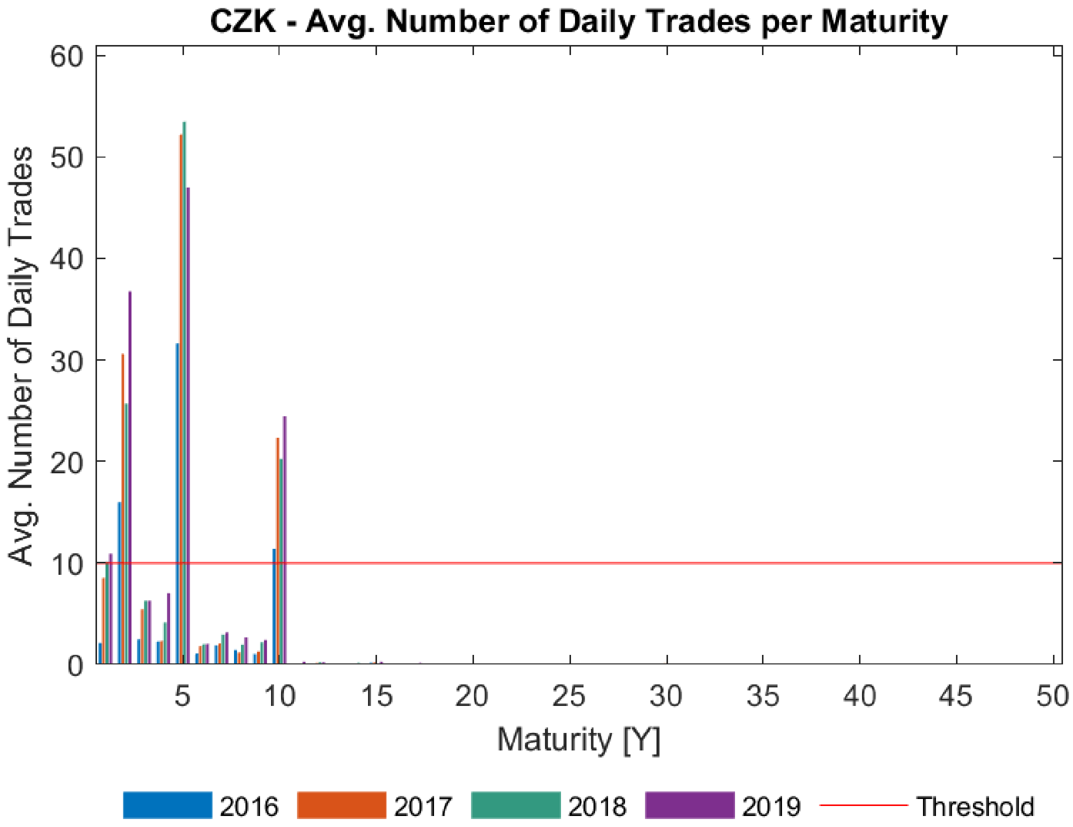

CLP - Avg. Daily Traded Notional Amount [EUR]
×10^8
Avg. Daily Traded Notional Amount [EUR]
0
1
2
3
4
5
6
Maturity [Y]
5
10
15
20
25
30
35
40
45
50
2016
2017
2018
2019
Threshold

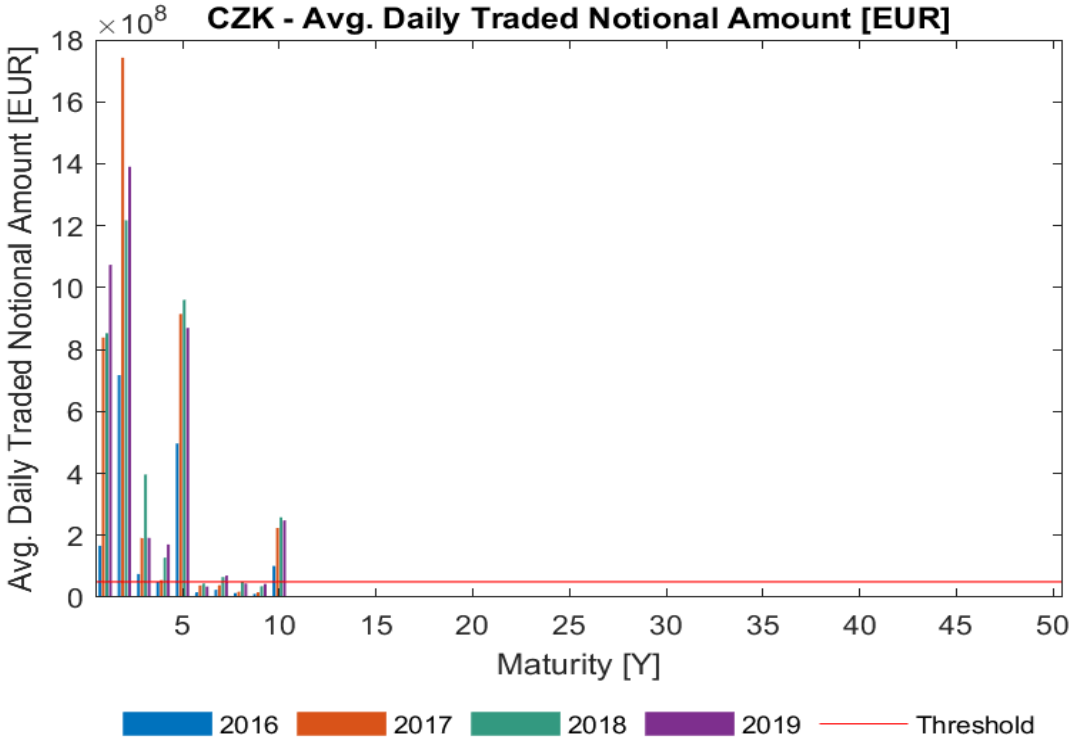

CNY - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
450
400
350
300
250
200
150
100
50
0
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

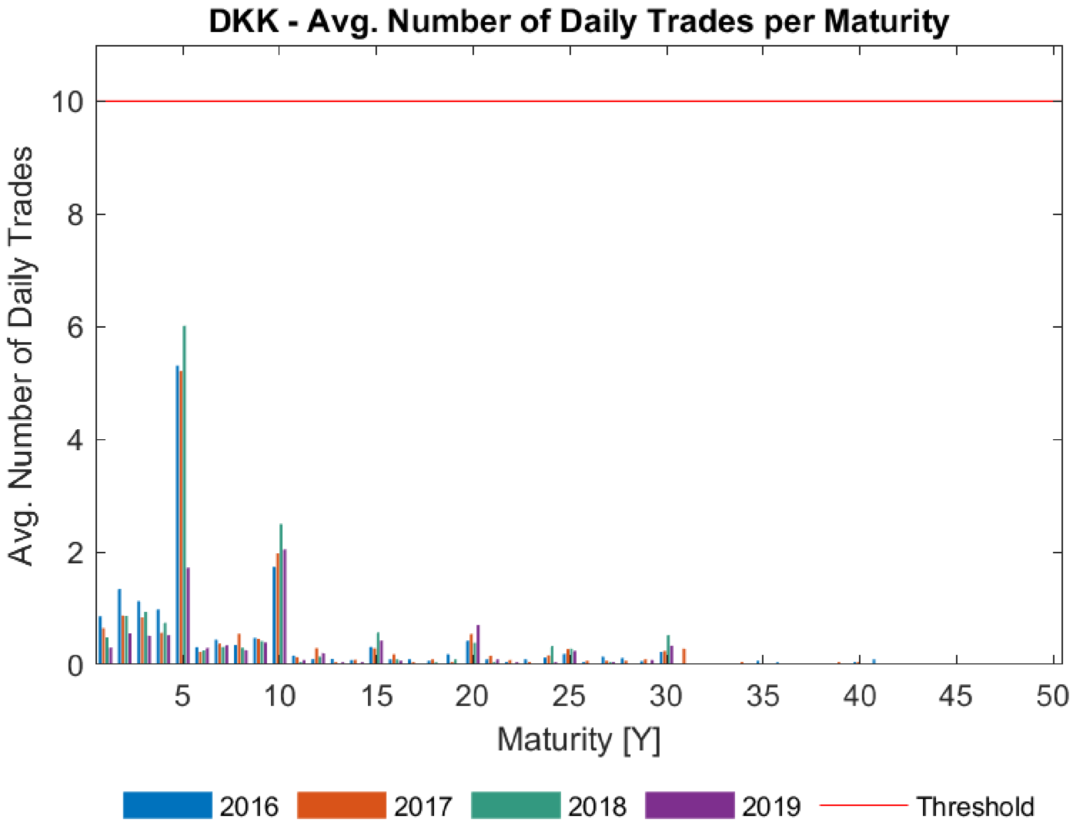

CNY - Avg. Daily Traded Notional Amount [EUR]
×10^10
Avg. Daily Traded Notional Amount [EUR]
4
3.5
3
2.5
2
1.5
1
0.5
0
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold


COP - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
5
10
15
20
25
30
35
40
45
Maturity [Y]
5
10
15
20
25
30
35
40
45
50
2016
2017
2018
2019
Threshold


COP - Avg. Daily Traded Notional Amount [EUR]
×10^8
Avg. Daily Traded Notional Amount [EUR]
0
1
2
3
4
5
6
7
Maturity [Y]
5
10
15
20
25
30
35
40
45
50
2016
2017
2018
2019
Threshold


CZK - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
10
20
30
40
50
60
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold


CZK - Avg. Daily Traded Notional Amount [EUR]
×10^8
Avg. Daily Traded Notional Amount [EUR]
0
2
4
6
8
10
12
14
16
18
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold


DKK - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
2
4
6
8
10
5
10
15
20
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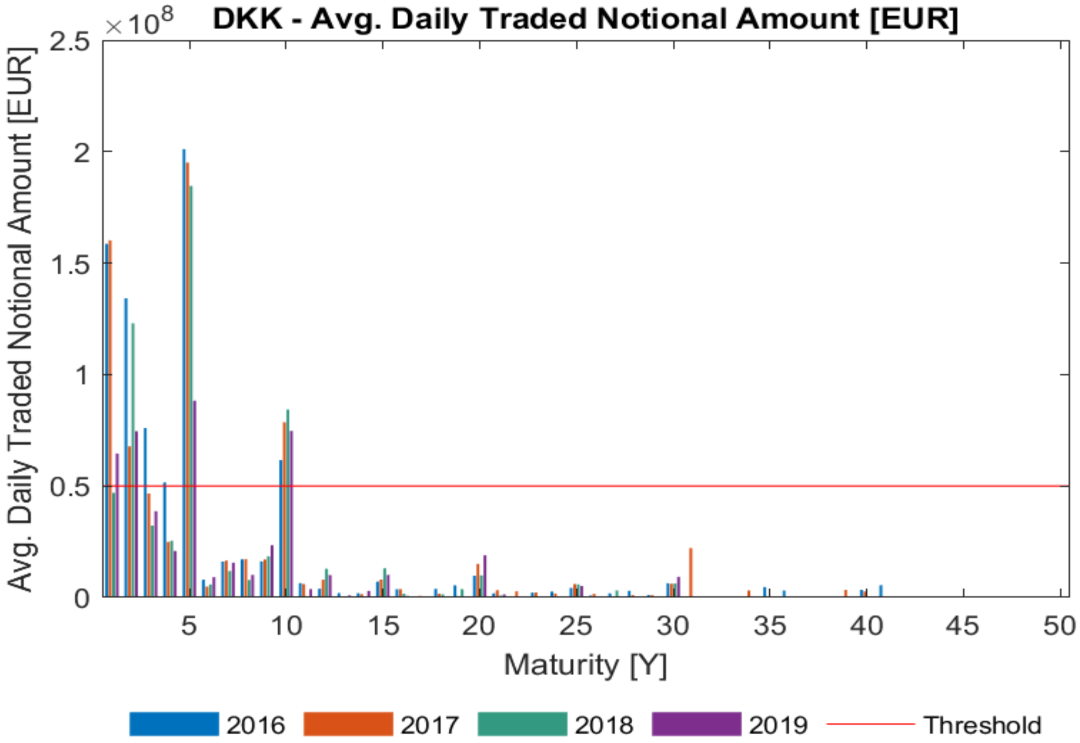
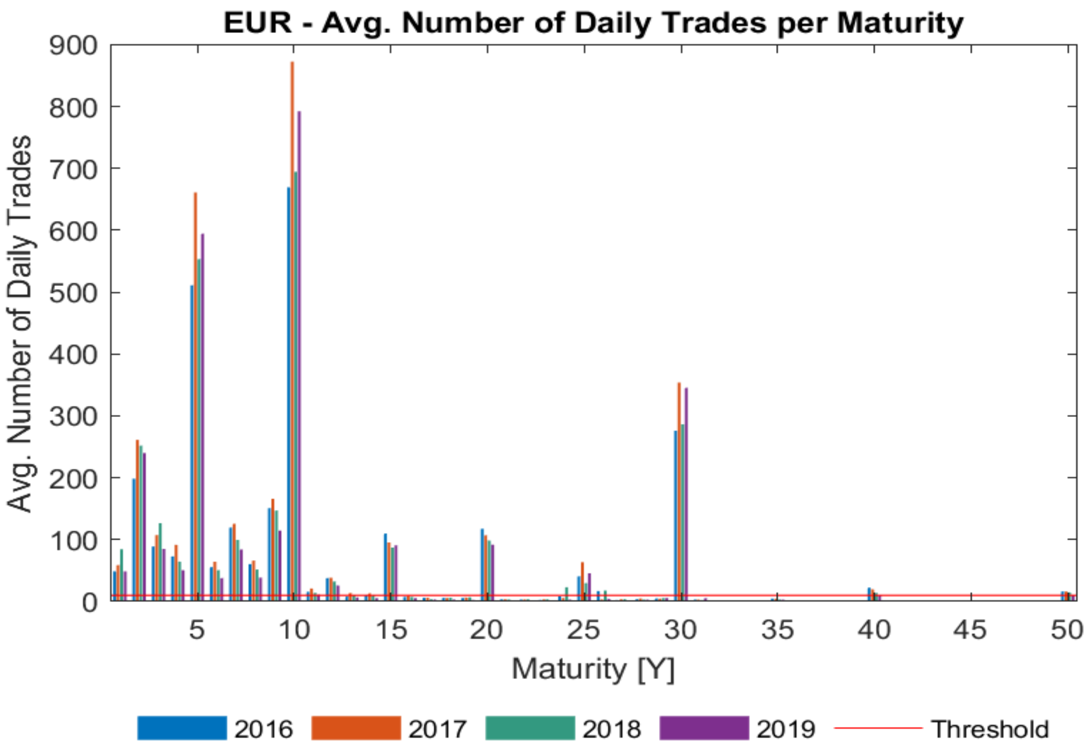
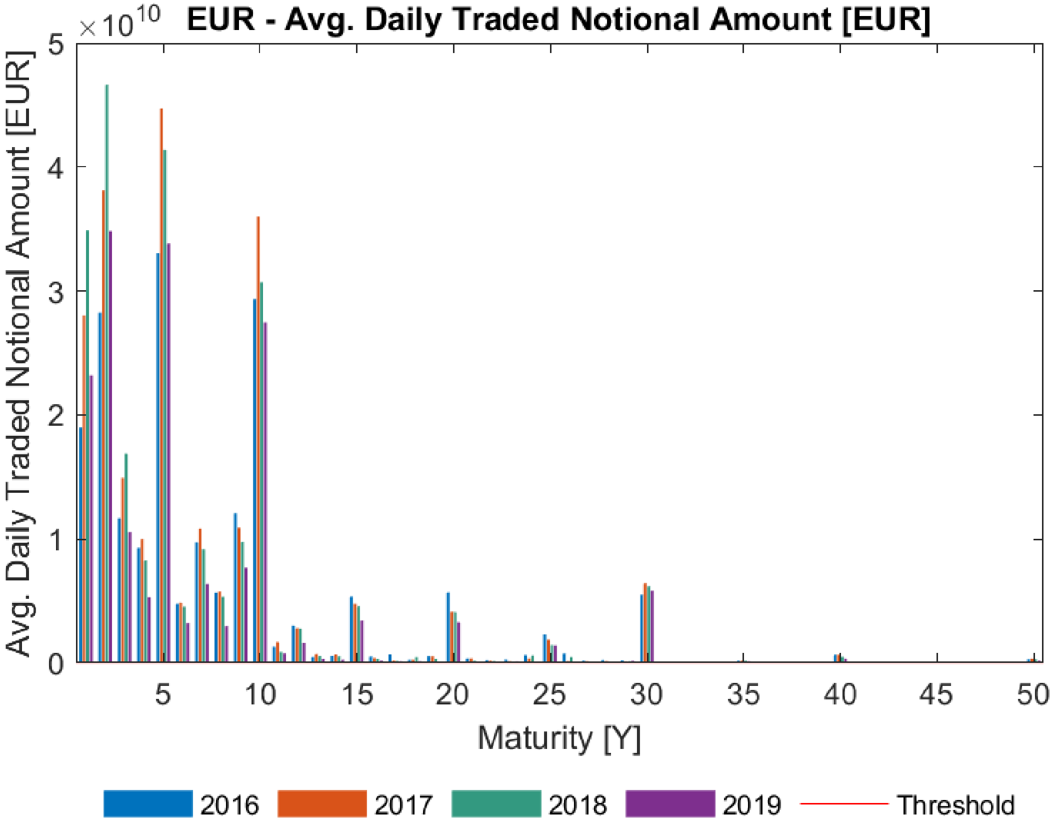
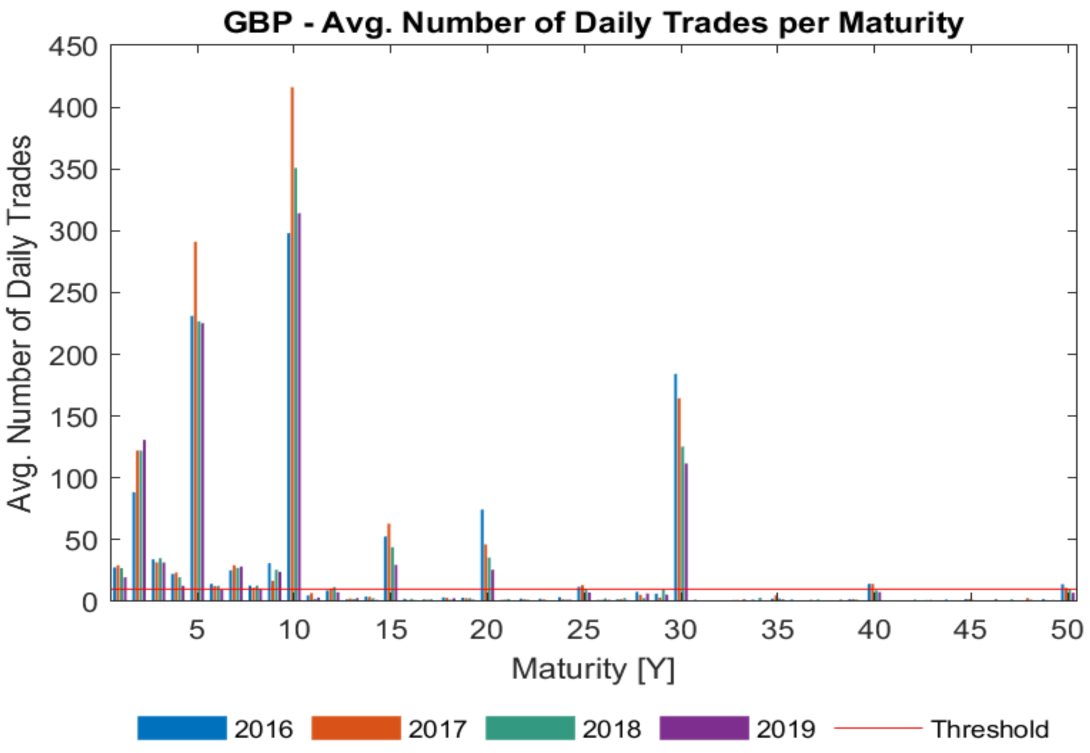
Maturity [Y]
2016
2017
2018
2019
Threshold


DKK - Avg. Daily Traded Notional Amount [EUR]
×10^8
Avg. Daily Traded Notional Amount [EUR]
0
0.5
1
1.5
2
2.5
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold


EUR - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
100
200
300
400
500
600
700
800
900
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold


×10^10
EUR - Avg. Daily Traded Notional Amount [EUR]
Avg. Daily Traded Notional Amount [EUR]
0
1
2
3
4
5
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold


GBP - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
50
100
150
200
250
300
350
400
450
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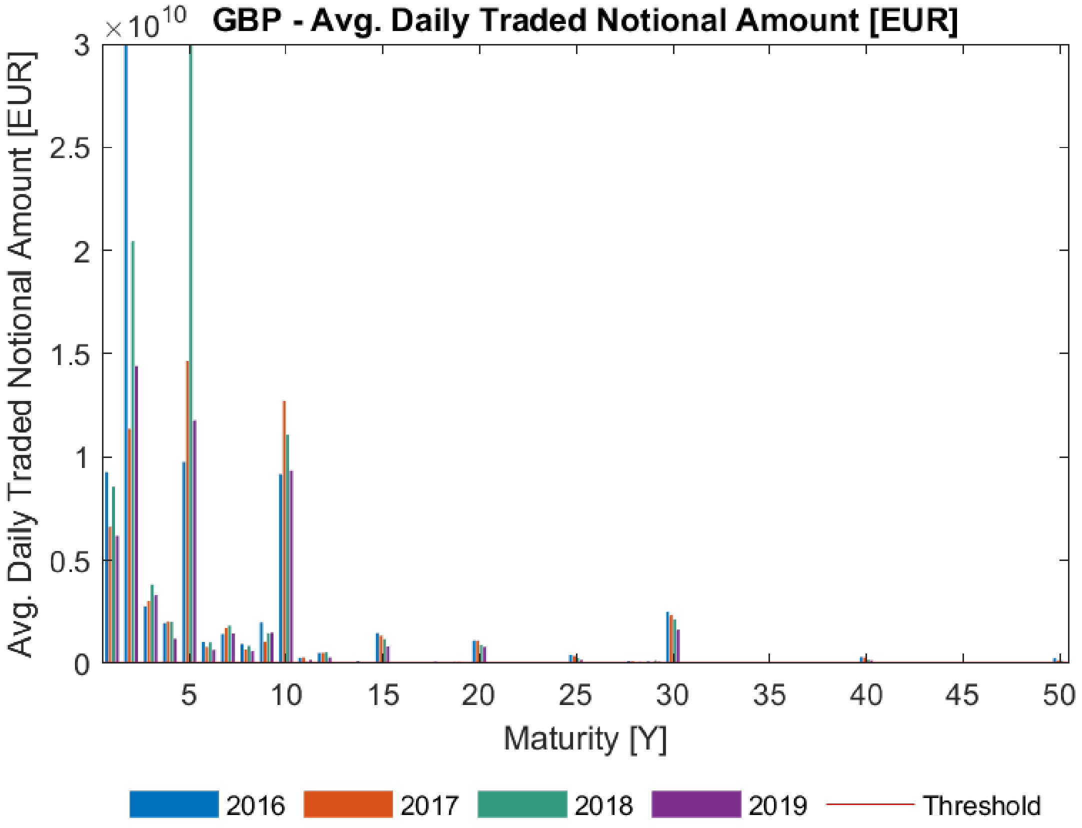
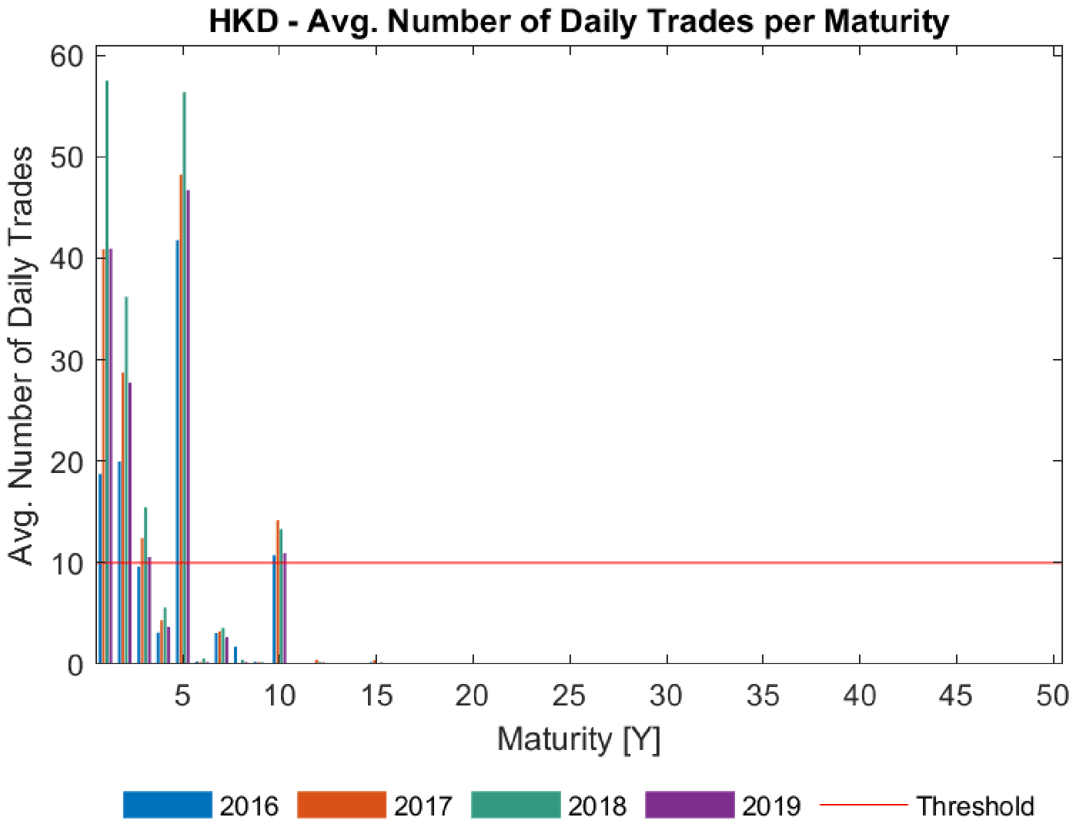
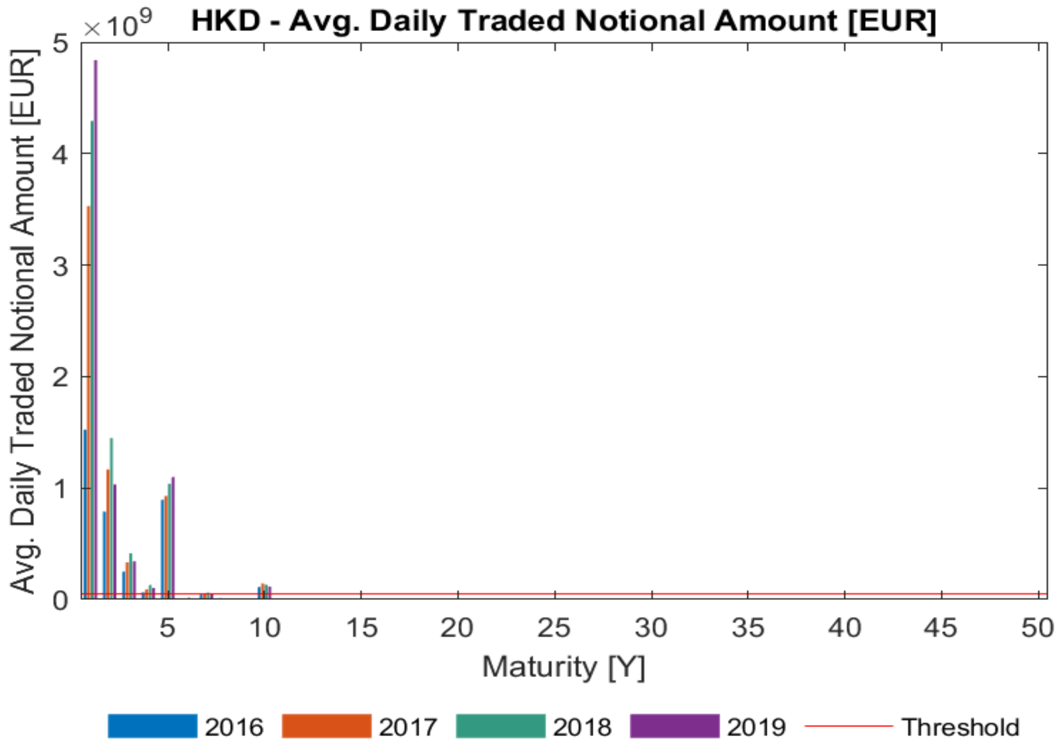
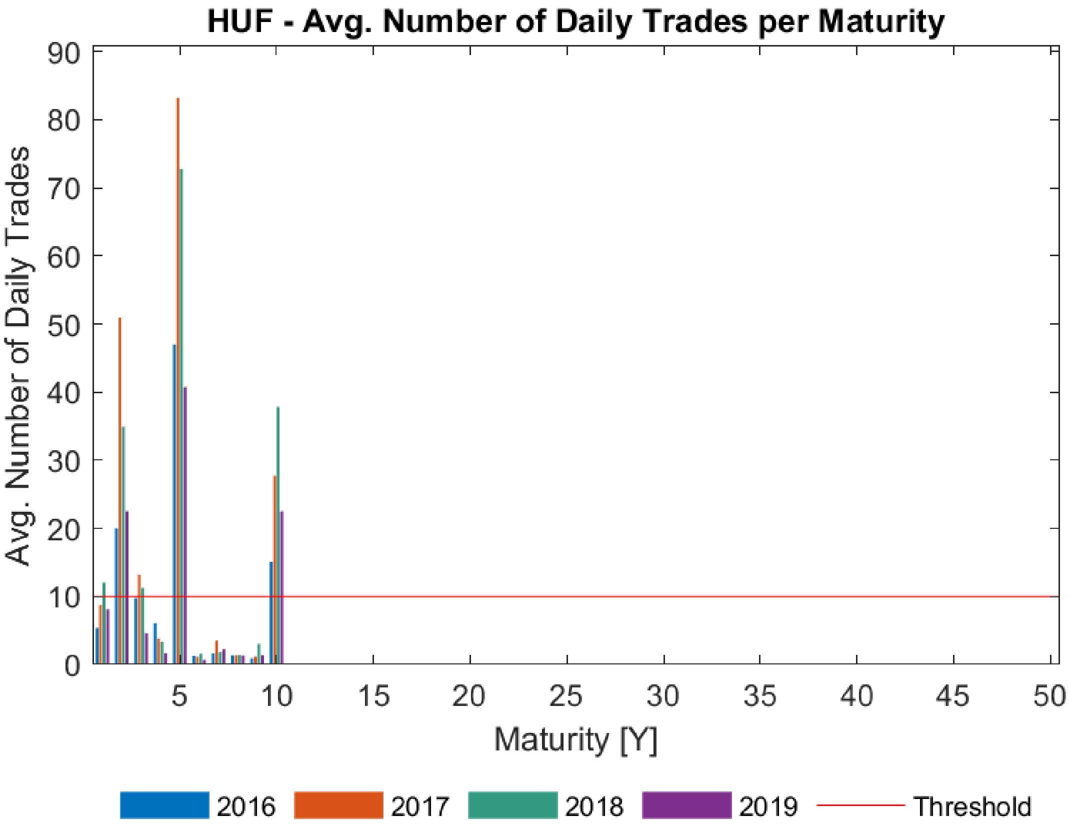
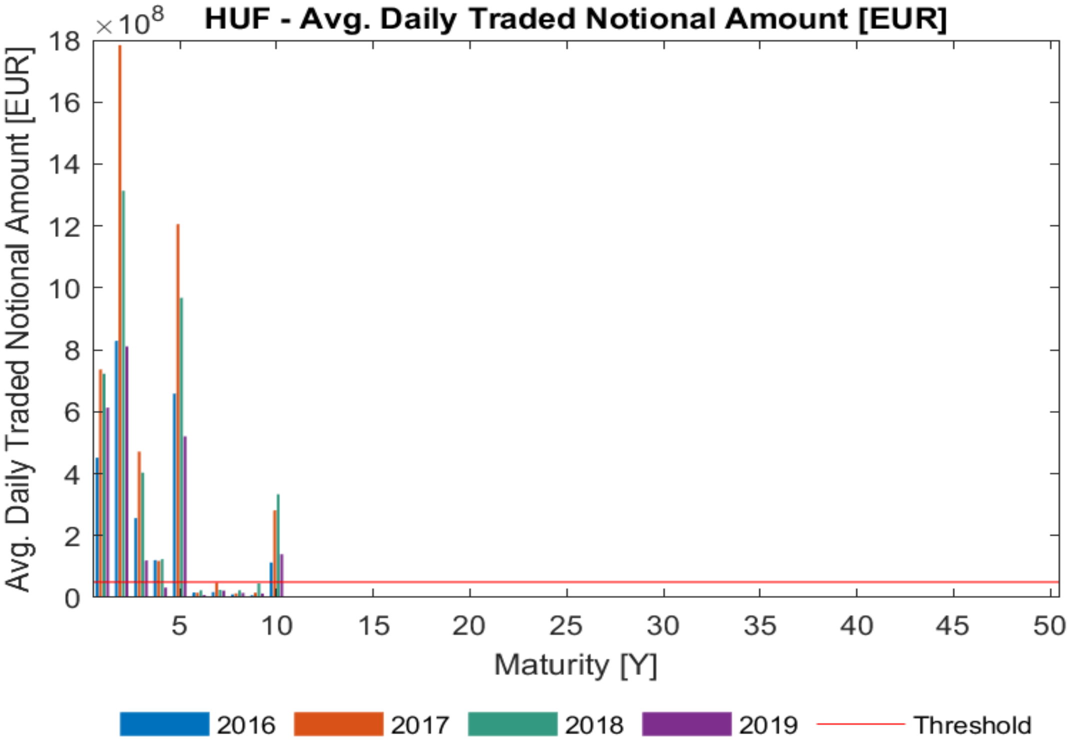
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

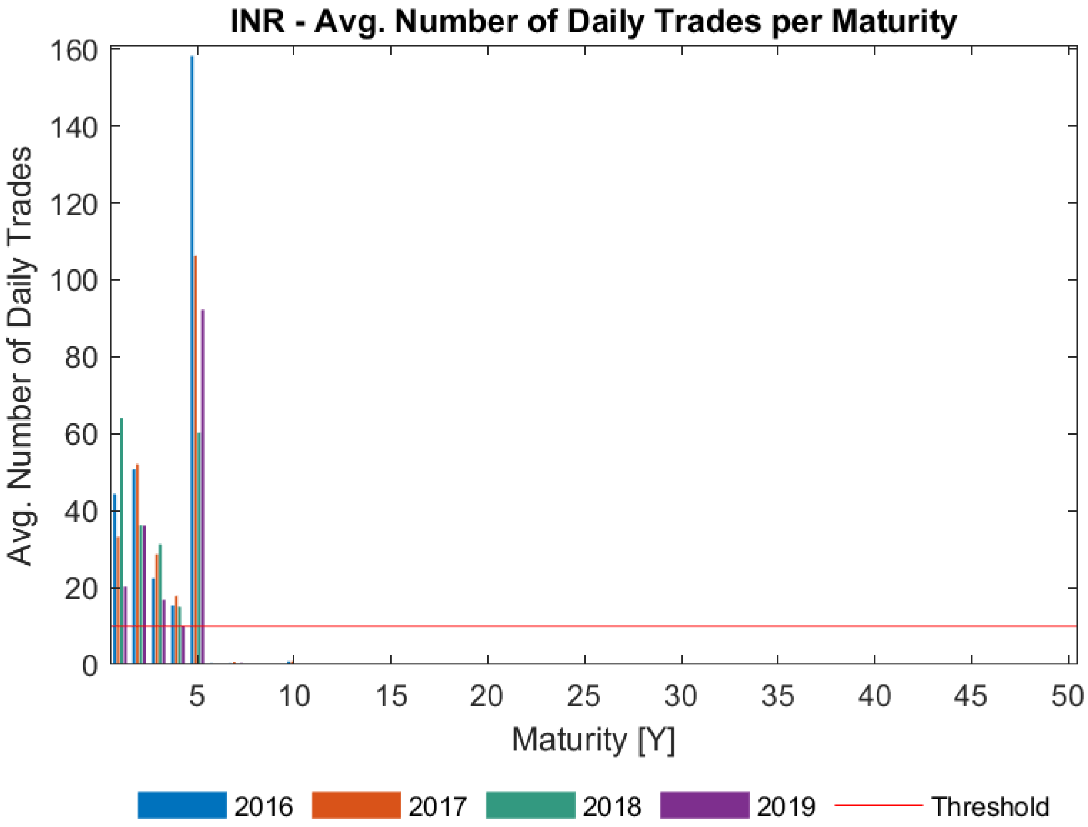

×10^10
GBP - Avg. Daily Traded Notional Amount [EUR]
Avg. Daily Traded Notional Amount [EUR]
0
0.5
1
1.5
2
2.5
3
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

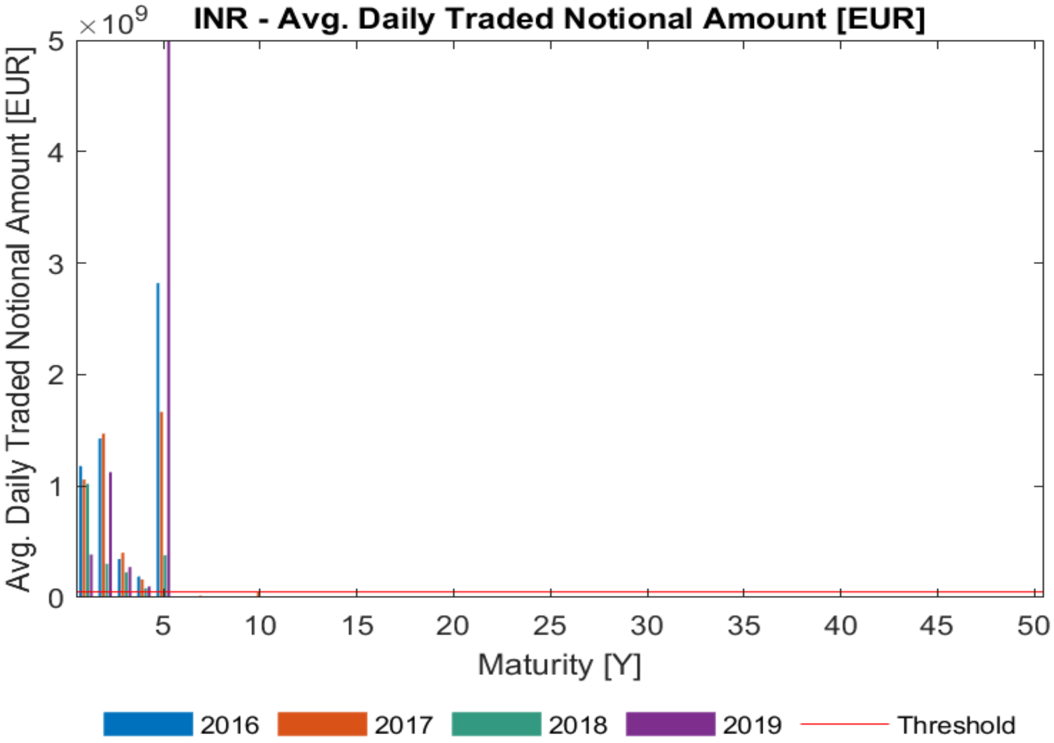

HKD - Avg. Number of Daily Trades per Maturity

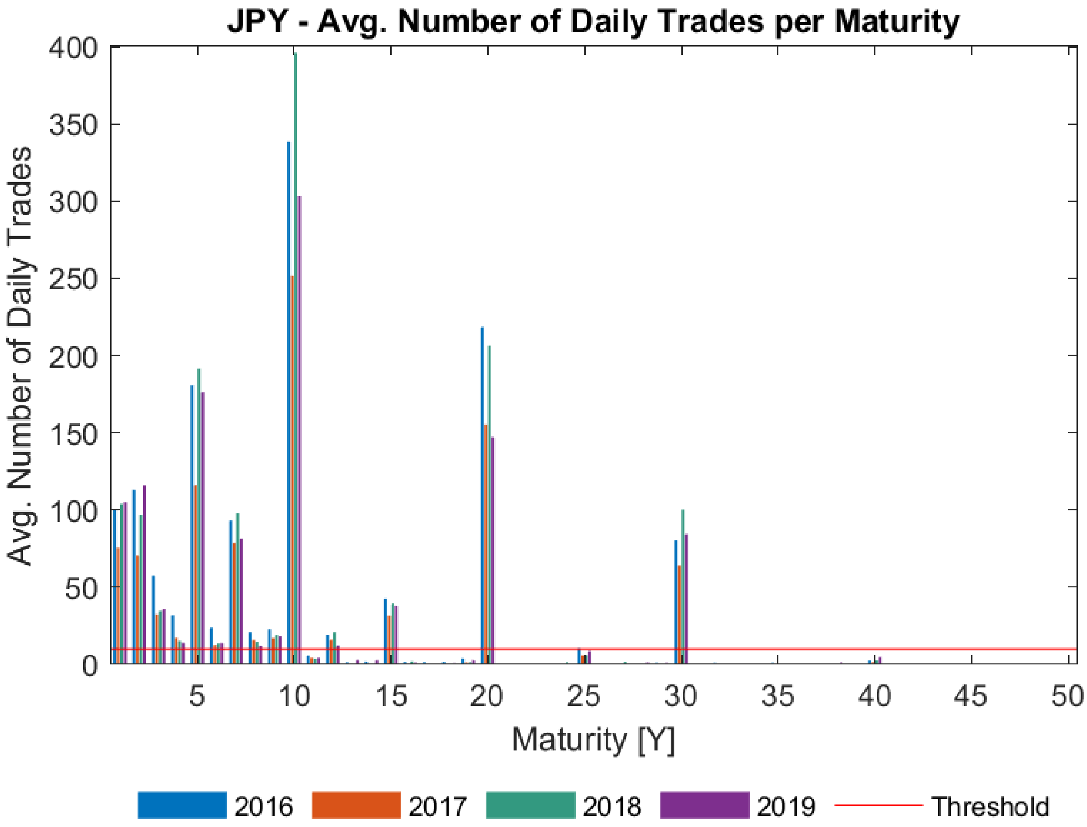

HKD - Avg. Daily Traded Notional Amount [EUR]

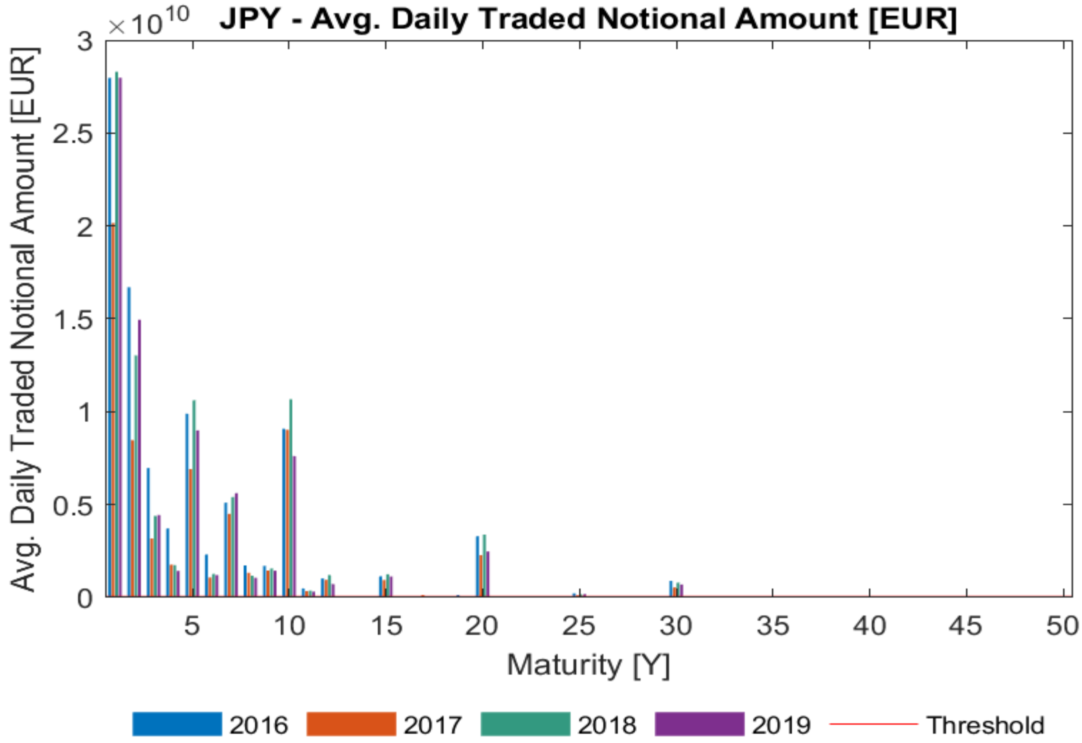

HUF - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
10
20
30
40
50
60
70
80
90
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

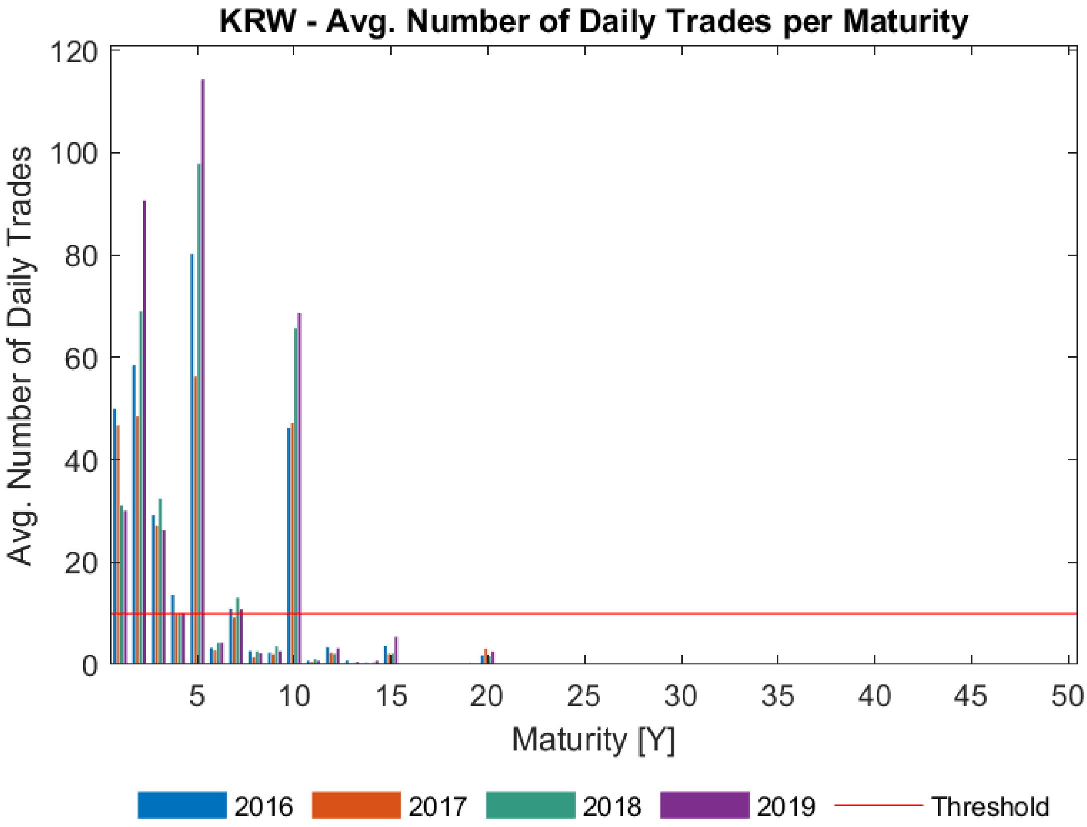

HUF - Avg. Daily Traded Notional Amount [EUR]
×10^8
Avg. Daily Traded Notional Amount [EUR]
0
2
4
6
8
10
12
14
16
18
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

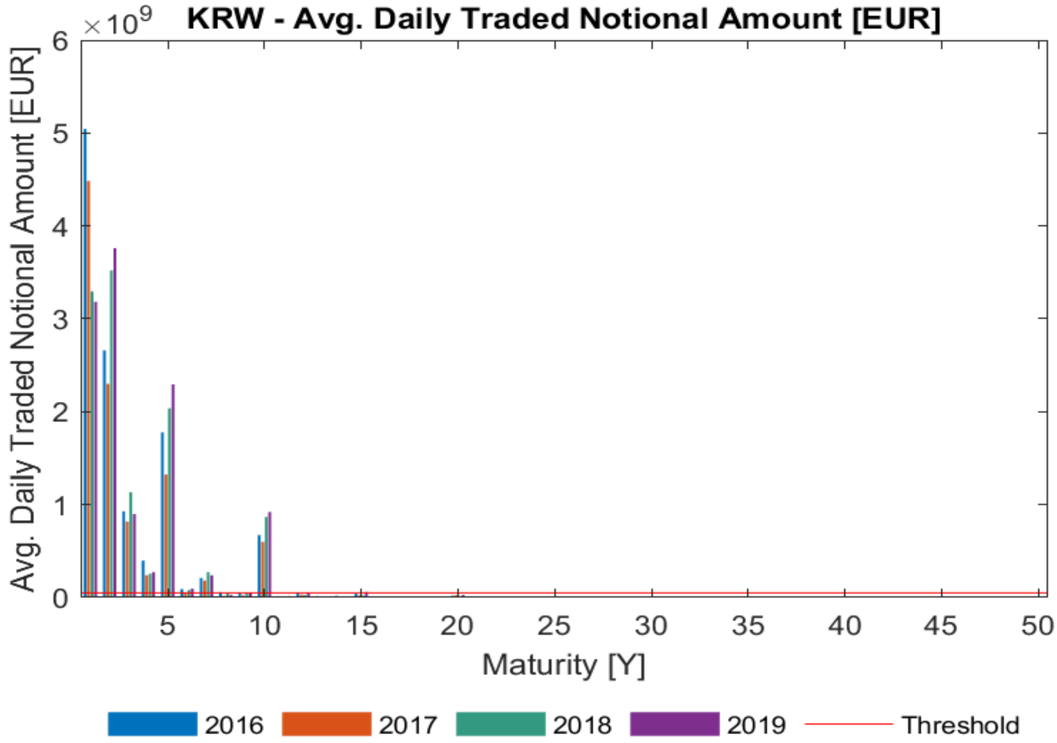

INR - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
20
40
60
80
100
120
140
160
Maturity [Y]
5
10
15
20
25
30
35
40
45
50
2016
2017
2018
2019
Threshold

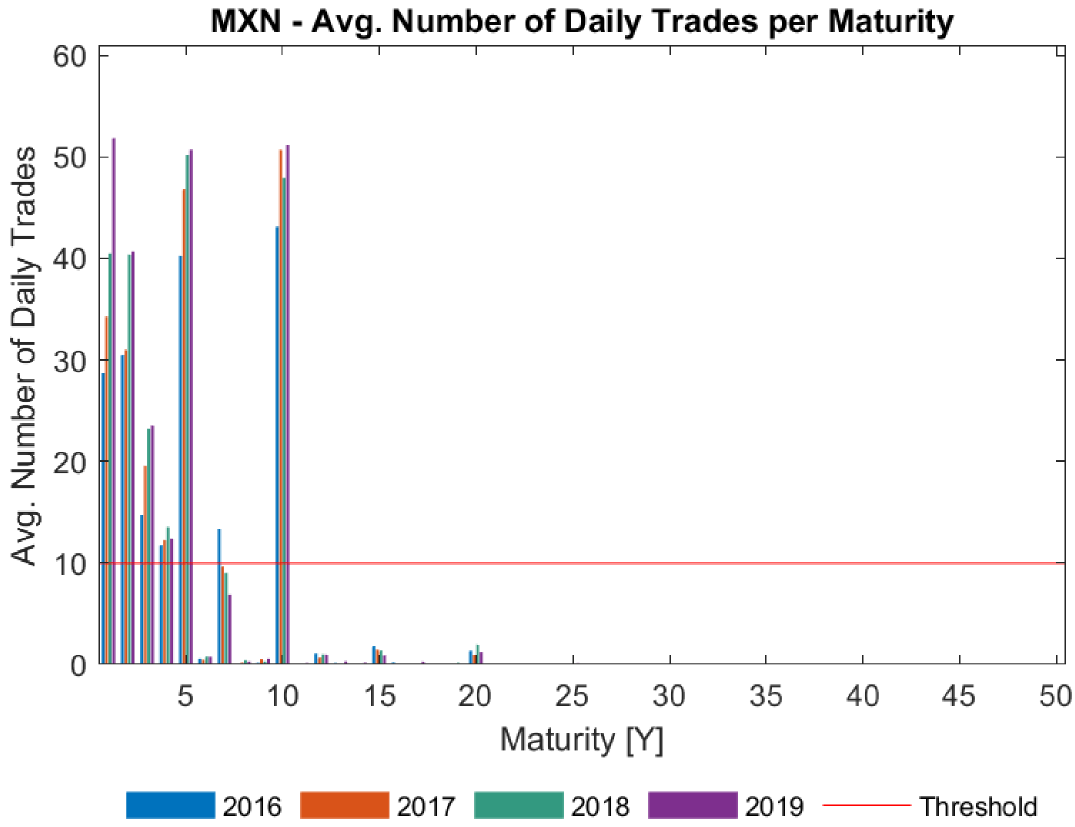

INR - Avg. Daily Traded Notional Amount [EUR]
×10^9
Avg. Daily Traded Notional Amount [EUR]
0
1
2
3
4
5
Maturity [Y]
5
10
15
20
25
30
35
40
45
50
2016
2017
2018
2019
Threshold

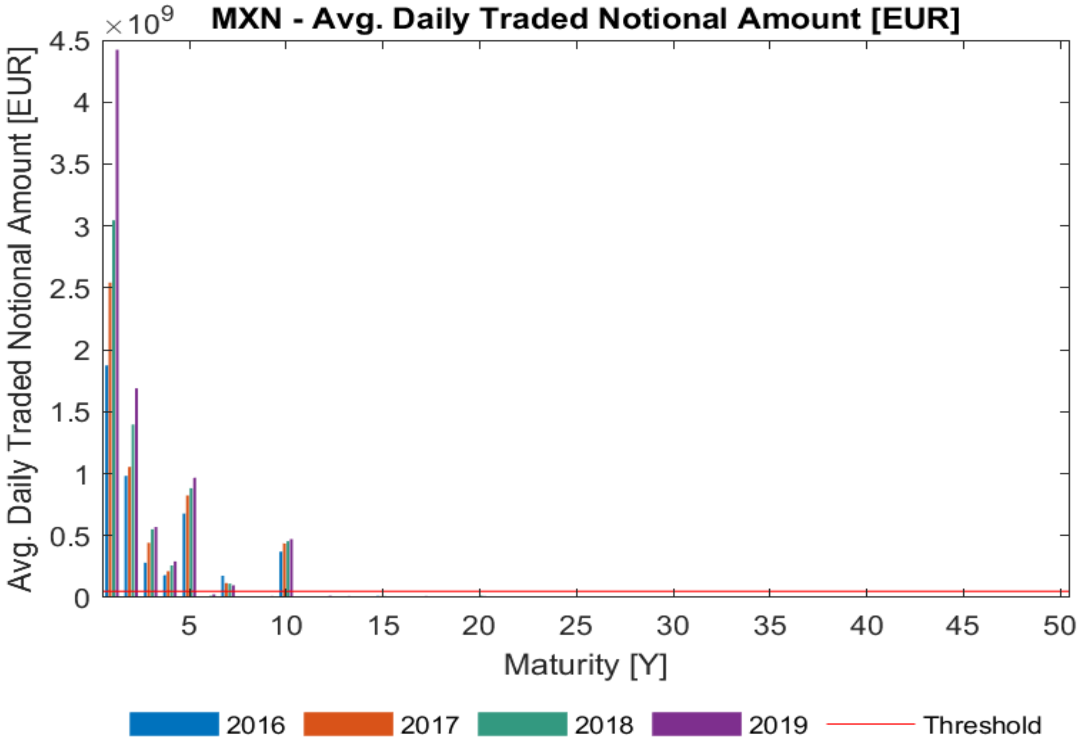

JPY - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
400
350
300
250
200
150
100
50
0
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

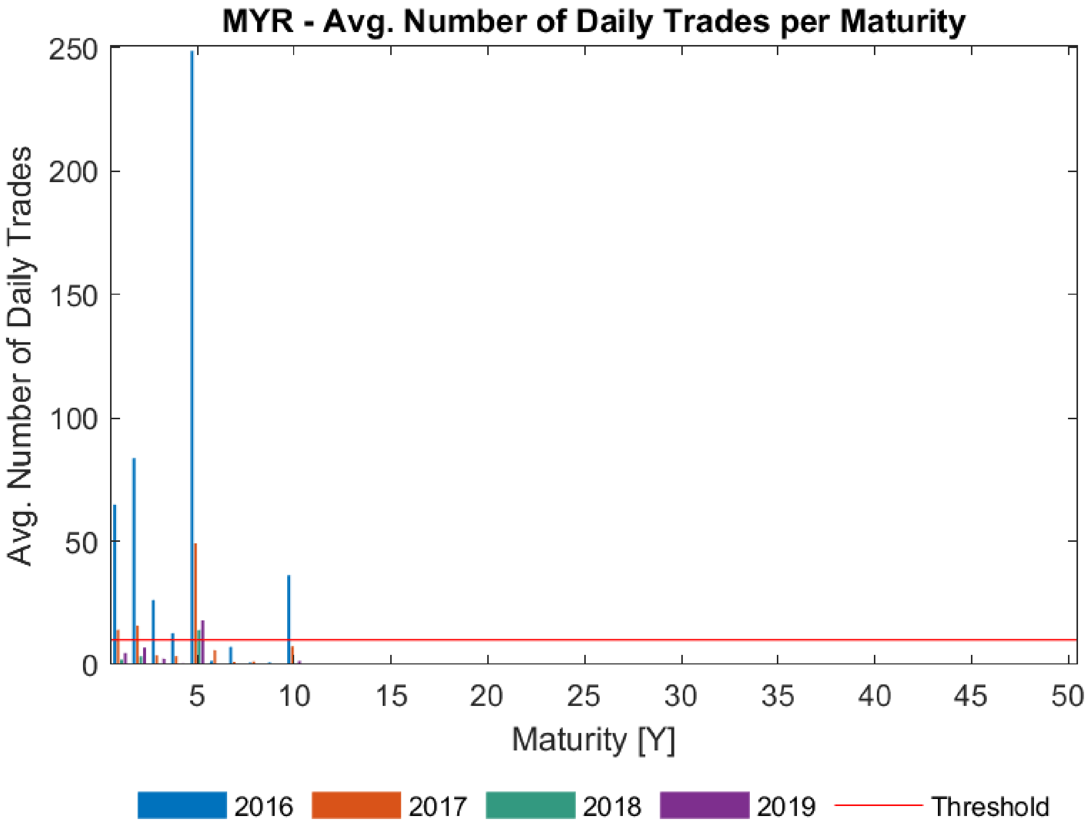

JPY - Avg. Daily Traded Notional Amount [EUR]
×10^10
Avg. Daily Traded Notional Amount [EUR]
3
2.5
2
1.5
1
0.5
0
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

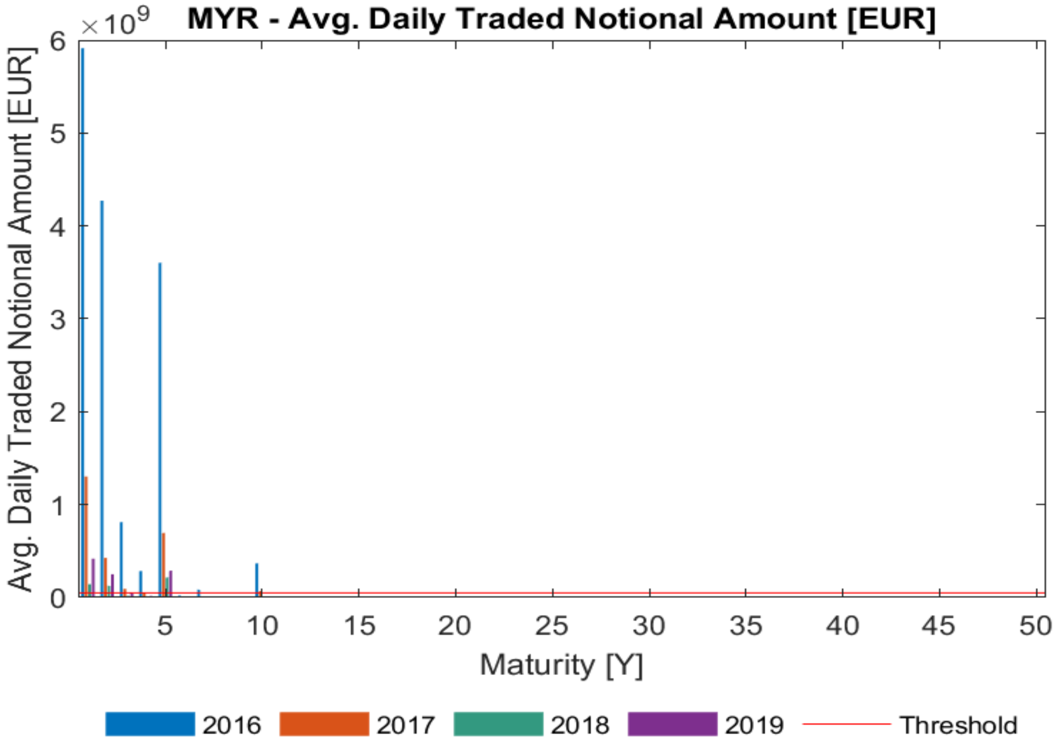

KRW - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
20
40
60
80
100
120
Maturity [Y]
5
10
15
20
25
30
35
40
45
50
2016
2017
2018
2019
Threshold

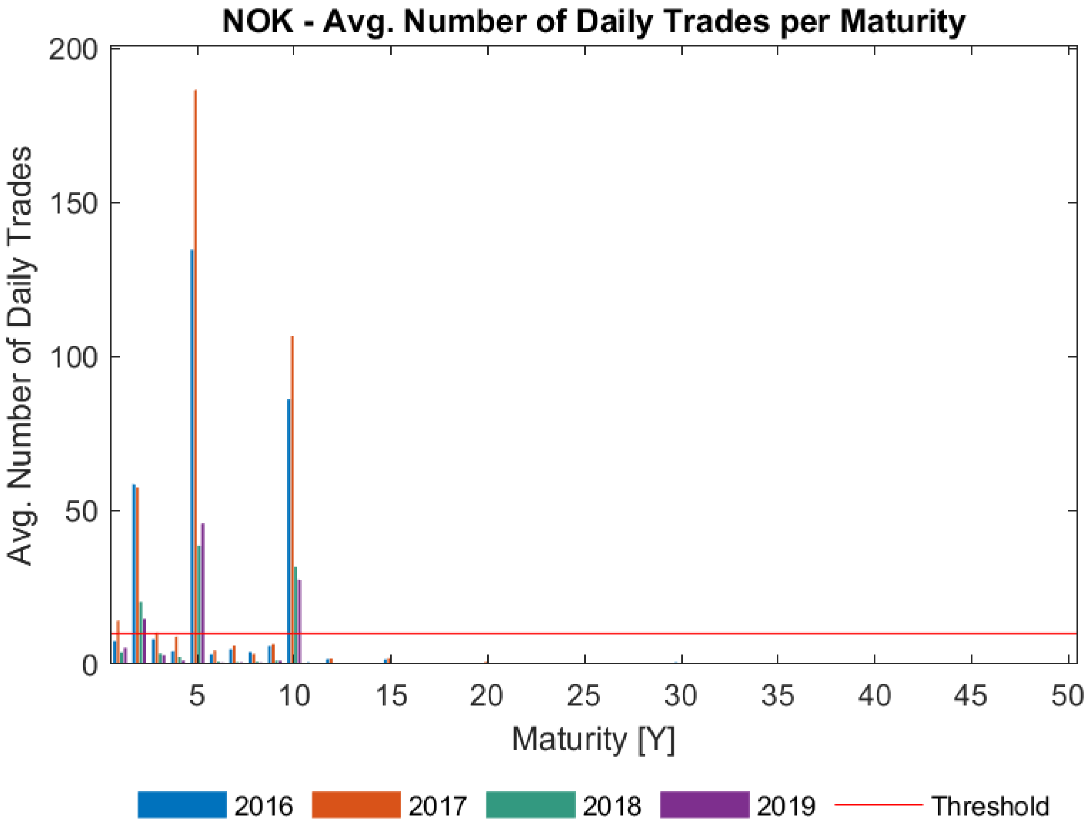

KRW - Avg. Daily Traded Notional Amount [EUR]
$\times 10^9$
Avg. Daily Traded Notional Amount [EUR]
0
1
2
3
4
5
6
Maturity [Y]
5
10
15
20
25
30
35
40
45
50
2016
2017
2018
2019
Threshold

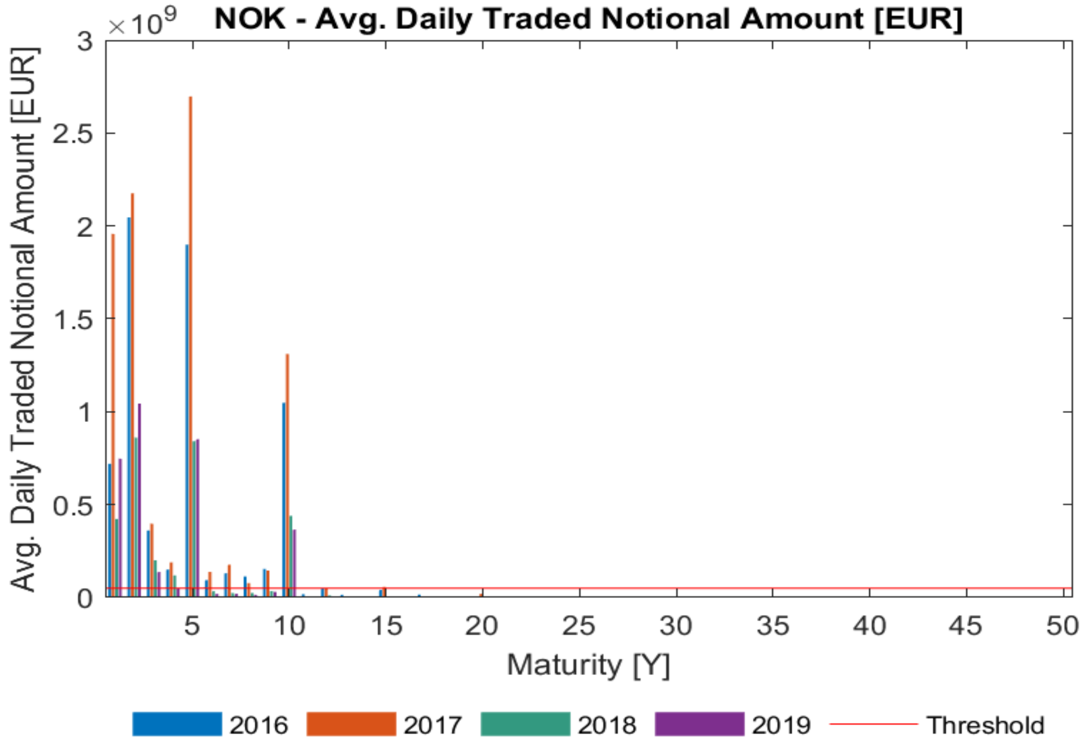

MXN - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
10
20
30
40
50
60
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

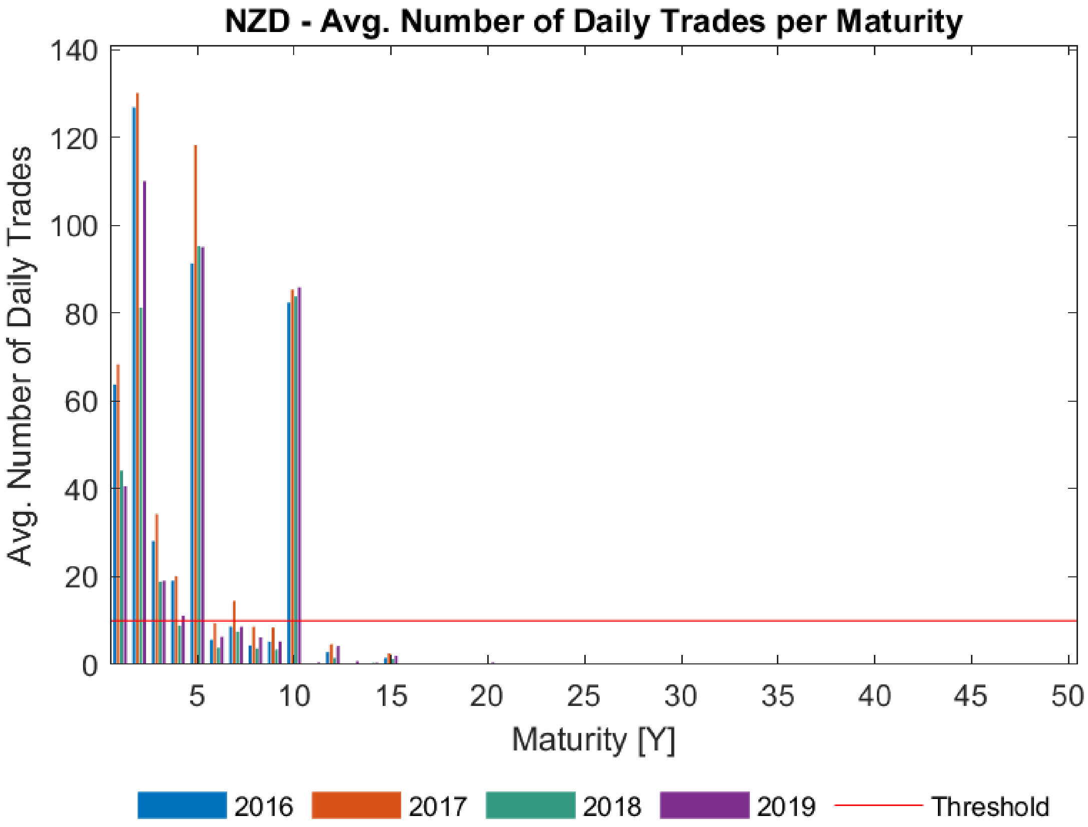

MXN - Avg. Daily Traded Notional Amount [EUR]
$\times 10^9$
Avg. Daily Traded Notional Amount [EUR]
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

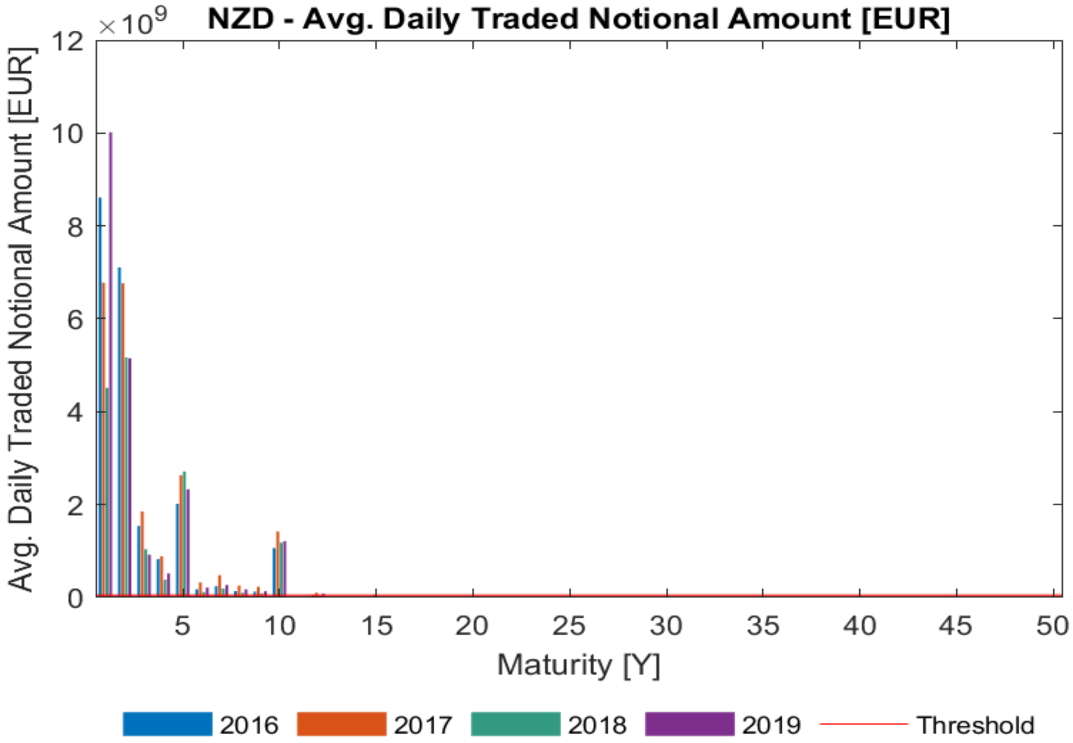

MYR - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
50
100
150
200
250
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

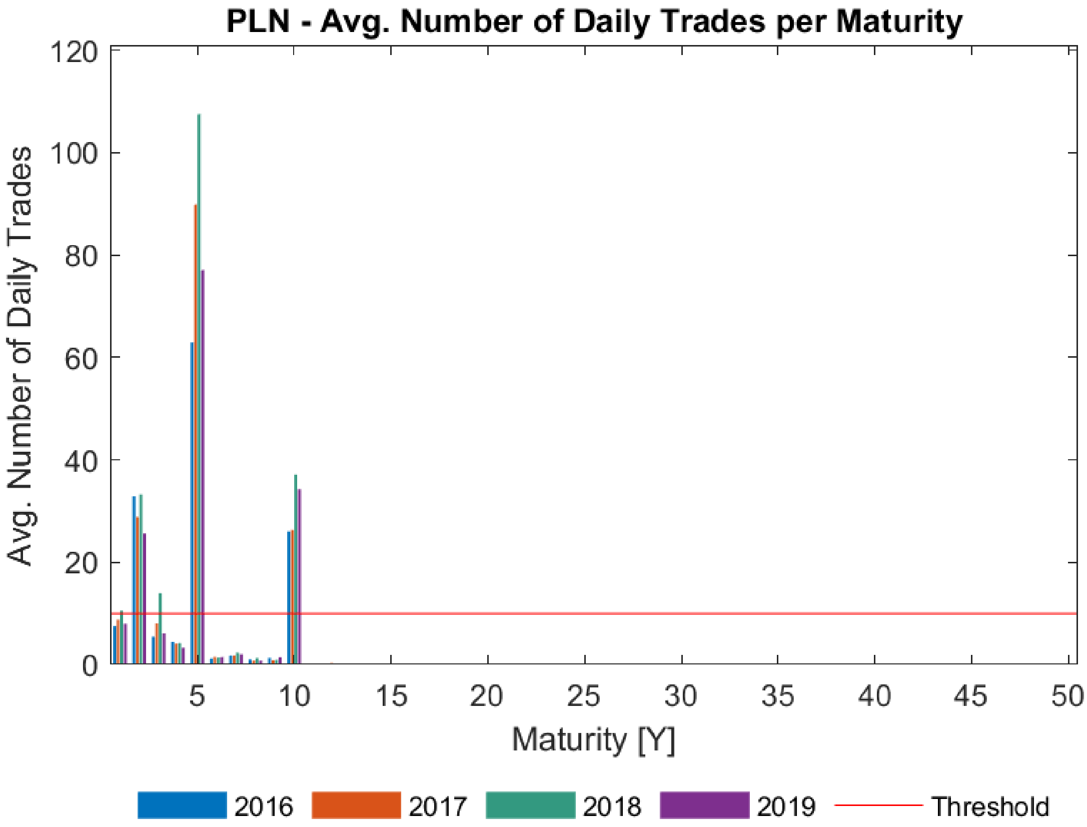

MYR - Avg. Daily Traded Notional Amount [EUR]
×10^9
Avg. Daily Traded Notional Amount [EUR]
0
1
2
3
4
5
6
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

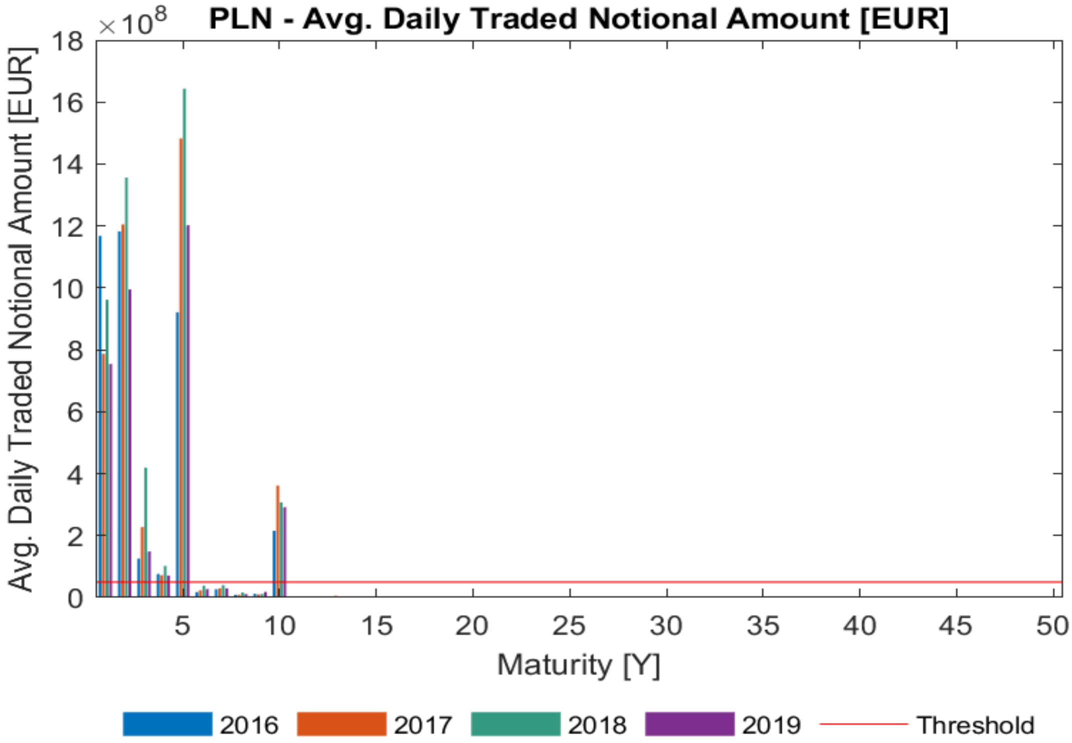

NOK - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
200
150
100
50
0
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

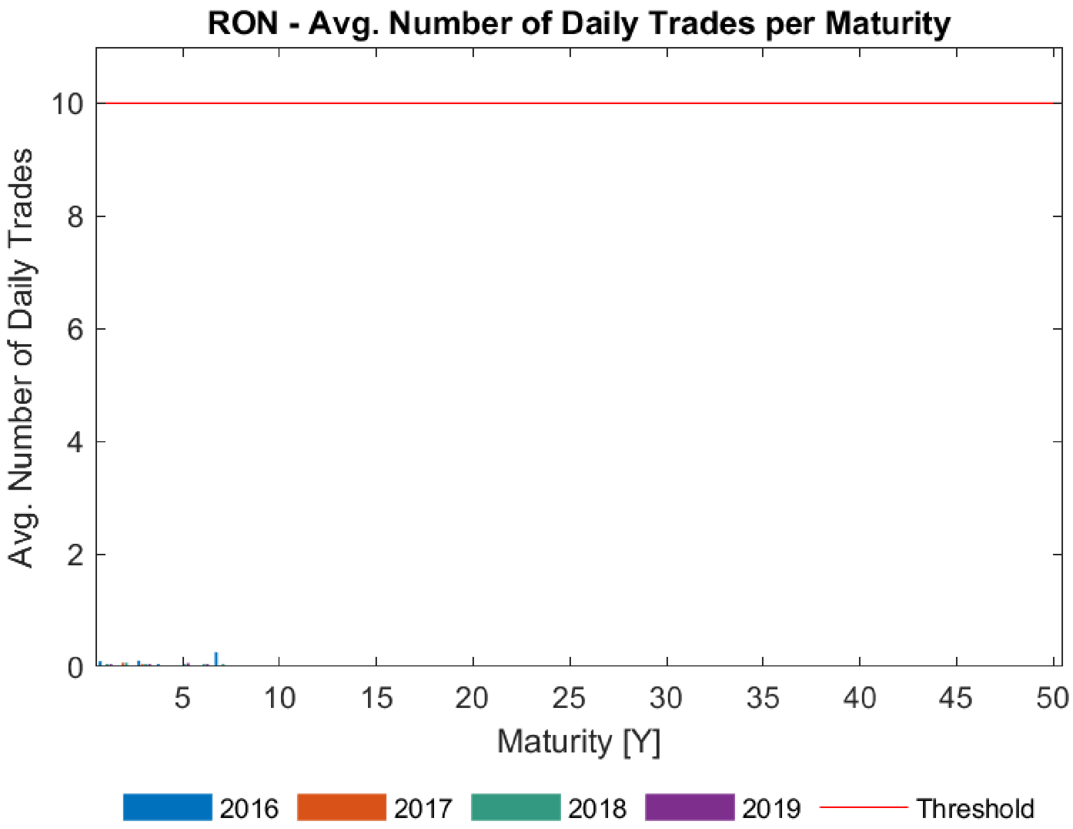

NOK - Avg. Daily Traded Notional Amount [EUR]
×10^9
Avg. Daily Traded Notional Amount [EUR]
3
2.5
2
1.5
1
0.5
0
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

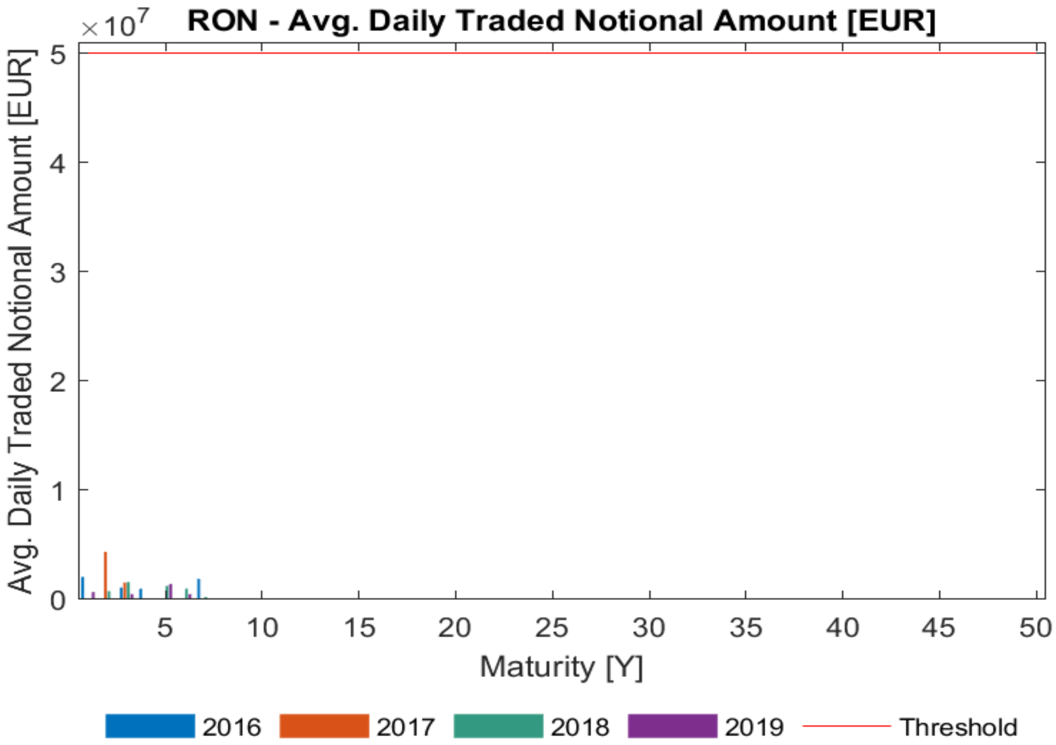

NZD - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
20
40
60
80
100
120
140
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

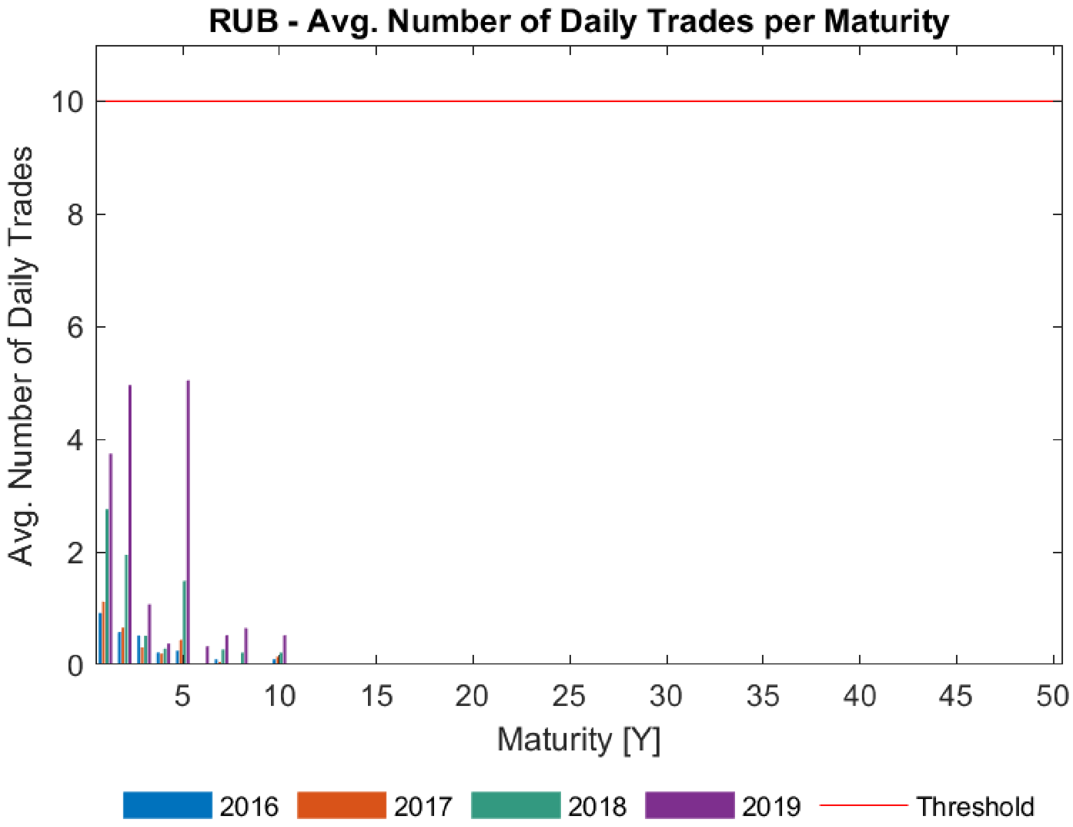

NZD - Avg. Daily Traded Notional Amount [EUR]
×10^9
Avg. Daily Traded Notional Amount [EUR]
0
2
4
6
8
10
12
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

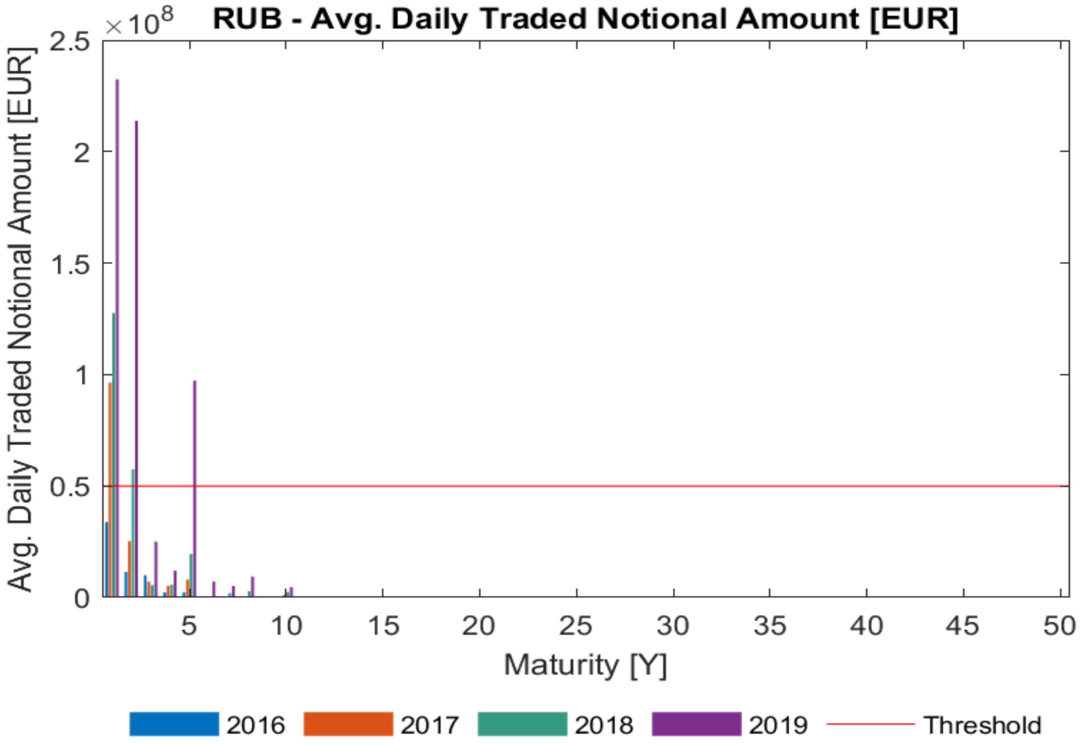

PLN - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
20
40
60
80
100
120
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

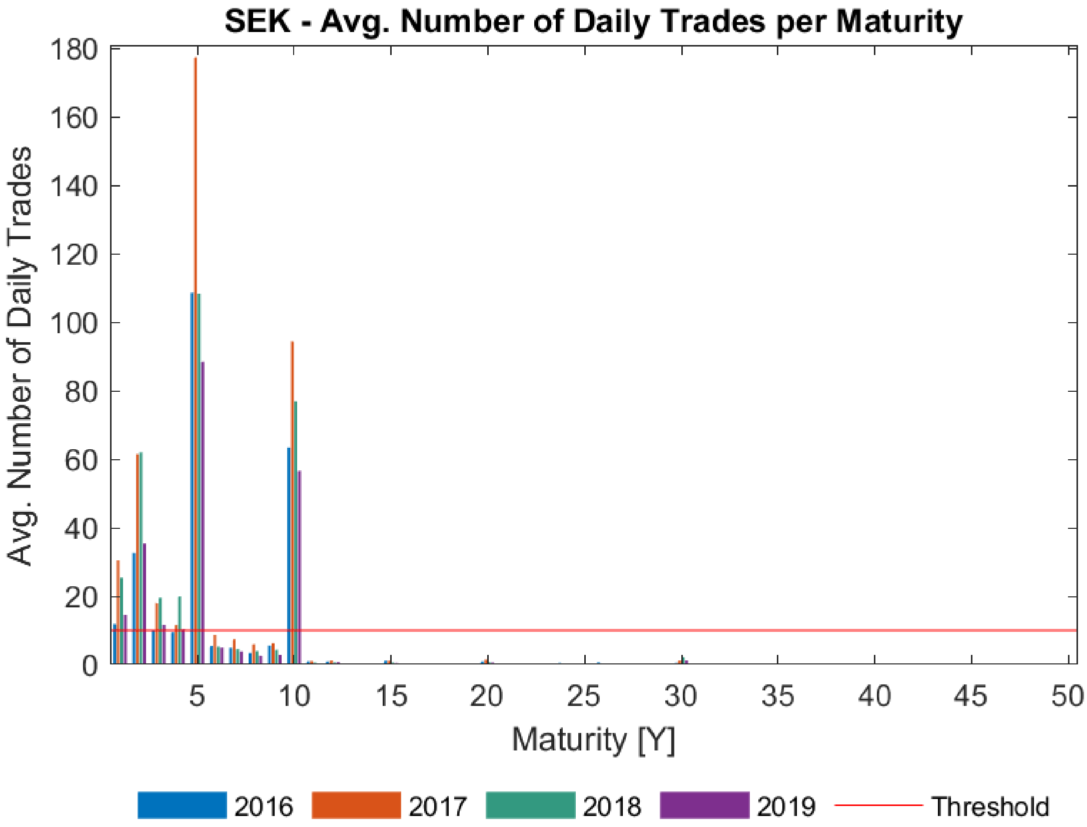

PLN - Avg. Daily Traded Notional Amount [EUR]
×10^8
Avg. Daily Traded Notional Amount [EUR]
0
2
4
6
8
10
12
14
16
18
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

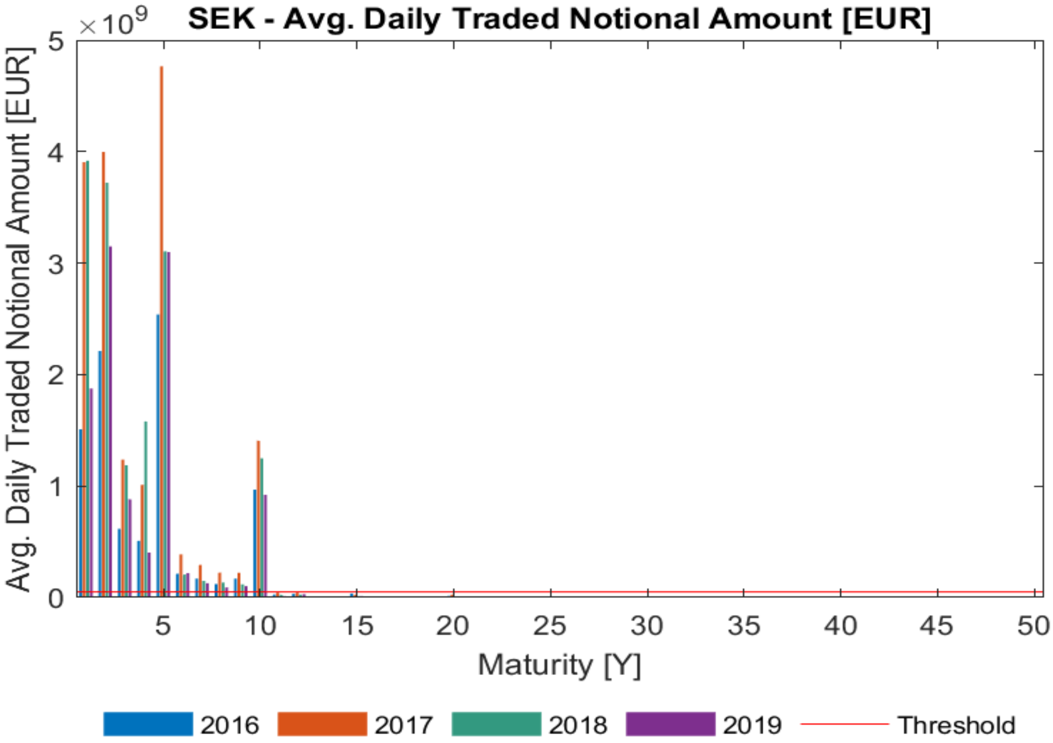

RON - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
2
4
6
8
10
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

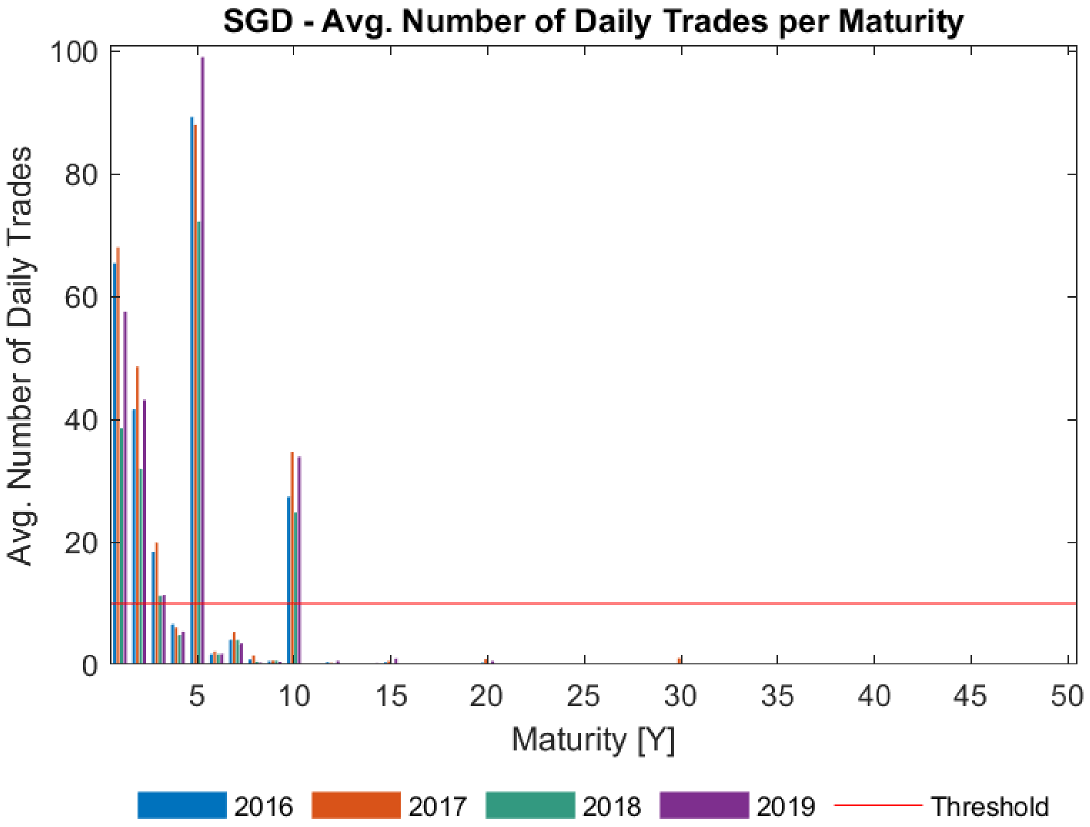

RON - Avg. Daily Traded Notional Amount [EUR]
×10^7
Avg. Daily Traded Notional Amount [EUR]
0
1
2
3
4
5
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

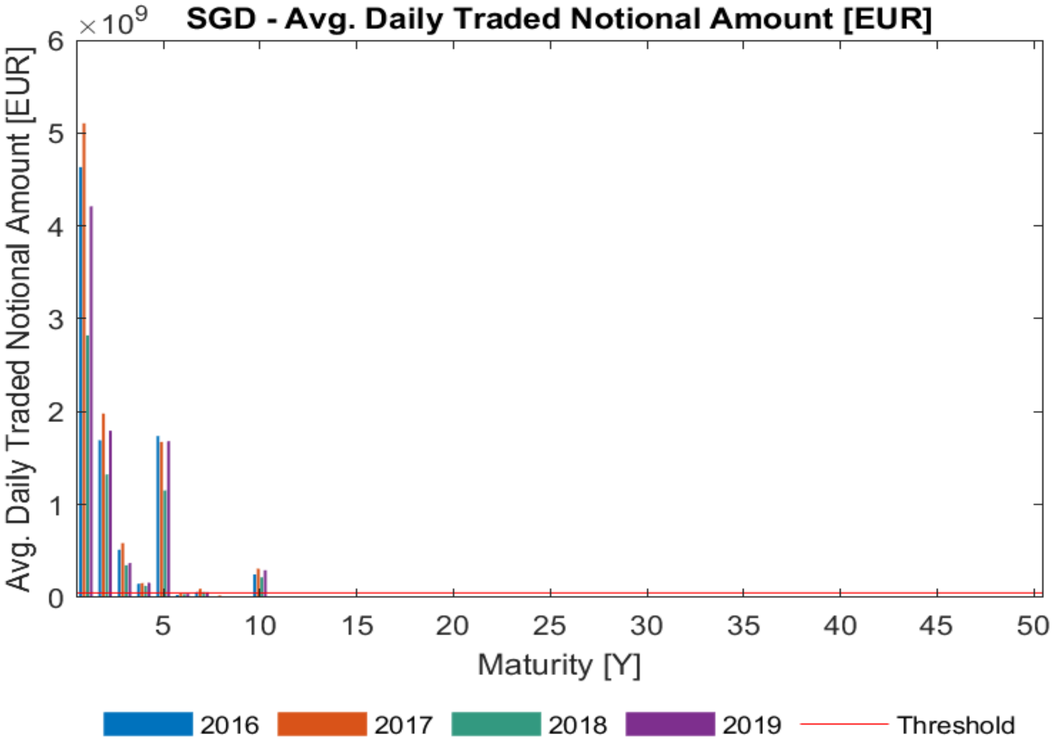

RUB - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
2
4
6
8
10
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

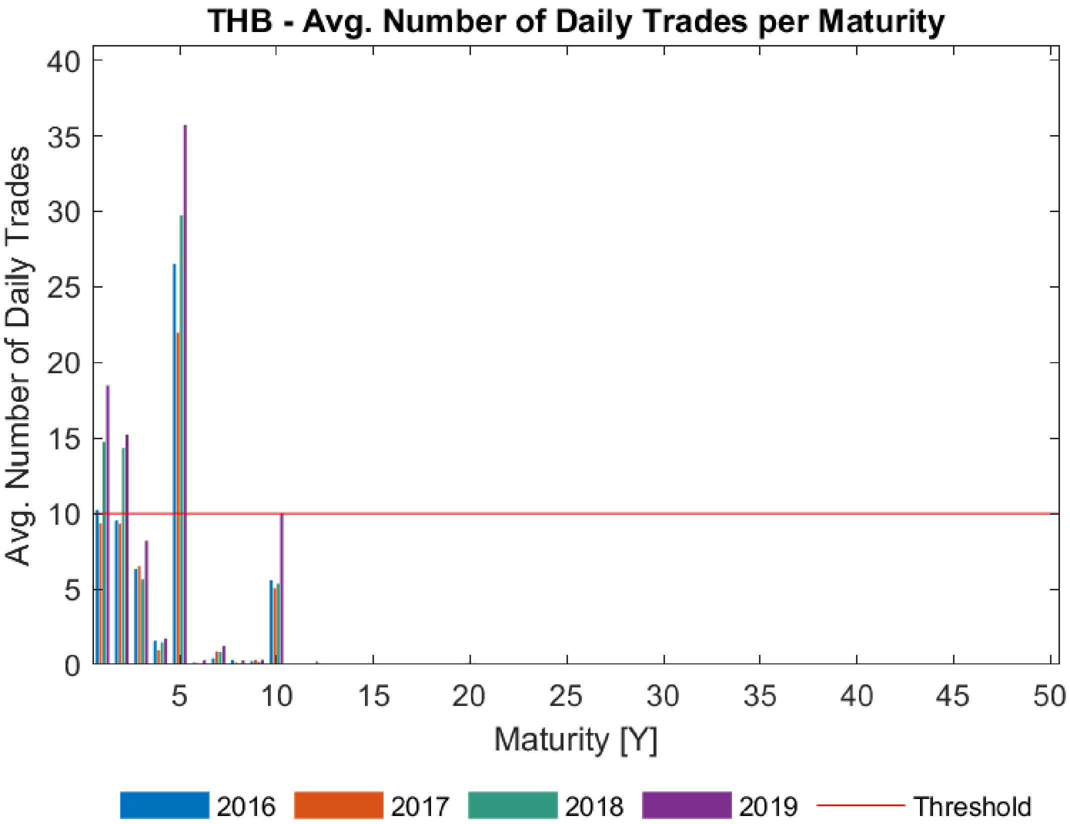

RUB - Avg. Daily Traded Notional Amount [EUR]
$\times 10^8$
Avg. Daily Traded Notional Amount [EUR]
0
0.5
1
1.5
2
2.5
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

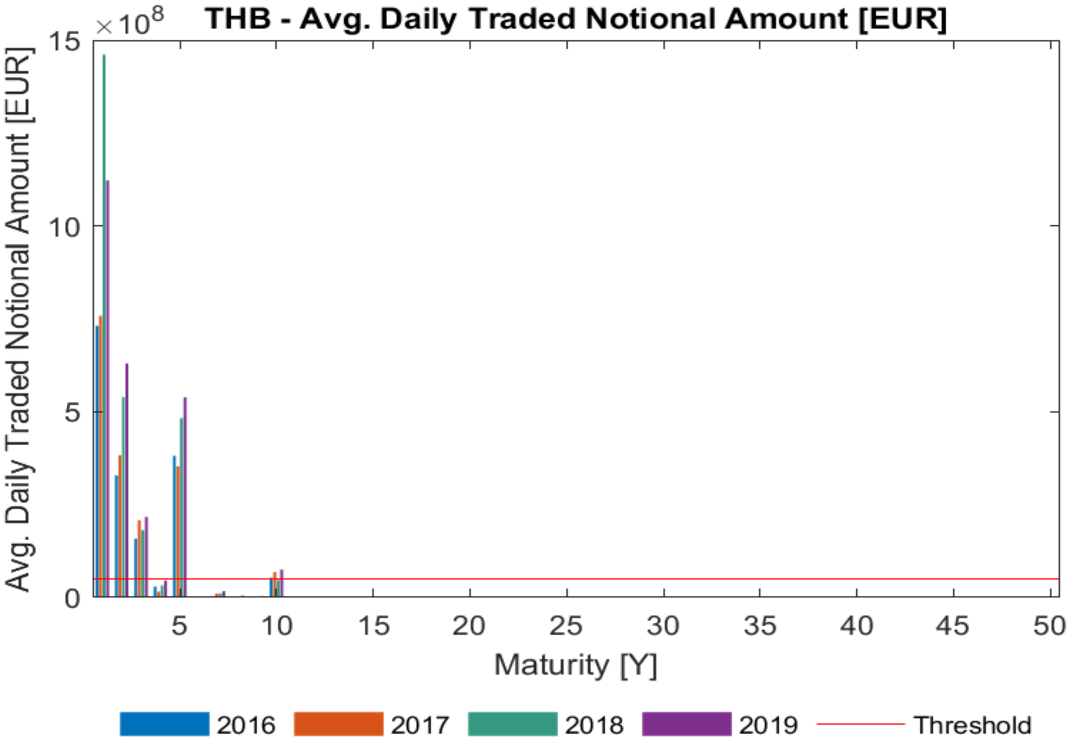

SEK - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
180
160
140
120
100
80
60
40
20
0
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

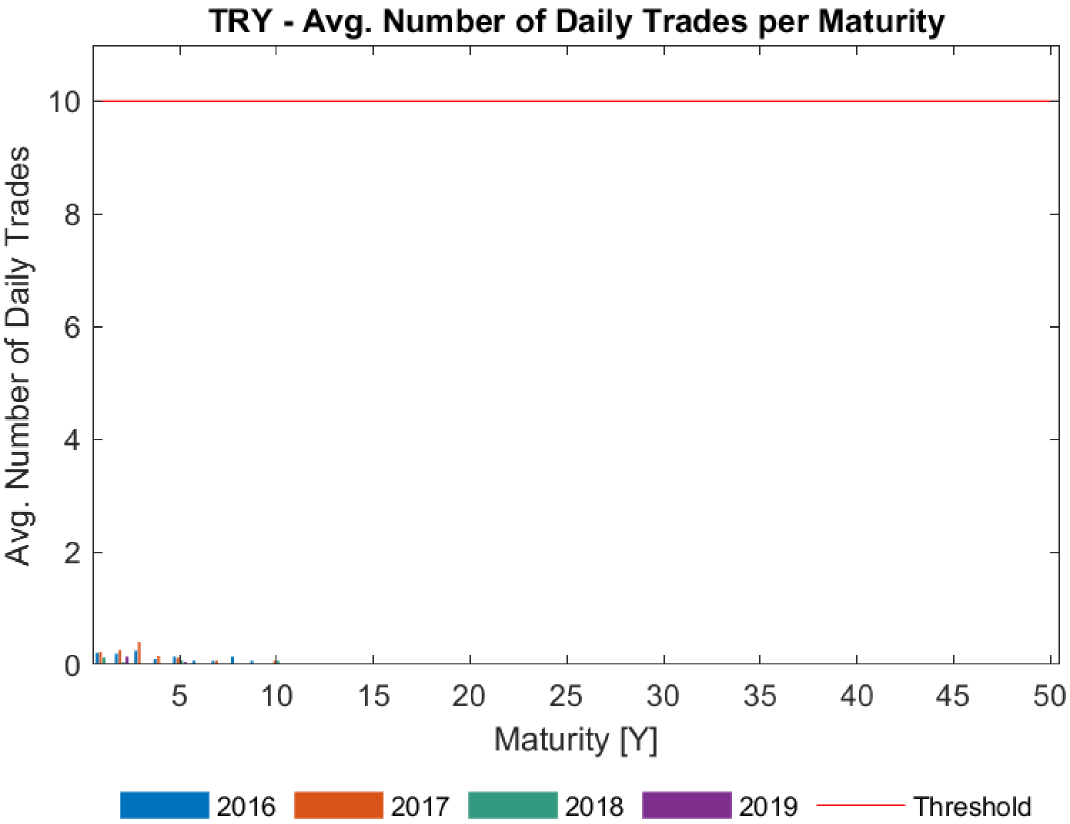

SEK - Avg. Daily Traded Notional Amount [EUR]
×10⁹
Avg. Daily Traded Notional Amount [EUR]
5
4
3
2
1
0
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

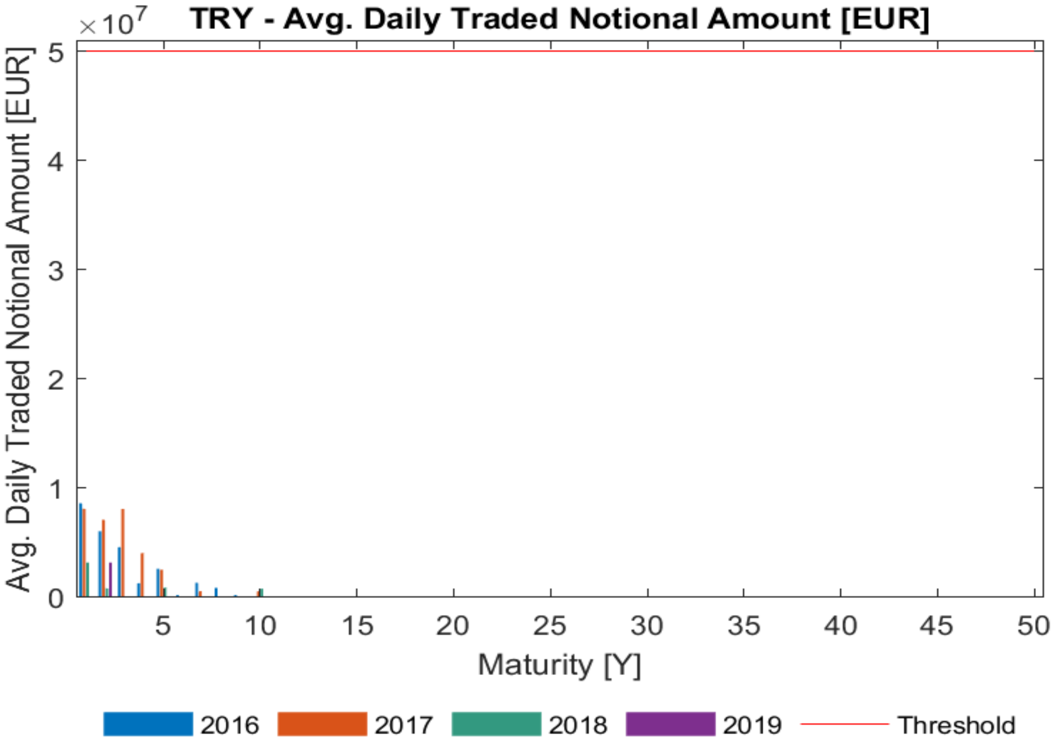

SGD - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
20
40
60
80
100
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

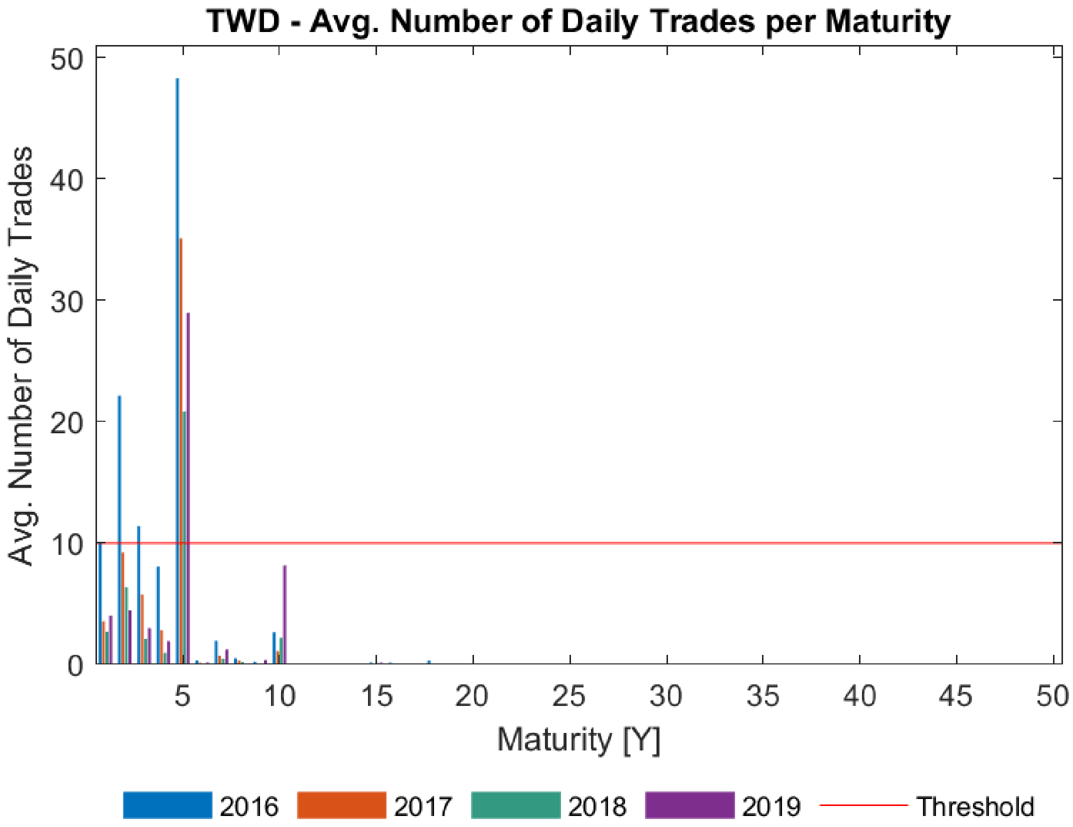

SGD - Avg. Daily Traded Notional Amount [EUR]
×10^9
Avg. Daily Traded Notional Amount [EUR]
0
1
2
3
4
5
6
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

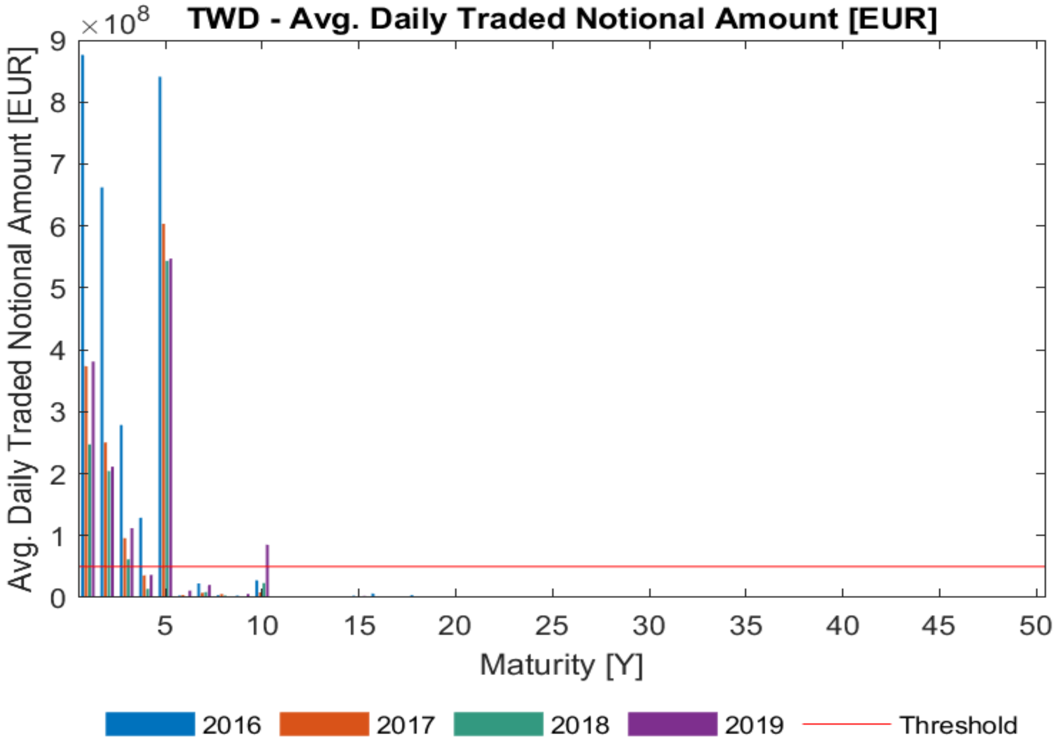

THB - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
5
10
15
20
25
30
35
40
Maturity [Y]
5
10
15
20
25
30
35
40
45
50
2016
2017
2018
2019
Threshold

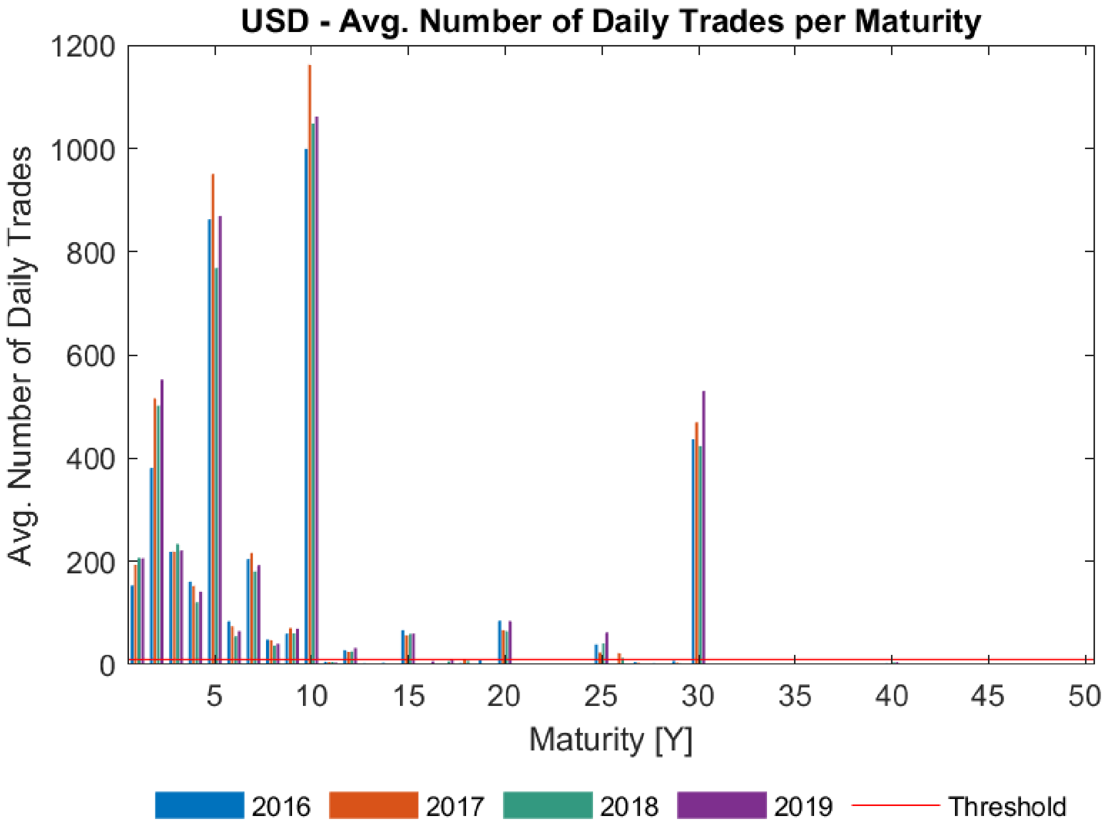

THB - Avg. Daily Traded Notional Amount [EUR]
×10^8
Avg. Daily Traded Notional Amount [EUR]
0
5
10
15
Maturity [Y]
5
10
15
20
25
30
35
40
45
50
2016
2017
2018
2019
Threshold

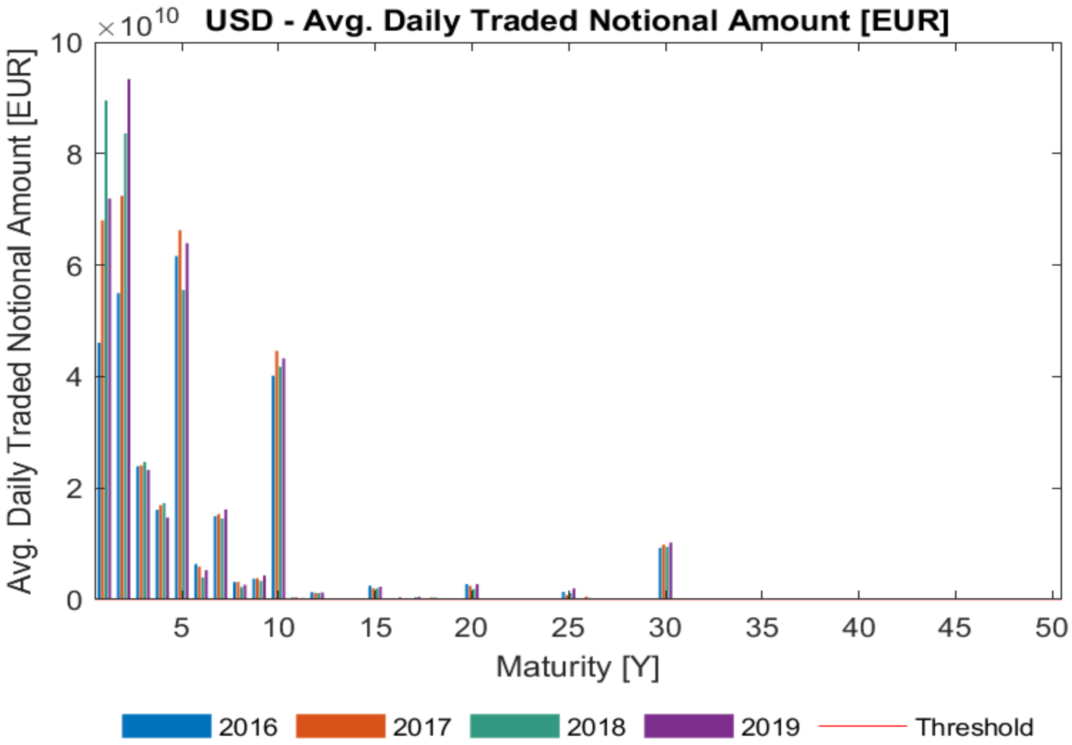

TRY - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
2
4
6
8
10
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

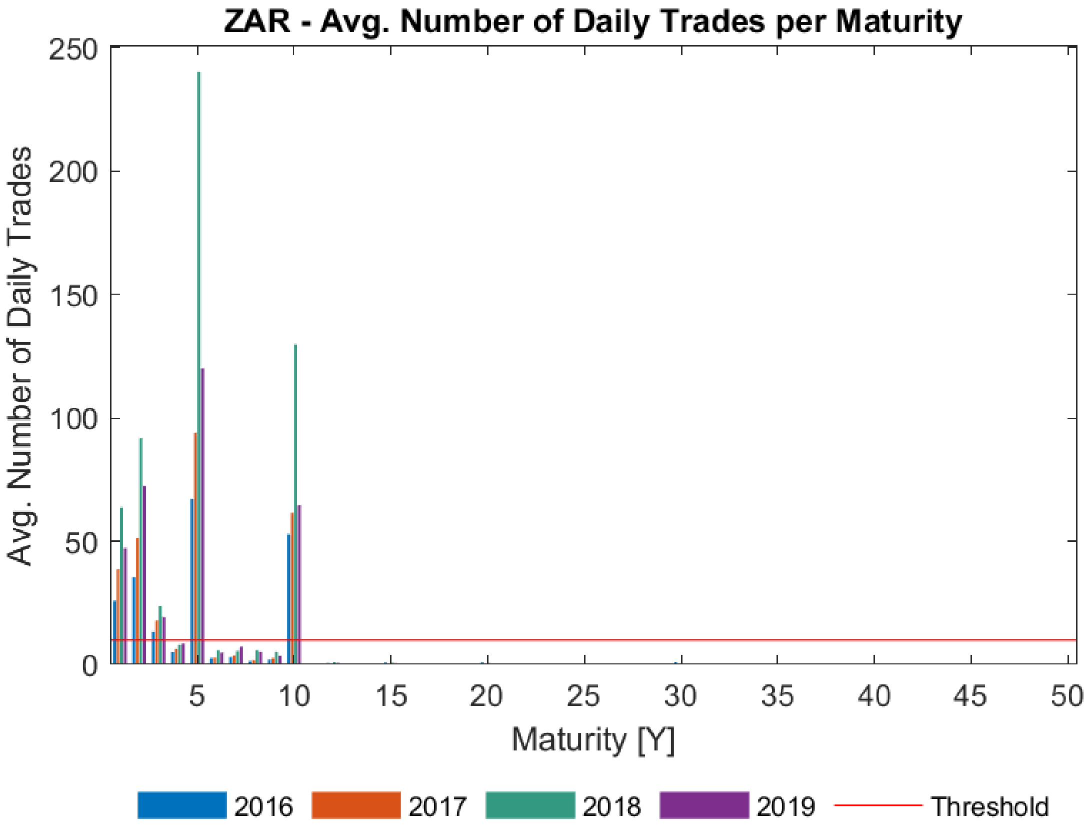

TRY - Avg. Daily Traded Notional Amount [EUR]
×10^7
Avg. Daily Traded Notional Amount [EUR]
0
1
2
3
4
5
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

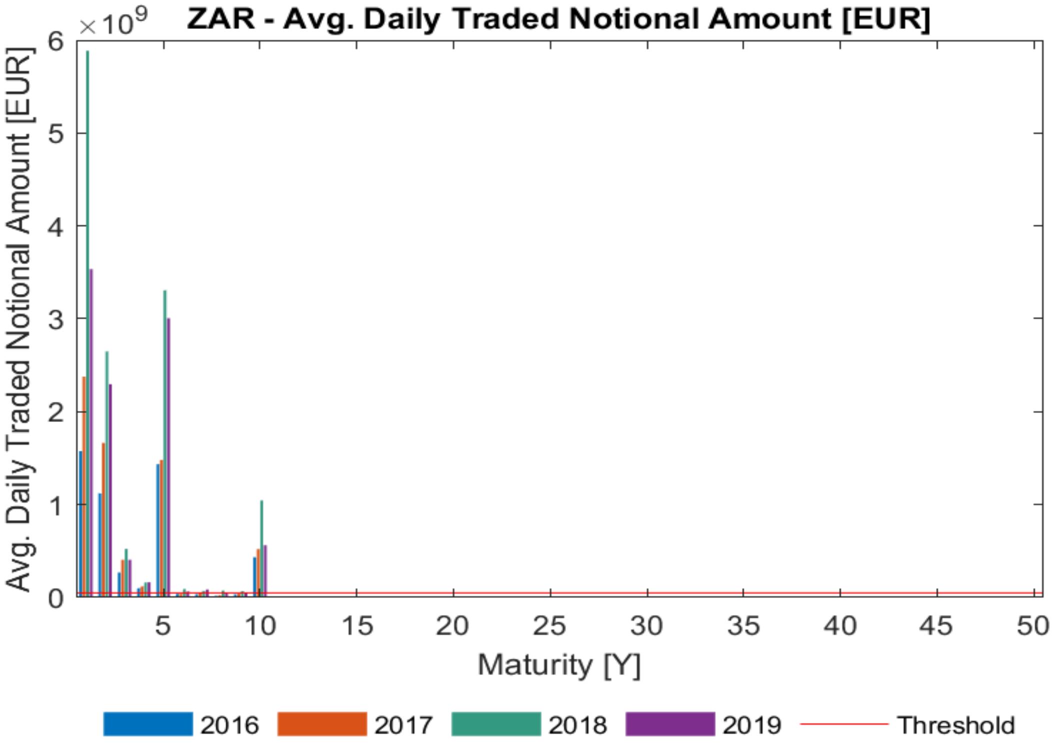

TWD - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
10
20
30
40
50
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold


TWD - Avg. Daily Traded Notional Amount [EUR]
×10^8
Avg. Daily Traded Notional Amount [EUR]
0
1
2
3
4
5
6
7
8
9
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold


USD - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
200
400
600
800
1000
1200
Maturity [Y]
5
10
15
20
25
30
35
40
45
50
2016
2017
2018
2019
Threshold


USD - Avg. Daily Traded Notional Amount [EUR]
×10^10
Avg. Daily Traded Notional Amount [EUR]
0
2
4
6
8
10
Maturity [Y]
5
10
15
20
25
30
35
40
45
50
2016
2017
2018
2019
Threshold


ZAR - Avg. Number of Daily Trades per Maturity
Avg. Number of Daily Trades
0
50
100
150
200
250
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

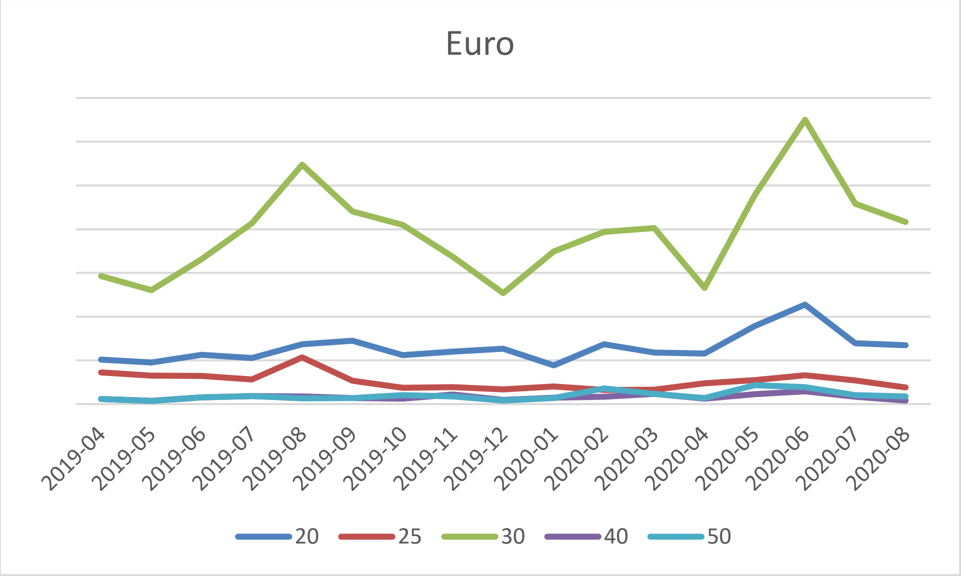

ZAR - Avg. Daily Traded Notional Amount [EUR]
×10^9
Avg. Daily Traded Notional Amount [EUR]
0
1
2
3
4
5
6
5
10
15
20
25
30
35
40
45
50
Maturity [Y]
2016
2017
2018
2019
Threshold

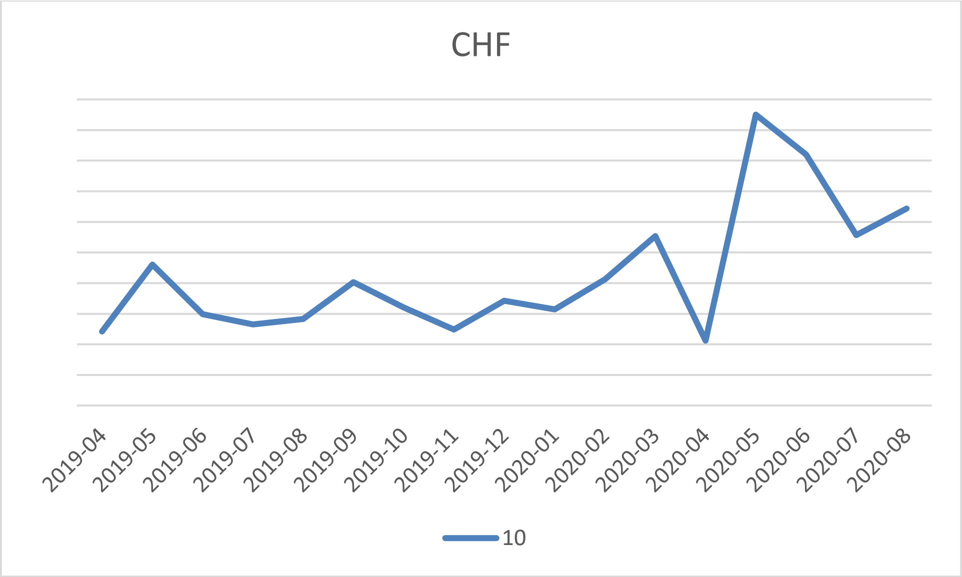
Liquidity of swap markets during 2020

A.57 The assessment was enriched by further assessment of latest market developments in 2020. Data availability does not allow to completely re-do the DLT analysis for the swap market as performed for the regular DLT assessment as data from small trade repositories is missing. Therefore, no conclusions on the DLTness of the swap rates for individual maturities can be drawn as absolute results on the number of trades and trade volumes exceeding the pre-defined thresholds cannot be derived. For some currencies, like PLN, the data basis is very limited because not all trade repositories are included in the analysis.

A.58 Though, data available allows to assess the evolution of number of trades and trade volumes comparing the evolution during last year, including in particular the evolution during the first two quarters of this year. This allows to assess whether liquidity for individual maturities has changed during the crisis.

A.59 The following graphs outline – for currencies where data was available – the evolution of number of trades for the maturities of the LLP or FSP and thereafter:




CHF
2019-04
2019-05
2019-06
2019-07
2019-08
2019-09
2019-10
2019-11
2019-12
2020-01
2020-02
2020-03
2020-04
2020-05
2020-06
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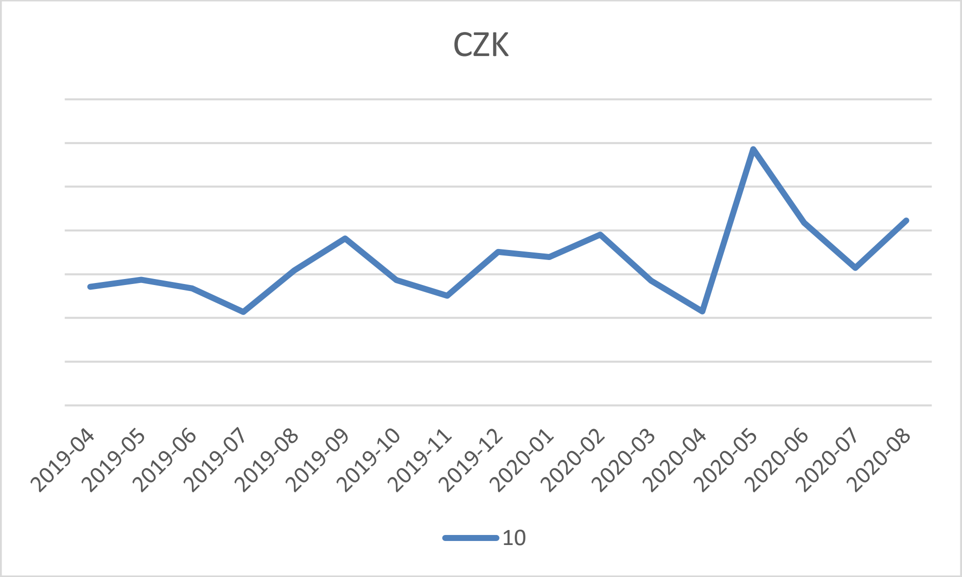
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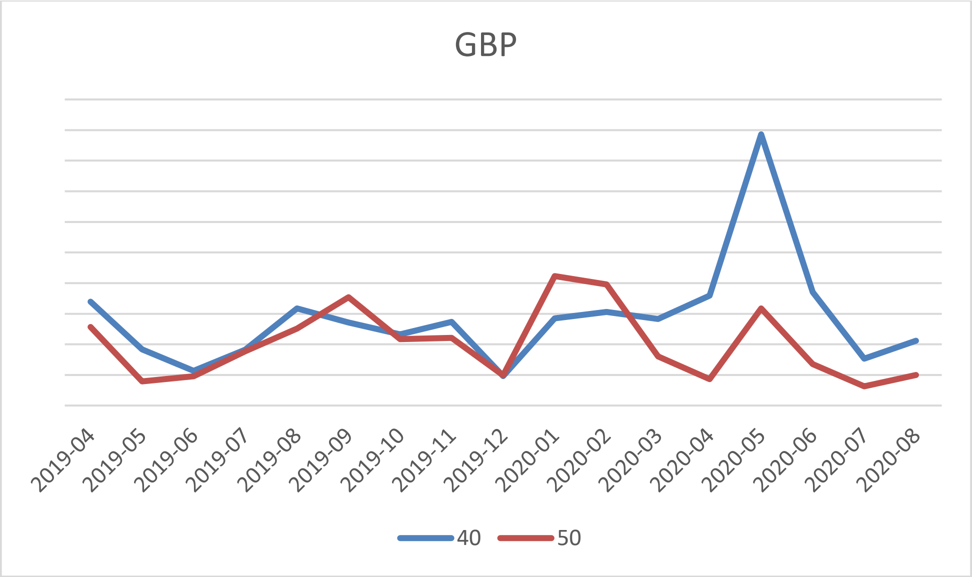
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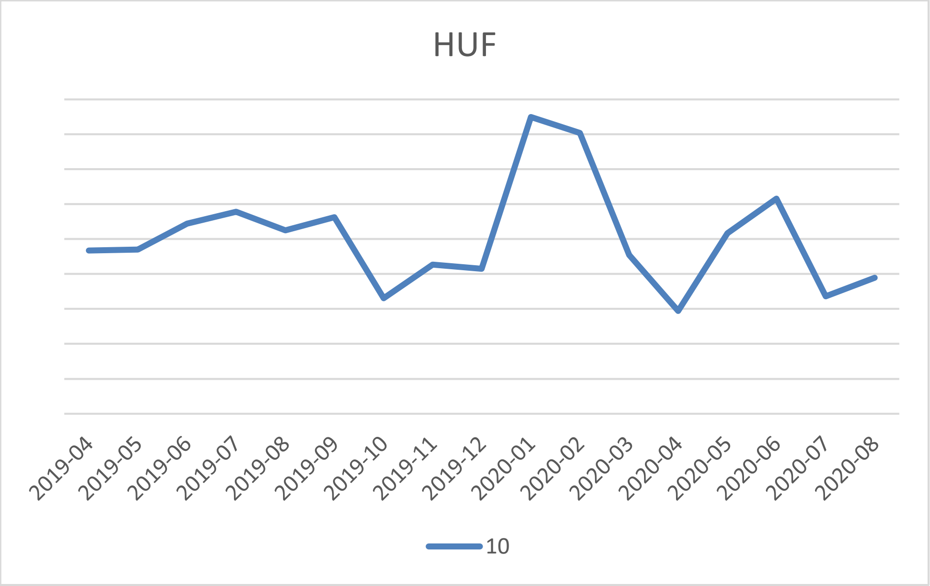
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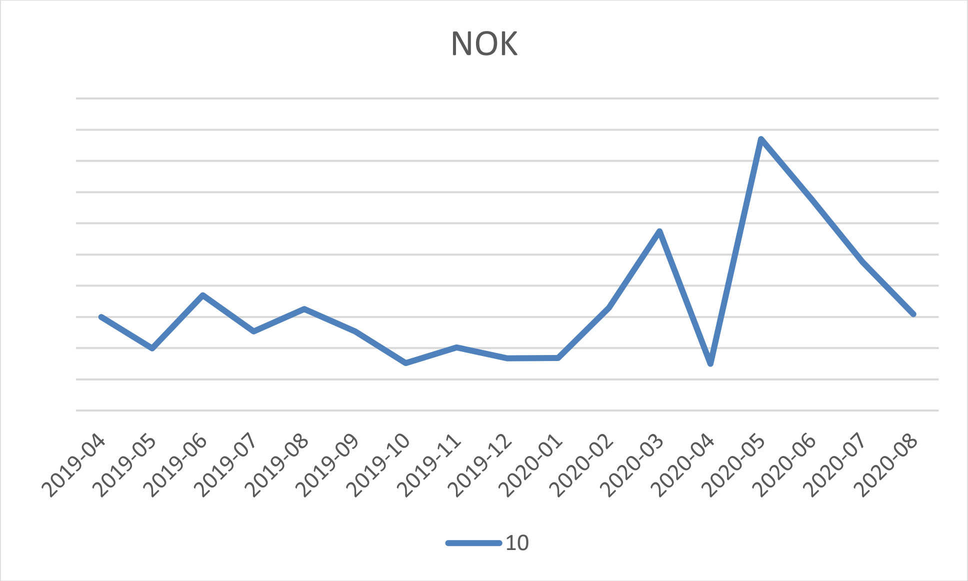
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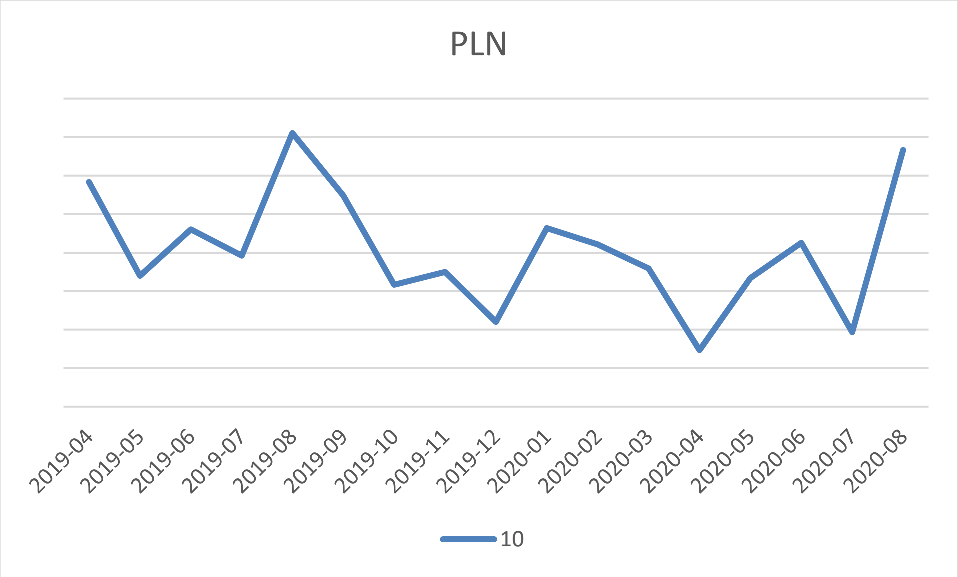
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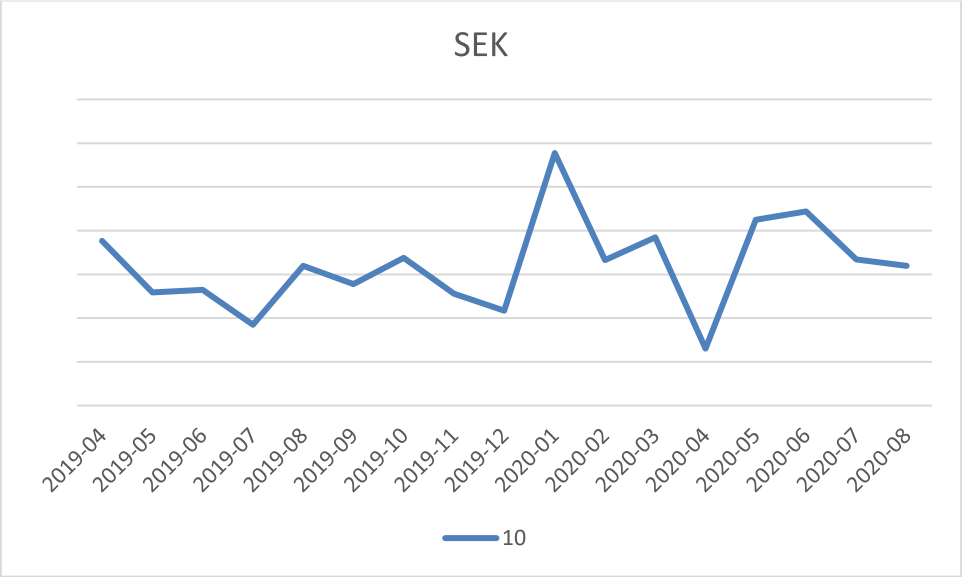
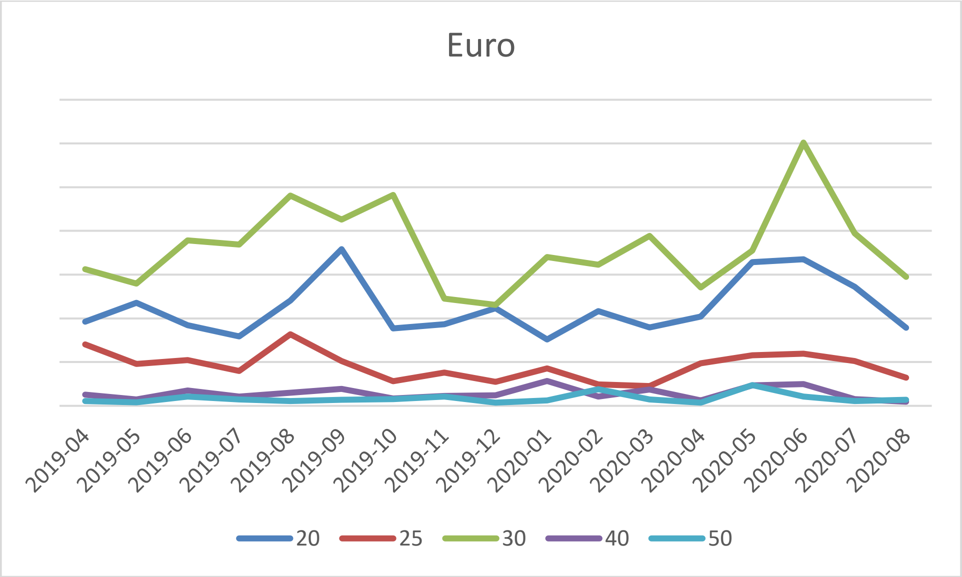
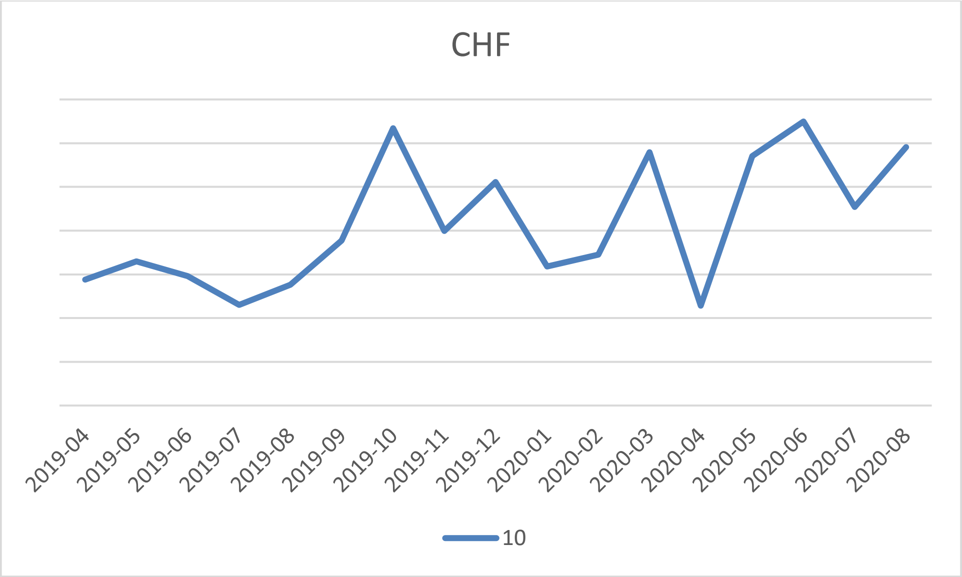


For the same currencies, the following graphs highlight the evolution of the trade volume during the same period:

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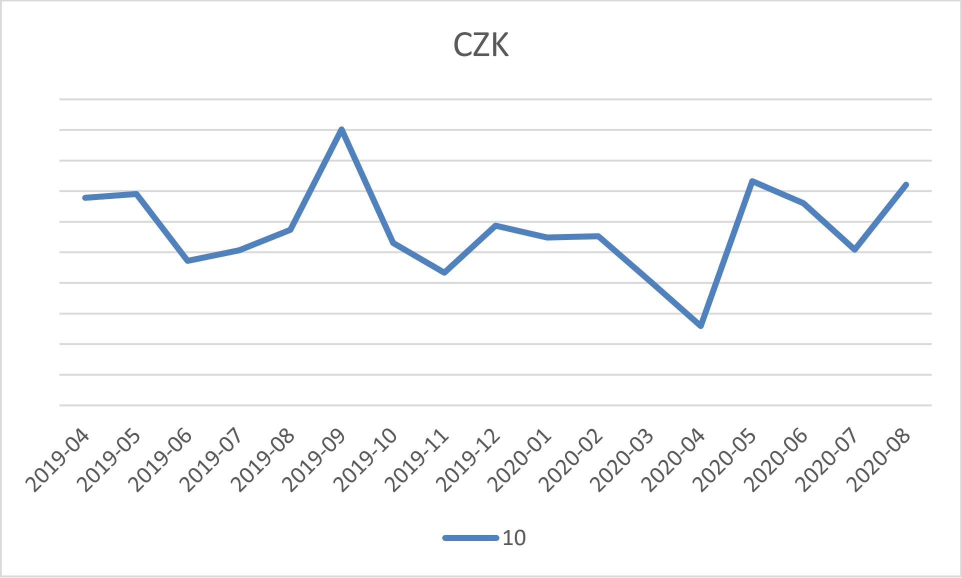
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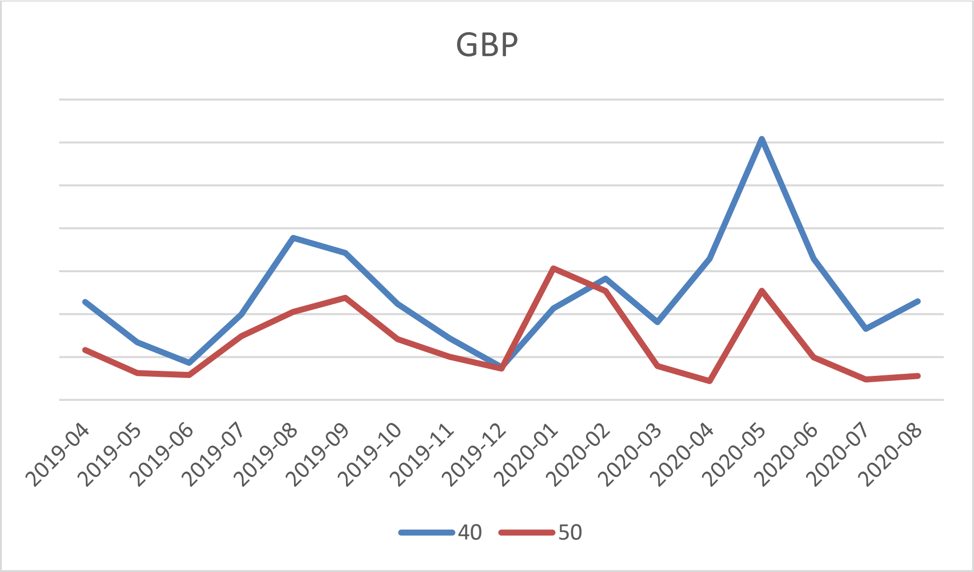
GBP
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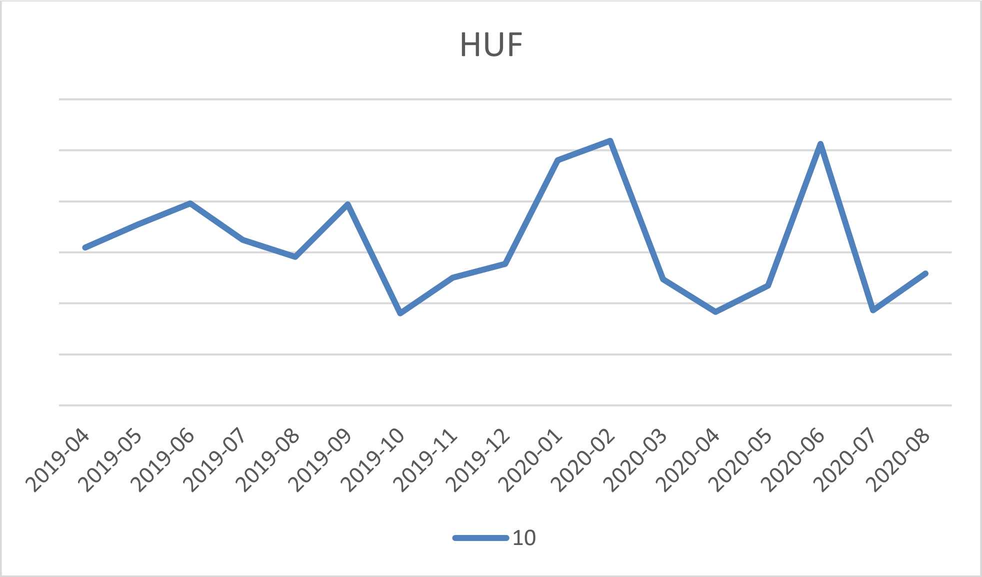
HUF
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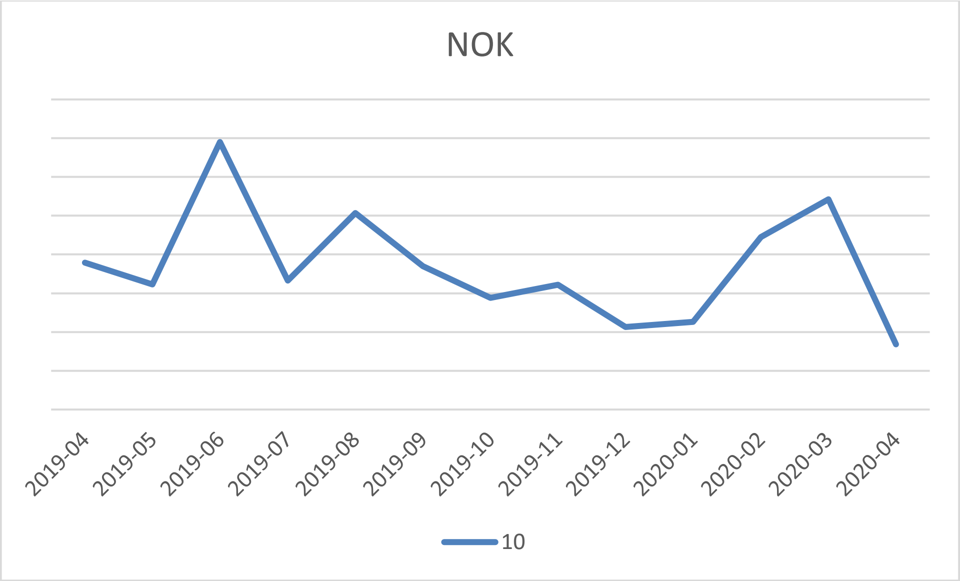
NOK
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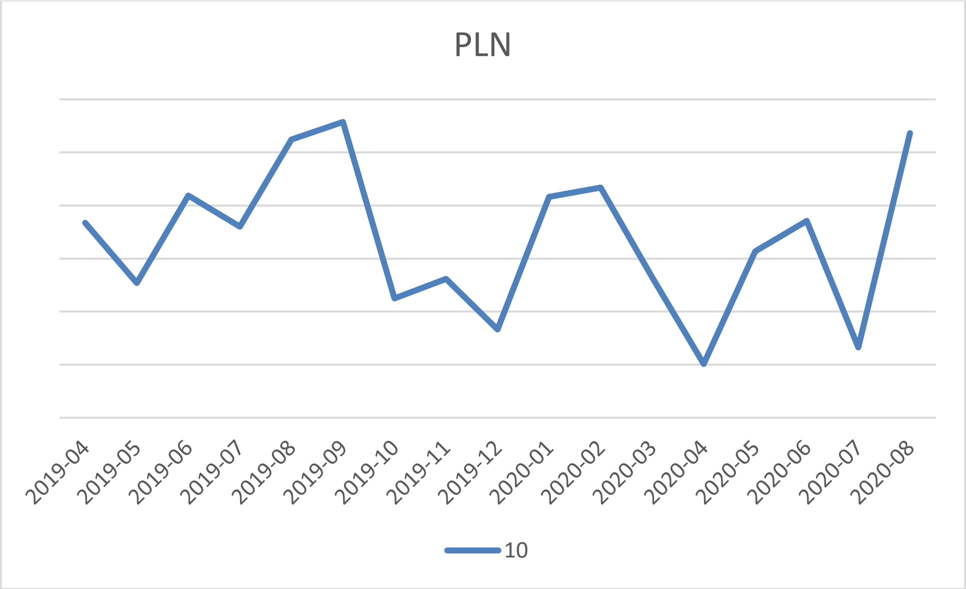
PLN
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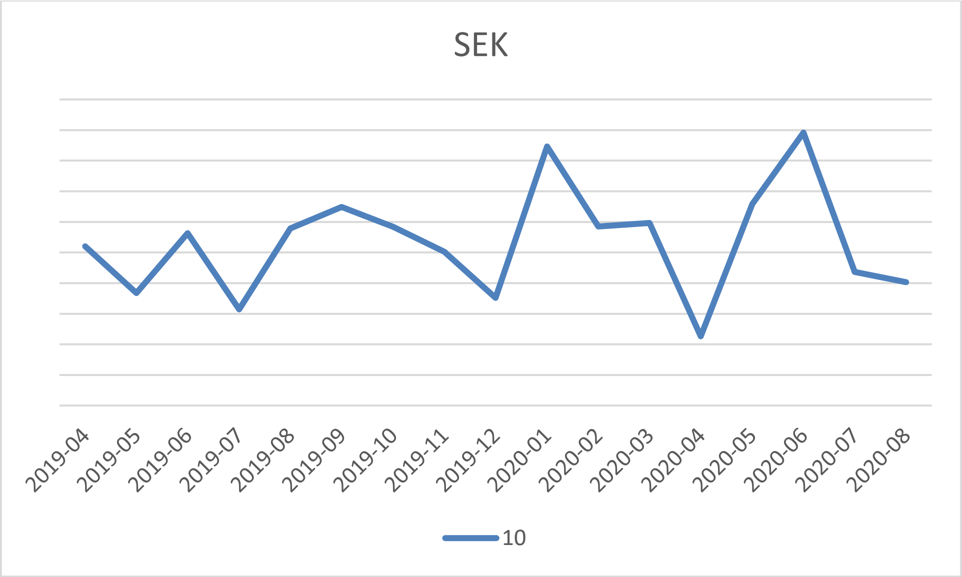
SEK
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Annex 2.3 - Sensitivity analysis of the swap DLT assessment 2017

A.60 The thresholds of the swap DLT Assessment (green shaded = 10 daily trades per month, 50.000.000 EUR daily traded notional) were scaled up and down in steps of 25% (and in 100% steps once 200% is reached) in order to assess the sensitivity of the assessment to the thresholds used.

A.61 Beyond the scaling factor of two, 100% steps were chosen to capture a larger range of variation.

A.62 The last point of liquidity as well as the number of DLT points are listed per sensitivity below.

Last liquid point

	Sensitivity									
	0.25	**0.50**	**0.75**	**1.00**	**1.25**	**1.50**	**1.75**	**2.00**	**3.00**	**4.00**
AUD	30	30	30	30	30	30	30	30	20	15
BRL	8	8	8	8	8	8	8	8	4	3
CAD	30	30	30	30	10	10	10	10	10	10
CHF	15	10	10	10	10	10	10	10	10	10
CLP	10	10	10	5	5	0	0	0	0	0
CNY	5	5	5	5	5	5	5	5	5	5
COP	10	10	10	5	5	5	5	5	0	0
CZK	10	10	10	10	10	10	10	10	5	5
DKK	5	5	0	0	0	0	0	0	0	0
EUR	50	50	50	50	50	50	50	40	30	30
GBP	50	50	50	50	50	40	30	30	30	30
HKD	10	10	10	10	10	10	10	5	5	5
HUF	10	10	10	10	10	10	10	10	10	5
INR	5	5	5	5	5	5	5	5	5	5
JPY	30	30	30	30	30	30	30	30	30	30
KRW	20	10	10	10	10	10	10	10	10	10
MXN	10	10	10	10	10	10	10	10	10	10
MYR	10	10	10	5	5	5	5	5	5	5
NOK	10	10	10	10	10	10	10	10	10	10
NZD	15	10	10	10	10	10	10	10	10	10
PLN	10	10	10	10	10	10	10	10	10	5
RON	0	0	0	0	0	0	0	0	0	0
RUB	0	0	0	0	0	0	0	0	0	0
SEK	10	10	10	10	10	10	10	10	10	10
SGD	10	10	10	10	10	10	10	10	10	5
THB	10	10	5	5	5	5	5	5	0	0
TRY	0	0	0	0	0	0	0	0	0	0
TWD	5	5	5	5	5	5	5	5	5	0
USD	40	30	30	30	30	30	30	30	30	30
ZAR	10	10	10	10	10	10	10	10	10	10

Number of DLT Points

	Sensitivity								
	0.25	**0.50**	**0.75**	**1.00**	**1.25**	**1.50**	**1.75**	**2**	**3**	**4**
AUD	16	15	15	14	14	14	14	14	12	9
BRL	8	8	7	6	5	5	5	5	4	3
CAD	13	8	8	7	6	5	5	5	4	3
CHF	10	6	4	3	3	3	3	3	3	2
CLP	6	5	5	3	1	0	0	0	0	0
CNY	5	3	3	2	2	2	2	2	1	1
COP	6	5	5	4	4	3	3	3	0	0
CZK	6	5	4	3	3	3	3	3	2	1
DKK	1	1	0	0	0	0	0	0	0	0
EUR	34	28	23	20	20	20	18	17	15	15
GBP	26	20	17	17	17	13	11	10	9	8
HKD	7	6	5	5	5	5	4	3	3	2
HUF	7	5	5	5	4	4	3	3	3	2
INR	5	5	5	5	5	5	4	4	3	2
JPY	16	15	14	14	14	13	11	9	9	7
KRW	9	7	7	6	5	5	5	5	4	4
MXN	7	7	7	6	6	5	5	5	4	2
MYR	6	4	4	3	3	2	1	1	1	1
NOK	10	8	6	4	4	3	3	3	3	3
NZD	12	10	10	7	7	6	6	6	5	4
PLN	6	5	5	4	3	3	3	3	3	1
RON	0	0	0	0	0	0	0	0	0	0
RUB	0	0	0	0	0	0	0	0	0	0
SEK	10	10	8	6	6	5	5	5	4	3
SGD	7	7	5	5	5	5	5	5	4	3
THB	5	5	3	1	1	1	1	1	0	0
TRY	0	0	0	0	0	0	0	0	0	0
TWD	4	2	2	1	1	1	1	1	1	0
USD	24	18	17	17	16	16	16	16	13	13
ZAR	10	6	6	5	5	5	5	5	4	4

Conditional No. of Trades Sensitivity

A.63 The threshold of 50.000.000 EUR daily traded notional per month was held fixed and the threshold of the number of trades was scaled up and down.

A.64 The number in the table below corresponds to the number of sensitivities in which the tenor point would be considered liquid.

Sensitivities		0.25	0.50	0.75	1.25	1.50	1.75	2.00	3.00	4.00
Scale	0	1	2	3	4	5	6	7	8	9

IRS (yrs)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
AUD	9	9	9	9	9	8	9	8	9	9	1	7	0	0	9	0	0	0	0	8	0	0	0	0	3	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRL	9	9	9	8	3	3	2	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CAD	8	9	7	4	9	1	3	1	1	9	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CHF	3	8	2	1	9	0	2	1	1	9	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLP	3	3	3	1	4	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CNY	7	3	1	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COP	7	7	4	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CZK	3	8	2	1	9	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DKK	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EUR	9	9	9	9	9	9	9	9	9	9	7	9	5	5	9	3	2	2	3	9	1	1	1	3	9	1	1	2	2	9	1	0	0	0	2	0	0	0	0	7	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0
GBP	8	9	9	7	9	4	9	4	6	9	2	4	1	1	9	0	0	1	1	9	0	0	0	0	5	0	0	2	1	9	0	0	0	0	2	0	0	0	0	5	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
HKD	9	8	5	2	9	0	1	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUF	3	9	5	1	9	0	1	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INR	8	9	7	5	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JPY	9	9	8	6	9	4	9	5	6	9	1	5	0	0	8	0	0	0	0	9	0	0	0	0	2	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KRW	9	9	7	3	9	1	3	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MXN	8	8	7	4	9	0	3	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MYR	4	5	1	1	9	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOK	4	9	3	3	9	1	2	1	2	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NZD	9	9	8	7	9	3	4	3	3	9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PLN	3	8	3	1	9	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RON	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RUB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEK	8	9	7	4	9	3	3	2	2	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SGD	9	9	7	2	9	0	2	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
THB	3	3	2	0	7	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TWD	1	3	1	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USD	9	9	9	9	9	9	9	9	9	9	2	7	1	1	9	0	0	3	1	9	0	0	0	0	7	7	1	0	1	9	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ZAR	9	9	7	3	9	0	1	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Conditional Daily Traded Volume Sensitivity

A.65 The threshold of 10 daily trades per month was held fixed and the threshold of the daily traded notional amount was scaled up and down.

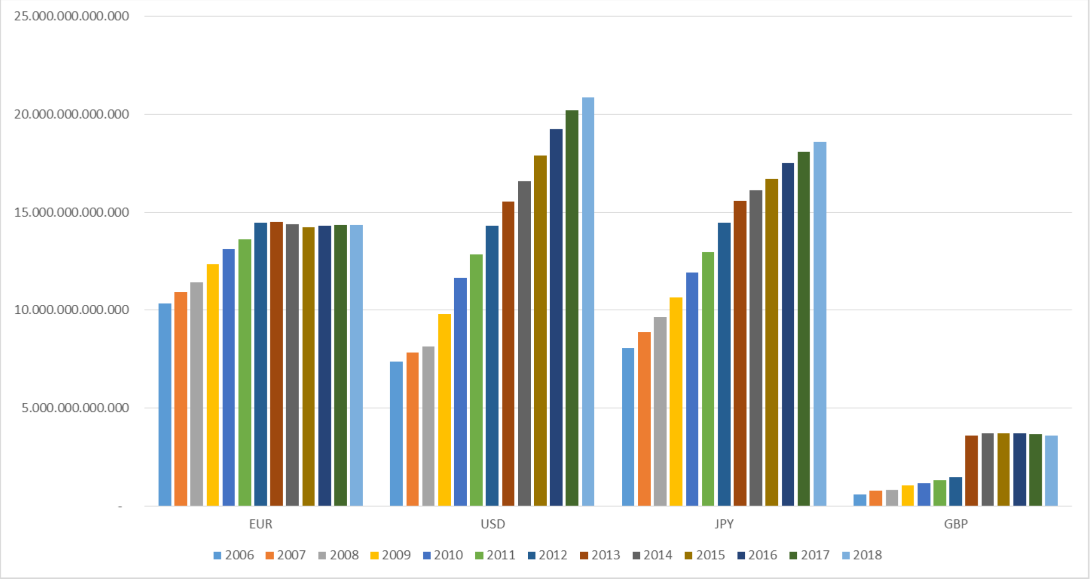
A.66 The number in the table below corresponds to the number of sensitivities in which the tenor point would be considered liquid.

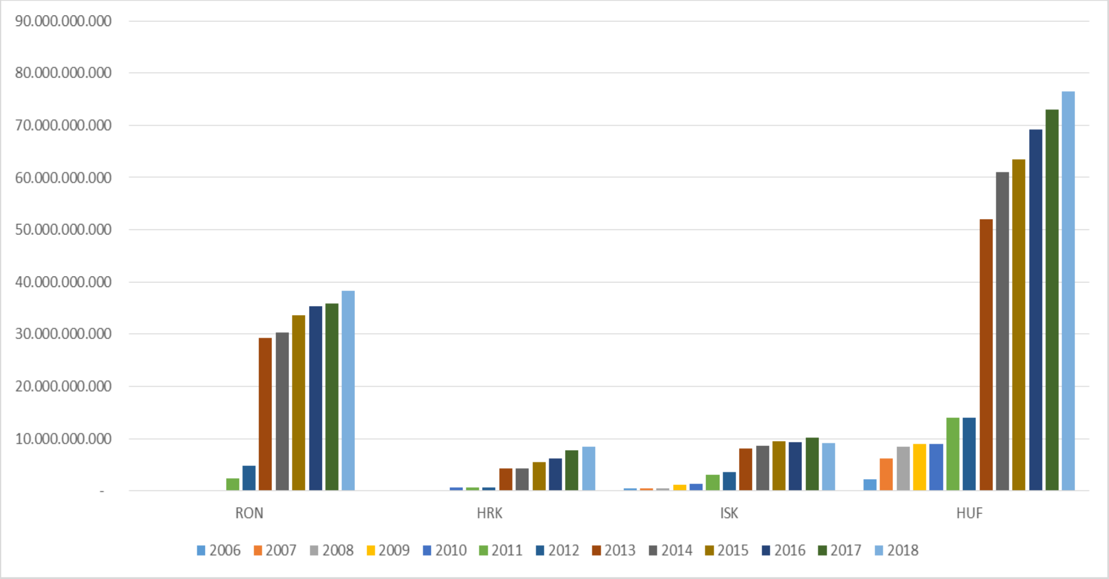
Sensitivities		0.25	0.50	0.75	1.25	1.50	1.75	2.00	3.00	4.00
Scale	0	1	2	3	4	5	6	7	8	9

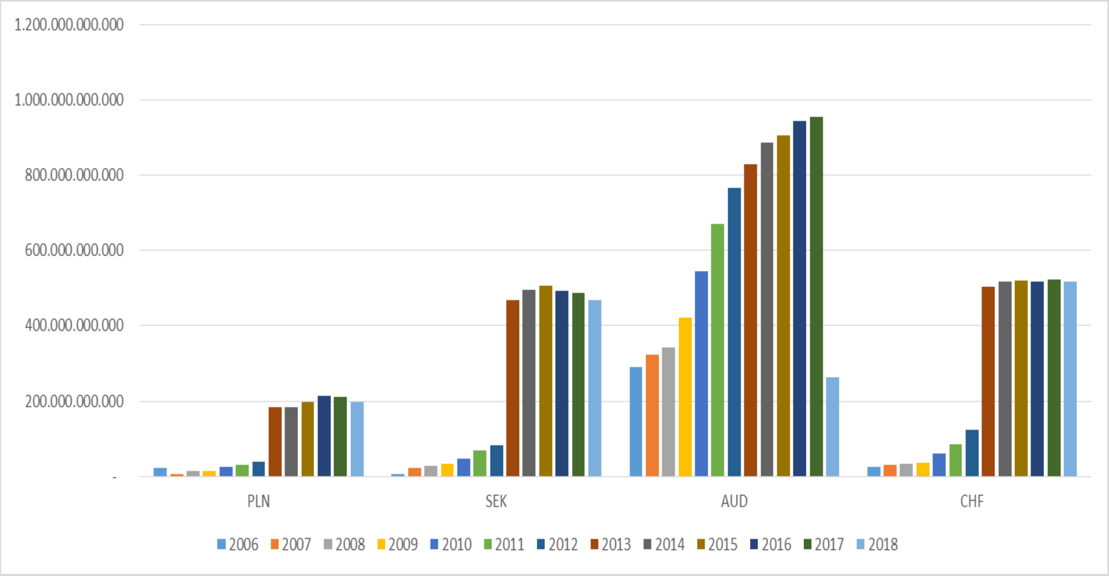
IRS(yrs)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
AUD	9	9	9	9	9	9	9	9	9	9	0	9	0	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRL	9	9	9	9	0	8	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CAD	9	9	9	9	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CHF	0	9	0	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLP	9	9	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CNY	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COP	9	9	7	0	7	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CZK	0	9	0	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DKK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EUR	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	0	0	0	0	9	0	0	0	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0
GBP	9	9	9	9	9	9	9	9	9	9	0	9	0	0	9	0	0	0	0	9	0	0	0	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0
HKD	9	9	9	0	9	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUF	9	9	9	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INR	9	9	9	7	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JPY	9	9	9	9	9	9	9	9	9	9	0	9	0	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KRW	9	9	9	9	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MXN	9	9	9	9	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MYR	9	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOK	9	9	0	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NZD	9	9	9	9	9	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PLN	9	9	0	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RON	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RUB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEK	9	9	9	9	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SGD	9	9	9	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
THB	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TWD	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USD	9	9	9	9	9	9	9	9	9	9	0	9	0	0	9	0	0	9	0	9	0	0	0	0	9	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ZAR	9	9	9	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Annex 2.5 - Residual volume criterion

Total amount of bonds outstanding in various currencies for the period 2006-2018







Annex 2.6 – Alternative method to derive the risk free rate term structure

A.67 The alternative method for deriving the risk free term structure consists of three parts: (i) First smoothing point, (ii) the extrapolation method, (iii) the UFR-level.

- ***First Smoothing point (FSP)***

A.68 The term structure for maturities up to and including the FSP is fully determined by market information and thus plays a similar role as the Last Liquid Point (LLP) in the current extrapolation method. The FSP is determined in two steps:

- In a first step, the FSP is determined using the residual bond criterion. For the euro, using current market information this results in an FSP of 22 years. The rationale for using the residual bond criterion is that it indicates the relative availability of bonds.

- In a second step, in case the FSP derived from the first step is not a DLT maturity, the FSP would be set equal to the closest maturity for which the reference rates are considered DLT. For the euro, this results in an FSP of 20 years, i.e. the same value as for the LLP under the current extrapolation method. In order to ensure stability of the FSP maturities, the FSP maturity is only changed if the second step delivers results that vary for two consecutive years.

The table below illustrates the behaviour of the FSP when these criteria are applied. The subsequent tables show what the FSP would be with a lower and a higher threshold. Note that the FSP values shown in the subsequent tables are derived on the simplified assumption that all maturities which are a multiple of 5 are DLT.

FSP resulting from the residual bond criterion – threshold 6%

	EUR	USD	AUD	JPY	CHF	GBP	RON	HRK
2006	20	25	15	20	30	50	15	n/a
2007	20	25	15	20	30	50	15	n/a
2008	20	25	15	20	30	50	15	n/a
2009	20	25	15	20	30	45	20	n/a
2010	20	25	10	20	25	45	20	n/a
2011	20	25	10	20	25	45	20	10
2012	20	25	15	20	25	45	15	10
2013	20	25	15	25	25	45	15	10
2014	20	25	15	25	20	40	15	5
2015	20	25	15	25	20	40	15	5
2016	20	25	15	25	20	35	10	10
2017	20	25	15	25	20	40	10	10
2018	20	25	15	25	20	40	10	10
2019	20	25	15	25	20	40	10	10

	ISK	HUF	NOK	CZK	PLN	SEK
2006	20	15	25	30	20	15
2007	20	15	25	30	20	15
2008	20	15	25	30	20	20
2009	25	15	25	30	20	20
2010	25	15	15	30	20	30
2011	25	15	15	25	20	30
2012	25	15	15	25	20	30
2013	35	15	15	25	15	10
2014	35	10	10	25	15	10
2015	35	10	10	25	15	10
2016	35	10	10	20	10	10
2017	35	10	10	20	10	10
2018	30	10	10	20	10	10
2019	30	10	10	20	10	10

FSP resulting from the residual bond criterion – threshold 3%

	EUR	USD	AUD	JPY	CHF	GBP	RON	HRK
2006	30	25	15	30	45	50	15	n/a
2007	30	25	15	30	45	50	15	n/a
2008	30	30	15	30	40	50	15	n/a
2009	30	30	15	30	40	45	20	n/a
2010	30	30	15	30	40	45	20	10

2011	25	30	15	30	30	45	20	10
2012	25	30	15	30	30	45	15	10
2013	25	30	15	35	30	45	15	10
2014	25	30	15	35	25	40	15	5
2015	25	30	15	35	25	40	15	5
2016	25	30	20	35	25	45	10	10
2017	25	30	20	35	25	45	10	10
2018	25	30	20	30	25	45	10	15
2019	25	30	20	30	25	45	10	15

	ISK	**HUF**	**NOK**	**CZK**	**PLN**	**SEK**
2006	20	15	30	30	20	15
2007	20	15	30	30	20	15
2008	20	15	25	50	20	20
2009	25	15	25	50	20	20
2010	25	15	25	50	20	30
2011	25	15	15	25	20	30
2012	25	15	15	25	20	30
2013	40	15	15	25	15	15
2014	40	15	10	25	15	15
2015	35	15	10	25	15	15
2016	35	15	10	20	15	15
2017	35	10	10	20	10	10
2018	35	10	10	20	10	10
2019	35	10	10	20	10	10

FSP resulting from the residual bond criterion – threshold 10%

	EUR	**USD**	**AUD**	**JPY**	**CHF**	**GBP**	**RON**	**HRK**
2006	15	15	15	15	30	45	15	n/a
2007	15	15	15	15	30	45	15	n/a
2008	15	20	15	15	30	40	15	n/a
2009	15	20	15	15	30	40	20	n/a
2010	15	20	10	20	25	40	20	10
2011	15	20	10	20	25	40	10	10
2012	15	20	10	20	25	40	10	10
2013	15	20	10	20	25	40	10	10
2014	15	20	10	20	15	30	10	5
2015	15	20	10	20	15	30	10	5
2016	15	25	10	20	15	30	10	10
2017	15	25	10	20	15	30	10	10
2018	15	25	10	25	15	30	10	10
2019	15	25	10	25	15	30	10	10

	ISK	HUF	NOK	CZK	PLN	SEK
2006	15	15	25	30	20	15
2007	15	15	25	30	20	15
2008	15	15	25	30	20	20
2009	15	15	20	30	20	20
2010	25	15	20	30	20	20
2011	25	15	15	25	20	20
2012	20	15	15	25	20	20
2013	20	15	15	25	10	20
2014	30	10	10	25	10	10
2015	30	10	10	25	10	10
2016	30	10	10	15	10	10
2017	30	10	10	15	10	10
2018	30	10	10	15	10	10
2019	30	10	10	15	10	10

- ***Extrapolation method.***

A.69 The term structure for maturities beyond the FSP depends on the Last Liquid Forward Rate (LLFR) and the Ultimate Forward Rate (UFR). The extrapolation takes place at the level of forward rates.

A.70 Forwards rates beyond the FSP are a weighted average of the LLFR and the UFR where the weight on the UFR gets larger for longer maturities. The formula for the weighting factor is derived from the Vasicek model for interest rates. It is parametrized with a convergence factor of α=10% following the "Commissie parameters 2014 report".[368] A larger convergence factor implies that the weight on the UFR gets larger. In this way, the convergence factor also influences the volatility of the extrapolated forward rates.

A.71 The LLFR is a weighted combination of forward rates pre- and post FSP with weights that depend on the liquidity of the respective rates according to the annual EIOPA DLT assessment. In this way, market information beyond the FSP is also partially taken into account, but only as long as the respective swap rates are sufficiently liquid for these maturities and to the extent of the liquidity of the rates.

[368] In the Netherlands, the convergence factor has been recently estimated at 2%. The estimation is based on recent data used in two versions of the Vasicek model. In the proposed method, 10% is used as a step towards a more market-consistent parameter, in line with the initial advice by the committee, see https://www.government.nl/documents/publications/2013/10/06/advisory-report-of-the-ufr-committee.

A.72 The LLFR for the euro depends on all DLT swap rates with a maturity up to 50 years, i.e. 25, 30, 40 and 50 where the weight for the 30 year swap rate is significantly larger than for the 40 and 50 year swap rates as it is more liquid (average daily volume of approximately 6 billion euros versus approximately 0.3 and 0.4 billion euros).

- ***UFR-level:***

A.73 The extrapolated curve converges automatically to the designated long-term UFR level without ever reaching it. The UFR level is based on the current EIOPA method and currently equals 3.9% for the euro.

A.74 The alternative extrapolation method consists of two steps. First, zero coupon yields (up to and including the FSP) and forward rates (pre and post the FSP) are derived from the swap curve for maturities (for the Euro) 1-10, 12, 15, 20, 25, 30, 40 and 50 years. Second, zero-coupon yields beyond the FSP are derived using a weighted combination of the LLFR and the UFR.

Step 1: Deriving zero coupon yields (up to and including the FSP) and forward rates (pre and post the FSP) from market data

A.75 We only derive how zero-coupon yields and forward rates can be derived from annually compounded swap or, where applicable, bond data for the sake of brevity. The regular adjustments apply to change the compounding into annually compounded rates if the swap and bond rates have a different coupon frequency.

A.76 We use the following notations:

r_t = the (par) rate at maturity t

z_t = the spot zero-coupon rate at maturity t

$f_{t1,t2}$ = the forward rates between maturity t1 and t2

A.77 The zero-coupon rate is derived from the par swap rate by means of bootstrapping, starting with the 1-year swap. From (1 + r1) / (1 + z1) = 1 follows that z1 = r1. The 2-year zero rate is determined by discounting the cash flows of the 2-year swap (only the fixed-income part) against the 1- and 2 year zero rates and equalling the discounted value to 1:

$$\frac{r_2}{1+z_1}+\frac{1+r_2}{(1+z_{2z})^2}=1$$

$$z_2=\sqrt{\frac{1+r_2}{1-\frac{r_2}{1+z_1}}}-1$$

z_3 to z_{10} are determined in a similar fashion.

A.78 The forward rates are computed as follows:

$$(1+z_2)=(1+z_1)(1+f_{1,2})$$

$$f_{1,2} = \frac{(1+z_2)^2}{(1+z_1)} - 1$$

A.79 For the maturities beyond 10 years, less market data are used. For the maturities between the 12, 15, 20 years interest rates are interpolated. For example, in order to compute the 16-year zero coupon rate an assumption has to be made. Here we assume that the 1-year forward is constant between 15 and 20 years; i.e. all 1-year forward rates between 15 and 20 years are the same. This assumption is reasonable because the forward is in fact a prediction of the 1-year interest rate 15, 16, etc. years ahead. There is little reason to assume that the market has a substantially different view of the 1-year interest rate 15 years from now compared to 16 years from now. Using this assumption we can write the following:

$$(1+z_{16})^{16} = (1+z_{15})^{15}\left(1+f_{15,16}\right) = (1+z_{15})^{15}(1+f_{15,20})$$

$$(1+z_{17})^{17} = (1+z_{16})^{16}\left(1+f_{16,17}\right) = (1+z_{15})^{15}(1+f_{15,20})^2$$

$$(1+z_{18})^{18} = (1+z_{17})^{17}\left(1+f_{17,18}\right) = (1+z_{15})^{15}(1+f_{15,20})^3$$

$$(1+z_{19})^{19} = (1+z_{18})^{18}\left(1+f_{18,19}\right) = (1+z_{15})^{15}(1+f_{15,20})^4$$

$$(1+z_{20})^{20} = (1+z_{19})^{19}\left(1+f_{19,20}\right) = (1+z_{15})^{15}(1+f_{15,20})^5$$

A.80 Based on this we can write the following for the cash value of a 20-year swap:

$$\frac{r_{20}}{1+z_1} + \frac{r_{20}}{(1+z_2)^2} + \cdots + \frac{r_{20}}{(1+z_{19})^{19}} + \frac{1+r_{20}}{(1+z_{20})^{20}}$$
$$= r_{20}\left[\sum_{t=1}^{15}\frac{1}{(1+z_t)^t} + \frac{1}{(1+z_{15})^{15}}\sum_{t=1}^{5}\frac{1}{\left(1+f_{15,20}\right)^t}\right] + \frac{1}{(1+z_{15})^{15}\left(1+f_{15,20}\right)^5}$$
$$= 1$$

A.81 Using a numeric procedure f15,20 can be determined and then replaced in the equation above in order to determine z16 to z20. The same procedure is used to determine all other 1-year forward rates.

A.82 Zero-coupon yields up to and including the FSP are equal to zero-coupon yields derived above (z1 until z20 for the euro). The last forward rate pre and all forward rates post the FSP, if liquid maturities beyond the FSP exist, are used to calculate the LLFR (see next step).

Step 2: Deriving zero-coupon yields beyond the FSP using a weighted combination of the LLFR and the UFR

A.83 First, the LLFR is computed based on forward rates (as calculated in step 1) between the last liquid point before the FSP (15 years for the euro) and the FSP itself (20 years for the euro) and forward rates derived from liquid maturities according to the annual DLT assessment, where available, after the FSP (currently 25, 30, 40 and 50 years for the euro). In the following, rates are continuously compounded.

A.84 This means the following for the euro given the current DLT assessment of the swap rates,

$$LLFR = w_{20} * f_{15,20} + w_{25} * \ f_{20,25} + w_{30} * \ f_{20,30} + w_{40} * \ f_{20,40} + w_{50} * \ f_{20,50}$$

A.85 The weighting factors wx are based on the liquidity assessment of the swap market, where Vx represents the annual average notional amount traded for a particular maturity point x:

$$w_{20} = \frac{V_{20}}{V_{20} + \ V_{25} + V_{30} + V_{40} + V_{50}}$$

A.86 Next, the forward rates beyond the FSP are then extrapolated according to the following formula:

$$f_{20,20+h} = \ln(1 + UFR) + (LLFR - \ln(1 + UFR)) * B(a,h)$$

$$B(a,h) = \ \frac{1 - e^{-ah}}{ah}$$

where h takes on values from 1 to the desired maturity beyond the FSP and a , is the convergence factor and is equal to 10%.

- **Applying the volatility adjustment**

A.87 The application of the volatility adjustment is similar to the current Smith-Wilson extrapolation method. However, rather than extrapolating, again, the basic risk free rate term structure after adding the VA, the VA is added to the forward rates. For the rates up to the FSP this is done in the following way:

$$f_{x,x+y}^{VA} = f_{x,x+y} + VA$$

A.88 The VA is also added to the last liquid forward rate, LLFR, the rate from which the extrapolation starts at the FSP, but only to the last forward rate before this FSP. For the euro this implies the following:

$$LLFR^{VA} = w_{20} * f_{15,20}^{VA} + w_{25} * \ f_{20,25} + w_{30} * \ f_{20,30} + w_{40} * \ f_{20,40} + w_{50} * \ f_{20,50}$$

A.89 This is similar to the current Smith-Wilson method where the VA is also added to the rate for the last liquid point from which the extrapolation starts. The level of the UFR is not adjusted in the alternative extrapolation method, same as for the current Smith-Wilson method.

- **Reasoning behind the convergence factor**

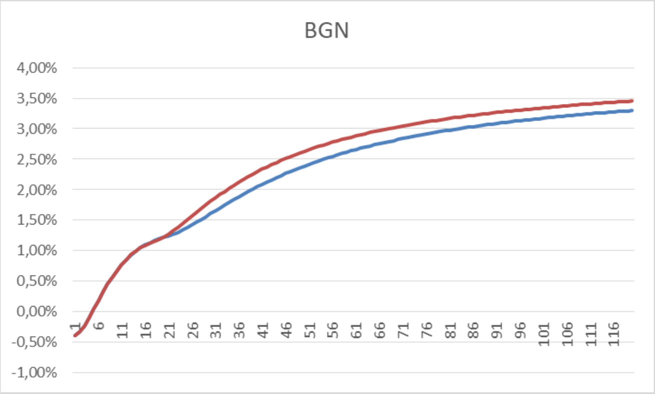
A.90 The convergence factor plays a role in the extrapolation of post-FSP forward rates. The convergence factor determines the speed of post-FSP convergence to the UFR. The greater the convergence factor, the faster the extrapolated forward rates will converge to the designated UFR. Compared to the current method the speed of convergence and the criteria to reach the UFR in 40 years after the LLP within 3 basis points are not used anymore. No unequivocal evidence can be found in the economic empirical literature for the convergence factor and the existence of a convergence factor greater than zero is also often called into doubt. In 2019 the "Commissie Parameters" set the convergence factor to 2% based on recent data used in two versions of the Vasicek model[369]. In the proposed method the factor is set at 10% as was set in the 2013 "UFR committee" report[370]. The 10% was chosen out of prudency, given the big impact of a larger change, and as a step towards using more market consistent data. The size of this parameter could be reassessed and recalibrated in future reviews.

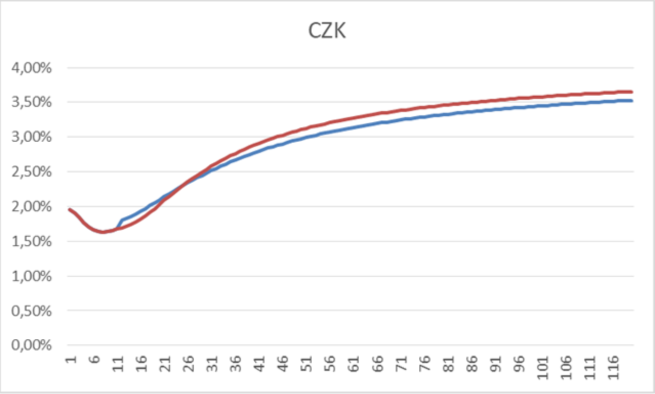
A.91 Finally, post-FSP zero coupon rates are extrapolated as follows.

$$z_{20+h} = \exp\left(\frac{20 * z_{20} + h * f_{20,20+h}}{20 + h}\right) - 1$$

Annex 2.7 – Comparison between current and alternative methodology for other currencies at at YE 2018

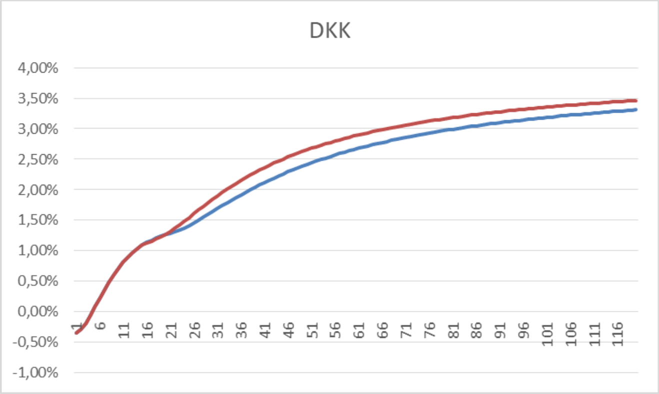
A.92 Red term structure – current methodology; blue term structure – alternative methodology.





[369] See https://www.rijksoverheid.nl/documenten/kamerstukken/2019/06/11/advies-commissie-parameters on https://www.rijksoverheid.nl/documenten/kamerstukken/2019/06/11/advies-commissie-parameters (in Dutch).

[370] https://www.government.nl/documents/publications/2013/10/06/advisory-report-of-the-ufr-committee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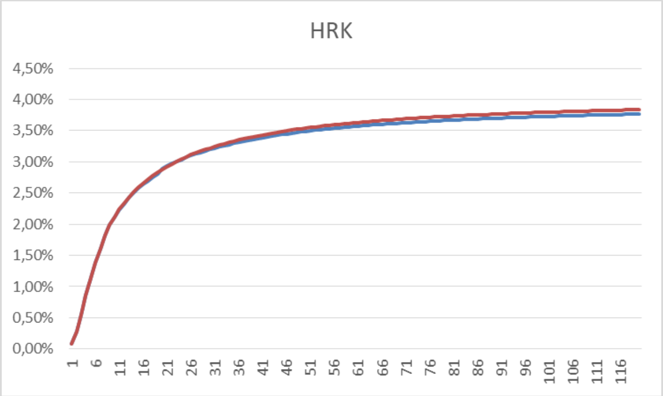
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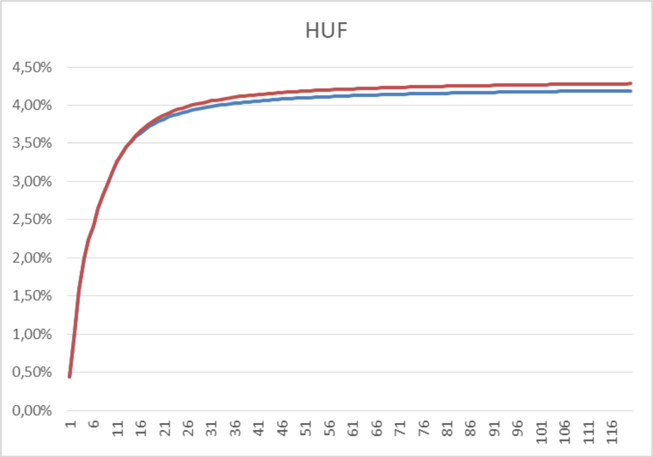
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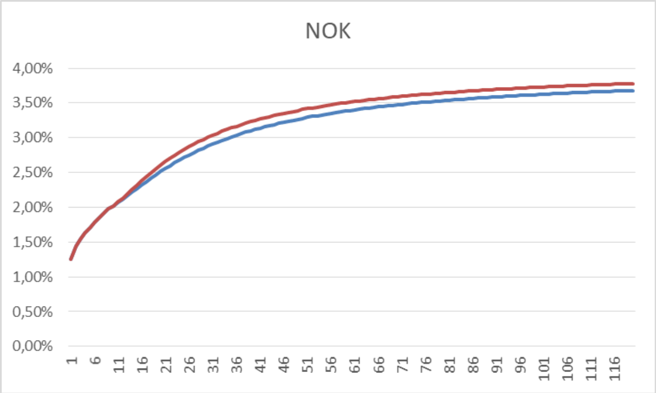
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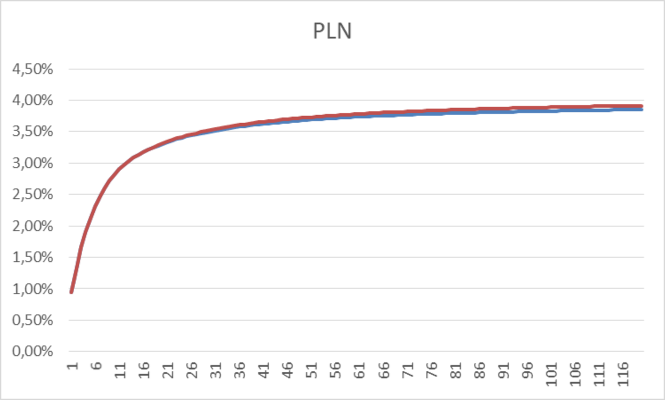
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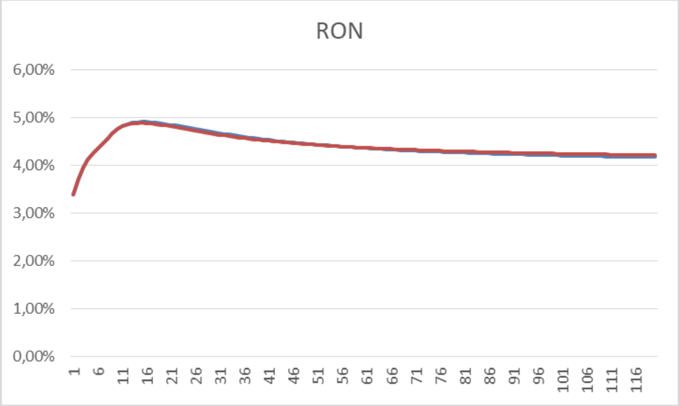
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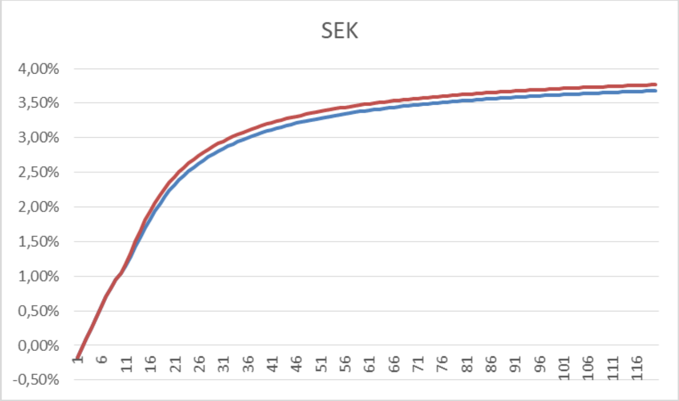
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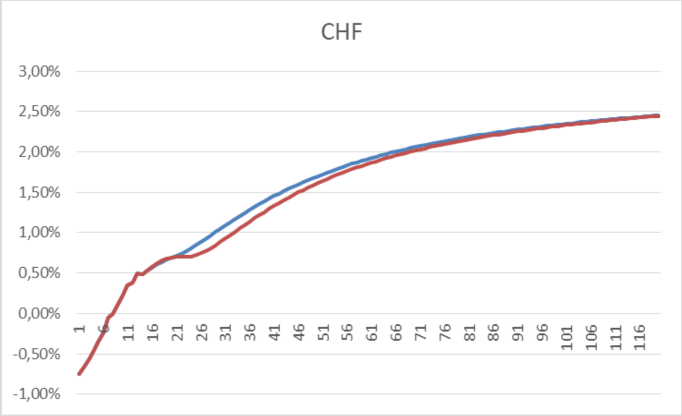
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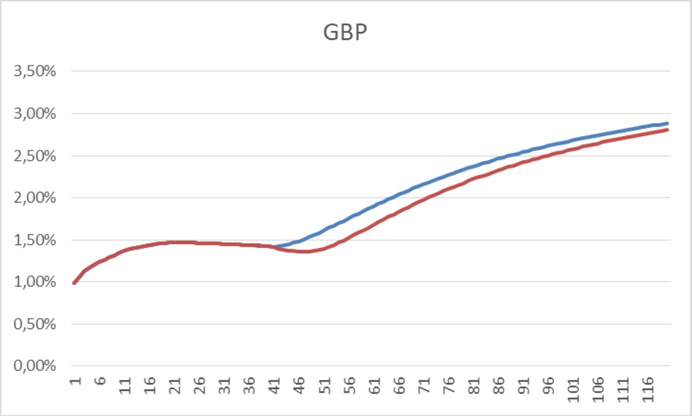
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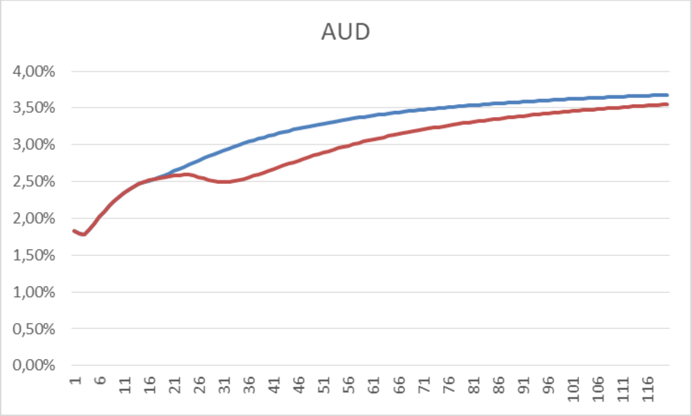
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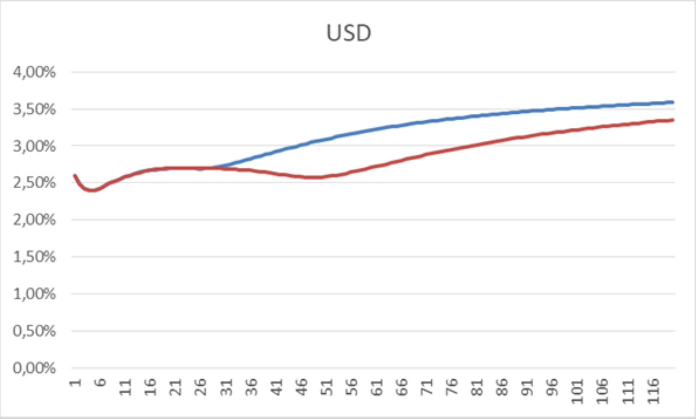
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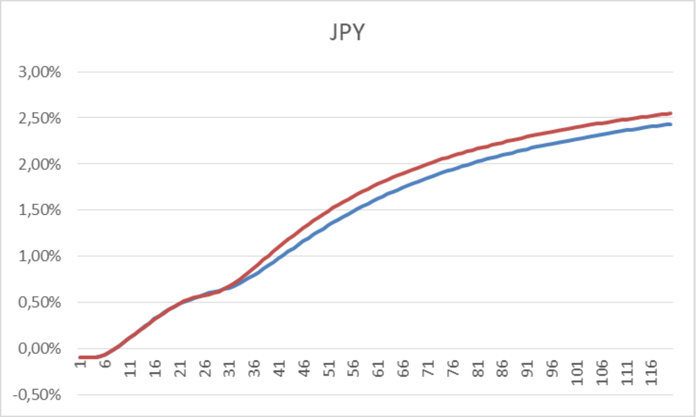
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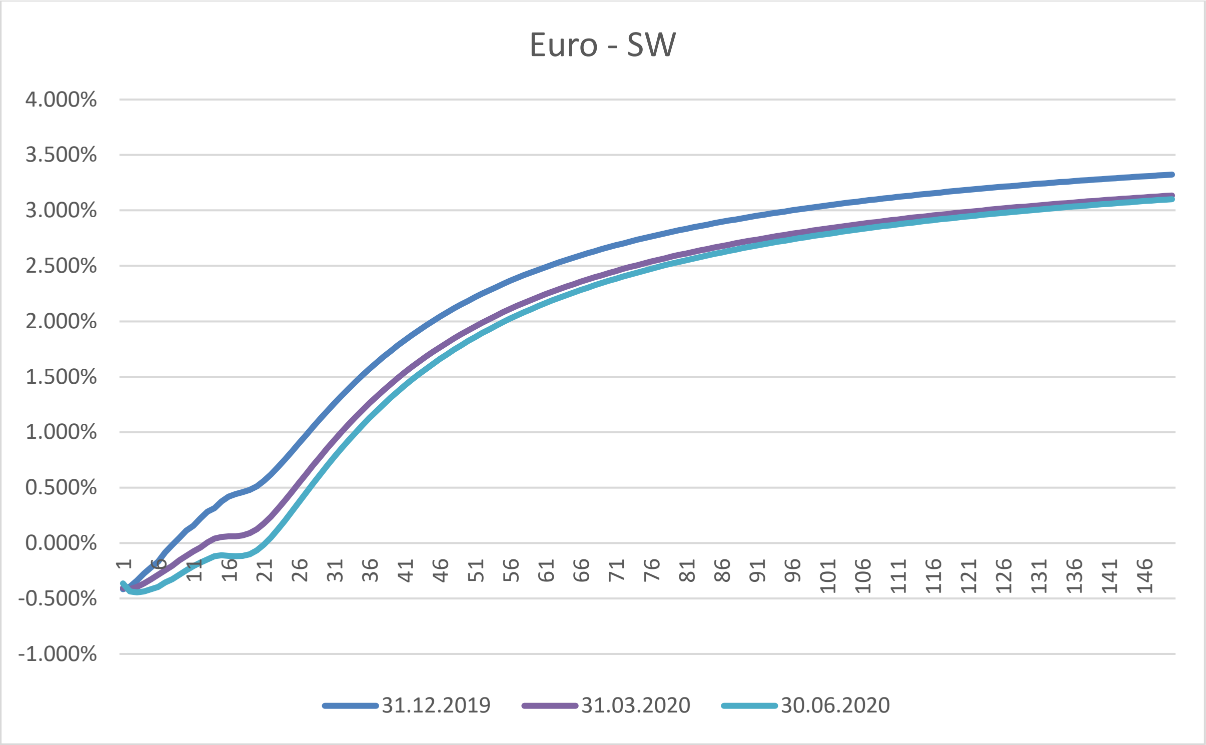
Comparison of current and alternative extrapolation method during 2020

A.93 The assessment was updated with more recent data for EEA currencies. The following graphs outline the evolution of interest rates from 31.12.2019 to 30.06.2020 comparing the current Smith-Wilson extrapolation method with the alternative extrapolation method for the different EEA currencies. The term structures with the alternative extrapolation methods take into account the implications of the DLT assessment, both with regard to the choice between swaps and government bonds as the relevant instrument and with regard to the liquid maturities.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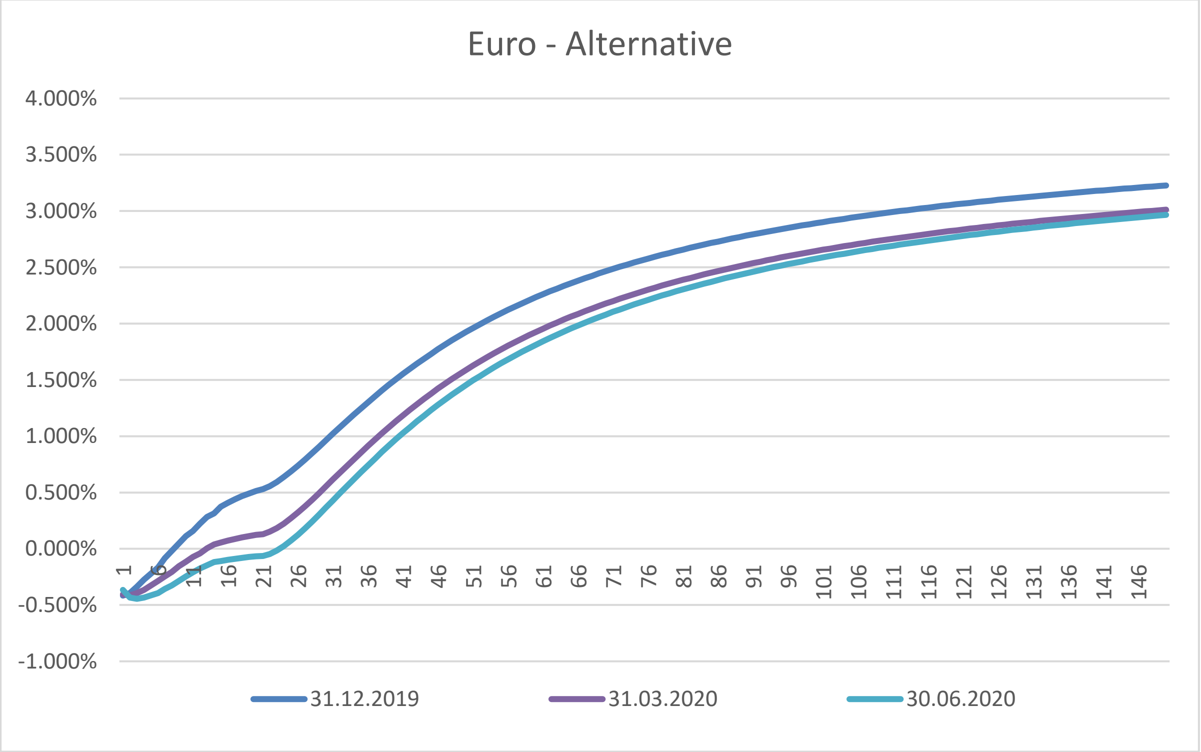
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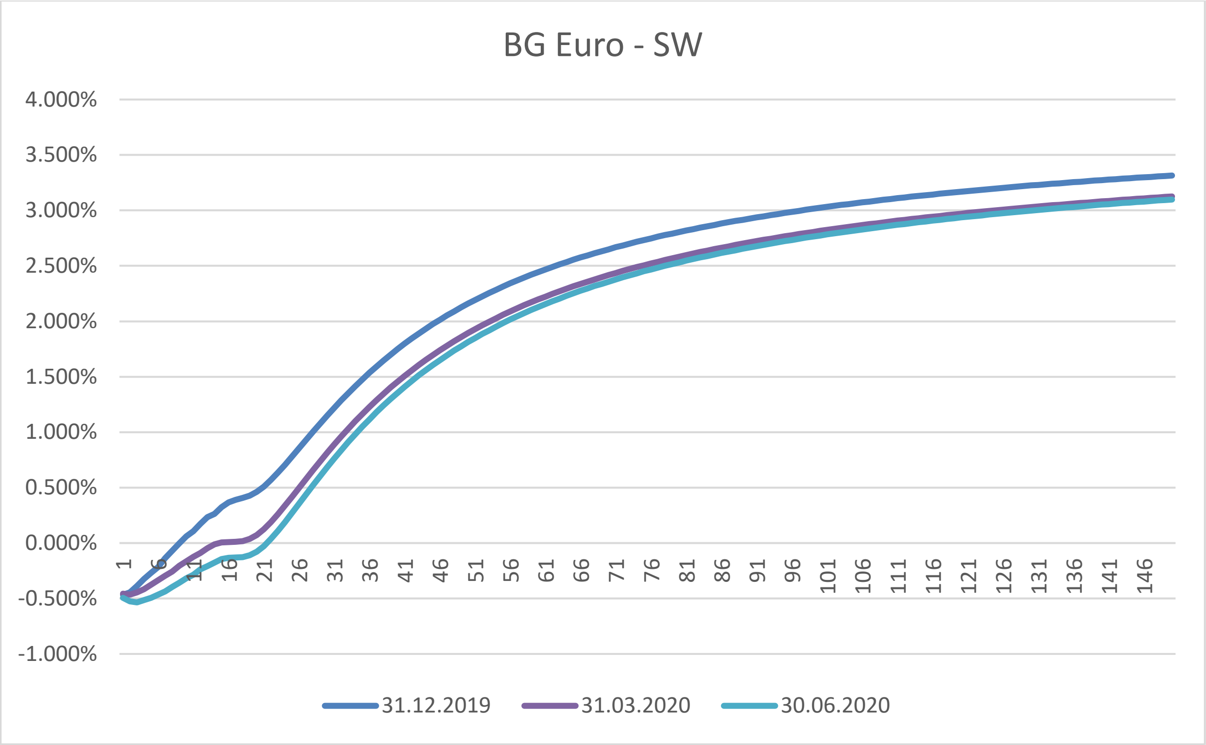
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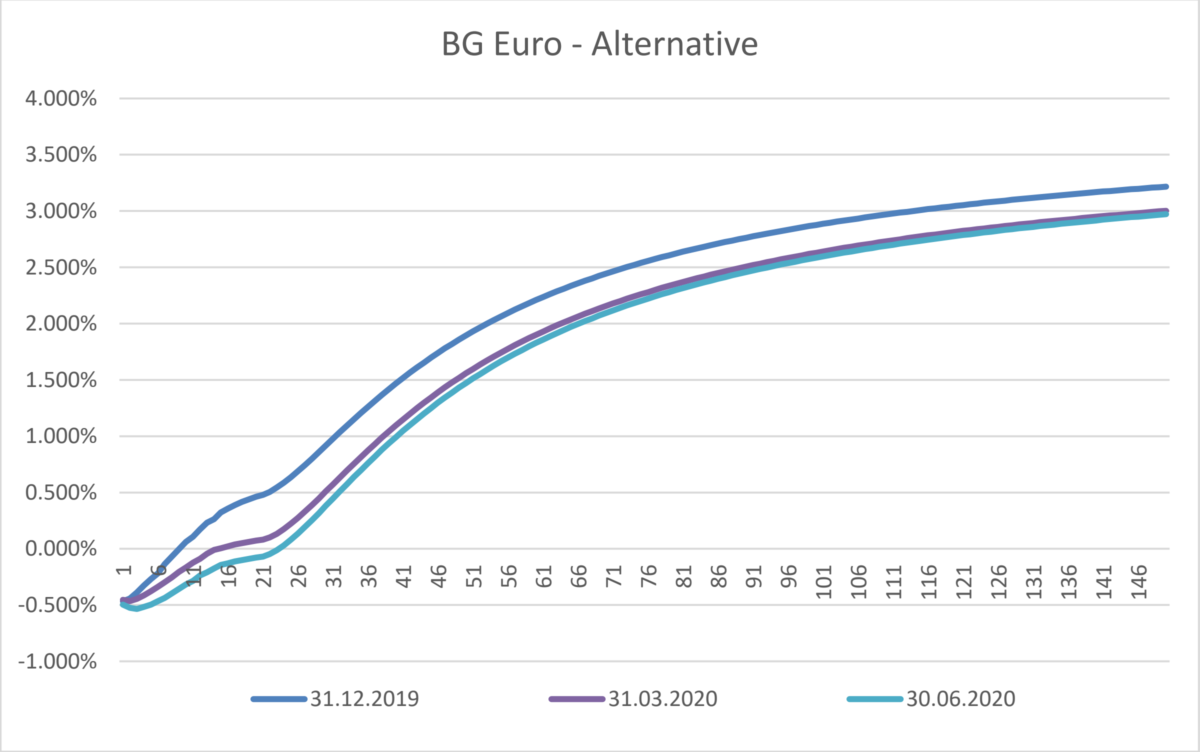
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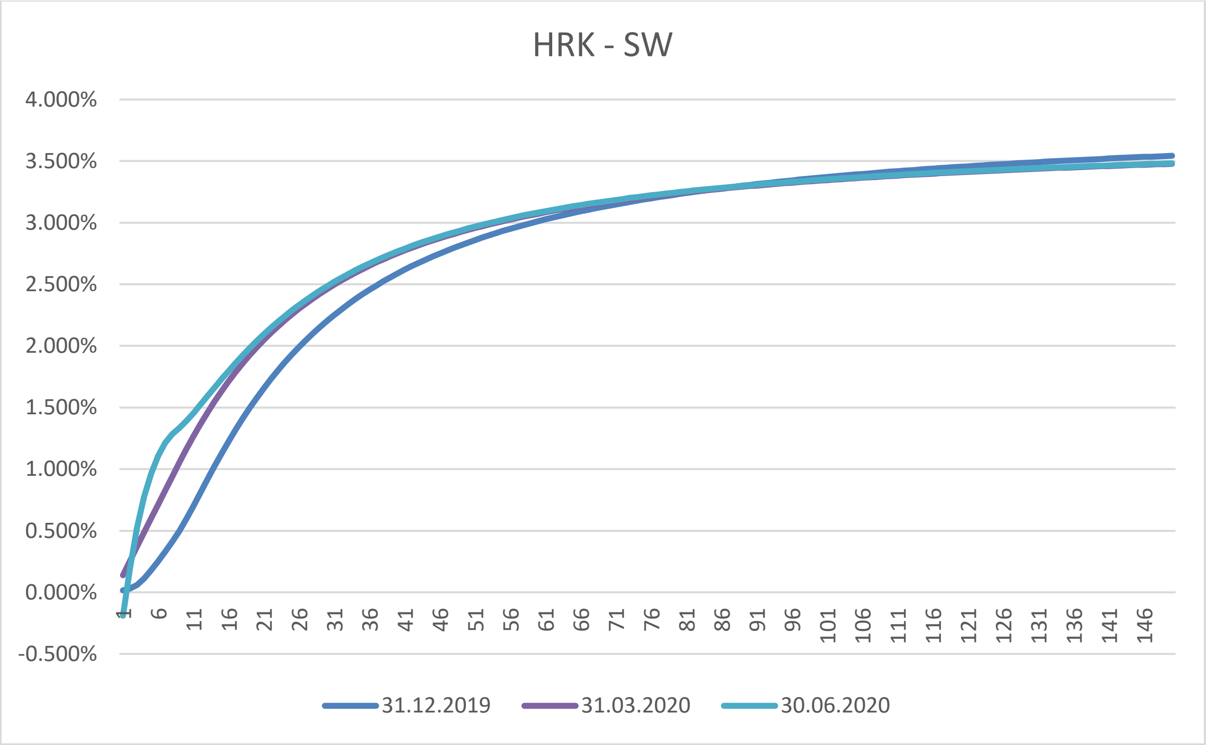
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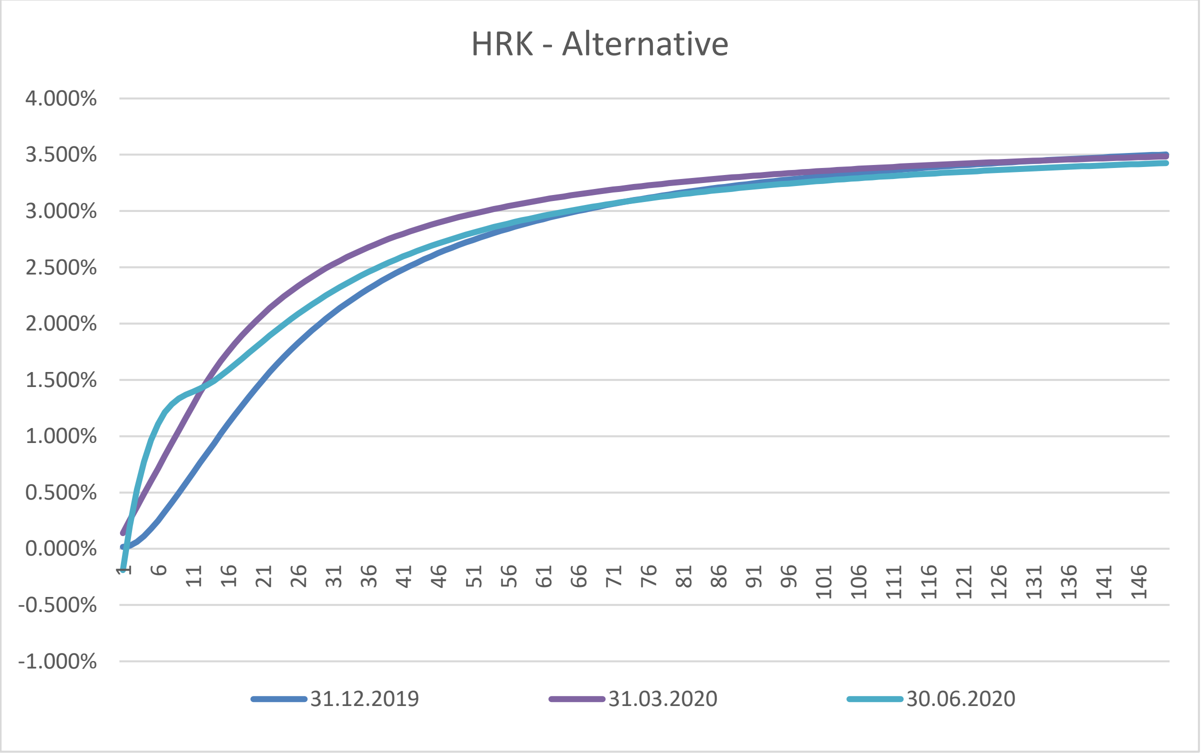
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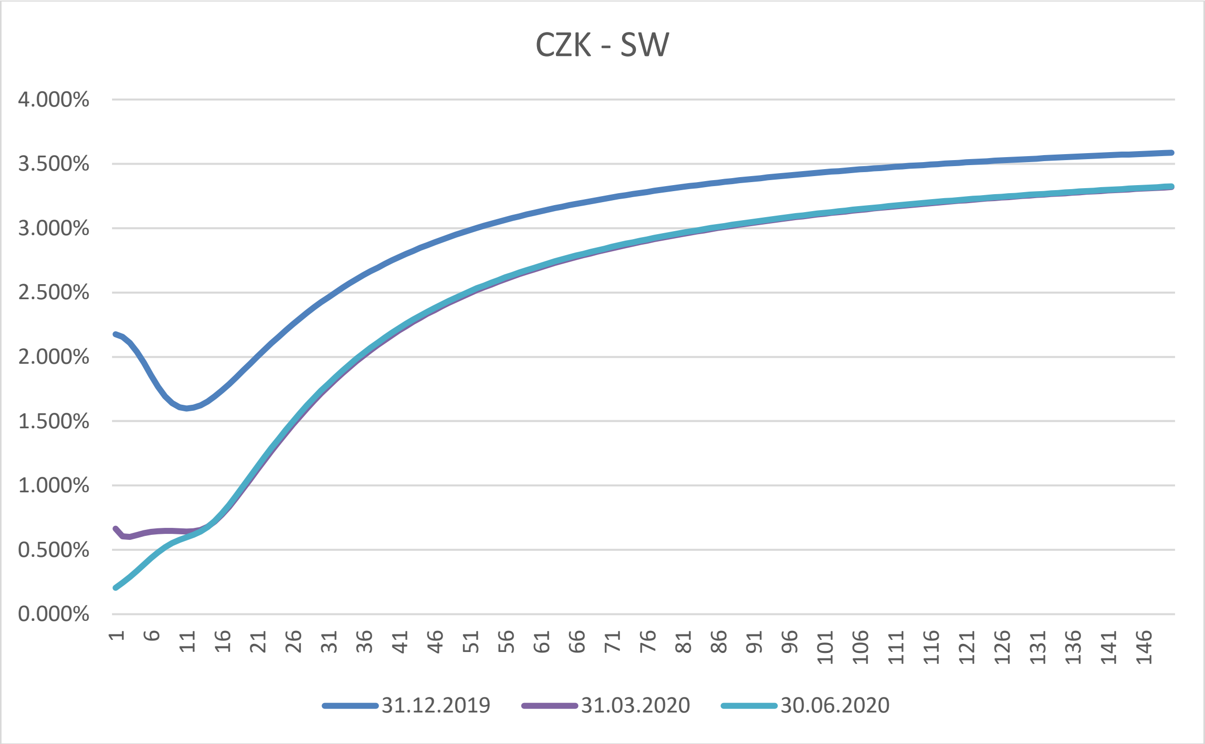
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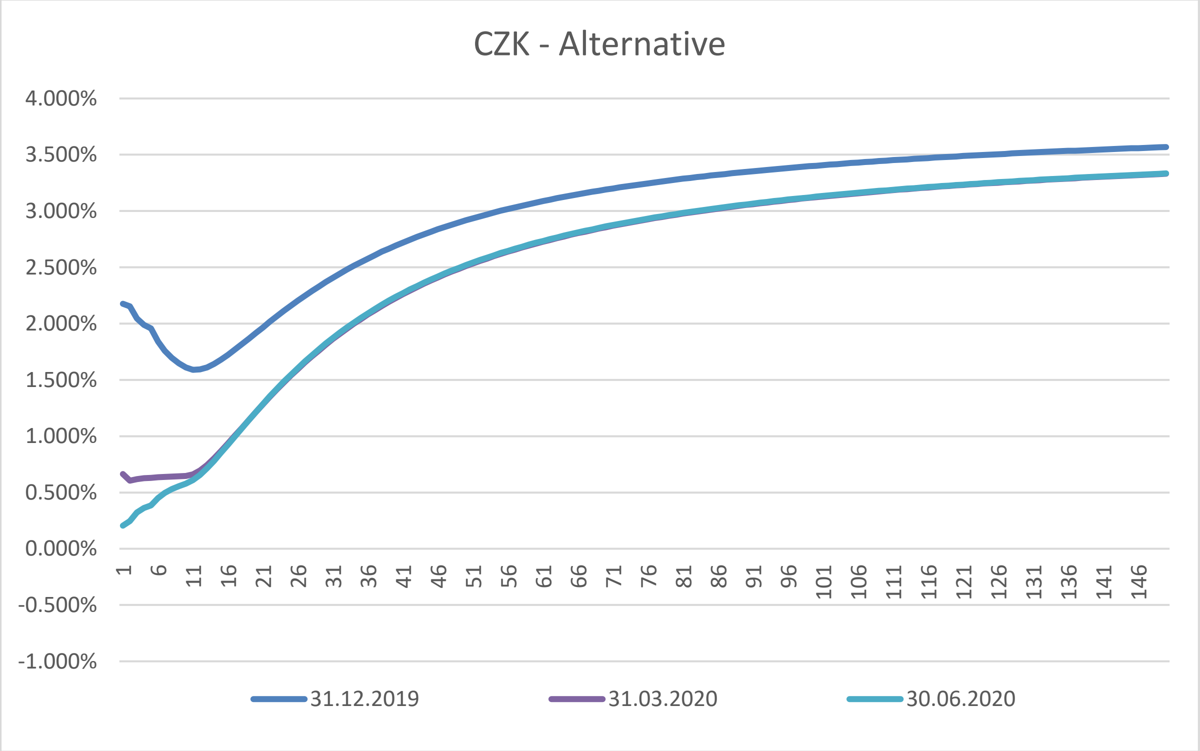
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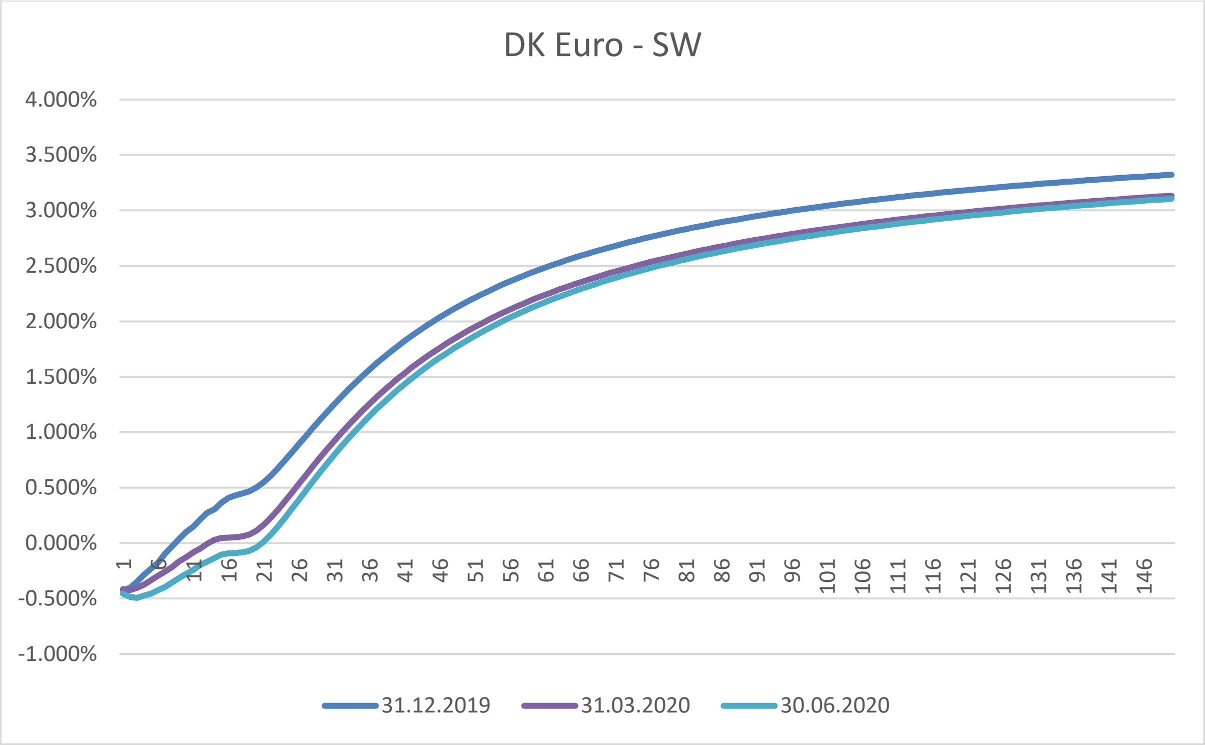
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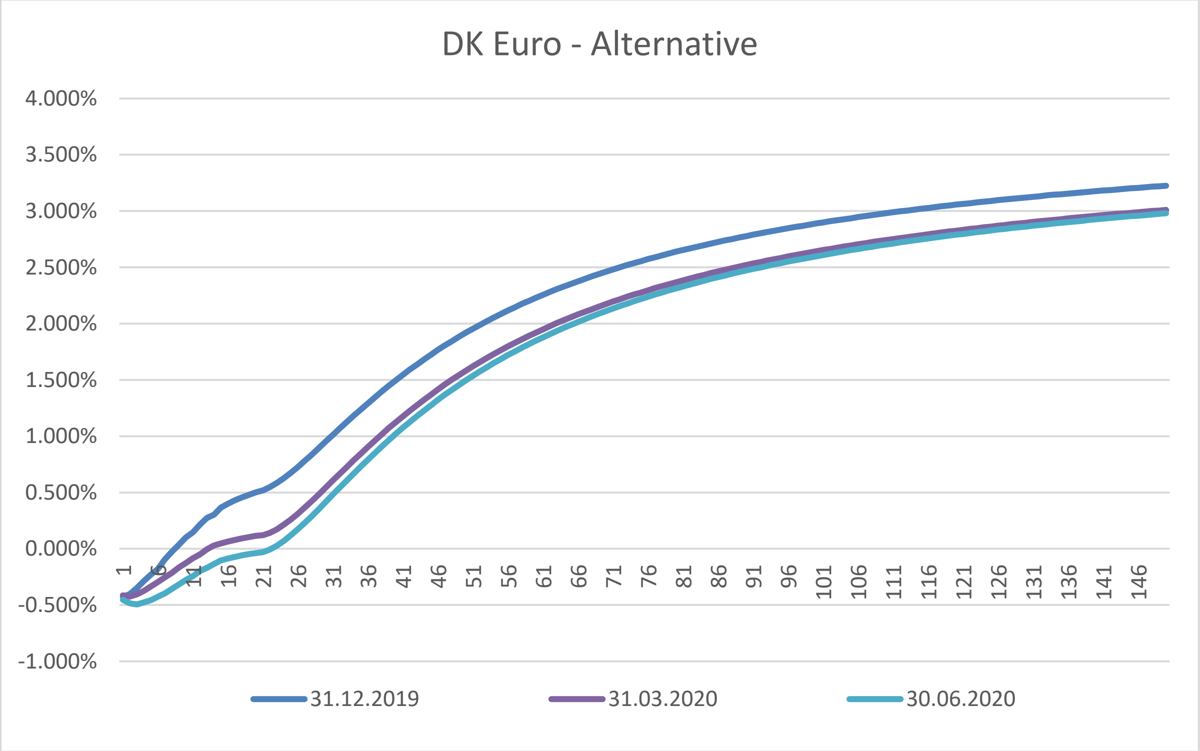
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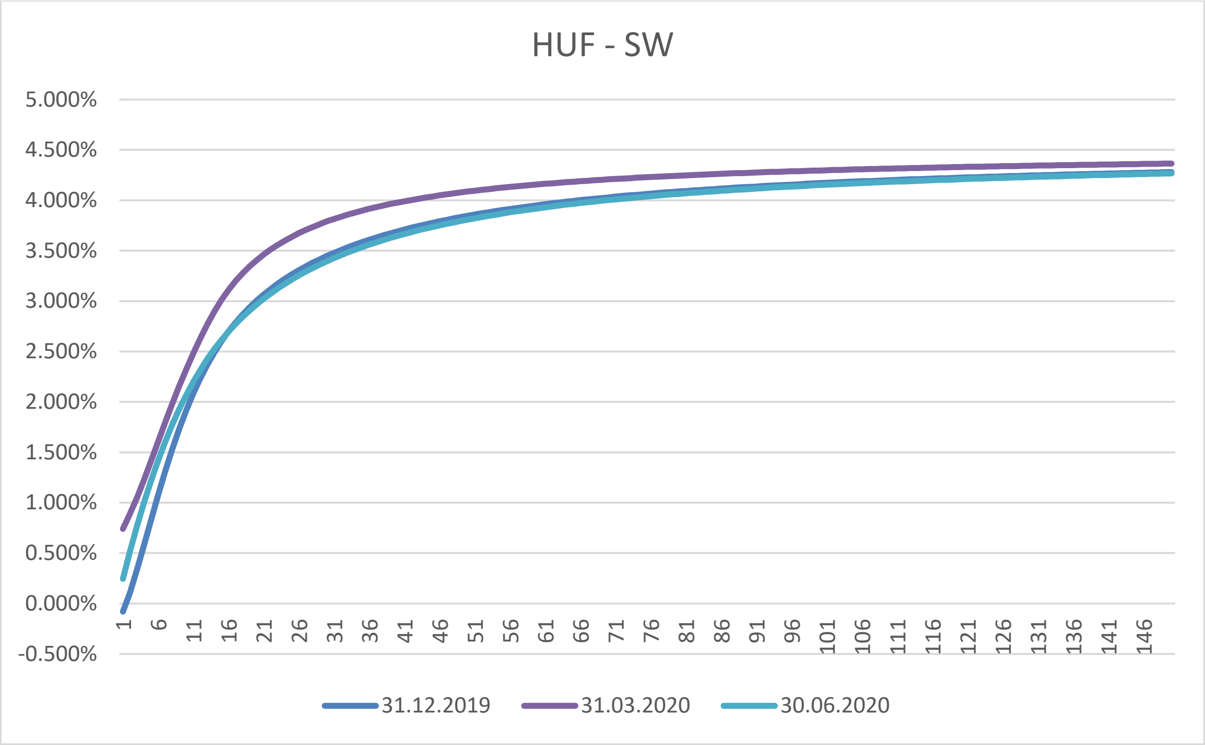
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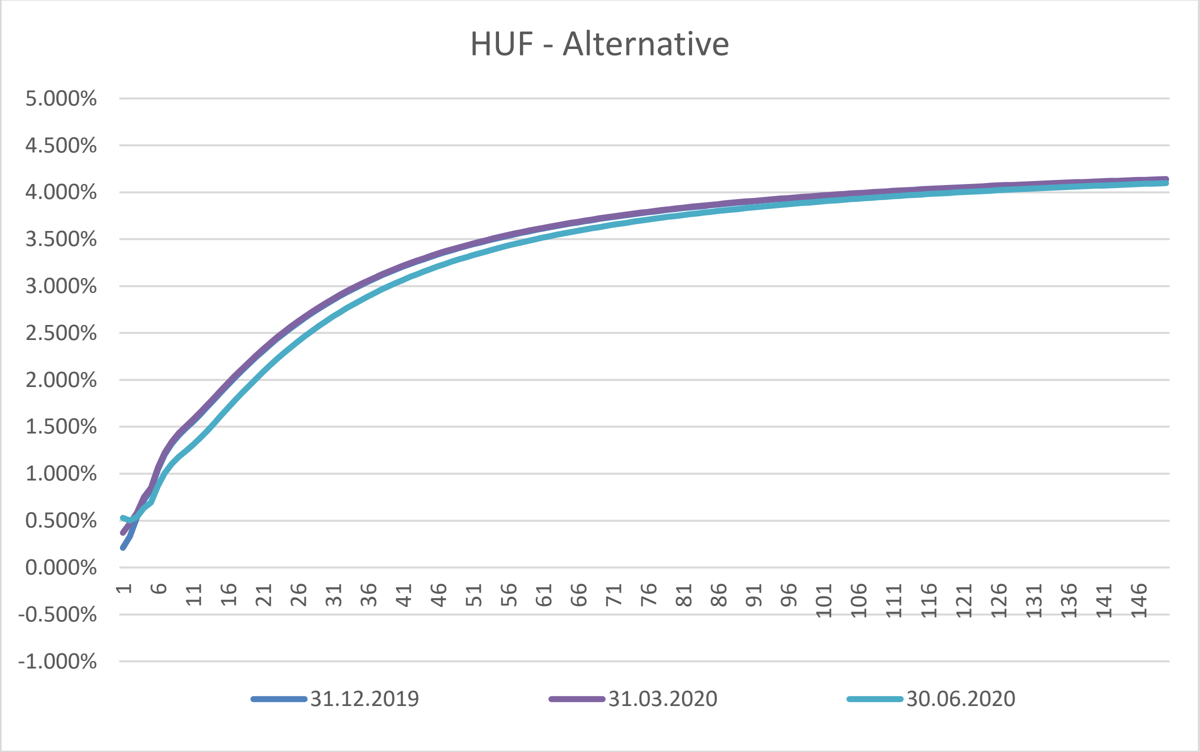
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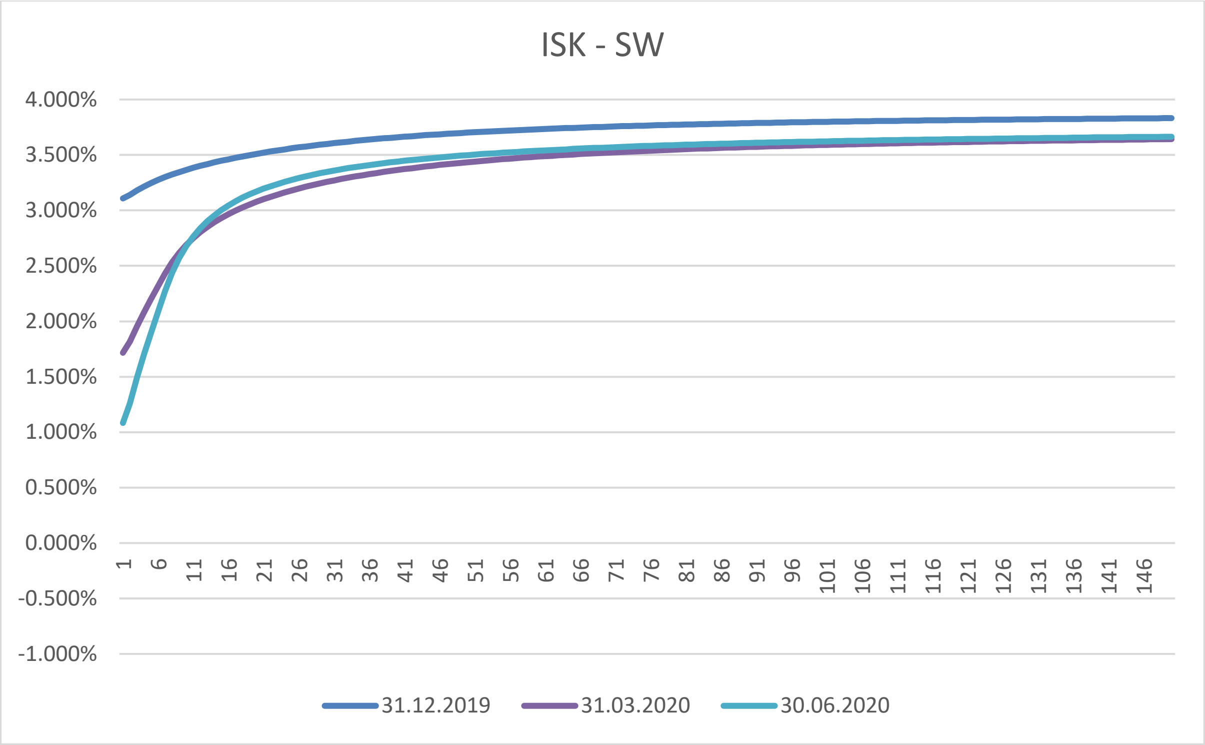
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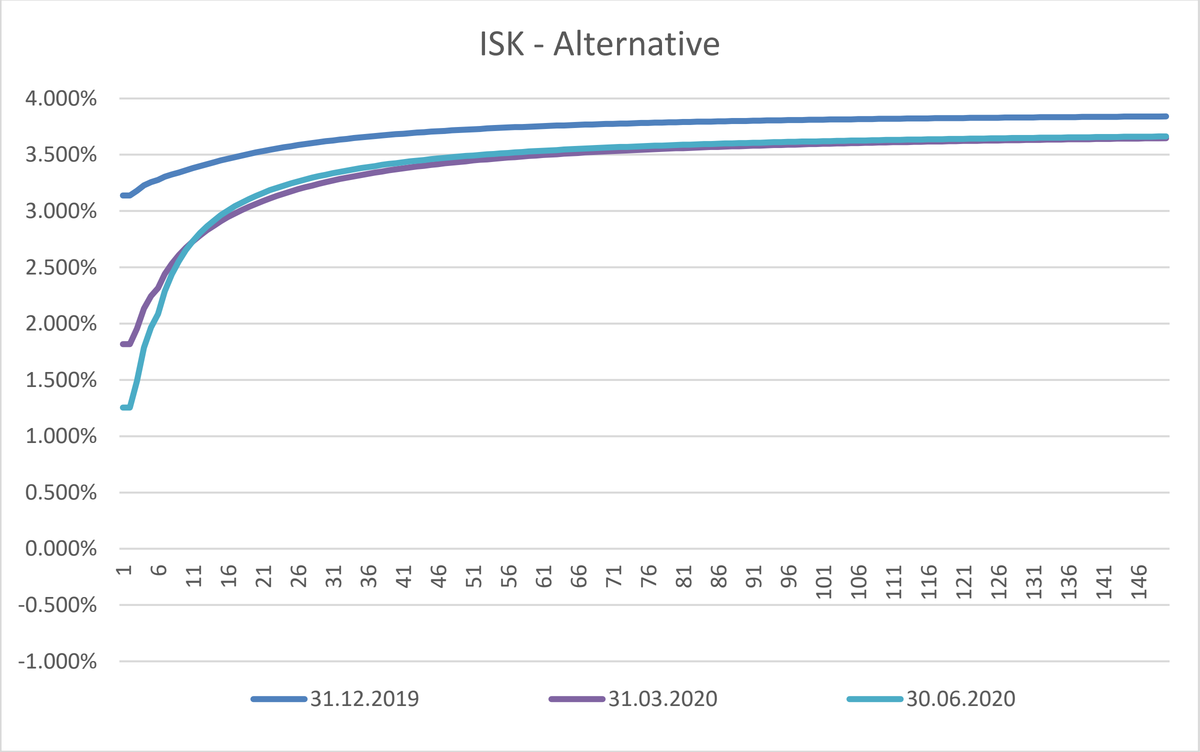
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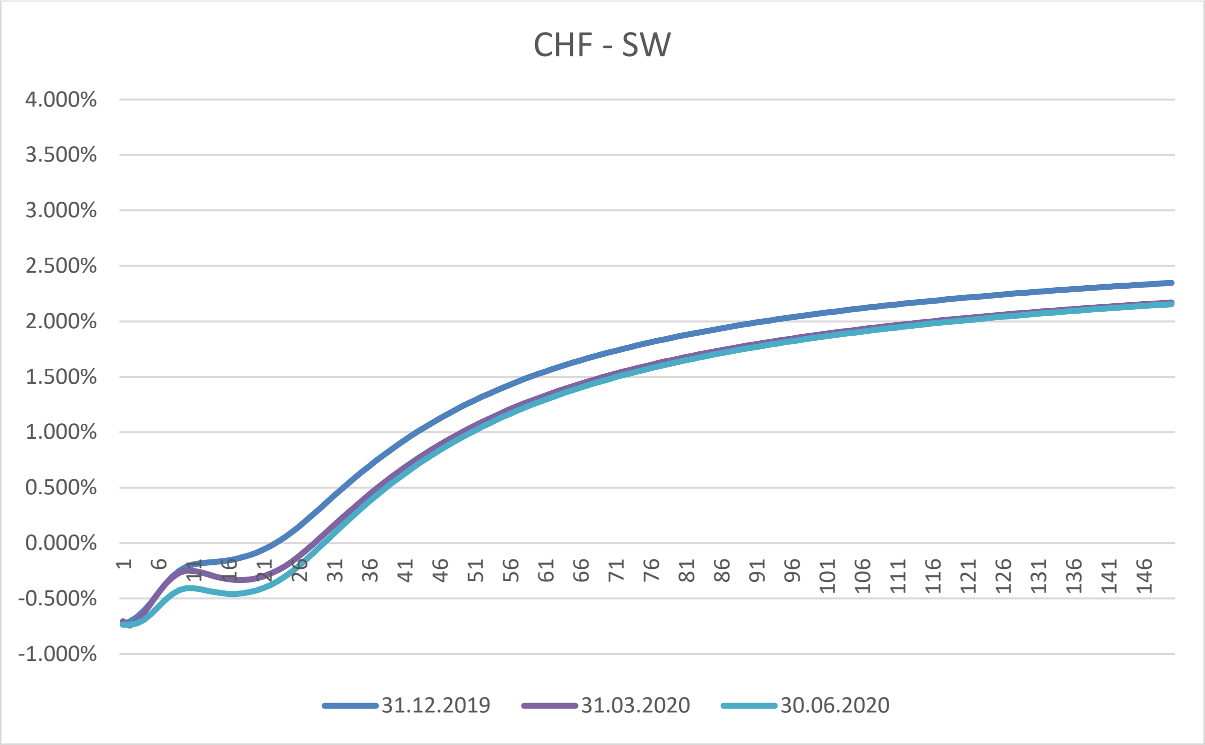
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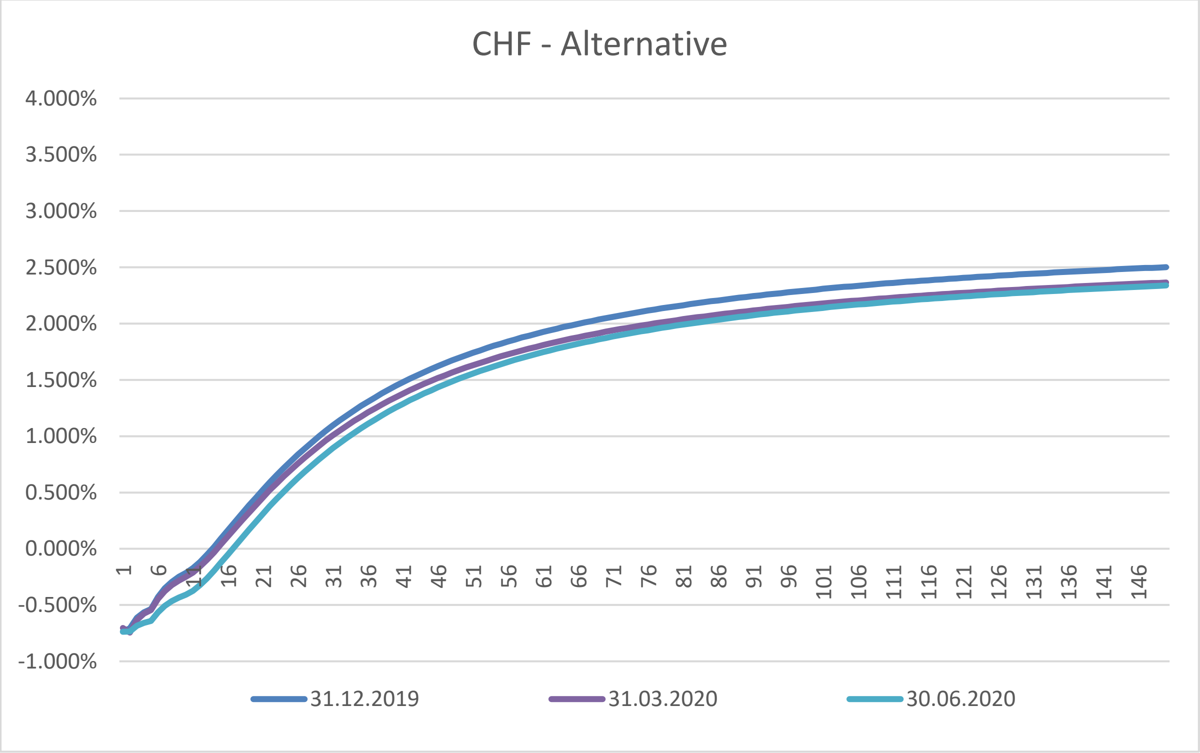
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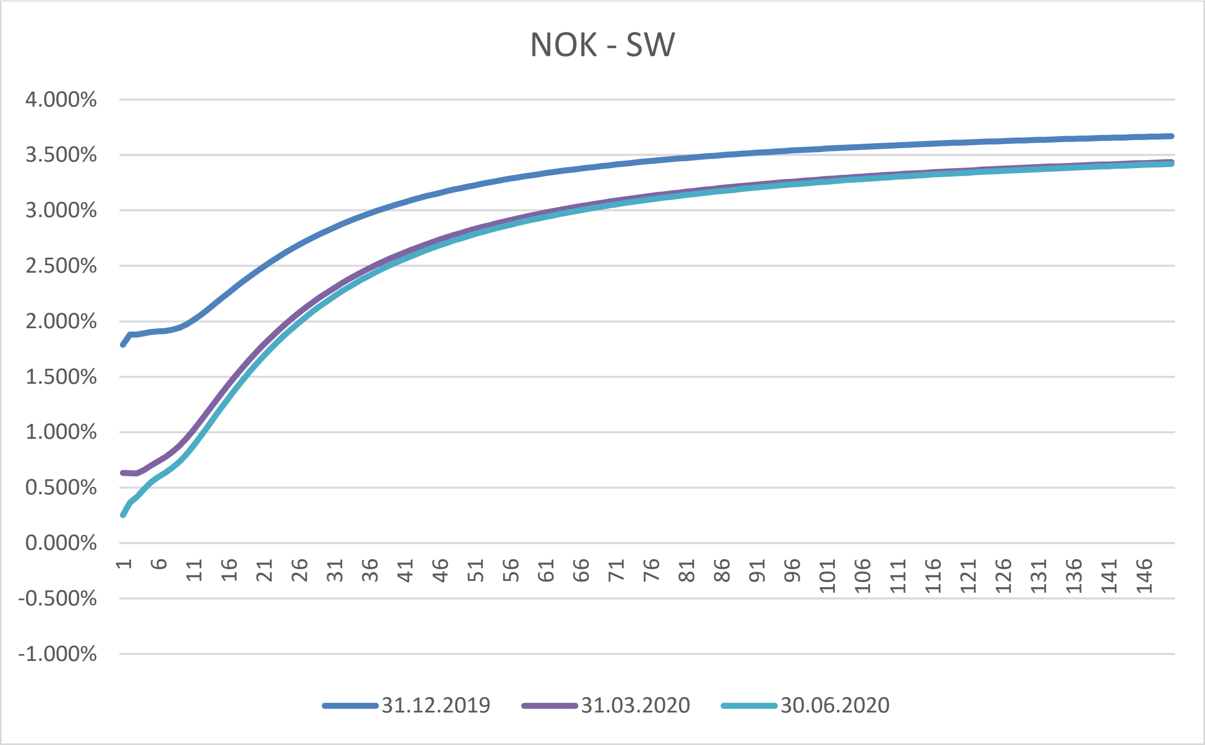
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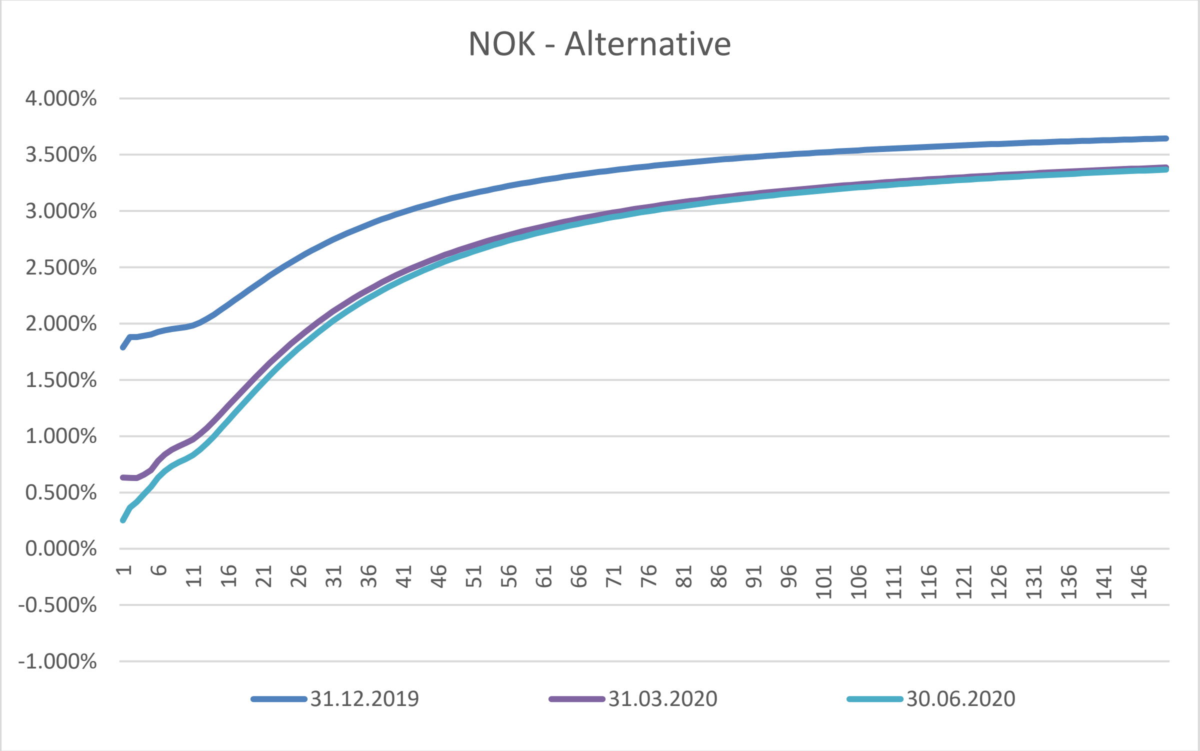
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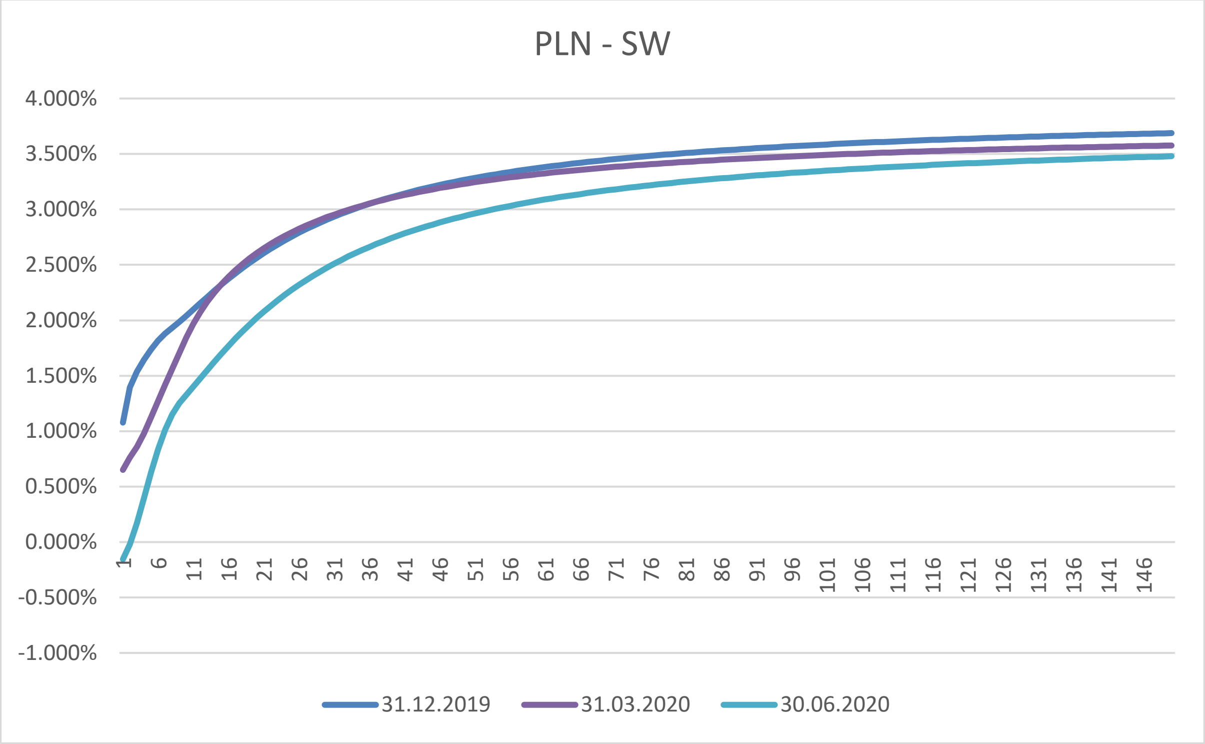
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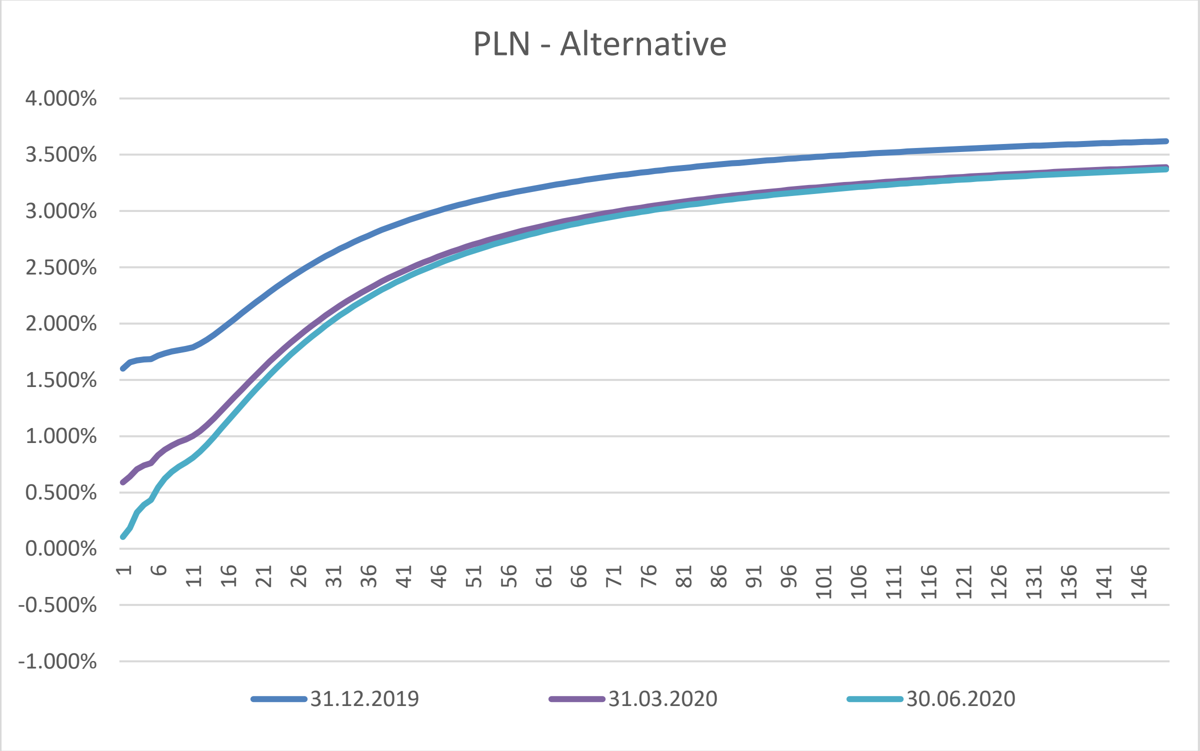
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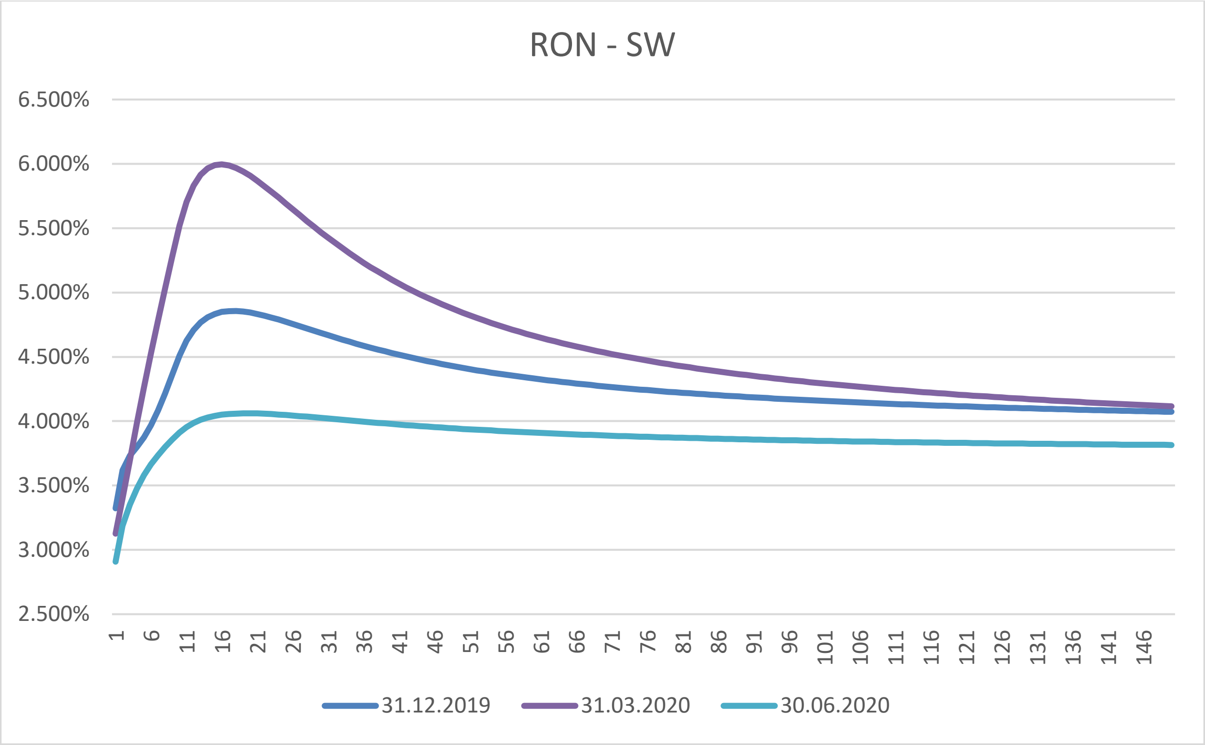
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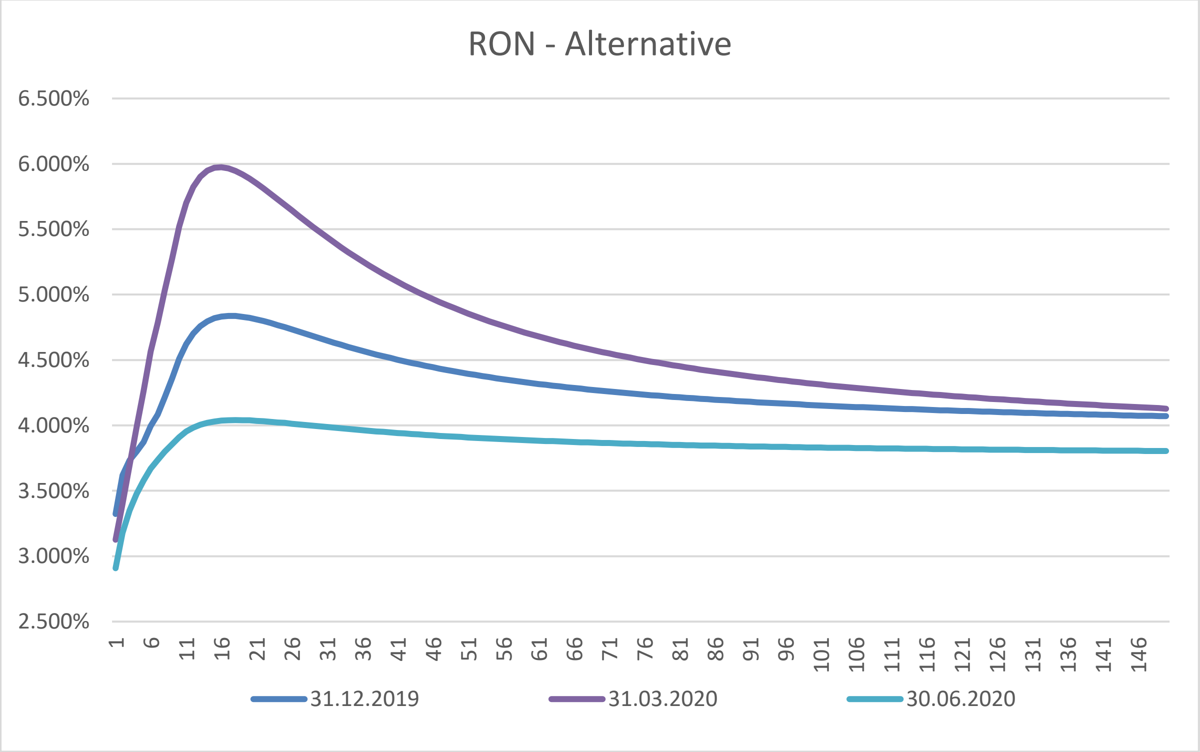
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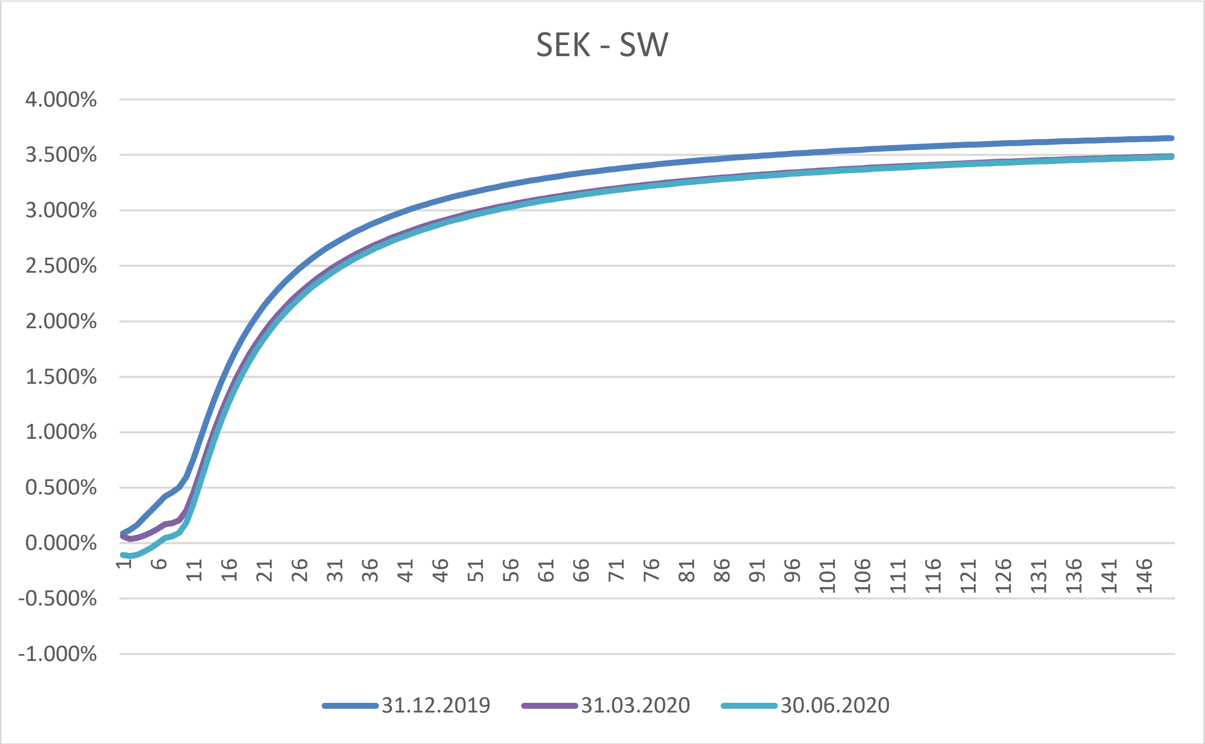
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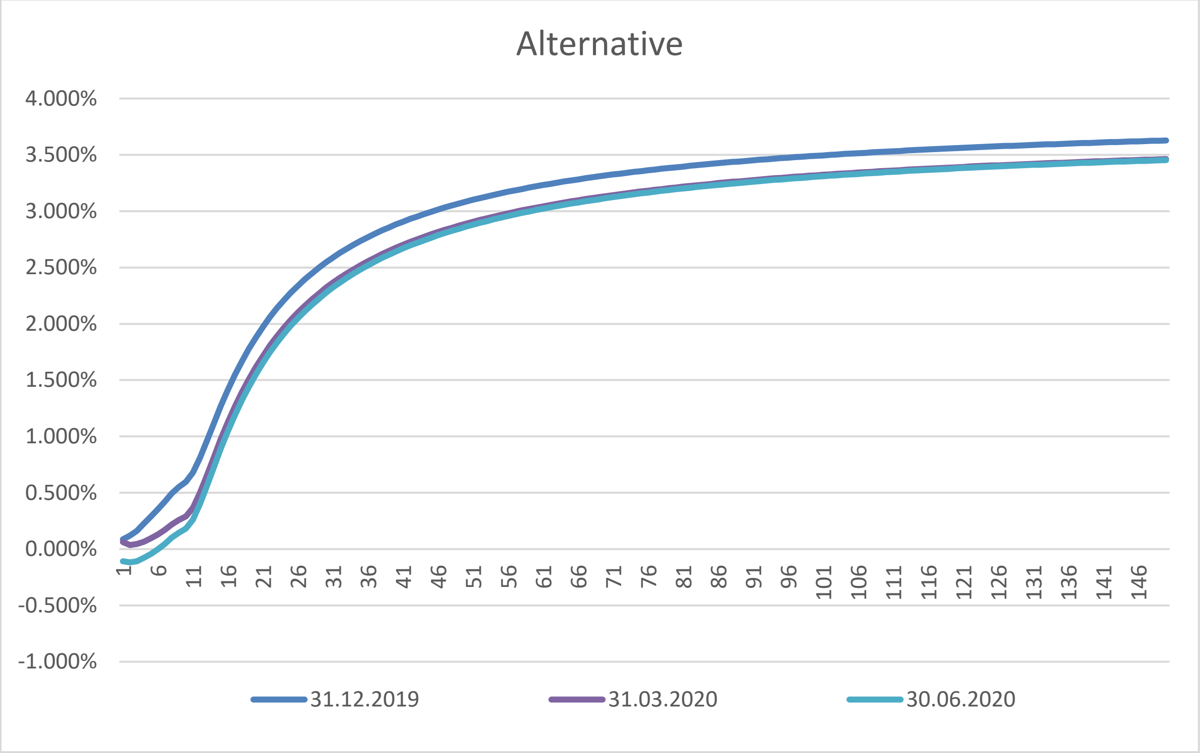
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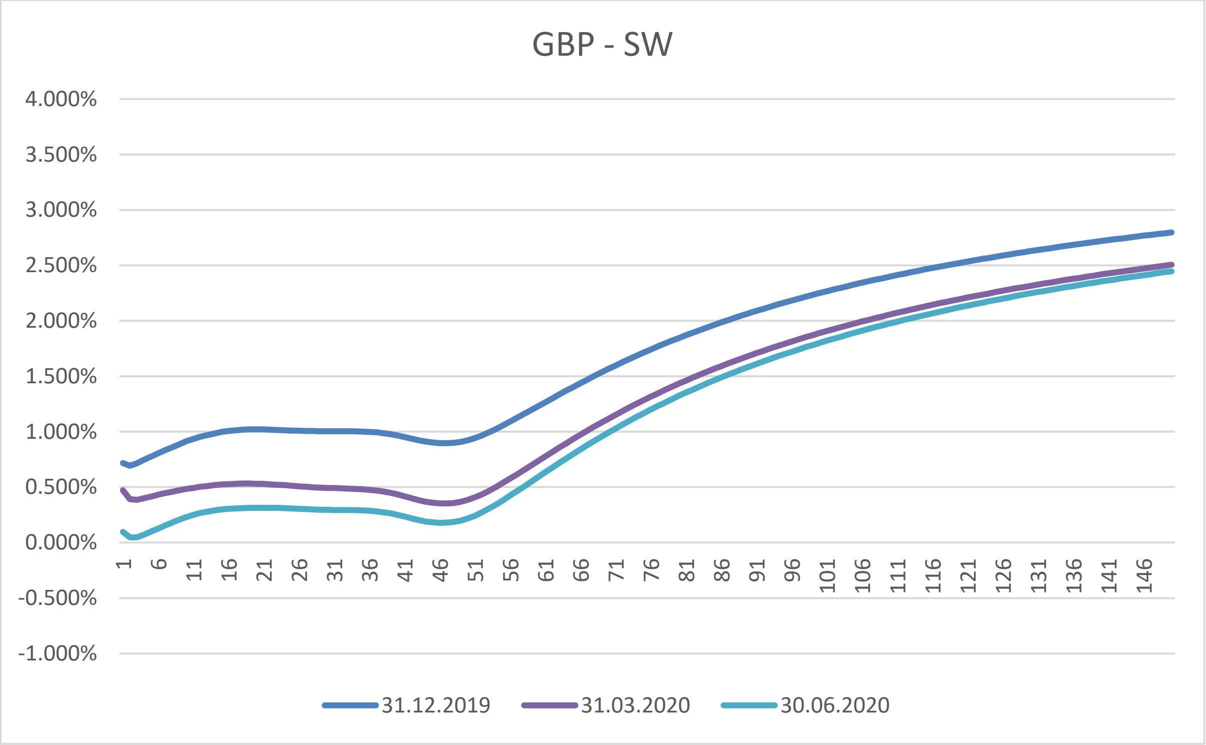
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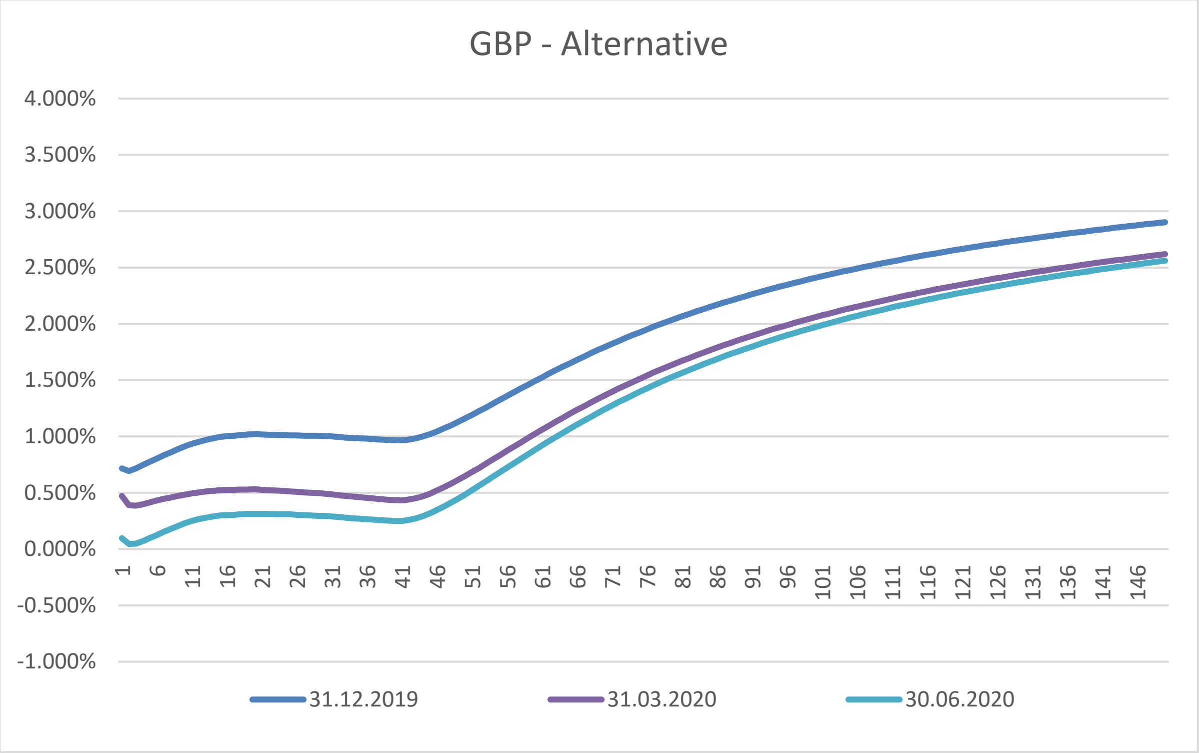
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Annex 2.8 – Deficiencies of the VA

Deficiency 1 - Over- or undershooting effect of the VA

A.94 Under the market-consistent valuation foreseen in Solvency II, a change in bond spreads directly influences the market value of the assets and thereby the solvency position of the undertakings. Where bond spreads are exaggerated, this could lead to artificial volatility in the insurer's solvency position which may trigger pro-cyclical investment behaviour.

A.95 In this context, the VA has a dampening effect: where credit spreads increase, the VA increases as well. This leads to a decrease in the value of technical provisions to which the VA is applied, which dampens the effect of the loss in the market value of assets. Through this mechanism, the VA intends to mitigate the effect of an exaggeration of bond spreads.

A.96 This dampening effect of the VA may have unintended consequences in case of an "overshooting" impact of the VA. An overshooting effect occurs in particular where, under a scenario of widening credit spreads, the dampening effect of the VA exceeds the effect of a loss in the market value of fixed-income assets.

A.97 As the VA should only adjust for exaggerations of bond spreads, thus not for the whole spreads, and has an application ratio of 65%, also a full compensation of asset losses or an almost full compensation of asset losses may be considered as overcompensation. Whether that view is adopted depends on the objectives attributed to the VA.

A.98 Under its current design, the compensation effect of the VA varies with the following undertaking-specific aspects:

- *The allocation to fixed income assets:* The lower the amount of fixed income assets compared to the amount of insurance liabilities, the higher the compensation by the VA. For low allocations to fixed income, credit spread changes may be overcompensated. For example, where an insurer has a fixed-income allocation of 10 percent of the total best estimate liabilities, the loss in the market value of assets due to a spread increase may be smaller than the decrease of the best estimate liabilities to which the VA is applied.
- *The mismatch between the effective spread duration of the assets and the effective duration of the liabilities:* The longer the duration of the liabilities, the higher the compensation by the VA. For large asset-liability duration mismatches, credit spread changes may be overcompensated. For example, where an insurer has an effective spread duration of 5 years within its fixed income assets, but a duration of best estimate liabilities of 15 years, the loss in the market value of assets due to a spread increase may be smaller than the decrease of the best estimate liabilities. Undertakings investing in exactly the same portfolio of fixed income assets, but with a different duration of their

liabilities get a different compensation of their losses on their, equal, fixed income portfolios. The undertaking with a higher duration of its liabilities will get a higher compensation of the losses on its fixed income assets, even if the duration of the liabilities of both undertakings exceed the spread duration of their fixed income assets. There is no justification for a different compensation of losses on the same fixed income portfolios.

- *The extent with which the credit quality of the fixed income allocation deviates from the credit quality of the reference portfolio:* When spreads increase market wide, the increase is typically smaller for higher credit quality assets than for lower credit quality assets. The spread on the reference portfolio, which reflects an average mix in the credit quality of fixed-income assets, therefore typically increases to a larger extent than the spread on high credit quality assets. Hence for an insurer with a high credit quality of fixed income assets, the compensation of the VA will be higher than for an insurer with a low credit quality of fixed income assets. For very high credit quality allocations, spread changes may be overcompensated.

A.99 It is noted, that overshooting could also cause unintended incentives in risk and investment management. This is especially relevant in the context of a dynamic modelling of the VA, which amplifies the impact from overshooting by transporting it to the SCR.

A.100 EIOPA carried out an information request on the overshooting issue to a European sample of insurance and reinsurance undertaking that apply the VA. Undertakings were asked to assess the impact of an increase of market spreads by 100 basis points on their assets and liabilities. Under this scenario, the value of the VA would increase by 47 basis points for the Euro.

A.101 The table below shows the impact of this shock on the assets and, via the VA, on the liabilities. On average 66.5 percent of the market value losses due to the spread increase are compensated; the change in net deferred taxes due to this loss imply an average total, post-tax, compensation of 70.6 percent. The average compensation per jurisdiction varies between 30 percent and more than 100 percent

.

Pre- and post-tax compensation of losses due to credit spread changes

	Number of undertakings	Assets exposed to spread risk - incl. UL	Net TP incl. UL and incl. FDB	Delta assets	Delta TP	Compensation (pre-tax)	Delta DT	Tax compensation (implied tax rate)	Compensation (post-tax)
Total	**156**	**3,134,399**	**2,963,459**	**-178,072**	**-118,393**	**66%**	**7,272**	**12%**	**71%**
AT	2	37,113	37,115	-2,133	-2,032	95%	44	44%	97%
BE	5	153,318	147,142	-9,318	-6,172	66%	814	26%	75%
BG	5	628	543	-31	-13	43%	1	6%	46%
CY	2	82	87	-2	-1	75%	-	0%	75%
CZ	3	5,764	4,424	-225	-115	51%	20	18%	60%
DE	21	524,424	332,156	-48,152	-20,435	42%	2,229	8%	47%
DK	3	40,235	43,559	-2,023	-1,534	76%	-30	0%	74%
ES	24	122,179	134,655	-11,060	-3,635	33%	403	5%	37%
FI	4	45,633	43,210	-938	-866	92%	61	50%	99%
FR	25	1,131,522	1,131,416	-57,852	-45,911	79%	1,770	15%	82%
GR	7	9,329	8,654	-385	-177	46%	52	25%	60%
IE	3	62,959	58,546	-1,036	-753	73%	21	7%	75%
IT	15	331,811	319,149	-17,297	-12,635	73%	1,144	25%	80%
LI	2	1,565	1,160	-52	-31	59%	-0	0%	59%
LU	6	51,122	49,519	-1,104	-1,108	100%	56	0%	105%
NL	17	321,686	332,426	-17,116	-15,342	90%	324	18%	92%
NO	3	88,319	107,450	-3,350	-2,108	63%	290	23%	72%
PT	2	5,731	5,502	-114	-62	55%	10	19%	64%
SE	1	15,362	16,128	-229	-263	115%	-	0%	115%
SK	2	2,106	1,702	-118	-53	45%	17	25%	59%
UK	4	183,511	188,918	-5,539	-5,145	93%	47	12%	94%

Number of undertakings, total assets exposed to spread risk (including unit-linked), net technical provisions (including unit-linked), the delta in these assets and technical provisions, via the VA, after a spread increase of 100 basis points and per jurisdiction from the VA overshooting information request. The pre-tax compensation is the share of the delta TP of the delta assets. Delta DT indicates the change in the net deferred taxes after the 100 basis points spread increase, the tax compensation (implied tax rate) is the loss due to the change in assets and technical provisions that is being compensated by a change in net deferred taxes. The post-tax compensation is the share of the delta TP and the change in net deferred taxes of the change in assets.

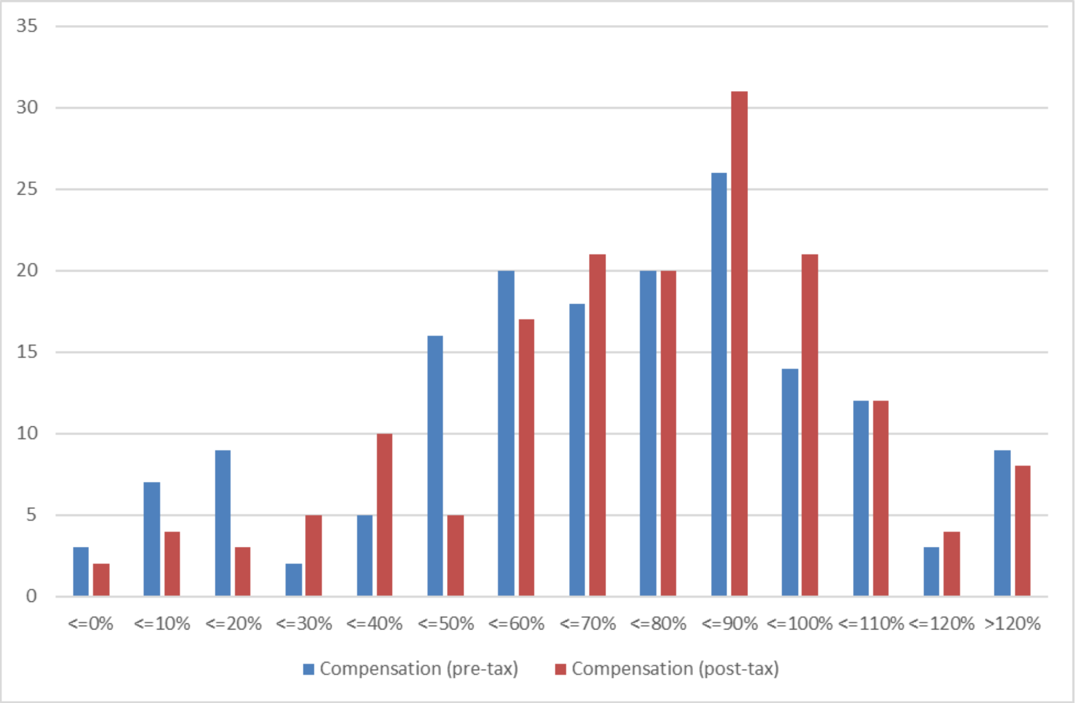
A.102 The figure below shows the pre- and post- tax compensation of the spread increase by the VA. The compensation varies from a negative compensation to a compensation of more than 100 percent for 15 percent of the undertakings; more than 45 percent of the undertakings get compensated for more than 80 percent, pre-tax. Pre-tax numbers can be better compared across jurisdictions and undertakings as differences in tax regimes and current net deferred taxes imply different tax effects of pre-tax losses and gains.

A.103 Pre- and post-tax numbers can be compared as follows.

- A pre-tax asset loss of 100 million would imply a loss of 80 million if the VA *were* not applied and the tax rate equals 20%; in the graph below this would be reflected as a 0% pre-tax compensation and a 20% post-tax compensation.
- However, if applying the VA would have resulted in a decrease in liabilities of 50 *million*, the pre-tax loss in own funds of 50 million would then be compensated by 20%, i.e. 10 million; a total loss of own funds of 40 million would remain and the post-tax compensation equals 60%.
- If applying the VA in this case would result in a decrease in liabilities of 150 million, a pre-tax increase in own funds of 50 million would occur, i.e. a pre-tax compensation of 150%; the pre-tax increase in own funds of 50 million would equal 40 million post tax in this case and the post-tax compensation equals 140%.

A.104 In short, pre-tax compensations below 100% increase to higher compensation ratios below 100%, while overcompensations above 100% decrease, but ratios remain above 100%.

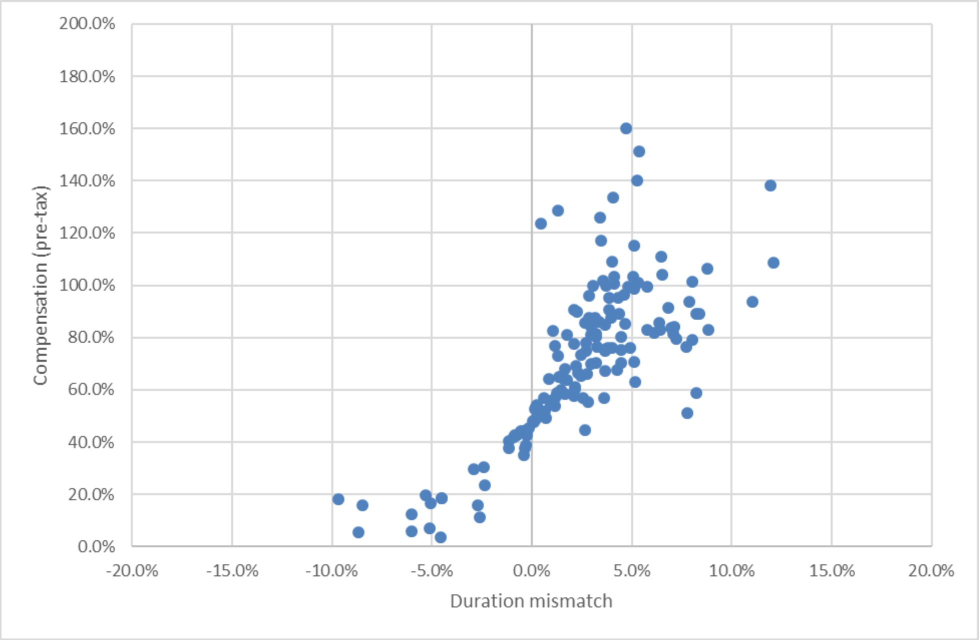
Pre- and post tax compensation of losses due to 100 basis points market wide increase in credit spreads



Histogram of the pre- and post-tax compensation of applying the VA when credit spreads increase by 100 basis points market wide. The pre-tax compensation is defined as the percentage ratio of the following amounts: (1) the change in value of the technical provisions including unit-linked and future discretionary benefits without deferred taxes and (2) the change in value of the assets without deferred taxes. The post-tax compensation is defined as the percentage ratio of the following amounts (1) the change in value of the technical provisions including unit-linked and discretionary benefits plus the change in the net deferred taxes and (2) the change in value of the assets without deferred taxes. The <x% bars indicate the percentage of undertakings with a compensation below the indicated percentage x, but above the percentage indicated by the bar left from it.

A.105 The figure below shows a scatter plot of the pre-tax compensation versus the duration mismatch between the effective spread duration of the assets and the effective interest rate duration of the liabilities: the higher this duration mismatch the higher the pre-tax compensation by the VA.

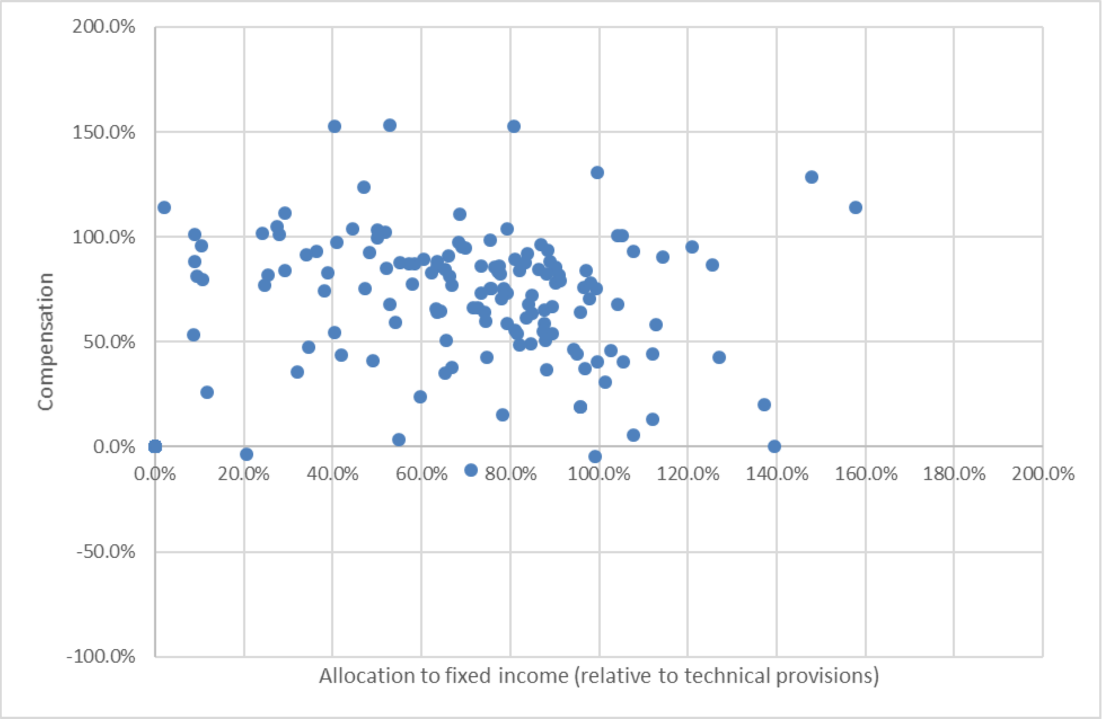
Scatter plot of pre-tax compensation versus duration mismatch



Scatter plot of the pre-tax compensation of applying the VA when credit spreads increase by 100 basis points market wide versus the duration mismatch. The pre-tax compensation is defined as the percentage ratio of the following amounts: (1) the change in value of the technical provisions including unit-linked and future discretionary benefits without deferred taxes and (2) the change in value of the assets without deferred taxes. The duration mismatch is approximated using the spread duration of the assets and the duration of the technical provisions, including unit-linked and future discretionary benefits. The spread duration is approximated as the change in value of the assets due to the increase in spreads by 100 basis points, divided by the initial value of the total assets. The duration of the technical provisions is approximated by the change in their value due to the increase in the VA by 47 basis points, divided by the initial technical provisions and divided by 47 percent to align the 47 basis points change with a 100 basis points change. The duration mismatch is then defined as the duration of the total assets times the ratio of total assets to technical provisions minus the duration of the technical provisions.

A.106 The figure below shows a scatter plot of the pre-tax compensation versus the allocation to fixed income. Although the assumption is that a lower allocation to fixed income increases the compensation of credit spread changes, the figure does not provide a clear indication of such a relationship.

Scatter plot of pre-tax compensation versus allocation to fixed income



Scatter plot of the pre-tax compensation of applying the VA when credit spreads increase by 100 basis points market wide versus the allocation to fixed income (as a percentage of the technical provisions, measured as the total assets minus the excess of assets over liabilities). The pre-tax compensation is defined as the percentage of the change in value of the excess of assets over liabilities minus DTA and DTL of the change in value of the assets.

Deficiency 2 - Application of VA does not take into account illiquidity characteristics of liabilities

A.107 The VA in its current form can be applied by insurance undertakings irrespective of the characteristics of their liabilities. As a macroprudential tool, the size of the VA does not depend on the characteristics of the liabilities. In particular, the current VA does not account for the illiquidity characteristics of the liabilities, i.e. the extent to which the insurance cash flows are predictable and stable.

A.108 Where liabilities are illiquid, they can be valued by replication with illiquid assets that may yield an additional illiquidity premium; put differently, undertakings may be able to realize an additional return as stable insurance cash flows allow them to invest with limited risk of forced selling and therefore limited risk of realizing short-term market value losses on the assets.

A.109 In such a situation, this additional return is reflected in the application of the VA. Under the current design of the VA, however, undertakings also benefit from the application of a VA where the insurance cash flows are hardly illiquid, i.e. relatively unpredictable. In such a case, the liabilities cannot be replicated with illiquid assets that may yield an additional illiquidity premium or, put differently, the undertaking may be exposed to forced selling and may not be able to earn this additional illiquidity premium/spread on their assets. The fact that the current VA does not differentiate according to the illiquidity characteristics of liabilities and the undertaking's exposure to forced selling is a deficiency that impairs fulfilling the identified objective of the VA to recognise the illiquid characteristics of liabilities in the valuation of technical provisions. Also, this deficiency impairs fulfilling the intended objective of the VA to mitigate the impact of exaggerations of bond spreads on own funds as under the current design of the VA spread exaggerations are mitigated irrespective of whether the undertaking – due the nature of its liabilities - is actually able to sustain short term exaggerations in bond spreads or not. If an undertaking runs the risk of being forced to sell it cannot withstand the spread exaggerations and may actually suffer the market value losses due to these spread exaggerations; correcting for spread exaggerations in these circumstances is not justified.

Deficiency 3 – Cliff effect of country specific increase

A.110 Solvency II includes a country-specific increase of the VA, which mitigates the effects of a widening of spreads that affects only one or a few national markets, but not the majority of national markets that are invested in bonds denominated in the same currency. This is in particular relevant for the countries of the euro area. The country component is activated whenever the country risk-corrected spread (computed on the basis of a country reference portfolio) is higher than 100 bps and it is at least twice the currency risk-corrected spread (computed on the basis of the currency reference portfolio). The legislator has decided bps on in the context of the European Supervisory Authorities (ESAs) review that the absolute trigger be lowered to 85. This modification is expected to enter into force by the end of the first half of 2020.

A.111 Analysis of historical data covering the period 2007-2018 shows that these two conditions of activation are simultaneously met only in the following cases:

- For Greece in the period between April 2010 and March 2017
- For Italy, in the period between August and October 2013 and throughout most of the period from August to November 2018
- For Spain, throughout most of the period between May 2012 and January 2014
- For Portugal, in the period between February 2011 and December 2013

A.112 Most of these situations are related to the sovereign debt crises from 2011 to 2013.

A.113 Under the current activation mechanism, in periods where the spreads of a single Member State fluctuate around the trigger point the country-specific increase of the VA can alternate between situations of activation and non-activation, causing a "cliff effect" for the VA. In particular, when the risk-corrected spread of a country experiencing market turmoil increases, undertakings based in that country experience a decrease of asset values that, as long as the country add-on does not activate, is not compensated by an additional decrease of the value of the liabilities on top of the decrease due to the currency VA. When the thresholds are reached, the country component activates and the discount rate for liabilities increases, leading to a jump in own funds. If the country spread fluctuates around the absolute threshold for an extended period of time, the uncertainty of the activation of the country component translates into a larger volatility of own funds, with increased uncertainty on meeting the solvency capital requirements. This deficiency undermines the ability of the VA to achieve its intended objective of mitigating the impact of exaggerations of bond spreads on own funds by decreasing the volatility of own funds.

A.114 Moreover, the lack of activation of the country component can lead to undershooting effects in countries where the spreads on the investments increase to a larger extent than the spreads on the currency reference portfolio. In these cases only a small portion of the losses due to the increase in spreads on the investments may be compensated. This feature is similar to the third source of overshooting, deviations from the reference portfolio, but the other way around: increases in spreads on investments are larger than the average spread increase on the currency reference portfolio. The method of construction of the currency reference portfolio does not take into account that the composition of bond portfolios varies across countries. This implies that, when national spreads increase and the country component does not activate, the size of the increase of the currency component of the VA may only partially compensate the decrease of the value of assets of undertakings based in the country affected by the spreads. This may also prevent the VA to achieve its intended objective of a countercyclical measure.

Deficiency 4 – Misestimation of risk correction of VA

A.115 The current VA is determined as 65 percent of the risk-corrected spread of the reference portfolio. This risk-corrected spread equals the current spread minus a risk-correction. The risk-correction has been set equal to the fundamental spread (FS) for the MA. For corporate bonds, the FS is the maximum of

- 35 percent of the long-term average spread calculated in relation to a period of 30 years;

- expected loss and cost-of-downgrade; these calculations are based on long-term migration/default matrices.

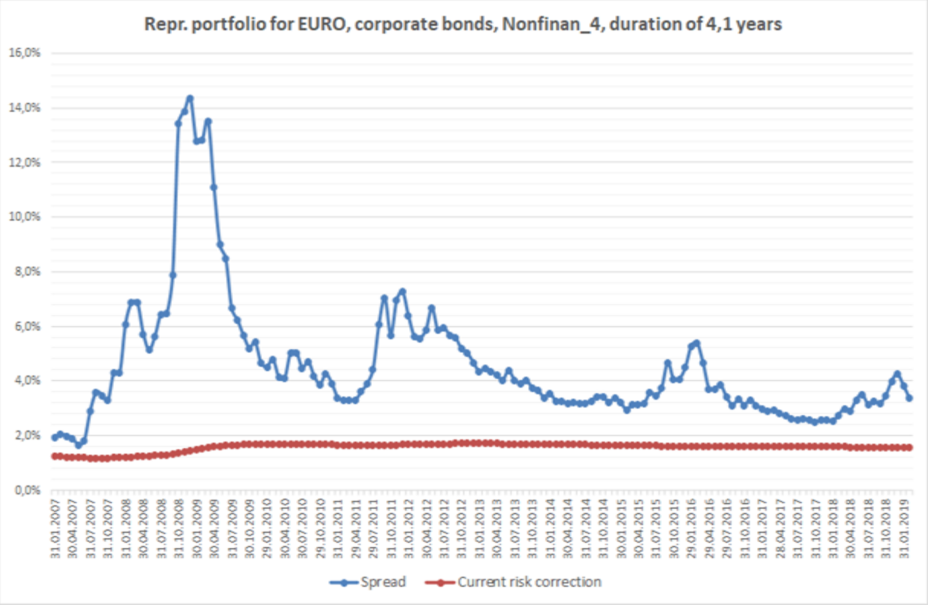
A.116 For government bonds, the fundamental spread is equal to 30 percent of the long-term average spread.

A.117 Several potential deficiencies with this risk-correction have been identified:

- *Almost insensitive to credit spread changes:*

A.118 Under the current design of the VA, the risk-correction hardly changes with credit spread changes. This is a consequence of the risk-correction being the maximum of two numbers that hardly vary over time: 30 or 35 percent of the long-term average credit spread and expected losses based on long-term migration/default matrices.

A.119 This effect is illustrated in the diagram below, which shows the evolution of the VA risk correction under the current VA design for the portfolio of Euro corporate bonds in the "non-financial 4" category with average duration of 4.1 years:



Source: Refinitiv, IHS Markit

- *Does not reflect actual default losses:*

A.120 The figure above shows that defaults of structured finance increased during the crisis in 2008 and thereafter, but the risk-correction, red line in the right figure below, hardly increased during that time. A possible consequence is that the VA was too high during this crisis and did not take account of the increased losses from defaults; undertakings would not have been able to earn the high VA because of these defaults.

A.121 Historical evidence of credit spread movements indicate that when spreads increase, also the number of defaults increase; in that respect credit spread changes cannot be considered fully as exaggeration or artificial.

A.122 Academic research indicates that defaults take up approximately 50 percent of the credit spreads.

- *Does not reflect credit risk premium for unexpected losses:*

A.123 Article 77d of the Solvency II Directive states that the risk-corrected currency spread shall be calculated as the difference between the spread and the portion of that spread that is attributable to a realistic assessment of expected losses or unexpected credit or other risk of the assets. The credit spread reflects a compensation for expected losses, a credit risk premium for unexpected losses, a liquidity risk premium and potentially a compensation/correction for other risks/options. The risk-correction now only intends to correct for expected losses and the cost-of-downgrade.

- *Unnecessarily reflects cost-of-downgrade:*

A.124 In MA portfolios downgrades can result in actual losses because downgraded assets may need to be replaced to maintain the cash-flow matching between assets and liabilities. This risk does not exist in the application of the VA as there are no cash-flow matching requirements for the VA.

Deficiency 5 – VA almost always positive

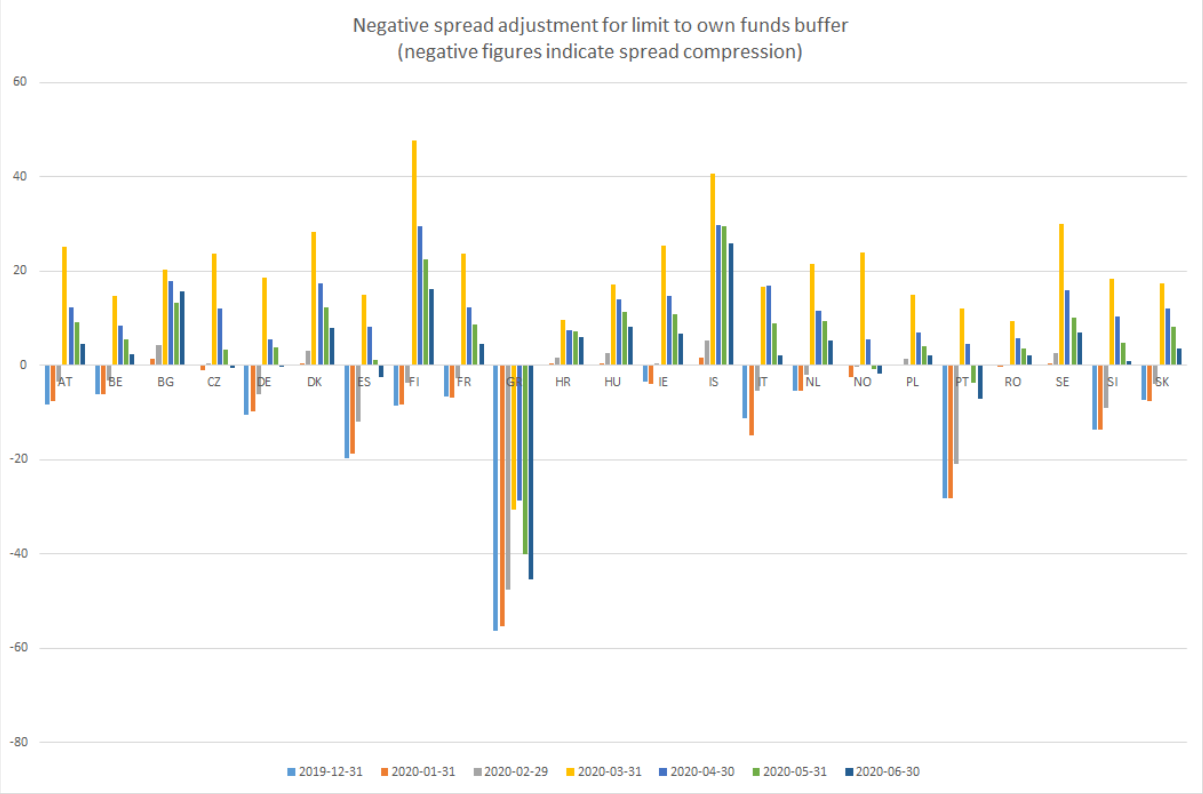
A.125 Procyclical behaviour with regard to spreads could typically occur in two types of situation:

- In a scenario in which spreads increase suddenly and significantly: insurers would then be affected via a decrease of their solvency ratio and may decide to sell bonds. The selling of the bonds could, depending on the size and number of the insurers concerned, amplify the initial increase in spreads (and decrease in prices), therefore leading to procyclicality
- In a scenario in which spreads are low and compressed, insurers would be looking to increase their investment return ("search for yield") and would increase their exposure towards risky bonds. By doing so, they would compress spreads even more, leading to procyclicality and exposing them further to the risk of a reassessment of the risk premia: they would become more vulnerable to increases in spreads.

A.126 In the first case, the VA has been designed to help to dampen the impact of spreads volatility and therefore contributes to preventing procyclical behaviour.

A.127 In the second case, the VA remains almost always a positive adjustment, which incentivises insurers to delay replacing their risky assets with assets of better credit quality, thereby amplifying the consequences of spreads compression. In such cases, a negative VA would contribute to prevent procyclical behaviour: it would discourage an unsustainable build-up of exposures and increase the resilience of insurers against subsequent spreads increase.

A.128 EIOPA developed a framework for the own funds buffer (see below). The negative spread adjustment, which serves both as an indicator for spread compression and as a parameter to determine the maximum buffer that can be imposed, was calculated for December 2019 and the first six months of 2020, see following diagram.



Source: Refinitiv, IHS Markit

A.129 The maximum impact of the own funds buffer was tested in the information request for the holistic impact assessment. On average the maximum size of the buffer would have been 3% of the eligible own funds to cover the SCR at the end of 2019.

A.130 Participants to the information request for the holistic impact assessment were invited to comment on the method to derive the maximum own funds buffer. Most participants, just described the calculation they have carried out, stated that they had no comment or left the comment cell blank. Few participants did provide comments on the method.

Framework for own funds buffer of compressed spreads

Objectives of the own funds buffer

A.131 One of the objectives of the volatility adjustment is to mitigate the impact of exaggerations of bond spreads on own funds. The proposed new design for the VA achieves this objective for spreads that are too wide. The VA does however not address spread compressions as they were observed, for example, before the financial crisis during 2006. The own funds buffer aims to complement the VA with regard to such excessive spread compressions. It introduces symmetry in the treatment of spread exaggerations and ensures that undertakings build resilience during times of market exuberance.

A.132 The introduction of the own funds buffer is in line with the recommendations of the ESRB on the VA design. As the own funds buffer relates to all fixed-income assets, including mortgage loans, it could also be used to address macroeconomic issues in relation to the provision of mortgage loans by insurance and reinsurance undertakings as suggested by the ESRB.

Process for NSAs to activate the own funds buffer

A.133 Insurance and reinsurance undertakings should build up buffers of own funds during times when risk premia on fixed income assets are excessively compressed. For that purpose national supervisory authorities should be allowed to impose such buffers for their national market. The buffer would apply to all undertakings irrespective of whether they use the VA.

A.134 The imposition of the buffer should not be automatic but based on assessment of the national supervisory authority of the need to increase the resilience of the national market in view of bond market developments. The size of the buffers should depend on a spread adjustment decided by the national supervisory authority. The spread adjustment, and thus the size of the own funds buffer, should be limited by a maximum spread adjustment calculated based on the country representative portfolio for the VA. That adjustment should also serve as a non-binding indicator for spread compression.

A.135 Where an NSA decides to activate the buffer, there might be consequences in terms of level-playing field. In particular, the (re)insurance undertakings which do not have to hold a buffer of own funds might present a more favourable solvency ratio. Those (re)insurance undertakings which do not have to hold a buffer of own funds are expected to be located in other countries where the own funds buffer was not activated by the NSA. In order to prevent distorting the single market and in order to preserve the level-playing field, a process could be set-up, involving EIOPA, the ESRB and the European Commission, to assess whether (i) the own funds buffer is justified in view of the likely presence of systemic risk; (ii) the own funds buffer activated in a specific country might have a negative effect on level-playing field and (iii) the own funds buffer should also be activated in other countries (reciprocation of the measure).

A.136 A similar process already exists for the banking sector and the reciprocation of macroprudential measures. See also in appendix an extract of the relevant regulation. For the insurance sector and the own buffers, the process could be as follows:

- An NSA has identified a likely systemic risk and decides it is necessary to activate the own funds buffer for the (re)insurance undertakings under its supervision
- The NSA notifies EIOPA of its willingness to activate the measure.
- EIOPA assesses the measure taken and its potential for mitigating the risk identified, including its consequences on level-playing field and the EU single market. EIOPA might come to the conclusion that other NCAs should consider adopting a similar measure, in particular where it is proven that cross-border investments contribute to the compression of bond spreads. In this process, EIOPA may consult the ESRB to collect its view on the likely systemic risk identified.
- EIOPA shares with the European Commission its opinion on the measure taken.
- Taking utmost account of the opinions of EIOPA and of the ESRB and if there is robust, strong and detailed evidence that the measure will have a negative impact on the internal market that outweighs the financial stability benefits resulting in a reduction of the macroprudential or systemic risk identified, the Commission may, within one month, propose to the Council an implementing act to reject the draft national measures.
- In the absence of such implementing acts, the NSA implements the measure.

Calculation and application of the own funds buffer

A.137 The own funds buffer is an amount that should be deducted from the amount of eligible own funds to cover the SCR.

A.138 The own funds buffer should be calculated as follows:

a) Calculate the annual effective rate (*AER)* of the fixed-income portfolio of the participant. This corresponds to the single discount rate that, where applied to the cash flows of the fixed income assets, results in a value that is equal to the value of the fixed income portfolio (*FIP). AER* is calculated such that:

$$\sum_{n=1}^{N} \frac{Cash\ Flows_n}{(1+AER)^n} = FIP$$

b) Recalculate the value of the fixed income portfolio (*FIP)* by reducing the annual effective rate (*AER)* with the spread adjustment (*SA)* explained below.[371] It results in a new value of the fixed income portfolio (FIP^*).

$$FIP^* = \sum_{n=1}^{N} \frac{Cash\ Flows_n}{(1 + AER - SA)^n}$$

c) The size of the own funds buffer (*OFB*) is equal to the difference:

$$OFB = FIP^* - FIP$$

d) One calculation of the buffer should be carried out and all fixed-income assets, irrespective of the currency they are denominated in.

e) The fixed-income assets relating to index and unit linked insurance and fixed-income assets in matching adjustment portfolios should not be included in the calculation of the buffer.

A.139 The maximum spread adjustment is calculated per country as follows:

$$\text{SA}_t = -0.35 \times \left(CS_t \ - Av(CS_t)\right)$$

where:

- CS_t corresponds to the credit spread at time t for the reference portfolio of a given country; the credit spread is calculated as the difference between the yield of the assets of the reference portfolio and the basic risk-free interest rate term structure[372];
- $Av(CS_t)$ corresponds to the 7-years average of the credit spread for the reference portfolio of a given country.

A.140 For countries that fall under the peer country approach for determining the government bond spreads of the VA the spread adjustment should be chosen to be equal to the adjustment of the peer country.[373]

A.141 The maximum spread adjustment should be calculated centrally by EIOPA.

Deficiency 6 – underlying assumptions of VA unclear

A.142 There are different ways of interpreting the motivation of the current VA. The VA can be considered as a compensation for exaggerations in bond spreads, potentially independent from the liability characteristics of an insurer. Alternatively, it can be considered to represent an additional illiquidity premium on assets that replicate the liabilities; or put differently,

[371] Note that the sign convention for the spread adjustment was changed compared to the technical specification for the holistic impact assessment. Otherwise calculations are identical.

[372] Note that the full credit spread is taken, i.e. no risk correction is deducted from the credit spread.

[373] See table 12 on page 62 of the technical documentation of the methodology to derive EIOPA's risk-free interest rate term structures.

an additional premium insurers acting as long-term investors (with respective liabilities) are able to earn. The assumptions underlying the VA are based on the interpretation chosen and without an interpretation these underlying assumptions are at current not perfectly clear cut. This has negative implications on the effectiveness of pillar II of Solvency II, where sensitivity analysis on the assumptions underlying the VA is required in risk management and a capital add-on can be applied, where the underlying assumptions are not met. This impairs effective and consistent supervision of the VA application.

Deficiency 7 – risk free interest rates with VA not market consistent

A.143 Market consistency of technical provisions is required in Article 76 of the Solvency II Directive which stipulates that "the calculation of technical provisions shall make use of and be consistent with information provided by the financial markets and generally available data on underwriting risks"

A.144 The valuation of technical provisions intends to reflect a market value (transfer value) of insurance liabilities. As insurance liabilities are typically not traded on financial markets frequently enough to have an observable market price, a model is required to value technical provisions. The concept of the valuation is adopted from the determination of a market value of an asset, e.g. in case of a bond its cash flows are discounted with the risk free curve adjusted for credit risk (mark to model valuation). Discounting insurance liabilities with a risk free curve is based on the assumption that the insurance liabilities can be replicated by risk free assets with otherwise similar characteristics. The idea is that if the value of an insurance liability differs from a financial instrument, or combination or dynamic strategy thereof, with equal cash flow and risk characteristics there is an arbitrate opportunity. The valuation of the liabilities therefore does not rely on return assumptions of the assets or other characteristics of the undertaking. This ensures a consistent valuation of the same liabilities across different undertakings.[374] Any adjustment to the replicating, risk-free assets, i.e. risk-free rates, in particular where an adjustment is included that is based on undertaking specific asset returns, therefore implies a deviation from the market consistent valuation of the insurance liabilities.

A.145 Finally, applying the VA to the risk-free rates results in a situation where two risk-free curves are applied under Solvency II for each currency: one curve with VA and one curve without VA. These two curves are derived using the same market data and eligible firms can use either one or the other to calculate their technical provisions, thus there is no unique transfer value for undertakings with similar liabilities. This is contradictory with the market consistency principle since markets provide for only one value for a given financial instrument, otherwise arbitrage is possible.

Annex 2.9 – Options for the design of the VA

Note that these options refer to the design choices for the VA that were considered for the consultation of the draft Opinion. Based on these options, EIOPA tested Approaches 1 and 2 for the VA in the impact assessment conducted in autumn 2019.[375]

Note that, for the final version of the opinion, EIOPA further amended some of these options as part of the proposed new design of the VA.[376]

Option 1 – undertaking specific VA

Description

A.146 Under this option, the VA is based on the undertaking-specific asset weights[377], rather than on the asset weights of a representative portfolio. EIOPA would centrally provide a set of risk-corrected spreads based on market indices differentiating between asset type, credit qualities, durations and currencies, which should be used to calculate the VA. The VA is then derived from these risk-corrected spreads, weighted by the assets effectively held by the undertaking.

A.147 The option results in a value of the VA per currency of the liabilities of the undertaking, based on the weights of the undertaking's investments in that currency. This same VA per currency is then applied to all portfolios of liabilities of that currency.

A.148 Note that this option foresees a calculation of the risk correction as a percentage of the spread, as described in option 6. The specific implementation of this risk correction calculation differs from the description under option 6 in that the correction factors for corporate bonds differ between different credit quality classes. This differentiation is part of the safeguards built into this option, as described below.

Addressing deficiencies

A.149 This option mitigates the over- and undershooting deficiencies of the current VA due to deviations of an undertaking's investments to the reference portfolio, both in credit quality and total allocation to fixed income.

A.150 This option does not address over- or undershooting deficiency which arise from a mismatch between the effective spread duration of the assets and the

[375] See section 2.4.3 in the impact assessment background document

[376] For a technical description of the proposed new design of the VA, we refer to annex 2.29.

[377] As per the Approach 2, as referred to in European Commission's call for advice 3.2 a.

effective duration of the liabilities. This deficiency is targeted by option 4, which can be combined with option 1.

A.151 Under this option, a country-specific increase would no longer be necessary as this undertaking specific VA already accounts for any potential crisis in the country of the undertaking that is reflected in higher spreads of its investments.[378]

Potential for wrong incentives

A.152 The main concern related to this option is that, in the absence of appropriate safeguard mechanisms, it can provide potential wrong risk-management and investment incentives. These incentives stem from the fact that investments in riskier fixed income assets, which usually have higher spreads, become more attractive as they imply a higher VA and as such higher regulatory own funds. These incentives are reduced by the fact that riskier fixed income investments have higher capital requirements. However, if this increase in capital requirements is smaller than the increase in own funds, an undertaking may increase its SCR ratio by investing in riskier assets

Safeguards

A.153 The following safeguard mechanisms are suggested to overcome the potential wrong incentives:

a) the sub-investment grade corporate bonds (Credit Quality Level 4 - indicatively BB - and lower) are assigned to the weight of the CQS 3 portfolio (i.e. the spread generated by these assets is limited to a BBB rating activity level);

b) Risk-corrections that increase with higher credit quality steps for corporate bonds;

c) additional safeguards in the context of Pillars II and III of Solvency II. For instance, the undertaking should report its asset allocation in the ORSA and the SFCR, highlighting and explaining the changes occurred in the year.

A.154 The safeguards b) and c) are described in more detail below. It should be noted that these safeguards (with exception of the Pillar II and Pillar III safeguards mentioned under c)) do not address the wrong incentives with regard to government bonds, in particular for undertakings that apply the standard formula to calculate the SCR. If such an undertaking disinvests from government bonds with a low spread and invests instead in government bonds with a high spread, then its SCR ratio improves.

Calculation of the risk-corrected spreads

[378] Therefore, under this option, deficiency 3 (cliff effect of country-specific increase, activation mechanism does not work as expected) not longer applies

A.155 The risk-corrected spread *S* equals the credit spread *CS* minus the risk-correction *RC*. The risk correction should be set so as to measure the spread that is attributable to a realistic assessment of expected losses or unexpected credit or other risk of the assets (see Article 77d(3) of the Solvency II Directive). For every currency *c*, credit quality *j* and duration *D* such a risk-corrected spread $S_{c,j,D}$ has to be determined by EIOPA. By setting a higher risk-correction $RC_{c,j,D}$ for lower credit qualities *j*, the wrong risk-management and investment incentives to invest in lower credit qualities may be reduced. These higher risk-corrections for lower credit quality are not only justified by reducing those 'wrong' incentives, but also by the fact that the risks for bonds of lower credit quality are actually higher than for bonds with a higher credit quality.[379]

A.156 Under this option, EIOPA suggests to use the following risk corrections for credit quality steps 0 to 3:[380]

CREDIT QUALITY STEP (CQS)	**RISK-CORRECTION AS A PERCENTAGE OF THE CURRENT SPREADS PER CQS***
0	30%
1	40%
2	50%
3	60%

A.157 For all EEA sovereigns issued in the domestic currency, this relative risk-correction should be set at the same percentage established for investments in CQS 0 (i.e. 30% of the issuing country specific spread as provided by Bloomberg), irrespective of their actual rating.[381]

A.158 The relative risk-correction is key here to keep the right incentives in times when spreads are low and when spreads are high. The current, relatively stable, risk-correction would imply increasing 'wrong' incentives, when spreads increase as the effective application ratio is then the same for all credit quality steps and the higher the effective application ratio the more attractive a credit quality becomes.

Safeguards - Pillar II

[379] See also considerations on the risk correction of bond spread for option 6

[380] For a description of the calibration of the risk correction we refer to annex 0

[381] For all other government bonds, the treatment suggested for corporate bonds should apply

A.159 In addition to the requirements already in place, further requirements are added:

- The ORSA should contain specific sensitivity analysis. In particular, the impact of the variation of VA on the undertaking's financial and solvency position, with focus on variations linked to a change in the average credit quality of the bond portfolio. Specifically, where changes in the average credit quality of the bond portfolio are observed, undertakings could perform a sensitivity analysis with a VA computed on the previous year's asset allocation.
- The ORSA should provide an explanation of the changes occurred in the asset allocation, with special focus on the average credit quality of the bond portfolio.
- The written policy on risk management should contain a description of the use of the VA to manage risks, with particular attention on credit risk, introducing internal safeguards (such as control and monitoring systems) to avoid that the average credit quality of the investment portfolio would be lowered with the only intend to improve the solvency position of the undertaking.

Safeguards - Pillar III

A.160 In addition to what EIOPA proposes with respect to the public disclosure of the general use of LTG measures[382], the following requirements for the SFCR specific to the use of option 1 can be introduced:

- current asset allocation: in particular, for each currency, publication of the composition of the bond portfolio in terms of issuer (for government bonds) and in terms of economic sector (Financial/Non-financial), CQS, duration (this information is already produced by undertakings in the reporting, therefore no additional effort is required)
- explanation of the changes occurred in the asset allocation, with special focus on the average credit quality of the bond portfolio as well as the consequence of these changes on the VA
- sensitivity analysis reported in the ORSA (see above).

Safeguards - supervisory powers

A.161 Where the supervisor observes that a change in the asset allocation has been performed only to improve the solvency position of the undertaking benefitting from a higher VA, it can impose the undertaking to apply a VA equal to the one computed with the previous years' composition of investments.

Calculation[383]

A.162 The undertaking i investments' specific VA under this approach for liabilities in currency c is calculated as

[382] See section 2.8.

[383] For a more detailed technical specification of the calculation of option 1 we refer to annex 2.8

$$VA_{i,c}^{Option\ 1} = GAR \cdot RC\_S_{i,c} \cdot min\left(\frac{MV_{i,c}^{FI}}{BEL_{i,c}}\ ;1\right)$$

where

- GAR is the general application ratio, currently 65%
- $RC\_S_{i,c}$ is the undertaking-specific risk corrected spread for currency *c*
- $MV_{i,c}^{FI}$ denotes the market value of the fixed income investments of undertaking *i* in currency *c*
- $BEL_{i,c}$ is the best estimate of the liabilities in currency c of undertaking *i,* valued using the basic risk-free interest rates

A.163 The undertaking-specific risk-corrected spread $RC\_S_{i,c}$ is calculated as

$$RC\_S_{i,c} = \sum_{d,g} W_{d,g,i,c} \cdot RC\_S_{d,g,c}^{gov} + \sum_{d,r,f} W_{d,r,f,i,c} \cdot RC\_S_{d,r,f,c}^{corp}$$

where

- $W_{d,g,i,c}$ are the weights[384] of undertaking's *i* investments in government bonds[385] of issuer country *g* with duration in duration bucket *d* in currency *c*
- $W_{d,r,f,i,c}$ are the weights of undertaking's *i* investments in corporate bonds with credit quality step *r* and duration in duration bucket *d* in currency *c*, where *f* is either 'financial' or 'non-financial'
- $RC\_S_{d,g,c}$ is the risk *corrected* spread on government bonds of country *g* with duration bucket *d* in currency *c*
- $RC\_S_{d,r,f,c}$ is the risk corrected spread on corporate bonds with credit quality step *r* and *duration* bucket *d* in currency *c*, where *f* is either 'financial' or 'non-financial'

A.164 The risk corrected spreads on government bonds and corporate bonds are calculated as

$$RC\_S_{d,g,c}^{gov} = \begin{cases} \left(1 - RC\%_{gov}\right) \cdot S_{d,g,c}^{gov} & in\ case\ \ S_{d,g,c}^{gov} \geq 0 \\ S_{d,g,c}^{gov} & else \end{cases}$$

and

$$RC\_S_{d,r,f,c}^{corp} = \begin{cases} \left(1 - RC\%_{corp,r}\right) \cdot S_{d,r,f,c}^{corp} & in\ case\ \ S_{d,r,f,c}^{corp} \geq 0 \\ S_{d,r,f,c}^{corp} & else \end{cases}$$

where

[384] Relative to the market value of the undertaking's fixed income investments in currency *c*

[385] EEA government bonds issued in the domestic currency, other government bonds are treated as in the case of corporate bonds

- $RC\%_{gov}$ is the risk-correction for government bonds, relative to the current bond spreads
- $RC\%_{corp,r}$ is the risk-correction for corporate bonds with credit quality step *r*, also relative to *the* current bond spreads
- $S_{d,g,c}$ is the current spread on government bonds of country *g* with duration bucket *d* in *currency* c
- $S_{d,r,f,c}$ is the current spread on corporate bonds with credit quality step *r* and duration *bucket* *d* in currency *c*, where *f* is either 'financial' or 'non-financial'

A.165 The term

$$min\left(\frac{MV_{i,c}^{FI}}{BEL_{i,c}}\right)$$

is introduced to deal with situations where an undertaking would only invest a small amount in low rated bonds with high yields and then apply this high VA to a large amount of liabilities in that currency. This term then ensures that the VA is only recognised relative to the amount of the investment. Where this option is combined with option 4, this term becomes obsolete.

A.166 Undertakings do not have to assign investments to either backing or not backing the liabilities.

A.167 The definition of the different asset classes that are used to sub-divide the corporate and government bond portfolios is the same as currently used in the derivation of the VA (on the basis of RFR technical documentation). See annex 2.8 for a list of the admissible assets for this undertaking investments' specific VA.

A.168 The set of currencies for which VA values can be calculated would be the same range of currencies for which EIOPA currently provides a VA (on the basis or RFR technical documentation).

A.169 For government bonds, a distinction between different issuers is made. The calculation of the spreads could be based on data provided by Bloomberg (as referred to in the RFR technical documentation) currently used in the determination of the country specific increase of the VA.

A.170 For corporate bonds, further than the duration, the following dimensions are considered:

- Asset classes, with a differentiation among 'financial' and 'non-financial exposures',
- *Credit* quality steps as set out in the Delegated Regulation (from 0 to 6),
- *Currencies*.

A.171 For each of these classes, information on spreads contained in the indices currently used for the calculation of the VA (Markit – iBoxx indices) could be used.

A.172 For each currency, undertakings would first need to identify all investments in that currency for the calculation of the best estimate of the insurance or reinsurance liabilities denominated in that currency, when applying the VA.

A.173 The VA for the given currency would then be calculated on the basis of all fixed income assets in that currency. This VA could then be applied as an "add on" to the risk-free rate interest term structure used for the valuation of technical provisions of that currency.

Implications for the SCR standard formula calculation

A.174 No change to the SCR standard formula calculation is required. However, where the increase in capital requirements does not exceed the increase in own funds when moving to riskier fixed income investments a possible solution would be to change the capital requirements to fix this.

Pros and cons

A.175 The following table provides a list of the advantages as well as of the relative criticisms of the proposal. Note that the assessment is performed against the status quo calculation of the VA:

Pros	Cons
Mitigates over- or undershooting effects of the VA that stem from deviations between the representative portfolio and the undertakings individual asset mix.	Where rating information is used, approach leads undertakings to higher dependence on external ratings in the determination of the VA.
Since the option allows the reflection of undertaking-specific asset information, a country-specific increase of the VA would no longer be needed.	The option will increase the complexity and costs of the application and supervision of the VA.
	Potentially provides wrong risk-management incentives where investments in lower rated assets lead to a higher solvency ratio. Could also make it more difficult for undertaking to de-risk asset risk (in case e.g. of a breach of the SCR).

	For corporate bonds, these potential wrong incentives are intended to be mitigated by Pillar I safeguards mechanisms; this mechanism is intended to ensure that lower rated bonds still imply higher own funds and the increase in SCR is smaller than this increase in own funds, but the SCR ratio would still decrease with lower rated bonds. Wrong investment incentives with respect to government bonds are only addressed by Pillar II and III.

Option 2 – middle bucket approach

Description

A.176 This Option would be part of a framework where undertakings should allocate their insurance liabilities to three buckets (the matching adjustment bucket, the middle bucket and the remainder bucket) to which different adjustments to the risk-free interest rates apply.

A.177 In particular, for liabilities falling in the middle bucket, an undertaking-specific VA is introduced, but subject to strict application criteria that relate to the level of cash-flow matching of insurance liabilities portfolios, in order to ensure that the undertaking can earn the adjusted discount rate which is usually higher than the basic risk-free interest rate For the middle bucket VA calculation is based on Weighted Average of Multiple Portfolios (WAMP). This approach would coexist with the current MA (full criteria required, 100% application ratio), but would imply to define a proper adjustment to the remainder bucket to guarantee declining benefits with decreasing level of cash-flow matching. The application ratio for the middle bucket would be fixed between 65% and 100% (concrete calibration to be discussed).

Criteria:

a) The portfolio of assets to cover (re)insurance obligations included in the OA bucket is clearly identified and together with the corresponding liabilities, it is organized and managed separately from other activities of the undertaking.[386]

b) The contracts underlying the insurance liabilities do not include future premiums or include only future premiums which are within the contract boundaries (qualifying future premiums).

c) The portfolio of insurance liabilities include no surrender option for the policyholder or only a surrender option where the surrender value does not exceed the value of the assets covering the insurance liabilities at the time the surrender option is exercised. However, surrender options where the surrender value exceeds the value of assets may be included where the lapse risk they expose the portfolio to is not material. (Materiality test: lapse risk capital charge does not represent more than e.g. 5% of the current estimate of the liabilities of the portfolio in the situation where cash flows would be discounted using the basic risk-free interest rate).

[386] For OA Bucket the separate management of assets does not refer to a legal ring fencing but to a portfolio segmentation of clearly identified assets that would support an identified group of insurance liabilities over their lifetime. This does not preclude changes in investments within a portfolio in the normal course of business

d) Insurance contracts are not split into different parts when assessing eligibility for the Middle Bucket (no unbundling).[387]

e) The expected cash flows of the identified portfolio of assets and qualifying future premiums replicate the expected cash flows of the portfolio of insurance liabilities within 2 years maturity bands in the same currency up to the LLP of the risk-free yield curve for the relevant currency. Any mismatch between maturity bands, which cannot be addressed through the carry forward of cash generated from excess of asset cash flows at previous maturities, does not give rise to material risks. Carry forward of cash is limited to 10% the total undiscounted liability cash flows up to the LLP. For the purpose of assessing this matching criterion, duration bands have been defined with a two-year range.

f) It is not mandatory to hold to maturity the assets backing the (re)insurance obligations included in this bucket, if the assets sold are substituted by other fixed income assets and the requirement of letter b) is still met.

Implications for the SCR standard formula calculation

A.178 No change to the SCR standard formula calculation is required.

Pros and cons

Pros	Cons
Being the discount rate based on own assets weight via an average function of rating and duration i.e. WAMP, over/undershooting is strongly mitigated.	The option will increase the complexity of the application of the VA.
National VA component issues such as the cliff effect would be solved.	Approach may give rise to wrong investment incentives in case where investments in lower rated assets lead to a higher solvency ratio; could also make it more difficult for undertaking to de-risk asset risk (in case e.g. of a breach of the SCR).

[387] Unbundling can generally be defined as the separation of the insurance liabilities of an insurance contract into different parts, in order for one of them to have a portion that would virtually meet the requirements of the MA or OA bucket. Unbundling is, in general, not allowed. However, unbundling of Unit Linked contracts into two parts as described can be accepted, provided that one part of the unbundled contract is then valued using financial instruments for which a reliable market value is observable

Criteria can help to ensure that undertakings can actually “earn” the VA”.	Where rating information is used, approach leads to higher dependence on external ratings.
	An implementation of this option may give rise to a number of challenges, e.g.: • Where rating-information is used, the treatment of non-rated bonds • Where duration-information is used, the treatment of perpetual bonds or bonds with options The availability of the chosen asset characteristics (such as rating or durations) in case of investments in funds.
	Option may require prior supervisory approval, in particular regarding the matching criteria, and increase the complexity of supervision.

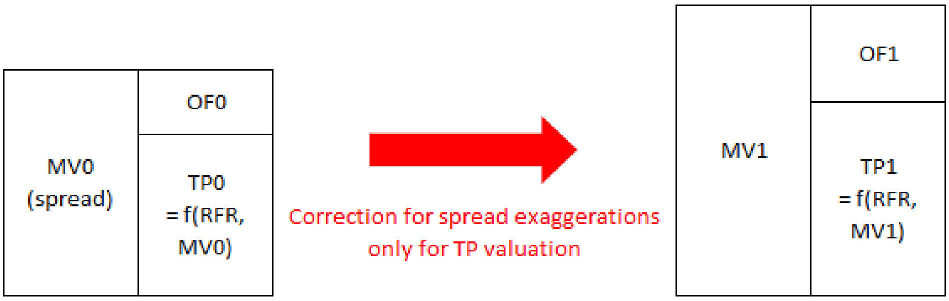
A.179 In view of the disadvantages of the option, it was not taken into account in the further assessment of the VA.

Option 3 – asset driven approach

Description

A.180 This option targets the application to the VA. Instead of applying the VA to the risk-free interest rate term structure, this option adjusts the value of own funds directly. This option does not suggest an alternative to calculating the VA, but it may be combined with one of the other options that suggest so. It is a possible alternative use of the VA.

A.181 This option is based on the conceptual idea that the VA aims to address the volatility of own funds due to the use of market values for bonds. It is also based on observations that adjusting the risk-free rates has undesirable effects. As a consequence, in this option there is no adjustment to the risk-free interest rates. The idea is to adjust the own funds OF_0 of the undertakings by correcting the technical provisions for the effect of exaggerations of bond spreads in another way[388]. This is in line with recital 32 of the Omnibus II Directive[389]. To achieve this, it is suggested to correct the market value of assets used in the technical provisions calculation instead of the interest rate yield curve (RFR).



A.182 The correction of the market value of assets is an intermediate step to calculate the adjusted value of technical provisions and, indirectly, the adjusted value of own funds.

A.183 Adjustment of own funds would be $Adjustment_{own\ funds} = \Delta OF = OF_1 - OF_0$

$$Adjustment_{own\ funds} = (MV_0 - MV_1 + TP_1 - TP_0) * (1 - average\ tax\ rate)$$

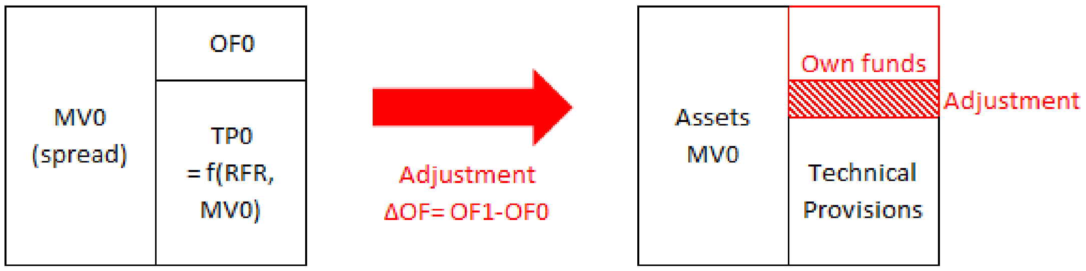
A.184 In the balance sheet, this adjustment to own funds would be done by subtracting an adjustment to the technical provisions (in the same way as the adjustment of the transitional to technical provisions).

$$Technical\ provisions = TP_0 - Adjustment_{TP}$$

[388] EIOPA's initial advice on the VA was also an own funds adjustment

[389] Recital 32 states: "in order to prevent pro-cyclical investment behaviour, insurance and reinsurance undertakings should be allowed to adjust the relevant risk-free interest rate term structure for the calculation of the best estimate of technical provisions to mitigate the effect of exaggerations of bond spreads."

Where $Adjustment_{own\,funds} = \ Adjustment_{TP} * (1 - average\ tax\ rate)$



Calculation of the corrected value of assets MV_1 (step 1)

A.185 The PG has imagined two possibilities to calculate the corrected value of assets :

— Either use the risk-neutralization step to modify the market value of the assets

— Or use the duration proxy to approximate to modify the market value

Calculation of the corrected value of technical provisions TP_1 (step 2)

A.186 This step is not necessary for non-participating insurance business. There are also two ways to derive the adjusted value of technical provisions :

— Use the corrected value of assets derived from step 1 as an input and re-perform TP calculation on this basis

— Use a proxy to calculate the adjusted value of TP (for example assuming that the variation of TP is proportional to VA).

A.187 The combinations of these different possibilities for the correction of assets and technical provisions result in different variants of the asset driven approach. The most “advanced” or “pure” consist in using no proxies at all which means using the risk-neutralization step to modify the market value of the assets and re-performing technical provision (TP) calculation on this basis. Nevertheless, it seems too burdensome. As a consequence, the remaining variants are the following :

- Option a: use the duration proxy step to modify the market value of the assets and re-perform TP calculation on this basis.
- Option b: use the duration proxy step to modify the market value of the assets and another proxy to calculate the impact on TP
- Option c: use the duration proxy step to modify the market value of the assets and do not take into account the impact on technical provisions.

Implications for the SCR standard formula calculation

A.188 The adjustment would be applied as the adjustment of the transitional on technical provisions. The adjustment would have limited effect on the SCR as only the loss-absorbing capacity of deferred taxes would potentially be affected. Another possibility is to ensure complete independency by not taking into account the adjustment into the calculation of the loss absorbing capacity of deferred taxes. In that case the use of the VA would have no impact on the SCR.

Pros and cons

Pros	Cons
No more adjustment to the risk-free curve.	Modifying the market value of assets in the best estimate calculation (options a and b) has of course some consequences: due to the corrections of the market value, sales might be triggered because of management actions implemented. The results, i.e. the value of technical provisions may not reflect a "best estimate" of the management of the assets that have suffered spread exaggerations.
Overcompensation due to deviation from reference portfolio and duration mismatch are reduced, thereby promoting good risk management.	From an operational point of view, options a and b slightly increase the burden on undertakings because assets model points need to be modified in order to change the market value. But it is also to be noted that it alleviates the process since it does not require any recalibration of economic scenario generator.
Option c is simple and relieve the burden for undertakings from an operational point of view since there a calculation of technical provisions with and without the VA is not needed anymore. This will also improve transparency.	Option c is an approximation both for the impact on best estimate because it assumes the linearity of the impact, which is unlikely, and for the impact on deferred taxes. The higher the spread movements, the less appropriate the simplification would be.
If average tax rate is known, option c can be checked upon thank to QRT	

data thereby contributing to effective and efficient supervision.	
Limited impact on SCR or even no impact on SCR if the impact of the adjustment on deferred taxes is not taken into account.	

A.189 In view of the disadvantages of the option, it was not taken into account in the further assessment of the VA.

Option 4 – Adjustment accounting for amount of fixed- income assets and asset-liability duration mismatch undertaking specific VA

Description

A.190 For a given currency, the current VA is the same in size for all undertakings. In particular, its application does not depend on the asset and liability characteristics of an undertaking. This independence on the assets and liability characteristics implies that the impact of so-called exaggerated bond spreads varies with the duration of the liabilities and the spread exposure of the undertaking. The losses due to credit spread increases for undertakings with little exposure to credit spread risk and long-term liabilities could be more than fully compensated by the increase in the VA, the so-called overshooting effect. Similarly, there are undertakings, which experience a significantly smaller compensation of their losses due to credit spread changes.

A.191 The general idea of this option is to introduce an undertaking-specific application ratio $AR_{i,c}$ which addresses the over- and undershooting stemming from duration and 'volume' allocation mismatches. This undertaking-specific application ratio is applied to the current, or potentially adjusted, VA. Note that this option is not intended to address under- or overshooting effects, which could occur due to credit quality mismatches between the undertaking-specific portfolio and the reference portfolio.

Calculation

A.192 The undertaking i specific VA under this approach for liabilities in currency c is calculated as follows:

$$VA_{i,c}^{Option\ 4} = GAR \cdot AR_{i,c}^{Option\ 4} \cdot RC\_S_{i,c}$$

where

- GAR is the general application ratio, currently 65%
- $AR_{i,c}^{Option\ 4}$ is the application ratio applicable to undertaking *i* and currency *c* under option 4
- $RC\_S_{i,c}$ denotes the average risk corrected spread of the fixed income investments either of a reference portfolio or of undertaking *i* in currency *c*

A.193 The application ratio under option 4 is calculated as

$$AR_{i,c}^{Option\ 4} = \max\left\{\min\left\{\frac{PVBP\left(MV_{i,c}^{FI}\right)}{PVBP\left(BEL_{i,c}\right)};1\right\};0\right\}$$

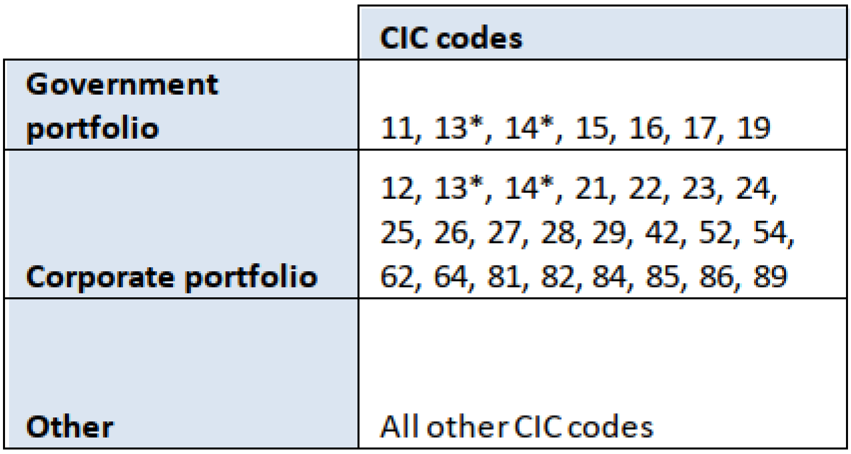
where

- $MV_{i,c}^{FI}$ denotes the market value of the investments in fixed income in currency c of undertaking *i*[390]
- $PVBP(BEL_{i,c})$ equals the price value of a basis point of the best estimate of the liabilities of undertaking *i* in currency *c*
- $PVBP(MV_{i,c}^{FI})$ equals the price value of a basis point of the fixed income investments in currency *c*

A.194 We note the following aspects of the calculation as outlined above:

Definition of fixed income investments for calculation of option 4

A.195 The following table outlines the CIC codes of the asset classes that are to be included in the government or corporate portfolio.[391] The information needs to be provided in a look-through approach, e.g. also collective investment undertakings as well as mortgages and loans are included. The assets covering technical provisions valued as a whole are not included as the undertaking is not exposed to the credit spread risks of these assets.



	CIC codes
Government portfolio	11, 13*, 14*, 15, 16, 17, 19
Corporate portfolio	12, 13*, 14*, 21, 22, 23, 24, 25, 26, 27, 28, 29, 42, 52, 54, 62, 64, 81, 82, 84, 85, 86, 89
Other	All other CIC codes

Calculation of $\mathrm{PVBP}(\mathrm{BEL}_{i,c})$

A.196 The price value of a basis point of the best estimate of the liabilities should be calculated as a sensitivity in the value of the VA. This means that $PVBP(BEL_{i,c})$ is calculated as the difference in the value of the best estimate[392] with and without applying the part of $VA_{i,c}^{Option\ 4}$ that does not depend on the undertaking specific application ratio, i.e. $GAR \cdot RC\_S_{i,c}$:

[390] Note that undertakings do not have to assign investments to either backing or not backing the liabilities when determining $MV_{i,c}^{FI}$

[391] The CIC codes 13 and 14 were used to identify bonds issued by Regional government and local authorities (RGLA). RGLA should be allocated to government portfolio if they are listed in the Commission Implementing Regulation (EU) 2015/2011 (https://eur-lex.europa.eu/eli/reg_impl/2015/2011/oj) and otherwise to non-financial corporate portfolio according to their credit quality step

[392] not including TP as a whole and net of reinsurance recoverables.

$$PVBP\left(BEL_{i,c}\right) = \frac{BEL_{i,c}(RFR_c) - BEL_{i,c}\left(RFR_c + GAR \cdot RC\_S_{i,c}\right)}{GAR \cdot RC\_S_{i,c}}$$

where

- RFR_c denotes the basic risk-free *interest* rate term structure for currency *c*
- $RFR + GAR \cdot RC\_S_{i,c}$ denotes the basic risk-free *interest* rate term structure, to which a volatility adjustment of size $GAR \cdot RC\_S_{i,c}$ is applied[393]

A.197 To determine $PVBP\left(BEL_{i,c}\right)$, a revaluation of the best estimate needs to be performed taking into account the effect of future discretionary benefits (i.e. including LAC TP). For the purpose of that calculation, asset values stay unchanged - no impact of a change in credit spreads on undertakings assets should be taken into account. Where an undertaking has liabilities denoted in several currencies, $PVBP\left(BEL_{i,c}\right)$ should be determined separately for each currency.

Calculation of $\mathrm{PVBP}\left(\mathrm{MV}_{\mathrm{i,c}}^{\mathrm{FI}}\right)$

A.198 The price value of a basis point of the fixed income investments of the undertaking should be calculated based on the difference in their market value against current spreads and when spreads would have increased by the part of $VA_{i,c}^{Option\ 4}$ that does not depend on the undertaking specific application ratio, i.e. $GAR \cdot RC\_S_{i,c}$:[394]

$$PVBP\left(MV_{i,c}^{FI}\right) = \frac{MV_{i,c}^{FI}(CS) - MV_{i,c}^{FI}\left(CS + GAR \cdot RC\_S_{i,c}\right)}{GAR \cdot RC\_S_{i,c}}$$

where CS denotes the current level of spreads.

Calculation of $\mathrm{RC\ S_{i,c}}$

A.199 The risk corrected spread of the undertaking's fixed income investments can be calculated using the current VA or the undertaking specific VA under option 1. In both cases, for the calculation of the risk correction option 6 can be applied – in the first case potentially with a uniform factor and a differentiated one under option 1 (see details there).

A.200 In case the risk corrected spreads $RC\_S_{i,c}$ are calculated using the current VA, the weights and spreads underlying this calculation are taken from the representative portfolio for currency c and hence are not undertaking

[393] i.e. $GAR \cdot RC\_S_{i,c}$ is applied as the current VA up to the last liquid point (LLP) and then extrapolated to the UFR

[394] To best capture VA effects in the base case at the valuation date, the PVBPs would be calculated under conditions of the valuation date, e.g. as sensitivity under the given VA. For more details please refer to the background information in annex 2.11

specific. This means that, in this case, the risk corrected spreads $RC\_S_{i,c}$ is also not undertaking specific and can be written as

$$RC\_S_c = \frac{W_{c,gov} \cdot RC\_S_{c,gov} + W_{c,corp} \cdot RC\_S_{c,corp}}{W_{c,gov} + W_{c,corp}}$$

where

- $W_{c,gov}$ and $W_{c,corp}$ are the weights of government $bonds$ and corporate bonds in the representative portfolio for currency *c*
- $RC\_S_{c,gov}$ is the average risk corrected spread for government bonds in the representative portfolio for currency *c* and
- $RC\_S_{c,corp}$ is the average risk corrected spread for corporate bonds in the representative portfolio for currency *c*

A.201 Note that, under the current design of the VA, the VA for currency c is calculated as

$$VA_c^{current} = GAR \cdot RC\_S_c^{current}$$

where the risk corrected currency spread $RC\_S_c^{current}$ is calculated as

$$RC\_S_c^{current} = W_{c,gov} \cdot RC\_S_{c,gov} + W_{c,corp} \cdot RC\_S_{c,corp}$$

A.202 Note that the calculation of $RC\_S_c^{current}$ differs from the calculation of the risk corrected spread $RC\_S_{i,c}$ used in option 4 with respect to the division by the term

$$W_{c,gov} + W_{c,corp}$$

in the calculation of $RC\_S_{i,c}$. This division is introduced to ensure that, under option 4, the weights that are used to aggregate the risk corrected spreads within the portfolios of corporate and government bonds are relative to the fixed income investments of the undertakings, rather than to the total investments of the undertakings.

A.203 Hence where option 4 is combined with the current VA, we have that

$$RC\_S_c^{current} = RC\_S_c \cdot \left(W_{c,gov} + W_{c,corp}\right) \leq RC\_S_c,$$

i.e. the risk corrected spread used in the current VA is smaller than the risk corrected spread used in option 4.

A.204 For example, suppose the average risk corrected spread on the fixed income assets in the reference portfolio equals 50 basis points. Then the risk corrected spread used in option 4 is set at 50 basis points, whereas the current VA method would weigh this 50 basis points with the allocation to fixed income of the reference portfolio, i.e. 70-80 percent, and set the risk corrected spread at 35-40 basis points. In case of an undertaking with application ratio $AR_{i,c}^{Option\,4}$ equal to 1 and assuming a general application ratio of 65%, this would mean that the resulting VA for this undertaking under option 4 would be 65% · 50 BPS = 32,5 BPS and thus higher than the current VA of 65% · 35 BPS = 22,75 BPS.

Combinations

A.205 This option can be combined with Options 1 and 2 where the VA is based on the assets of the undertaking. This combination would then also address the remaining source of over- and undershooting as these two options address the issue of deviating from the reference portfolio. Where option 4 is combined with option 1, the calculation of the risk corrected spreads $RC\_S_{i,c}$, would be based on the weights of the sub-classes of the individual undertaking's fixed-income investments, together with the risk-corrections (relative to the current spreads) foreseen under those option.

A.206 This option can also be combined with Option 5 (the illiquidity premium approach): it would address two of three sources of under- and overshooting that remain under option 5. Conceptually it would imply that the illiquidity premium no longer only relies on the liability characteristics, but also to a small extent on the assets: this option then reflects the extent the allocation to, and the spread duration of, the fixed income investments are sufficient to actually earn this illiquidity premium.

A.207 Under Option 3, the asset driven approach, this fix for the over- and undershooting effects of the VA becomes obsolete, because this approach is already based on the undertaking's allocation to fixed income and the duration thereof; as such it already addresses these two sources of under- and overshooting.

A.208 When combined with Option 7, a modification of the calculation of $PVBP(BEL_{i,c})$ and $PVBP(MV_{i,c}^{FI})$ is necessary, as these should take into account the country-specific increase in VA (if positive). The formulas would change as follows:

$$PVBP(BEL_{i,c}) = \frac{BEL_{i,c}(RFR_c) - BEL_{i,c}\left(RFR_c + GAR \cdot RC\_S_{i,c} + GAR \cdot \omega_j \cdot max\left(RC\_S_{i,c,j} - 1.3 \cdot RC\_S_{i,c}; 0\right)\right)}{GAR \cdot RC\_S_{i,c} + GAR \cdot \omega_j \cdot max\left(RC\_S_{i,c,j} - 1.3 \cdot RC\_S_{i,c}; 0\right)}$$

$$PVBP(MV_{i,c}^{FI}) = \frac{MV_{i,c}^{FI}(CS) - MV_{i,c}^{FI}\left(CS + GAR \cdot RC\_S_{i,c} + GAR \cdot \omega_j \cdot max\left(RC\_S_{i,c,j} - 1.3 \cdot RC\_S_{i,c}; 0\right)\right)}{GAR \cdot RC\_S_{i,c} + GAR \cdot \omega_j \cdot max\left(RC\_S_{i,c,j} - 1.3 \cdot RC\_S_{i,c}; 0\right)}$$

where $RC\_S_{i,c,j}$ is the risk corrected spread of the reference portfolio for country j using currency c, where j is the country in which the undertaking *i* is located. It is thus equal to:

$$RC\_S_{i,c,j} = \frac{W_{c,j,gov} \cdot RC\_S_{c,j,gov} + W_{c,j,corp} \cdot RC\_S_{c,j,corp}}{W_{c,j,gov} + W_{c,j,corp}}$$

Implications for the SCR standard formula calculation

A.209 The option does not necessitate a change in the SCR standard formula calculation

Pros and cons

Pros	**Cons**
Addresses two of three sources of existing under- and overshooting issues.	The option will increase the complexity and costs of the application and supervision of the VA.
Differences in valuations of same liabilities justified by better cash-flow matching: the better the asset cash-flows match the liabilities, the higher the application ratio and the higher the effective VA applicable.	

Option 5 – Adjustment accounting for the illiquidity of liabilities

Description

A.210 This option introduces an adjustment to the calculation of the VA which is intended to account for the illiquidity characteristics of liabilities in the valuation of technical provisions.

A.211 Insurance liabilities are valued by determining a probability-weighted average of cash-flows taking into account the time value of money using the relevant risk-free interest rate term structure. Default instruments for deriving the risk-free interest rates are swaps. Swap rates are taken from liquid markets whereas insurance liabilities can be illiquid, in the sense that they have stable and predictable cash flows. It can therefore be argued that an additional illiquidity premium could be taken into account in the valuation of such liabilities which reflects a premium for an illiquid investment which can serve to replicate their cash flows. The main target of a VA representing such an illiquidity premium is to explicitly recognise the illiquidity characteristics of insurance liabilities in the determination of the risk-free interest rate and in this way eliminate the current valuation mismatch between illiquid investments and illiquid liabilities. Note that under the current design of the VA, the size of the VA does not depend on the characteristics of the undertaking’s liabilities. This means that undertakings with liabilities that are to a large extent illiquid can apply the same VA as undertakings with liabilities that are hardly illiquid.

A.212 Taking into account the illiquidity of the liabilities in the VA also reflects that undertakings that have sufficient illiquid liabilities to hold on to their investments are less exposed to forced sales. Subsequently, those undertakings do not have to sell their fixed income assets and thus do not have to realize losses due to exaggerated bond spreads.

Calculation

A.213 Option 5 suggests an application ratio based on the illiquidity features of insurers’ liabilities to be included in the calculation of the VA: ARi.

A.214 The more stable and predictable the cash flows, the more the liabilities can be considered as illiquid. If cash flows are fixed irrespective of whatever scenario, they are considered as fully illiquid because they are perfectly predictable and stable. The measurement of the illiquid part of the liabilities can be based on liabilities sensitivities and/or on liabilities’ contractual features and risks characteristics.

Approach A*:* undertaking-specific share of illiquid liabilities based on stressed cash flows.

A.215 The more the cash flows are predictable and stable over different stress scenarios, the more illiquid they are. If cash flows are sufficiently stable that it could be stated with sufficient certainty that an amount of funds could be invested for a specific time horizon, this amount of funds could be considered as illiquid for this time horizon.

A.216 Based on this concept, the liability cash flows before and after pre-defined stresses can define a share of liabilities that is predictable. This approach is applicable for both life and non-life obligations, but the relevant stresses differ between the two. For life obligations, mortality, mass lapse and the relative lapse up scenarios are considered. For non-life obligations mass lapse, reserve risk and catastrophe risks should be considered. Note that in its information request early 2019 EIOPA did not ask for all these non-life scenarios. Given the cash flows after these stresses, the minimum amounts available after x years could be determined. These amounts could be replicated with an illiquid cash flow due in x years. Put differently, these amounts could be invested in illiquid assets for x years.

Non-life obligations, reserve risk and cash flows

A.217 All relevant risks need to be included when measuring illiquidity. The information request captured mass lapse risk, but catastrophe risk and reserve risk are also relevant as they can lead to liquidity needs and forced sales of assets. For the scenario-based calculations of the standard formula the measurement of illiquidity as outlined above for life obligations can easily be extended to non-life, so catastrophe risk should be taken into account in the same way. However, a further complexity arises for factor-based modules. The illiquidity properties of liabilities are mainly driven by the volatility of reserves. Although premium provisions would give rise to reserves settlement, the PG considers that reserve risk better reflects the volatility of the reserves and should be taken into account in the measurement of illiquidity as well. In particular, the standard deviation for non-life reserve (σs) risk complements the variation of liabilities net cash flows after the mass lapse and catastrophe stresses. Cf. appendix II of the Delegated Regulation for the segmentation of non-life insurance and reinsurance obligations and standard deviations for the non-life premium and reserve risk sub-module. The standard deviations for non life risk are reported below per segment.

Segment	σ_s	Segment	σ_s
Motor vehicle liability insurance and proportional reinsurance	9%	Legal expenses insurance and proportional reinsurance	12%
Other motor insurance and proportional reinsurance	8%	Assistance and its proportional reinsurance	20%

Marine, aviation and transport insurance and proportional reinsurance	11%	Miscellaneous financial loss insurance and proportional reinsurance	20%
Fire and other damage to property insurance and proportional reinsurance	10%	Non-proportional casualty reinsurance	20%
General liability insurance and proportional reinsurance	11%	Non-proportional marine, aviation and transport reinsurance	20%
Credit and suretyship insurance and proportional reinsurance	19%	Non-proportional property reinsurance	20%

A.218 Based on these factors, the best estimate cash flows could be adjusted as follows to derive 'shocked' cash flows:

$cashflow_{i,t} = cashflow_{BE,t} \cdot (1 + 3 \cdot \sigma_s)$

A.219 This ensures that the discounted value of the shocked cash flows equal the discounted value of the best estimate cash flow plus the impact of the factor based 'shock'. Based on these cash flows the illiquidity measurement as performed for life obligations could be applied.

A.220 Note that the volatility adjustment is currently not restricted with respect to the liabilities it can be applied to. These can include long-term life insurance contracts but also short-term non-life insurance contracts. The gives rise to the question as to whether any adjustment, in particular where it aims to reflect an illiquidity premium, should also apply to short-term non-life insurance contracts. One can argue that where the illiquidity of liabilities can be measured adequately, an adjustment can also be applied to short-term non-life, assuming that for very volatile business the application ratio would be rather small.

A.221 On the other hand, as outlined above, it appears that it is not straightforward to determine stressed cash flows for non-life insurance obligations. Thus, it may be prudentially justified to not apply a VA to non-life obligations (life obligations arising from non-life contracts would though be included in the scope for application). This would mean that an application ratio of zero would be used for non-life obligations.

Stochastic valuation and cash flows

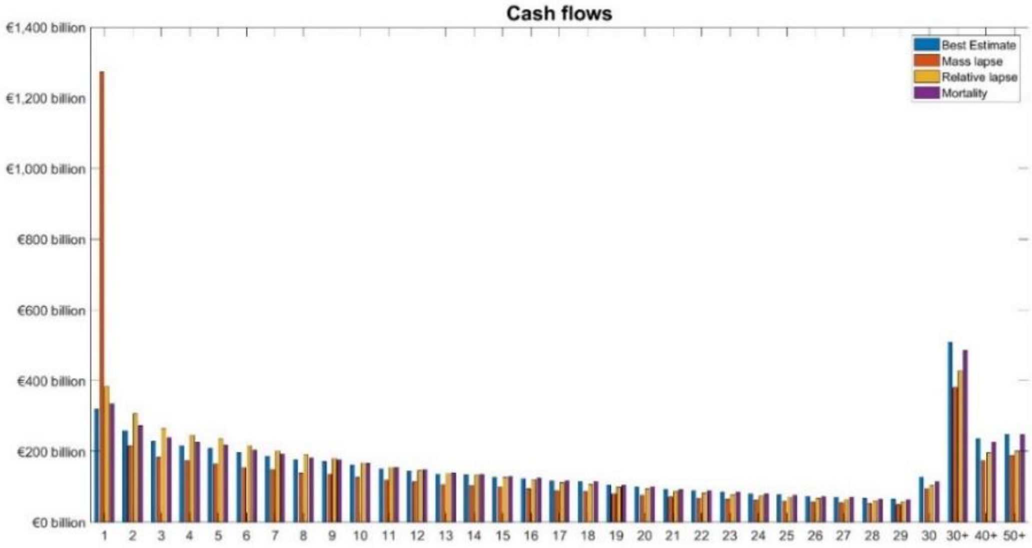
A.222 The liability cashflows require some further specification where a stochastic valuation for the technical provisions is performed. In this case, the cashflow should be equivalent to the stochastic set. This means that the discounted value of this cashflow should be equal to the best estimate. The cashflows should be determined as follows: For each maturity, the market value of cashflows with that maturity is calculated by discounting the scenario-dependent cashflows at the scenario dependent interest rates and then averaging these discounted values over all scenarios. Subsequently, this market value per maturity is accrued at the prevailing risk-free interest rate for that maturity. This implies that discounting the reported cashflows correspond to the best estimate.

A.223 Note that where an undertaking has liabilities denoted in several currencies, the best estimate cash flows should be determined as the sum of the best estimate cashflows for each currency, converted to euro.

Calculation of illiquid cash flows

A.224 The figure below shows the total best estimate cash flows from the information request as well as these cash flows after applying the standard formula mass lapse, relative lapse up and mortality shocks. For non-life liabilities, only the mass lapse shock was applicable.

Best estimate and stressed cash flows

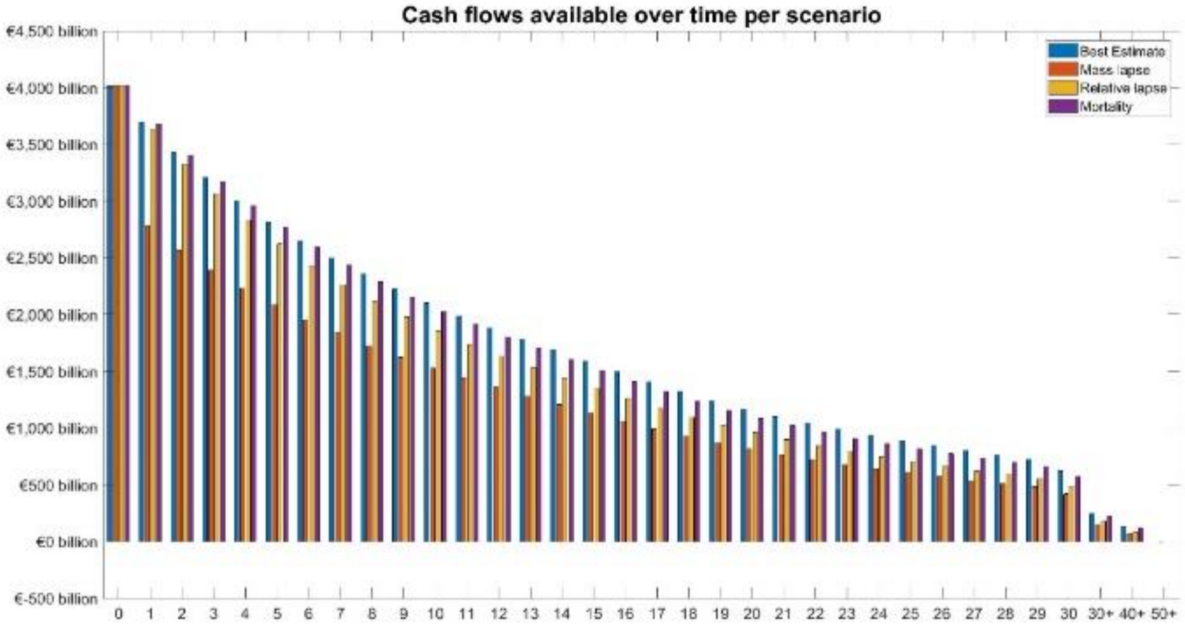


Starting from the discounted value of the best estimate at t=0, the available funds $AvailableFunds_{i,t}$, at maturity t is derived by accruing the available funds at time t-1, with the basic risk free forward rate, $interest_t$, and deducting the best estimate cash flows, $cashflow_{i,t}$, at t for the three stress scenarios as well as the best estimate scenario. It corresponds to the funds available after t years per scenario i, including the best estimate scenario.

$$AvailableFunds_{i,t} = AvailableFunds_{i,t-1} \cdot (1+interest_t) - cashflow_{i,t}$$

A.225 The figure below shows these available funds per maturity t for the aggregated cash flows of the information request. In the figure below, the minimum value for the aggregate liabilities from the information request, arises from the mass lapse sensitivity for all years. For individual undertakings, the minimum value can, however, arise from different scenarios and the minimum may depend on different scenarios over the years.

Available funds over time per scenario

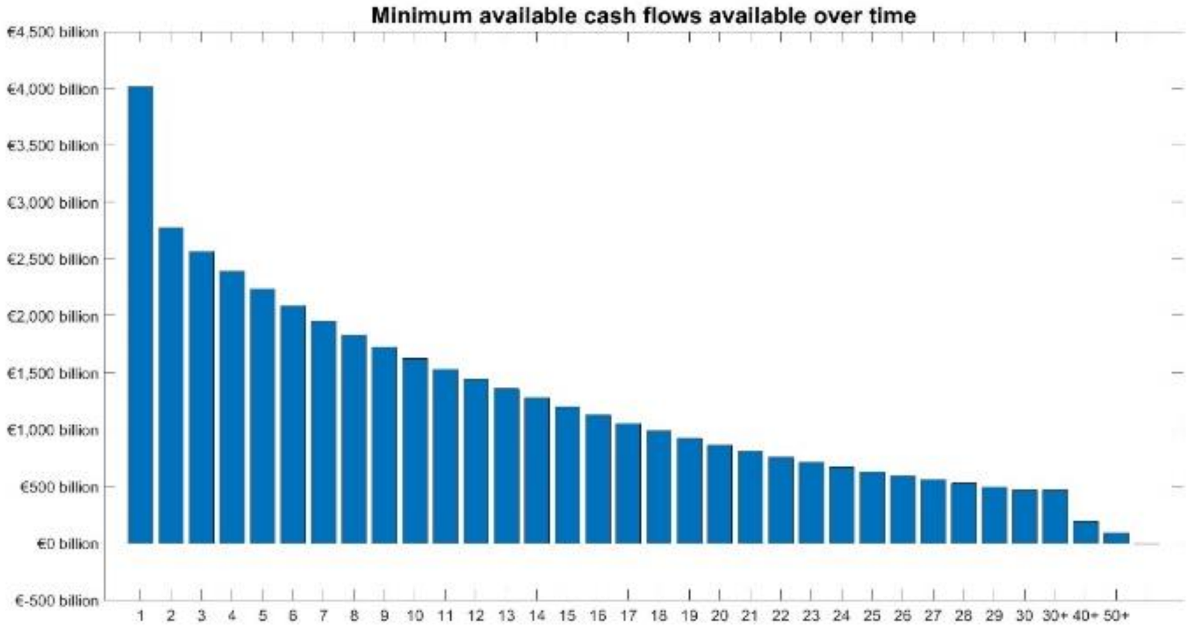


A.226 From these streams available funds over time, the minimum value retained for each year of projection over the different scenarios is determined.

$MinAvailable_{0}=Discounted\ Value\ Best\ Estimate$

$MinAvailable_{t>0}=min_{i}\{AvailableFunds_{i,t-1}x(1+interest_{t})\}$

Minimum available amount of funds over time

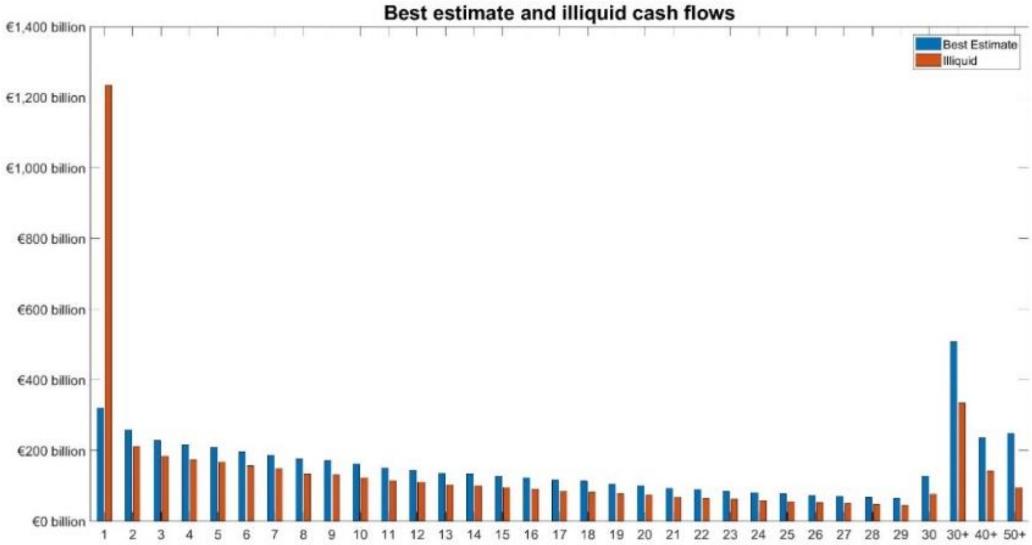


A.227 These amounts in the figure above are the amounts that can be kept up to the specific point in time. An amount that can be kept for more than 50 years, can also be kept for more than 40 years, 30 years, etc. The idea is that the replicating illiquid investments are chosen such that the term of the illiquid investments is as long as possible. The illiquid cash flows are then determined as the maximum amount that can be kept for t years:

$\mathrm{Illiquid}_t = \mathrm{MinAvailablet} - \mathrm{MinAvailable}_{t+1}/(1+\mathrm{interest}_t)$

A.228 The figure below shows the aggregated illiquidity cash flows from the information request. For all maturities, including for more than 50 years, a significant part of the cash flows can be considered as illiquid according to this method.

Best estimate and illiquid cash flows



Calculation – approach A

A.229 Under this approach, the undertaking illiquid liability specific VA becomes:

$$VA_{i,c}^{Option\,5} = GAR \cdot AR_{i,c}^{Option\,5} \quad \cdot RC\_S_{i,c}$$

where

- GAR is the general application ratio, currently 65%
- $AR_{i,c}^{Option\,5}$ is the application ratio for option 5 applicable to undertaking *i* and currency *c*
- $RC\_S_{i,c}$ denotes the average risk corrected spread of the fixed income investments either of a reference portfolio or of undertaking *i* in currency *c*

A.230 The application ratio $AR_{i,c}^{Option\,5}$ is calculated as

$$AR_{i,c}^{Option\,5} = \min\left\{\frac{PVBP^{CF}(ILL_{i,c})}{PVBP^{CF}(BEL_{i,c})}; 1\right\}$$

where

- $PVBP^{CF}(BEL_{i,c})$ equals the price value of a basis point of the best estimate cash flows of undertaking *i* in currency *c*
- $PVBP^{CF}(ILL_{i,c})$ equals the price value of a basis point of the illiquid liabilities of undertaking *i* in currency *c*

A.231 As an alternative, the undertaking illiquid liability specific VA can also be determined as follows:

$$VA_{i,c}^{Option\ 5} = GAR \times\ AR_{i,c}^{Option\ 5} \times S_{i,c} \times factor_{IL}$$

where

- $GAR\ and\ AR_{i,c}^{Option\ 5}$ are defined as above
- $S_{i,c}$ denotes the average spread of the fixed income *investments* either of a reference portfolio or of undertaking i in currency c
- $factor_{IL}$ denotes the share of the spread that can be *allocated* to illiquidity

A.232 We note the following aspects of the calculation as outlined above:

Definition of fixed income investments for calculation of option 5

A.233 For the purposes of the calculation of option 5, the same definition of fixed income investments as under option 4 should be used.

Calculation of $PVBP^{CF}(\mathrm{BEL_{i,c}})$

A.234 The price value of a basis point of the best estimate cash flows of undertaking i in currency c should be calculated as a variation of the discounted value of the best estimate cashflows applying an increase of interest rates by 1bps. This means that $PVBP^{CF}(BEL_{i,c})$ is calculated as the difference of the discounted value of the best estimate cash flows before and after increasing the basic risk-free rates by 1 basis point:[395]

$$PVBP^{CF}(BEL_{i,c}) = BEL_{i,c}^{CF,RFR}(RFR + 0) - BEL_{i,c}^{CF,RFR}(RFR + 0.01\%)$$

where

- RFR denotes the basic risk-free interest rate term structure
- $RFR + 0.01\%$ denotes the basic risk-free interest rate term structure to which an upward adjustment of 1 BPS is applied.
- $BEL_{i,c}^{CF,RFR}(\widetilde{RFR})$ denotes the present value of the best-estimate cash-flows which were determined using RFR but now discounted with a different interest rate term structure $\widetilde{RFR}$. Thus, no revaluation of the best-estimate cash-flows using the different term structure applies.

Calculation of $\mathrm{PVBP(ILL_{i,c})}$

A.235 The price value of a basis point of the illiquid liabilities of undertaking i in currency c should be calculated as a variation of the discounted value of the illiquid best estimate cashflows applying an increase of interest rates by 1bps.

[395] Note that the BE cashflows are assumed to be constant in this calculation. No recalculation of the cashflows under an increase of interest rates applies.

This means that $PVBP^{CF}(ILL_{i,c})$ is calculated as the difference between the discounted value of the illiquid liabilities' cash flows before and after increasing the basic risk-free rates by 1 basis point:

$$PVBP^{CF}(ILL_{i,c}) = ILL_{i,c}(RFR + 0) - ILL_{i,c}(RFR + 0.01\%)$$

where

- RFR denotes the basic risk-free interest $rate$ term structure
- $RFR + 0.01\%$ denotes the basic risk-free interest rate term structure to which an upward adjustment of 1 BPS is applied.

A.236 Since the discounted value of the best estimate and illiquid cash flows are the same by construction, the ratio of PVBP's are equal to the ratio of the durations and mirror the impact of the stresses on the duration profile, i.e. whether cash flows arise earlier than expected in the best estimate.

Calculation of $\mathrm{RC\ S_{i,c}}$

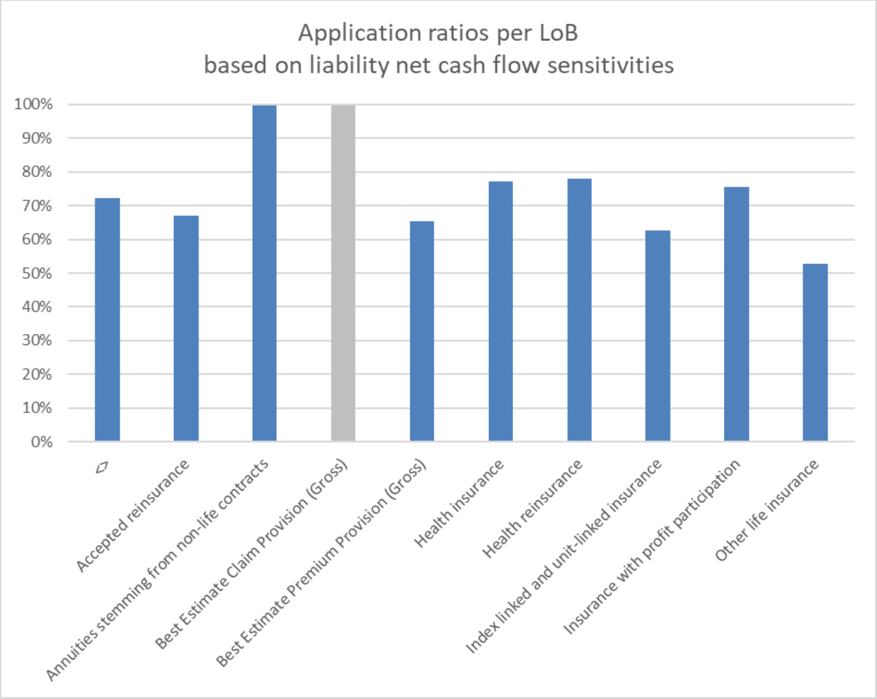
A.237 The risk corrected spread of the undertaking's fixed income investments can be calculated using the current VA (in possible combination with option 6) or the undertaking specific VA under option 1.

A.238 For further details to the calculation of $\mathrm{RC\_S_{i,c}}$ we refer to the description of option 4, where the same component is used in the calculation of the VA.

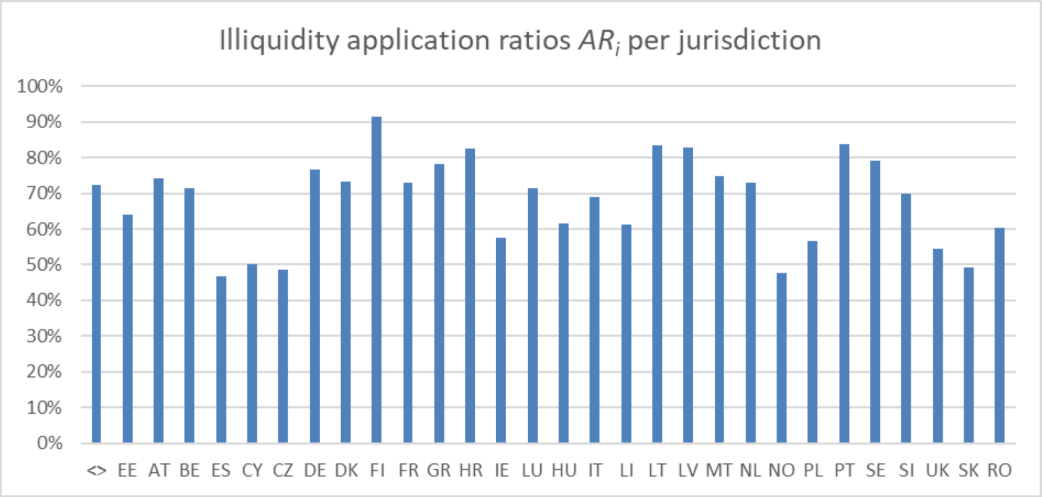
A.239 Application ratios AR_i under approach A

A.240 The three figures below show the application ratios per LoB, per jurisdiction and the dispersion over the undertakings selected for the information request.

Illiquidity application ratios per LoB



Illiquidity application ratios per jurisdiction



Dispersion of the illiquidity application ratio

Approach B: Bucketing of the liabilities according to specific criteria

A.241 Under this approach, the $AR_{i,c}^{Option\ 5}$ is determined on basis of a bucketing of the liabilities according to specific criteria on the illiquidity features of the liabilities. These features could include, for example, the existence of surrender rights, exposure to mortality risk, excluding specific liabilities like, for example, future discretionary benefits and/or unit-linked business, etc.

A.242 Based on the information collected in spring 2018 and spring 2019, liabilities have been grouped according to their illiquidity features. A relevant feature of illiquidity is the option to surrender / cancel and whether there is a disincentive to surrender where this is assumed to have a relevant impact on surrender risk. In case no options to surrender/ cancellation exist, the liabilities are considered the most predictable, therefore illiquid.

In % of total BE	**Life**	**Non-Life**
No surrender/cancellation options	15%	70%

Surrender/cancellation options, value never exceeds value of the assets	20%	2%
Surrender/cancellation options, may result in a loss	65%	28%
o.w. no disincentive	*24%*	
o.w. tax disincentive	*32%*	
o.w. surrender penalty	*19%*	
o.w. other disincentive	*9%*	

A.243 EIOPA investigated whether there is any observable relationship between the presence of any disincentives for cancellation/surrender and the surrender/cancellation rate for life products. But, EIOPA could not find sufficient evidence of that. For products that are not exposed to lapse risk but where insurers reported a typical time or the first opportunity for cancellation/surrender, it seems that for shorter maturity contracts, the tax disincentive has an impact on lapse rates (see table below).

A.244 Nevertheless, these short maturity contracts do not represent the majority of products within the category of products with a surrender/cancellation opportunity but not exposed to lapse risk (4%). Products with other disincentives for cancellation displayed lower rates in very limited cases: typical maturity between 10-15 years and lifelong products.

EEA	**Average surrender/cancellation rate**			
Typical contractual maturity	All	Of which no disincentives for cancellation	Of which tax treatment	Of which other disincentives for cancellation
<5 years	13%	13%	1%	13%
5-10 years	6%	5%	4%	11%
10-15 years	14%	16%	7%	9%
15-20 years	13%	11%	22%	14%
>20 years	0%	0%	4%	18%

Lifelong	12%	14%	13%	8%

A.245 Under such an approach, liabilities could be grouped according to their contractual features and application ratios $AR_{i,c,g}^{Option\ 5}$ attached to this groups g of policies.

A.246 The following table outlines how this approach could be implemented:

Group	**Contracts with the following characteristics**	**Typical examples for contracts falling in such category**	**Application factor**
I – High illiquidity	• without any surrender/cancellation option or where the surrender value does not exceed the market value of the assets and • with low mortality risk and catastrophe risk	• annuities in payment phase • term life insurance (without savings component) • disability insurance	$AR_{i,1}$%
II – Medium illiquidity	• with limited surrender risk: ○ including disincentives for surrender ○ low risk charge for the risk of a permanent increase in lapse rates ○ … • With low mortality risk and catastrophe risk • …	• State subsidised pension products	$AR_{i,2}$%

III – Low illiquidity	Contracts that do not fall into category I or II.	…	$AR_{i,3}$%
…			

A.247 The determination of an undertaking-specific share of illiquid liabilities based on the liabilities sensitivities to predefined stresses (approach A) is considered more informative than the liabilities contractual and risks characteristics (approach B). Indeed the cash flows pattern and sensitivities implicitly reflect the contractual and risks characteristics associated. It is therefore suggested to further progress with approach A.

A.248 A different approach would be to exclude liabilities which cash flows depend on the evolution of the financial markets, like interest rates. This holds for the future discretionary benefits part and financial guarantees and may also be the case where there is a material impact of interest rate dependent lapses. In terms of valuation by replication, such liabilities are replicated by a dynamic hedging/matching strategy using interest rate swaps and/or swaptions; these replicating instruments do not contain an illiquidity premium and as such it could be argued that applying the VA as an illiquidity premium to these liabilities is not justified.

A.249 In the HIA and CIR, EIOPA tested an approach where the calculation of application ratio 5 depends on a bucketing of the liabilities as described below.

A.250 The application ratio 5 is determined for each relevant currency taking into account the characteristics of the undertaking's individual insurance obligations in that currency.

A.251 To determine AR5 for life obligations, the following four steps have to be performed. For non-life obligations only the steps 3 and 4 are relevant.

A.252 The liabilities of unit- and index-linked insurance should be included in the calculation of the application ratio 5. But business valued as a whole is excluded from the calculation.

Step 1: Only life obligations - Assessment of surrender/cancellation options

A.253 Under this step, obligations contained in a homogeneous risk group (HRG) have to be classified according to their surrender/cancellation options.

- Group 1:
  - HRGs where no obligations contain surrender or cancellation options
  - HRGs where no obligations include surrender or cancellation options where the take up of the surrender option or the

cancellation of the contract can ever lead to a loss in own funds of the insurance or reinsurance undertaking

- Group 2: All other HRGs

A.254 As a result of step 1, each HRG should be allocated to one of the two groups described above.

A.255 For the purposes of paragraph 46, all options should be considered for which an increase or a decrease in the option exercise rate results in payments arising earlier than expected. This should at least include all legal or contractual policyholder rights:

- to fully or partly terminate or surrender the insurance cover[396];
- to permit the insurance policy to lapse; and
- to restrict or extend the length of the insurance cover.

Step 2: Only life obligations - Assessment of underwriting risks

A.256 Under this step, the relevance/materiality of specific underwriting risks is assessed. For this purpose, the change of the best estimate for each homogeneous risk group (HRG) within the undertaking is assessed with respect to the following standard formula risk sub-modules[397]:

a) Mortality risk sub-module according to Article 137 Delegated Regulation

b) Risk of a permanent increase in lapse rates in the lapse risk sub-module according to Article 142 Delegated Regulation

c) Health mortality risk sub-module according to Article 152 Delegated Regulation

d) Risk of a permanent increase in SLT health lapse rates of the SLT health lapse risk sub-module according to Article 159 Delegated Regulation

A.257 Where each of these risks has an impact of less than 5% on the best estimate, the liabilities in the homogeneous risk group are considered to have "low best estimate impact of underwriting risk" for the purpose of determining the illiquidity of liabilities.

A.258 The next steps have to be performed for all obligations including non-life obligations.

Step 3: All obligations - Bucketing of obligations

A.259 The following applies to each homogeneous risk group (HRG).

A.260 The insurance and reinsurance obligations belonging to a HRG of life obligations are classified as "category I" liabilities where:

[396] For annuity obligations, this includes lump-sum options

[397] These standard formula shocks are also applied by internal model users.

i. the obligations of the HRG belong to group 1 (according to step 1) and

ii. the obligations of the HRG are considered to have "low best estimate impact of underwriting risk" according to step 2

A.261 Where for a HRG of life obligations the insurance and reinsurance liabilities comply with condition ii but not condition i set out above, the liabilities in the HRG are classified as "category II" liabilities.

A.262 All other life obligations as well as all non-life insurance obligations are classified as "category III" liabilities.

A.263 This can be summarized as follows:

Illiquidity category	Criteria	Application factor
Category I – High illiquidity	• No surrender/cancellation options or where the take up of the surrender option or the cancellation of the contract can never lead to a loss in own funds for the insurer • Low best estimate impact mortality risk	100% ($AR_{5,I}$)
Category II – Medium illiquidity	• Low best estimate impact of permanent increase in lapse rates • Low best estimate impact of mortality risk	75% ($AR_{5,II}$)
Category III – Low illiquidity	Contracts that do not fall into category I or II	60% ($AR_{5,III}$)

Step 4: All obligations - Determination of AR5

A.264 The final application ratio 5 (AR_5) is then determined by aggregating the application factors $AR_{5,I}$, $AR_{5,II}$ and $AR_{5,III}$.

A.265 AR_5 is a weighted average of the application factors that are allocated to the different illiquidity categories:

$$AR_5 = \max(\min(\frac{BE_I \cdot AR_{5,I} + BE_{II} \cdot AR_{5,II} + BE_{III} \cdot AR_{5,III}}{BE_I + BE_{II} + BE_{III}}; 100\%); 60\%)$$

where

- BE_I is the best estimate of the category I liabilities;
- BE_{II} is the best estimate of the category II liabilities and
- BE_{III} is the best estimate of the category III liabilities.

A.266 These best estimates are determined using the basic risk-free rates without the volatility adjustment and without transitionals, where the basic risk-free rate is the term structure based on the alternative extrapolation method.

A.267 Note that this formula also applies in case the best estimate for a category is negative. In this case the overall application ratio would be reduced and a smaller VA would finally apply.

Reporting on Liquidity buffer

A.268 In addition to the above mentioned illiquidity measurement, it was considered whether it is necessary to capture undertaking's exposure to the risk of forced sale by taking into account the ability of the undertaking to cope with expected and unexpected liquidity needs. This would be reflected by the following reporting on liquidity buffer.

A.269 Insurance and reinsurance undertakings applying the VA should report on liquidity buffer available to mitigate the risk of forced sale of assets during the next 12 months. The size of the liquidity buffer should be determined as the sum of the following amounts:

- fixed income interest payments (e.g. coupons) expected within the next 12 month,
- fixed income redemptions at maturity expected within the next 12 month,
- foreseeable dividend payments within the next 12 months other than from own shares,
- rents expected within the next 12 month,
- cash, bank deposits and short term securities (<1 year).

A.270 In addition, the net best estimate liability cash-out flows in the first year of the sensitivities applied in the calculation of the illiquidity application ratio should be reported. From the three sensitivities analysed (mortality, lapse up and mass lapse), the sensitivity that is the most severe in the first year should be taken into account.

Implications for the SCR standard formula calculation

A.271 This option could be combined with an allowance for the dynamic VA in the SCR standard formula. Where the VA is interpreted as an inherent component of the valuation of technical provisions accounting for the illiquidity of liabilities, such an approach would ensure consistency between the risk measurement in the SCR and the derivation of technical provisions. Further, it would be intended to address supervisory concerns in cases that undertakings do not hold sufficient spread sensitive assets but benefit from an illiquidity premium.

A.272 Note however that EIOPA holds the view that the disadvantages of an allowance for the dynamic VA in the SCR standard formula clearly outweigh the advantages of such an option, in particular as it effectively not improves the level playing field between users of the standard formula and users of internal models.

A.273 If this option would be combined with Option 4 allowing for additional application ratios fixing the over- and undershooting issues, an alternative would be to use the final application ratio applied to the VA (i.e. the minimum of the application ratio AR_i of option 4 and option 5 times GAR) as reduction factors for the standard formula credit spread charges. This would hamper the consistency between balance sheet valuation and risk measurement/capital requirements, but is conceptually consistent and less burdensome than recalculating the VA and accordingly the technical provisions in the spread risk.

Pros and cons

Pros	Cons
Reflecting that more illiquid liabilities enable to withstand exaggerated bond spreads and/or to actually earn the VA. Can easily be combined with many of the other options. Allows direct recognition of illiquidity characteristics of liabilities, supporting further availability of long-term insurance products.	There is no reliable method to quantify the impact of the liability characteristics on the transfer value. The option therefore includes model risk. Conservative proxies could be used to mitigate this.
The illiquidity premium aims to address the current valuation mismatch in terms of illiquidity of assets and liabilities.	Where an additional scenario in the SCR standard formula calculation is introduced to reflect the mismatch of

	illiquid assets and liabilities this may lead to additional complexity.
Consistency between valuation and risk measurement where risk of illiquidity mismatch between assets and liabilities is targeted by an additional scenario in the SCR standard formula.	Risk of illiquidity mismatch between undertaking's assets and liabilities needs to be separately addressed (e.g. in the SCR/ORSA/risk management, undertaking with 100% equity investment).
Reflecting a share of the current market spread (rather a spread that allows for a risk-correction based on a long-term average) fits better into the market consistent valuation framework.	The option will increase the complexity and costs of the application and supervision of the VA.
In line with transfer value concept for valuation of liabilities, clear underlying rationale (e.g. on illiquidity of liabilities) implies that underlying assumptions can be supervised. Differences in valuations of same liabilities can be justified better: the better the assets match the liabilities, the higher the application ratio and the higher the effective VA applicable.	
Where applied to guaranteed benefits (approach B; i.e. VA not applied to financial guarantees and FDB), the VA would not be recognized in the calibration of economic scenario generators. Thus distortions would be avoided where a stochastic valuation of technical provisions is performed.	

Option 6 – risk correction calculated as a percentage of the spread

Description

A.274 The risk correction (RC) for the VA according to Article 77d of the Solvency II Directive shall correspond the portion of the spread that is attributable to a realistic assessment of expected losses (EL) or unexpected credit or other risk of the assets (UEL).

A.275 According to Article 51 of the Delegated Regulation the RC shall be calculated in the same manner as the fundamental spread (FS) for the MA. Thus according to Article 77c (2) of the Solvency II Directive, the RC currently is calculated as the maximum of:

- the sum of the credit spread corresponding to the probability of default (PD) and the credit spread corresponding to the expected loss resulting from downgrading (cost of downgrading CoD); and,
- a percentage of the long-term average spread (LTAS) for the assets under consideration.[398]

A.276 Where no credit spread from default statistics can be derived, the FS and thus the RC shall be equal to the portion of the LTAS as described before (Article 77c (2) of the Solvency II Directive).[399]

A.277 The use of the FS (as taken from the MA context) as a risk correction for the VA leads to significant technical issues, among others[400] that it is very stable over time.

A.278 Therefore, this option suggests to decouple the calculation of the RC for the VA from the calculation of the FS for the MA. The RC for the VA can be simple in design and can be determined based on current spread information rather than on long-term averages.

Calculation

A.279 Under this option, it is suggested to calculate the risk correction as follows:

$$RC = \max(RC\% \cdot S_c; 0)$$

A.280 Where $RC\%$ reflects a fixed percentage and S_c is the currency spread determined on the basis of a representative portfolio or an undertaking's portfolio under option 1.

[398] This percentage is 30% for exposures to Member States' central governments and central banks and 35% for other exposures and the statistics shall be based on data relating to the last 30 years (Article 54 of the Delegated Regulation). Note that also the calculation of PD and CoD is based on long-term statistics.

[399] In particular, this is the case for government bonds. For a detailed description of the calculation of the FS, see EIOPA's RFR methodology under https://register.eiopa.europa.eu/Publications/Standards/20180813_Technical%20Documentation%20%28RP%20methodology%20update%29.pdf.

[400] See description of deficiency 4 in subsection 2.4.5.1

A.281 Note that this approach can also be applied on a more granular level, e.g. separately for government and corporate bonds as follows:

$$RC_{gov} = \max(RC_{gov}\% \cdot S_{c,gov}; 0)$$

$$RC_{corp} = \max(RC_{corp}\% \cdot S_{c,corp}; 0)$$

where $RC_{gov}\%$ and $RC_{corp}\%$ reflect fixed percentages and $S_{c,gov}$ and $S_{c,corp}$ are the government and corporate currency spread determined on the basis of a representative portfolio or and undertaking's portfolio under option 1. The risk correction factor $RC_{corp}\%$ may be differentiated further by e.g. distinguishing between different credit quality steps, or the categories of financial and non-financial corporate bonds.

A.282 The granularity of the determination of the risk correction should be chosen depending on the final choice for the VA. Where the VA is based on a reference portfolio it seems sufficient to only apply a differentiation between EEA government bonds and other bonds. In this case, only the two factors $RC_{gov}\%$ and $RC_{corp}\%$ would need to be determined. Where the VA is based on undertaking-specific spreads, it seems necessary to differentiate the RC further by e.g. credit quality steps to avoid wrong risk-management and investments incentives.

A.283 As in the current determination of the VA, the residual spread after risk correction would form the basis of the determination of the VA.

A.284 The potentially undertaking i specific VA under this approach for liabilities in currency c is calculated as follows:

$$VA_{i,c}^{Option\ 6} = GAR \cdot RC\_S_{i,c}^{Option\ 6}$$

where

- GAR is the general application ratio, currently 65%
- $RC\_S_{i,c}^{Option\ 6}$ denotes the average risk corrected spread of the fixed income investments either of a reference portfolio or of undertaking *i* in currency *c*

A.285 Please note that the weighting in the average risk corrected spread might change compared to the current VA if option 6 is combined with other options.

Calibration

A.286 The calibration of the risk correction factors used under this option is certainly a decisive decision to take. In the following, a tentative calibration for $RC_{gov}\%$ and $RC_{corp}\%$ is set out.[401]

Government bonds

A.287 As empirical evidence on defaults of government bonds is limited, RCgov% could be set to 30% for EEA government bonds, similar to the factor chosen for the purpose of the determination of the fundamental spread.

A.288 Non-EEA government bonds would be treated similar to corporate bonds in terms of risk correction.

Corporate bonds

A.289 With respect to the calibration of RCcorp% financial literature and academic studies are available. One of these studies by Giesecke et al. (2011) indicates that expected losses on long-term average are 50% of the spreads[402]. As this only reflects expected losses and not the credit risk premium for unexpected losses a risk-correction of at least 50% for corporate bonds seems appropriate.

A.290 Another approach to the risk correction could be to consider what in literature is called 'liquidity premium' (LP). The LP being in academic literature often identified with the 'bid-ask-spread', i.e. the difference in yield between those offering the debt ('bid') and those interested to buy ('ask').

A.291 To avoid confusion, note that academic literature does not refer to the RC, but for the purposes of the calibration of option 6, the risk correction in a first step can be viewed as (1 – liquidity premium) and vice versa. That is, the risk correction is *everything that is not liquidity premium.*

A.292 Papers considered are

— Van Loon [2017]: 'Empirical studies in corporate credit modelling; liquidity premia, factor portfolios & model uncertainty', Ph.D. thesis, Actuarial Research Centre, Institute and Faculty of Actuaries, March 2017

— Chen et al [2007]: 'Corporate Yield Spreads and Bond Liquidity', THE JOURNAL OF FINANCE o VOL. LXII, NO. 1 o FEBRUARY 2007.

— Webber [2007]: 'Decomposing corporate bond spreads', Bank of England, Quarterly Bulletin 2007 Q4

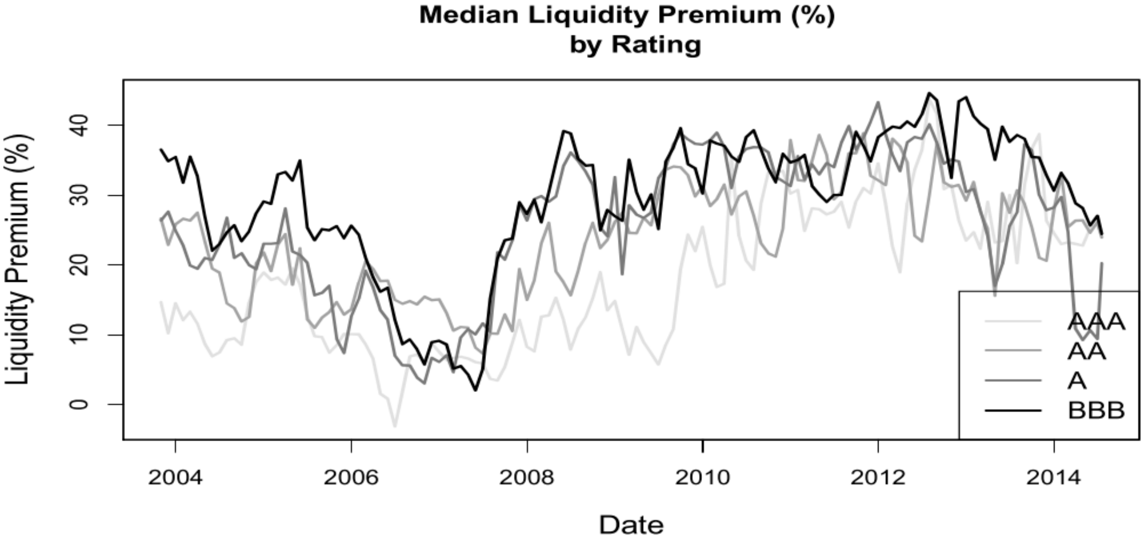
[401] This assumes that the VA is determined on basis of a reference portfolio

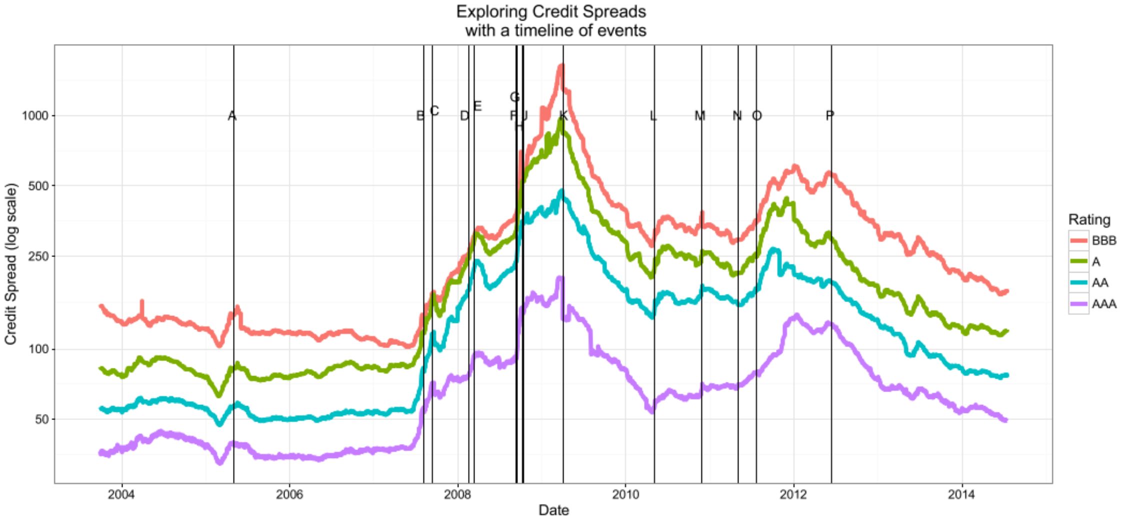
[402] Reference from: Insurance Europe, The Matching Adjustment Theory and practice, 8 February 2013: "Over the long term, credit spreads are roughly twice as large as default losses, resulting in an average credit risk premium of about 80 basis points. We also find that credit spreads do not adjust in response to realized default rates."; K. Giesecke, F. Longstaff, S. Schaefer, I. Strebulaev, 2011. Corporate Bond Default Risk: A 150-Year Perspective. Journal of Financial Economics, 102(2), 233-250

- Feldhütter et al [2012]: ‘Corporate bond liquidity before and after the onset of the subprime crisis’, Journal of Financial Economics 103 (2012), pages 471–492.
- Feldhütter, Schaefer [2018]: ‘The Myth of the Credit Spread Puzzle’, The Review of Financial Studies, Volume 31, Issue 8, August 2018, pages 2897–2942.

A.293 Van Loon [2017] uses a model of relative bid-ask spread (RBAS) as a measure of the liquidity premium (LP). The logic for this measure is that it represents the immediate cost of buying and selling an asset. There are other measures: CDS-spreads, percentage of zero returns, structural models (of default), and various regression model approaches. The value of LP can differ materially, but bid-ask is considered to be a common and robust metric.

A.294 Van Loon [2017] shows that the LP has changed over time and by rating. In particular, the LP during the 2008-9 crisis was not the same as what applied before or after. The following graph (Van Loon [2017], figure 2.18, page 69) provides an overview, which is here supplemented by a plot showing the absolute credit spreads and a legend describing the times of 2008 crisis (Van Loon [2017], figure 2.13, page 45):





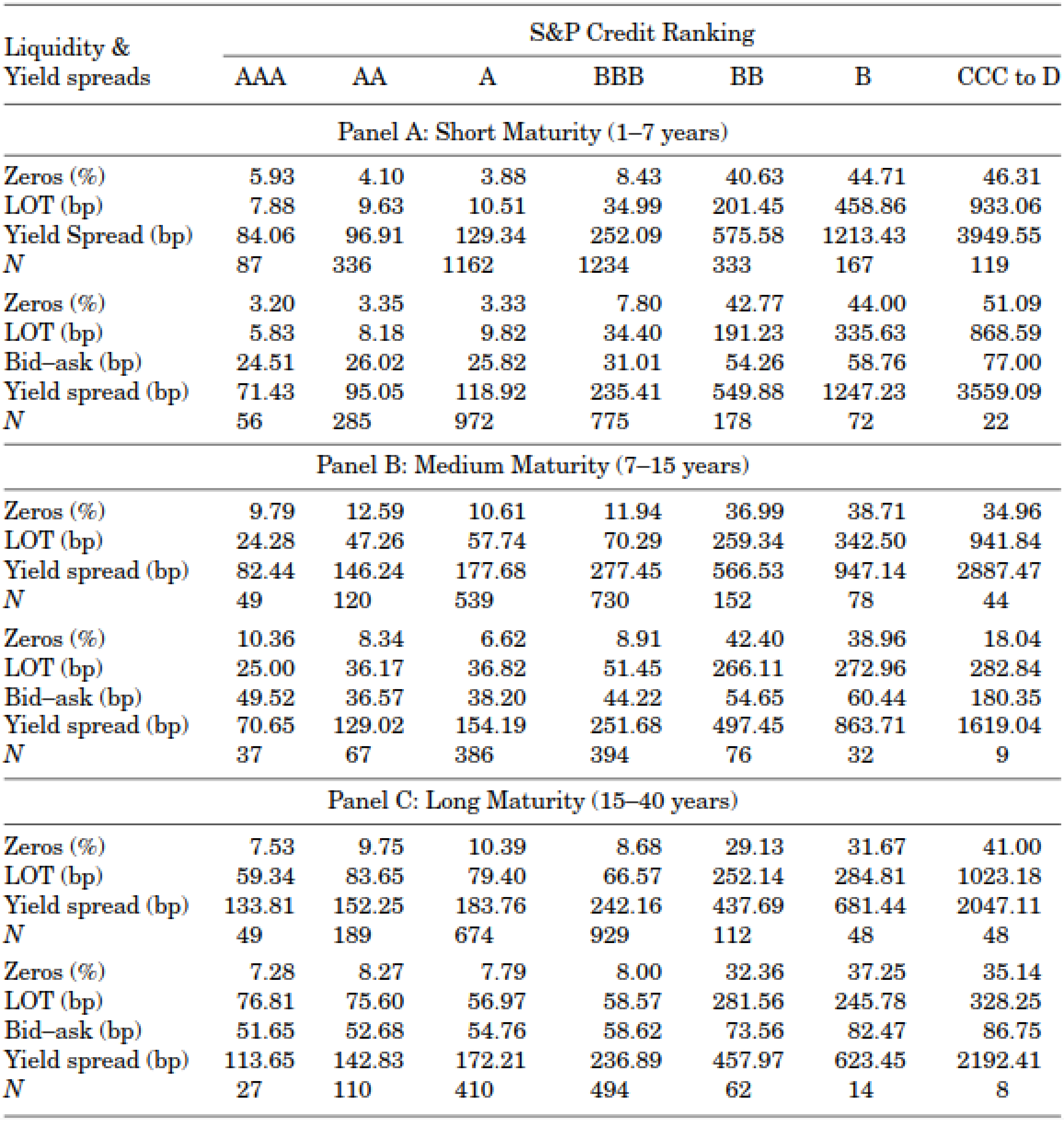
A.295 The first graph suggest that for investment-grade papers the liquidity premium ranges between 0% and 40% and consequently the risk correction between 60% and 100%.

A.296 The second graph shows that short before or at the beginning of the 2008-crisis the LP from mid of 2006 to mid of 2007 was below 20% and even below 10% for some time. While during the crisis, between bars C and K from mid of September 2007 to April 2009 spreads and LP were high. The LP was especially high at event G when Lehman Brother's filed for bankruptcy. Furthermore, while LP in general seems to be higher post-crisis than pre-crisis, also 2014 shows some low LP values for A-rated bonds.

A.297 Irrespective of timing, one has to note that in the sense of a potential shock or prudency the LP can be quite low for a time.

A.298 Chen et al. [2007] is an earlier paper, which provides LP estimates by rating and duration bucket, based on US data from 1995 to 2003. Because the results do not distinguish by time, it is not possible to use these results to infer a risk correction under stressed conditions. Especially all of Chen et al.'s figures are from before the 2008 crisis.

A.299 Chen et al. [2007] provides the following summary table on page 127, in which, as in Van Loon [2017], liquidity premium is measured by the bid-ask spread. One has to note that this measure of LP varies materially from other figures in the Chen et al. dataset.



Liquidity & Yield spreads	S&P Credit Ranking						
	AAA	AA	A	BBB	BB	B	CCC to D
Panel A: Short Maturity (1–7 years)							
Zeros (%)	5.93	4.10	3.88	8.43	40.63	44.71	46.31
LOT (bp)	7.88	9.63	10.51	34.99	201.45	458.86	933.06
Yield Spread (bp)	84.06	96.91	129.34	252.09	575.58	1213.43	3949.55
N	87	336	1162	1234	333	167	119
Zeros (%)	3.20	3.35	3.33	7.80	42.77	44.00	51.09
LOT (bp)	5.83	8.18	9.82	34.40	191.23	335.63	868.59
Bid–ask (bp)	24.51	26.02	25.82	31.01	54.26	58.76	77.00
Yield spread (bp)	71.43	95.05	118.92	235.41	549.88	1247.23	3559.09
N	56	285	972	775	178	72	22
Panel B: Medium Maturity (7–15 years)							
Zeros (%)	9.79	12.59	10.61	11.94	36.99	38.71	34.96
LOT (bp)	24.28	47.26	57.74	70.29	259.34	342.50	941.84
Yield spread (bp)	82.44	146.24	177.68	277.45	566.53	947.14	2887.47
N	49	120	539	730	152	78	44
Zeros (%)	10.36	8.34	6.62	8.91	42.40	38.96	18.04
LOT (bp)	25.00	36.17	36.82	51.45	266.11	272.96	282.84
Bid–ask (bp)	49.52	36.57	38.20	44.22	54.65	60.44	180.35
Yield spread (bp)	70.65	129.02	154.19	251.68	497.45	863.71	1619.04
N	37	67	386	394	76	32	9
Panel C: Long Maturity (15–40 years)							
Zeros (%)	7.53	9.75	10.39	8.68	29.13	31.67	41.00
LOT (bp)	59.34	83.65	79.40	66.57	252.14	284.81	1023.18
Yield spread (bp)	133.81	152.25	183.76	242.16	437.69	681.44	2047.11
N	49	189	674	929	112	48	48
Zeros (%)	7.28	8.27	7.79	8.00	32.36	37.25	35.14
LOT (bp)	76.81	75.60	56.97	58.57	281.56	245.78	328.25
Bid–ask (bp)	51.65	52.68	54.76	58.62	73.56	82.47	86.75
Yield spread (bp)	113.65	142.83	172.21	236.89	457.97	623.45	2192.41
N	27	110	410	494	62	14	8

A.300 From this table, one can extract the following figures in respect of the liquidity premium for US denominated corporate bonds.

	Short (term 1-7y)			
	AAA	AA	A	BBB
LP	24.51	26.02	25.82	31.01
spread	71.43	95.05	118.92	235.4
%	34%	27%	22%	13%
	Medium (term 7-15y)			
	AAA	**AA**	**A**	**BBB**

LP	49.52	36.57	38.2	44.22
spread	70.65	129.02	154.19	251.68
%	70%	28%	25%	18%
	Medium (term 15-40y)			
	AAA	AA	A	BBB
LP	51.65	52.68	54.76	58.62
spread	113.65	142.83	172.21	236.89
%	45%	37%	32%	25%

A.301 This suggests a liquidity premium of 13% to 70%, i.e. a risk correction between 87% and 30% - depending on rating and maturity.

A.302 As the data from Van Loon [2017] and Chen et al. [2007] mainly rely on USD and GBP corporate bonds alternative sources have been looked for that covers EUR corporate bonds. From Webber [2007] the following graphics show decompositions of spreads for USD, GBP and EUR denominated corporate bonds, differentiated by investment grade and high yield:

Chart 1 Decomposition of sterling-denominated investment-grade corporate bond spreads

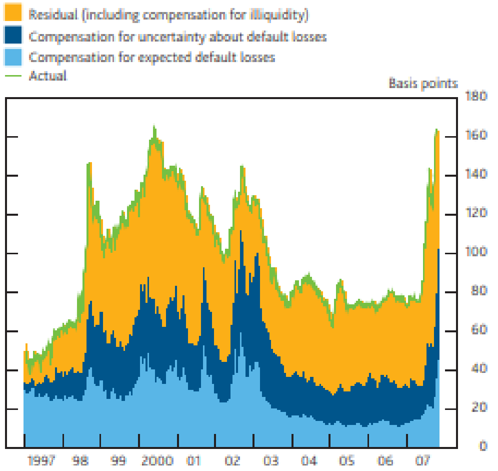


Chart 2 Decomposition of sterling-denominated high-yield corporate bond spreads

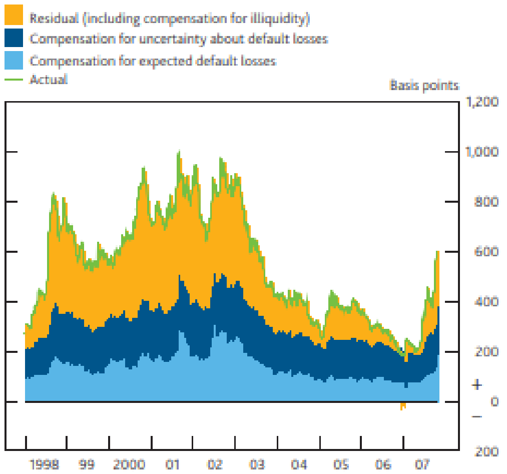


Chart 3 Decomposition of dollar-denominated investment-grade corporate bond spreads

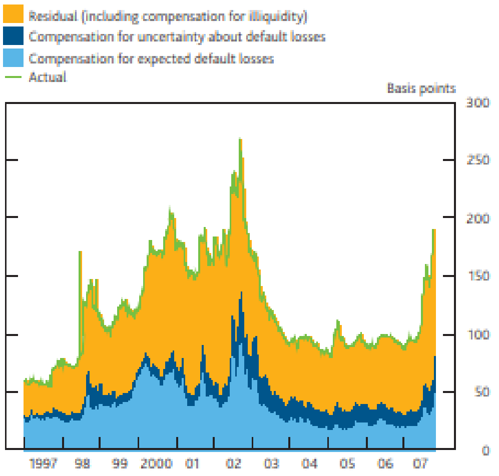


Chart 4 Decomposition of dollar-denominated high-yield corporate bond spreads

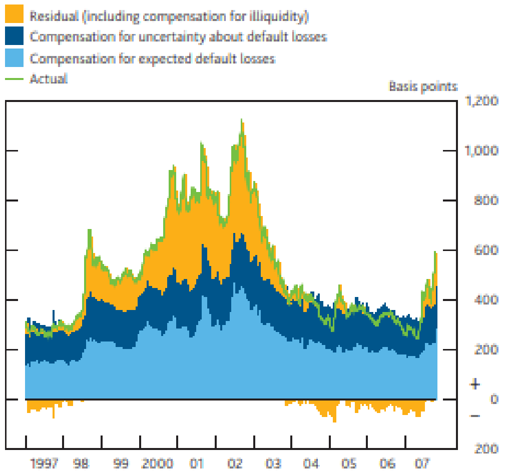


Chart 5 Decomposition of euro-denominated investment-grade corporate bond spreads

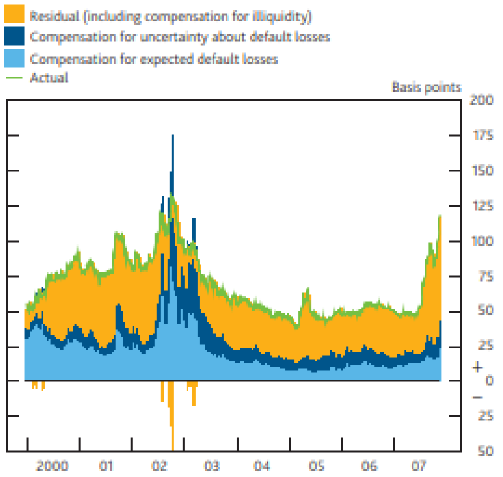
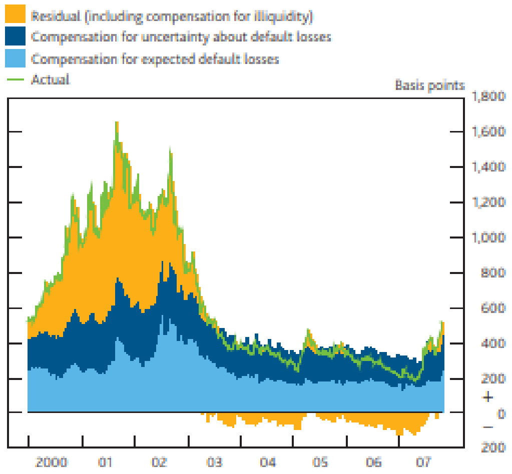


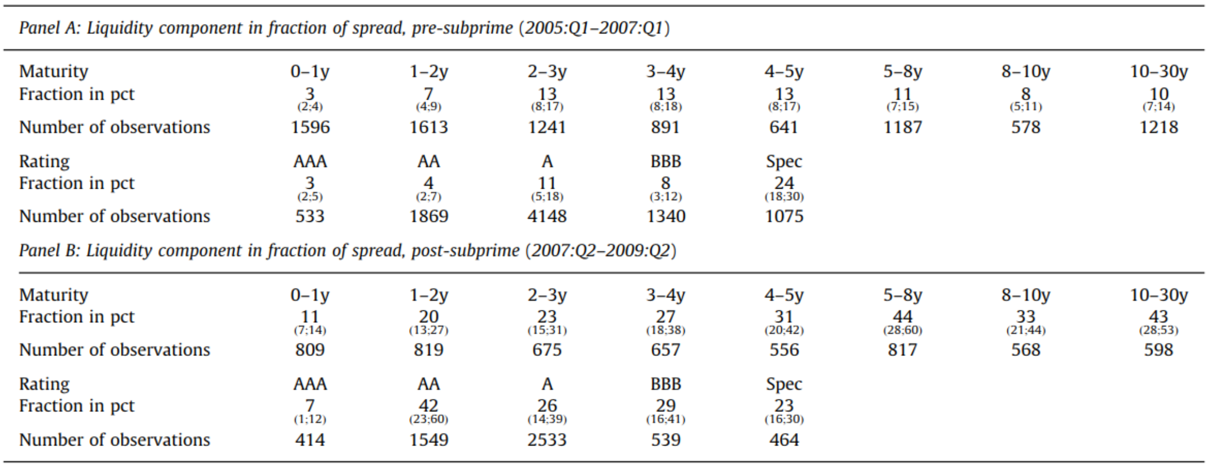
Chart 6 Decomposition of euro-denominated high-yield corporate bond spreads



A.303 The model used for this decomposition does not suggest dramatic structural differences between the markets in terms of decomposition but of course reflects local specifics.

A.304 One has to note that Webber [2007] does not cover the 2008-crisis but the 2001 crisis.

A.305 Feldhütter et al. [2012] was used to challenge the dependence on pre-post-crisis figures as well as the rating dependency. Table 5 of that paper shows splits by maturity and rating and also displays the number of observations used:



Panel A: Liquidity component in fraction of spread, pre-subprime (*2005:Q1–2007:Q1*)

Maturity	0–1y	1–2y	2–3y	3–4y	4–5y	5–8y	8–10y	10–30y
Fraction in pct	3 (2;4)	7 (4;9)	13 (8;17)	13 (8;18)	13 (8;17)	11 (7;15)	8 (5;11)	10 (7;14)
Number of observations	1596	1613	1241	891	641	1187	578	1218
Rating	AAA	AA	A	BBB	Spec			
Fraction in pct	3 (2;5)	4 (2;7)	11 (5;18)	8 (3;12)	24 (18;30)			
Number of observations	533	1869	4148	1340	1075			

Panel B: Liquidity component in fraction of spread, post-subprime (*2007:Q2–2009:Q2*)

Maturity	0–1y	1–2y	2–3y	3–4y	4–5y	5–8y	8–10y	10–30y
Fraction in pct	11 (7;14)	20 (13;27)	23 (15;31)	27 (18;38)	31 (20;42)	44 (28;60)	33 (21;44)	43 (28;53)
Number of observations	809	819	675	657	556	817	568	598
Rating	AAA	AA	A	BBB	Spec			
Fraction in pct	7 (1;12)	42 (23;60)	26 (14;39)	29 (16;41)	23 (16;30)			
Number of observations	414	1549	2533	539	464			

A.306 This table suggests a specific role for AAA bonds, with low and stable liquidity component before and after the crisis – and similarly for non-investment-grade papers.

A.307 We also note that Feldhütter [2018] indicates that, when certain corrections are made to bond default models, a large majority of the spread may be explained by default risk. This finding may also indicate that prudence in the risk calibration is warranted.

Validation

A.308 Recently further analysis was performed inter alia by central banks also with the goal to decompose corporate bonds spreads, especially in times of crises. Boneva, Kidd and Robays published “Exploring the factors behind the 2018 widening in euro area corporate bond spreads” as part of the ECB Economic Bulletin, Issue 3/2019 ([ECB 2019]) with reference to “Unobservable country bond premia and fragmentation”, De Santis, Journal of International Money and Finance 82 (2018) ([De Santis 2018]) and “Dissecting Corporate Bond and CDS Spreads”, Lin, Liu, WU, The Journal of Fixed Income, Winter 2011 ([Lin, Liu, Wu 2011]). Also Deutsche Bundesbank published a Discussion Paper, No 08/2019, “The nonlinear dynamics of corporate bond spreads: Regime-dependent effects of their determinants” by Fischer and Stolper ([Fischer, Stolper 2019]). These papers do not give indications that the proposed option 6 calibration in the revised version as included in the Advice would not be sound. [ECB 2019] for example finds “excess bond premia” (EBP) systematically below 50% of the total spread, also in times of crisis. Most times the EBP part of the spread is materially. [Fischer, Stolper 2019] sees indications that the liquidity portion of the spread would be higher in times of high volatility (68%) than in times of low volatility (42%). But this confirms that the currently chosen staged approach of 50% and 40% for the risk correction of corporate bonds is reasonable.[403]

[403] See section 2.4.5 of the opinion text.

Proposals derived from papers and supervisory challenge

A.309 It was discussed whether a differentiation should be made between base case and stress case, but as a clear cut between such cases seems not to be possible no differentiation is proposed but some prudency introduced.

A.310 Also discussed was whether there should be only one factor, irrespective of rating. A key argument in favour of using a single risk correction is that it reduces reliance on ratings and therefore on credit rating institutions. Furthermore, the academic papers considered not stable differences within investment grade ratings. Nevertheless, the papers also show that AAA behave differently than lower ratings and that non-investment-grade papers experience a higher risk.

A.311 A RC directly taken as (1 – liquidity premium) from the academic literature would lead to calibration being more conservative than the minimum of 35% introduced by Article 77d(2)(c) of the Solvency II Directive for the fundamental spread, except in times of relative low spreads.

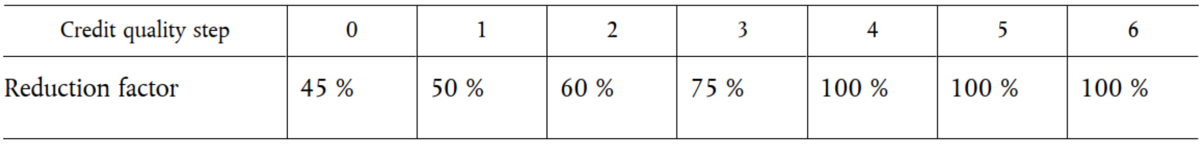
A.312 As the fundamental spread in valuation, one further reference point for supervisory challenge of the appropriateness of the choice of the RC is the capital charge for the matching adjustment under the spread stress in Article 181 of the Delegated Regulation. One could argue that the RC should be higher than stress defined there, as the use of MA is associated with requirements more stringent than for VA users:

- VA does not require cash-flow matching, so firms that use VA are exposed to timing mismatches and the risk of losses arising from having to sell in stressed circumstances
- VA does not require a buy-to-hold philosophy, exposing VA firms to reinvestment risk[404]
- VA can be used on portfolios which generate future premiums, again introducing reinvestment risk
- Mortality and lapse risks can apply to business with VA, generating potential liquidity costs that do not apply to the MA.
- Partially offsetting this, MA firms are subject to the risk of the cost of rebalancing in stress – this does not apply to VA firms.

A.313 On the other hand, the current concept of the matching adjustment provides a stronger mitigation than the VA does; i.e. the MA compensates losses due to credit spread changes to a larger extent than the VA does, except in cases for undertakings where overshooting issues are identified.

[404] Option 4 intends to correct the VA for this reinvestment risk; conceptual the VA is applied to the liabilities to the extent of the lifetime, i.e. duration, of the assets.

A.314 Nevertheless, the FS, including the FS in stress, can be used as a validation test on the risk correction. The following table compares the proposal from above with the reduction factors in Article 181 of the Delegated Regulation:



Credit quality step	0	1	2	3	4	5	6
Reduction factor	45 %	50 %	60 %	75 %	100 %	100 %	100 %

A.315 These factors could be interpreted as that part of the spread increase under stress that is passed through to the FS and thus is not compensated for in the MA under stress.

A.316 The following table provides an overview about the proposals discussed. The first column presents a proposal starting for AA-bonds from the 35% factor in the current risk correction as a kind of 'base case'. The second column shows a calibration under the key word 'stressed' as being chosen with the ambition to be (with exception of AAA) a bit more prudent than the reduction factors of Article 181 of the Delegated Regulation which are in the context of stress for the MA. The last two columns indicate two calibrations from liquidity premium data, when looking for means from pre- and post-crisis and across. The column 'RC from LP diff.' lies between and introduces a stronger differentiation between rating categories, also considering that the LP showed some low values and to consider model uncertainty:

Rating	**CQS**	**Proposals discussed for RC for Corporates**					
		Base	**stressed**	**Art. 181**	**RC from LP diff.**	**RC from LP higher mean**	**RC from LP lower mean**
AAA	0	30%	40%	45%	70%	70%	80%
AA	1	35%	55%	50%	75%	70%	80%
A	2	40%	65%	60%	80%	70%	80%
BBB	3	50%	75%	75%	85%	80%	85%
Non-inv.	4+	60%	95%	100%	95%	90%	95%

A.317 A further challenge regards the impact on risk ranking, i.e. the question whether the remaining risk corrected spread from weaker CQS could lead to a compensation high enough to diminish the differences or even to inverse positions under stress[405].

A.318 To explore this, one aspect to be considered is the relative distance between mitigation of spread shocks across rating categories / CQS.

A.319 One proposal brought forward in that context was the following example for colour criteria:

🟩 VA benefit (after RC offset) does not increase for 1 step higher CQS

⬜ VA benefit (after RC offset) increases but only marginally (<10%)

🟨 VA benefit (after RC offset) increases modestly with 1 step higher CQS (>10% but < 25%)

🟧 VA benefit (after RC offset) increases significantly with 1 step higher CQS (>25%)

A.320 To evaluate the potential impact of calibrations, Merill-Lynch indices for corporate bonds (all maturities, see index names below) were extracted from Bloomberg for years 1998 – 2017, with spread compared to swaps[406].

A.321 The spread changes before applying a risk correction are:

Quantile / index, rating	**ER10**	**ER20**	**ER30**	**ER40**	**HE10**	**HE20**	**HE30**
	AAA	**AA**	**A**	**BBB**	**BB**	**B**	**CCC & lower**
0,995	1,19%	1,49%	2,24%	3,21%	6,88%	10,32%	17,86%
0,99	1,12%	1,42%	2,19%	3,09%	6,58%	9,81%	16,10%
0,98	1,01%	1,22%	1,85%	2,74%	4,77%	6,76%	11,96%

A.322 The following proposals of CQS-dependent RC calibrations were challenged regarding the resulting remaining spread shocks along the criteria described above:

[405] I.e. in terms of VA impact on the own funds the compensation could high enough to offset the increase in SCR that would result by investing a larger part of the portfolio in lower-rated assets. Or the 'distance' of such risk positions could become very narrow. In a simplified example, suppose impact of increasing credit quality step by one or three steps would increase the SCR by 10 or 100 under one calibration of the RC or by 8 vs. 10 under another calibration.

[406] Please note that the data basis is across all maturities and monthly, with no correction for autocorrelation. Please also note, that this data base of course is also only one and there could be others.

Base case:

Quantile / RC	AAA	AA	A	BBB	BB	B	CCC & lower
	30%	35%	40%	50%	60%	60%	60%
0,995	0,84%	0,97%	1,35%	1,61%	2,75%	4,13%	7,14%
0,99	0,79%	0,92%	1,31%	1,55%	2,63%	3,92%	6,44%
0,98	0,71%	0,80%	1,11%	1,37%	1,91%	2,70%	4,78%

Stressed:

Quantile / RC	AAA	AA	A	BBB	BB	B	CCC & lower
	40%	55%	65%	75%	95%	95%	95%
0,995	0,72%	0,67%	0,79%	0,80%	0,34%	0,52%	0,89%
0,99	0,67%	0,64%	0,77%	0,77%	0,33%	0,49%	0,80%
0,98	0,61%	0,55%	0,65%	0,68%	0,24%	0,34%	0,60%

Art. 181:

Quantile / RC	AAA	AA	A	BBB	BB	B	CCC & lower
	45%	50%	60%	75%	100%	100%	100%
0,995	0,66%	0,74%	0,90%	0,80%	0,00%	0,00%	0,00%
0,99	0,62%	0,71%	0,88%	0,77%	0,00%	0,00%	0,00%
0,98	0,56%	0,61%	0,74%	0,68%	0,00%	0,00%	0,00%

LP diff.:

Quantile / RC	AAA	AA	A	BBB	BB	B	CCC & lower
	70%	75%	80%	85%	95%	95%	95%
0,995	0,36%	0,37%	0,45%	0,48%	0,34%	0,52%	0,89%
0,99	0,34%	0,36%	0,44%	0,46%	0,33%	0,49%	0,80%

0,98	0,30%	0,31%	0,37%	0,41%	0,24%	0,34%	0,60%

LP higher mean:

Quantile / RC	AAA	AA	A	BBB	BB	B	CCC & lower
	70%	70%	70%	80%	90%	90%	90%
0,995	0,36%	0,45%	0,67%	0,64%	0,69%	1,03%	1,79%
0,99	0,34%	0,43%	0,66%	0,62%	0,66%	0,98%	1,61%
0,98	0,30%	0,37%	0,55%	0,55%	0,48%	0,68%	1,20%

LP lower mean:

Quantile / RC	AAA	AA	A	BBB	BB	B	CCC & lower
	80%	80%	80%	85%	95%	95%	95%
0,995	0,24%	0,30%	0,45%	0,48%	0,34%	0,52%	0,89%
0,99	0,22%	0,28%	0,44%	0,46%	0,33%	0,49%	0,80%
0,98	0,20%	0,24%	0,37%	0,41%	0,24%	0,34%	0,60%

A.323 The risk ranking considerations suggest to consider to have a separate risk correction for AAA bonds and have a stronger one for non-investment-grade than for investment-grade.

Further criteria

A.324 In setting the differences, the impact on risk ranking but also aspects of pro-cyclicality should be considered. Regarding the latter, especially if ratings decrease and risk correction is extremely pronounced, sales could be forced unintendedly in times of crisis, in which material parts of a sector would deteriorate in ratings. The choice would have to reflect that on the one hand a LP could be quite low[407] and on the other hand, that not only the VA but primarily the SCR itself introduces a risk ranking.

[407] Please note that the LP can be very low also in times of low spreads, i.e. a low LP and high risk correction is not necessarily associated with extremely high spreads.

A.325 Finally, in the calibration of a uniform risk correction the asset structure of insurers could be reflected.

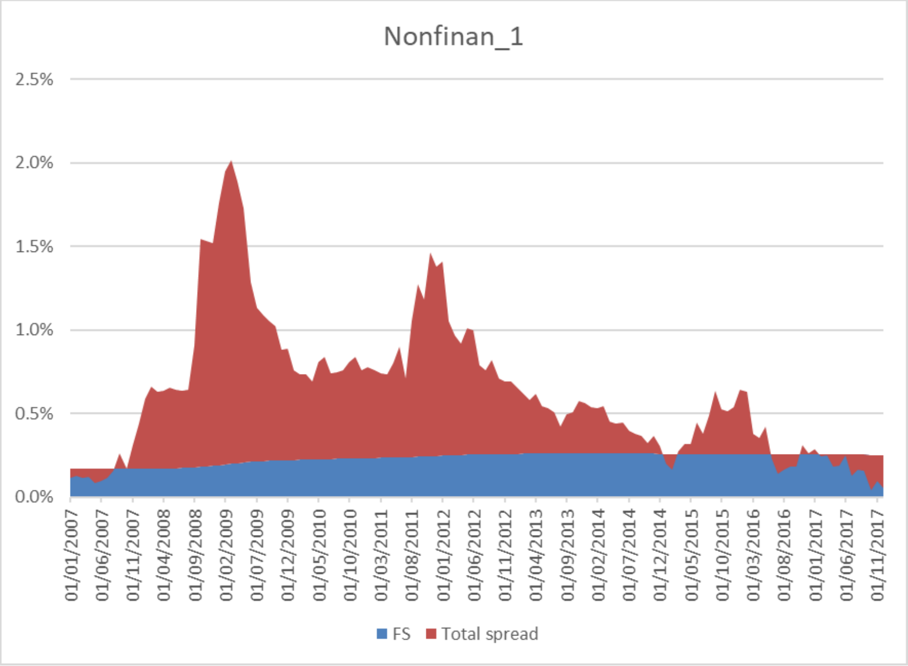
Conclusions

A.326 In case where a single average risk correction factor for corporate bonds is chosen, a risk correction of at least 50% seems required. As outlined on the analysis presented above, a factor of 50% would on a long-term average cover default, i.e. expected losses, but not yet unexpected losses, and should therefore be seen as a lower bound. The research on the LP also suggests a risk correction factor for corporate bonds of at least 50-70%.

A.327 Where no differentiation would be performed at all and a single factor RC% would be estimated for both corporate and government bonds, this could be derived on the basis of the composition of the currency representative portfolio.

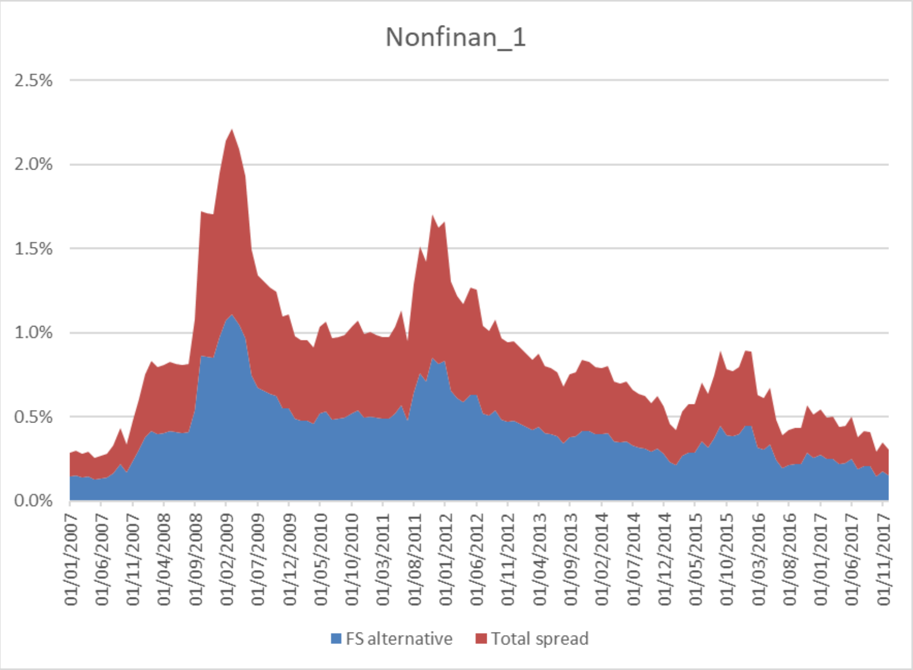
A.328 The following graphs illustrates the difference between the current determination of the risk correction compared to the suggested approach for a particular corporate bond category (with RC% set to 50%, euro non-financial corporate bond with credit quality step 1). Note that all options and both approaches considered thereafter are based on this suggested approach of the risk correction.

Current risk correction



Source: IHS Markit

Risk correction = 50% * spread



Source: IHS Markit

Pros and cons

Pros	Cons
Risk correction includes both EL and UEL.	Effectiveness of VA in its function to mitigate own funds volatility is reduced.
Simplification of the calculation compared to FS.	
Reflection of current level of risk – improves market consistency.	

Option 7 – Amend the trigger and the calculation of country-specific increase of the VA

Description

A.329 To address the cliff effect of the current country-specific VA as well as the observation that the activation mechanism does not work as expected (deficiency 3 as described above), changes to the functioning of the VA country component are suggested. This is intended to address the request of the Commission included in the call for advice.

A.330 Maintaining the current function of the country VA as a crisis tool, the changes aim at achieving:

1) a smooth activation mechanism, with the objective of mitigating the cliff effect;

2) a prompt activation in cases of country market distress, with the objective of mitigating the volatility of undertakings' own funds and excessive undershooting.

A.331 This proposal maintains the current approach of an absolute and a relative trigger for the activation of the VA country component, but they are relaxed in order to achieve the above objectives.

A.332 The formula for the country component (which is added to the currency component) is the following:

$Country\ add-on = GAR \cdot \omega_{country,c} \cdot max(SRC_{country} - R \cdot SRC_{currency}; 0)$ where:

where

- GAR is the general application ratio
- $\omega_{country,c}$ is a correction of the risk corrected country spread applicable in a given country for currency c. It depends on the absolute level of the country risk corrected spread $SRC_{country}$ and is designed to ensure a gradual and smooth activation of the country component, mitigating the cliff effect. This component would assume a value equal to 0 when $SRC_{country}$ lies below a lower threshold $SRC^{L}_{country}$, a value equal to 1 when it lies above a higher threshold $SRC^{H}_{country}$, and a value increasing linearly between 0 and 1 when it lies between these mentioned thresholds, according to the following formula:

$$\omega = \begin{cases} 0 & if\ SRC_{country} \leq\ SRC^{L}_{country} \\ \dfrac{SRC_{country} - SRC^{L}_{country}}{SRC^{H}_{country} - SRC^{L}_{country}} & if\ SRC^{L}_{country} < SRC_{country} \leq SRC^{H}_{country} \\ 1 & if\ SRC_{country} >\ SRC^{H}_{country} \end{cases}$$

$SRC^{L}_{country}$ and $SRC^{H}_{country}$ have been calibrated on the basis of historical data as 60 bps and 90 bps respectively. These values ensure that the country specific increase does not activate at absolute low levels of spreads and avoid an excessively frequent activation.

For a currency *c* different from the currency relevant for the country, ω would be 0.

- *R* is a relative threshold calibrated as to ensure that national specific crises are properly recognized. It has been calibrated on the basis of historical data as 1.3[408]: this value allows to capture all past national specific crisis.

A.333 Thus, the triggers of the country specific increase in this proposal are the following:

- $SRC_{country} > 1{,}3 \cdot SRC_{currency}$
- $SRC_{country} > 60\ bps$

A.334 Parameters have been calibrated on the basis of the analysis of past national spread data. The following methodology has been used:

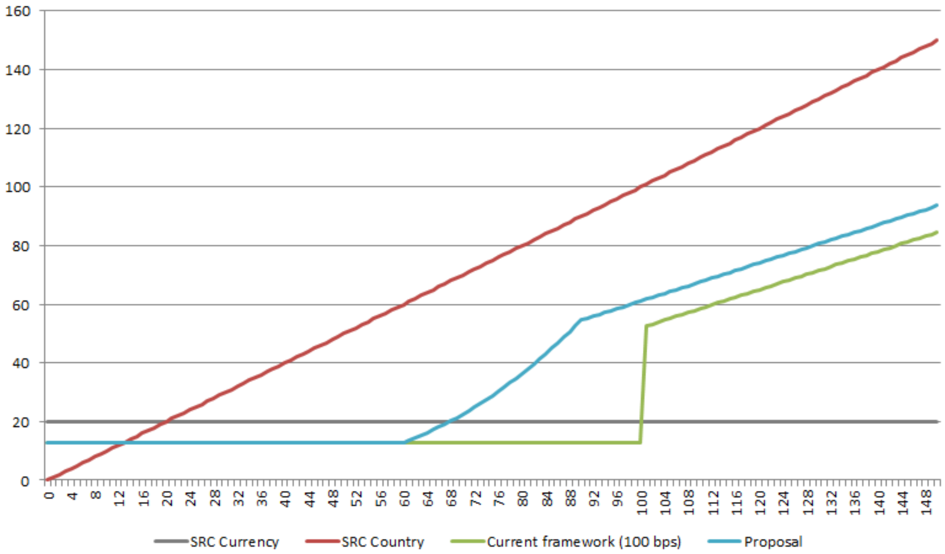
1) heuristic identification of national specific crises in the period 2007-19;
2) setting of the parameters such that most of the identified crises were captured.

A.335 The proposed approach mitigates the cliff effect, as illustrated in the graph below, which shows the impact of the current country VA and the proposed country add-on: on the x-axis and on the y-axis are reported the values of the risk corrected country spread and the value of the total VA, respectively. The red line shows the risk corrected country spread, whereas the grey line shows the risk corrected currency spread, assumed to be constant in this illustration. According to the proposal (blue line) the VA country add-on activates gradually. This is in contrast with the current framework: in this case, the VA remains constant until the 100 (85) bps threshold is reached as it is shown by the green (dashed orange) line: at this point a large jump is observed, driven by the sudden activation of the country component.

[408] The parameters of this proposal have been calibrated following an empirical approach: well known crises occurred in the period 2007-2019 have been identified and parameters have been set such that the country component would activate in those situations.

Increases in the risk-corrected spread between the lower and upper thresholds of 60 and 90 basis points imply a quadratic increase in the country VA.

Risk corrected spreads under current regulation and proposal (cliff effect and its mitigation)



A.336 In this way efficiency in the risk management process is improved, by eliminating non-linearity and uncertainty in the liabilities evaluation, which is a drawback of the current framework.

A.337 Concerning the functioning of the activation mechanism, the table below shows that the proposed approach triggers more often than the current framework (in the two variants with the absolute trigger at 100 bps and 85 bps respectively[409]). This can be seen as an improvement with respect to the present situation, in which the country component is allowed to activate only in very extreme situations (i.e. Greek crisis and sovereign bond crisis). The proposed solution is more reactive to temporary crises which lead to a sharp widening of spreads among countries in the euro area. In this way it is more effective in mitigating artificial volatility of own funds.

Frequency of activation (all 146 months in the period Jan 07 – Feb 19)

(in brackets the average impact in bps)

	AT	BE	DE	ES	FI	FR	GR	IE	IT	NL	PT	SI	SK
Current framework 100 bps threshold	-	-	-	20 (17)	-	-	77 (64)	-	6 (23)	-	35 (59)	-	-

[409] As it will be amended by ESA review.

Current framework 85 bps threshold	-	-	-	21 (17)	-	-	78 (64)	-	10 (23)	-	35 (59)	-	-
Proposal	-	-	-	54 (30)	-	-	87 (87)	-	44 (30)	-	46 (87)	11 (7)	4 (10)

Frequency of activation (only the 48 quarterly relevant dates – Mar, Jun, Sep, Dec - in the period 2007-18)

(in brackets the average impact in bps)

	AT	BE	DE	ES	FI	FR	GR	IE	IT	NL	PT	SI	SK
Current framework 100 bps threshold	-	-	-	6 (17)	-	-	26 (63)	-	1 (8)	-	12 (51)	-	-
Current framework 85 bps threshold	-	-	-	6 (17)	-	-	26 (63)	-	3 (20)	-	12 (51)	-	-
Proposal	-	-	-	19 (27)	-	-	29 (88)	-	15 (27)	-	14 (91)	4 (8)	2 (5)

A.338 The present proposal provides an adjustment on average higher than the current framework. The difference depends on the value of the RC currency spread: the higher the RC currency spread, the higher the value of the adjustment provided.

Combinations

A.339 When combined with Option 4, a modification of the formula for the country-specific increase is necessary, in order to take into account the rescaling of the risk corrected spread. The formula would change as follows:

$$Country\ add - on = GAR \cdot \omega_j \ \cdot max\left(SRC_j * Scale_j - 1.3 * SRC_c * Scale_c; 0\right)$$

where j is the country in which the undertaking is located, $Scale_j$ is the scaling factor for the country j representative portfolio and $Scale_c$ is the scaling factor for the relevant currency.

Implications for the SCR standard formula calculation

A.340 No change to the SCR standard formula calculation is required. The SCR would be calculated without any VA, consistently with the currency component.

Pros and cons

Pros	**Cons**
Avoid artificial volatility of eligible own funds in countries experiencing a national specific crisis, limiting pro-cyclicality.	Where periods of high spreads persist, undertakings keep on holding the assets, rebalancing to less risky assets is not incentivised.
Mitigate cliff effects for undertakings located in countries experiencing a crisis: this way it would improve efficiency in the risk management process, eliminating non-linearity and uncertainty in the liabilities evaluation embedded in the current framework.	Could fail to discourage exposure concentrations.
Mitigate undershooting effects for undertakings located in countries experiencing a crisis: the level of the technical provisions is more consistent with the asset side of the balance sheet, consistently with undertakings' ALM practices.	

Option 8 – Clearer split of the VA between its function as a crisis and a permanent tool

Description

A.341 Different objectives might be assigned to the volatility adjustment, as set out at the beginning of section 2.4.5.1. Option 8 foresees a clearer split of the VA, in accordance with those objectives, in two components. This allows to design the components in line with their respective objectives and thereby to improve the effectiveness and efficiency of the VA. It is suggested to split the VA in the following components:

(1) A **permanent VA** reflecting the long-term illiquid nature of insurance cash flows and its implications on undertaking's investments decisions.

(2) A **macro-economic VA** that would only exist when spreads are wide, in particular during crises that affect the bond markets. The macro-economic VA would mitigate the effect of temporary exaggerations of bond spreads, thereby contributing to avoid pro-cyclical investments by undertakings.

A.342 Note that, under the current regulation, the VA already foresees a permanent currency VA, with a country-specific add-on that is triggered under certain conditions. Applied to the current VA, option 8 would lead to a replacement of the country-specific add-on by a macro-economic VA. This is also intended to address the request of the Commission included in the call for advice.

Calculation

A.343 EIOPA considers two methods to derive the macro-economic VA; the first method is based on the extent by which the risk-corrected country spread exceeds its average and the second method is based on the extent by which the total country spread exceeds its average.

Method 1: calculation based on risk-corrected country spreads

A.344 This macro-economic VA would be triggered where the current level of bond spreads in national markets exceed their average by a certain amount (corridor). The macro-economic VA $VA_{i,c}^{macro}$ would be determined as follows:

$$VA_{i,c}^{macro} = GAR \cdot AR_{i,c}^{macro} \cdot \max\left\{RCS_{JUR_i} - \overline{RCS_{JUR_i}}^{n} - corridor; 0\right\}$$

where

- $AR_{i,c}^{macro}$ is an application ratio for the liabilities of undertaking *i* in currency *c*,
- RCS_{JUR_i} is the risk-corrected country spread for the jurisdiction of undertaking *i*,

- $\overline{RCS_{JUR_\iota}}^n$ is the average risk-corrected spread over the past *n* months for the jurisdiction of undertaking *i*, e.g. 36 months,
- $corridor$ is the corridor by which the risk-corrected country should exceed its average before the macro-economic VA is activated, e.g. 50 basis points.

A.345 Under this method, the VA applied is the sum of the permanent and the macro-economic VA:

$$VA_{i,c}^{Option\,8} = VA_{i,c}^{perm} + VA_{i,c}^{macro}$$

where

- $VA_{i,c}^{perm}$ is the permanent VA
- $VA_{i,c}^{macro}$ is the macro-economic VA as defined above

A.346 Note that $VA_{i,c}^{perm}$ is generally of the form

$$VA_{i,c}^{perm} = GAR \cdot AR_{i,c}^{perm} \cdot (S_c - RC_c)$$

where

- GAR is the general application ratio
- $AR_{i,c}^{PERM}$ is the application ratio for the permanent VA applicable for undertaking *i* and currency *c*
- S_c is the spread which is applicable for currency *c* under the permanent VA
- RC_c is the risk correction of spread S which is applicable for currency *c* under the permanent VA

A.347 The application ratio

$$AR_{i,c}^{macro}$$

should be set to avoid any double-counting between the macro-economic VA and the permanent VA. This could be achieved, for example, by ensuring that the macro-economic VA and the permanent VA relate to different parts of the spread, e.g. the permanent VA could reflect the illiquidity premium component of the spread and the macro-economic VA the remaining share of the spread (after risk correction and illiquidity premium are deducted).

A.348 We note that the permanent VA, as described above, targets the spread

$$GAR \cdot AR_{i,c}^{perm} \cdot (S_c - RC_c)$$

A.349 The macro-economic VA could then be designed to target the part of the risk corrected spread not yet reflected in the permanent VA, i.e.

$$GAR \cdot (1 - AR_{i,c}^{perm}) \cdot (S_c - RC_c),$$

such that the total VA would target the total risk corrected spread

$$GAR \cdot AR_{i,c}^{PERM} \cdot (S_c - RC_c) + GAR \cdot (1 - AR_{i,c}^{PERM}) \cdot (S_c - RC_c) = GAR \cdot (S_c - RC_c)$$

A.350 The application ratio for the macro-economic VA would then be determined as

$$AR_{i,c}^{macro} = 1 - AR_{i,c}^{perm}$$

A.351 Note that where the alternative of option 5 is chosen, $\mathrm{AR}_{\mathrm{i,c}}^{\mathrm{macro}}$ can also become an undertaking independent parameter AR_c^{macro}*.* As the alternative of option 5 assumes that $factor_{IL}$ denotes the spread that can be allocated to illiquidity, the residual can be allocated to the macro-economic VA.

A.352 We note that the permanent VA in this alternative targets the spread

$$GAR \times S_c \times factor_{IL}$$

A.353 The application ratio for the macro-economic VA would then be determined as

$$AR_c^{macro} = 1 - factor_{IL} - \frac{RCS_{JUR}}{S_{JUR}}$$

where the last term $\frac{RCS_{JUR}}{S_{JUR}}$ reflects the share of the country spread for the respective jurisdiction that is due to the risk- correction.

A.354 Note that, under this method, the lower the application ratio in the permanent VA, and thus the smaller the permanent VA itself, the larger the macro-economic VA becomes to reflect the total spread change. This would ensure that the spread captured by the macro-economic VA does not overlap with the spread captured by the permanent VA.

Method 2: calculation based on whole country spread

A.355 Another way to determine and trigger the macro VA would be to derive it from the whole spread instead of the risk-corrected spread:

$$VA_{i,c}^{macro} = GAR \cdot AR_{i,c}^{macro} \cdot \max\{S_{JUR_i} - \overline{S_{JUR_\iota}}^{n} - corridor; 0\}$$

where

- $AR_{i,c}^{macro}$ is an application ratio for the liabilities of undertaking *i* in currency *c*,
- S_{JUR_i} is the country spread for the jurisdiction of undertaking *i*,
- $\overline{S_{JUR_\iota}}^{n}$ is the average spread over the past *n* months for the jurisdiction of undertaking *i*, e.g. 36 months,

- $corridor$ is the corridor by which the risk-corrected country should exceed its average before the macro-economic VA is activated, e.g. 50 basis points

A.356 Under this method, the total VA applied is given by the formula:

$$VA_{i,c}^{Option\,8} = \begin{cases} \max(VA_{i,c}^{perm}; VA_{i,c}^{macro}) & in\ case\ VA_{i,c}^{macro}\ is\ triggered \\ VA_{i,c}^{perm} & else \end{cases}$$

A.357 Note that, under this method, the macro-economic VA mitigates all spread movements above a certain level. It is no longer required to decompose the spread into its components and the calculation of a risk correction would then become obsolete.

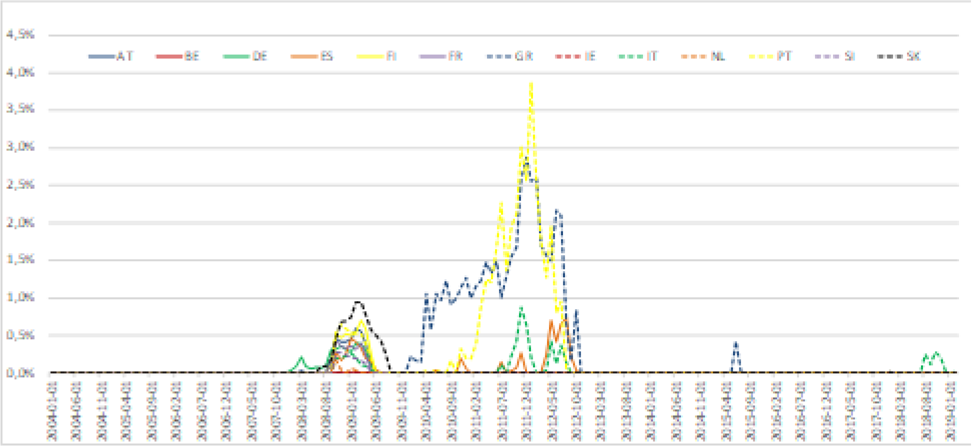
A.358 Double counting with the permanent VA is avoided by using a maximum formula to combine the effects of the macro-economic and permanent VA. The application ratio $AR_{i,c}^{macro}$ could then be set to 1, or could be set equal to the application ratio of the permanent VA (where applicable). Overall, the application ratio $AR_{i,c}^{macro}$ should be chosen carefully to avoid potential overshooting effects.

Impact

A.359 The following table sets out the number of activations of the macro-economic VA for the time period January 2007 – February 2019:

AT	BE	DE	ES	FI	FR	GR	IE[410]	IT	NL	PT	SI	SK
13	1	18	25	10	10	36	1	26	5	34	9	15

A.360 The following graphs shows the evolution of the macro-economic VA over time:



A.361 This shows that, with a parametrization as above, the macro-economic VA is mainly triggered during the financial crises (where it is triggered for most markets) and during the sovereign debt crises (where it is triggered for those

[410] Please note that the representative portfolio for Ireland has a low exposure to Irish government bonds.

markets where government bond spreads increased). The figure also shows a triggering of the macro-economic VA in two further sovereign exposure related cases (for Greece in 2015 and for Italy in 2018).

A.362 As expected and could be seen from historical backtesting, in times of spread turbulences the country spreads heavily depart from their long-term average. The choice of the corridor is therefore not that decisive for the activation of the macroeconomic tool but only for the size of the macroeconomic VA. In view of that it is suggested to choose a small corridor of 20bps, not limiting effectiveness of the tool in times of crisis but avoiding activation where spreads fluctuate around the long-term average.

Undertaking specific whole spread

A.363 It could also be considered to base the macro VA on the undertaking-specific asset allocation (see option 1) because the concerns about the investment incentives of that approach are less relevant when only applicable on a temporary basis in crisis situations. This would also solve potential issues if an undertaking’s fixed income allocation deviates from the country’s allocation to fixed income. Under such combination with option 1, the formulas given above could be implemented on an undertaking-specific level: The macro-economic VA would then be triggered, where the undertaking-specific VA would exhibit a certain level above the average country spread. Such an implementation would however have three downsides. Firstly, the triggering of the macro VA would be undertaking-specific. This may not be in line with the macroprudential objective of the component and would decrease the transparency of the application of the macro-economic VA. Secondly, a comparison of undertaking-specific spreads with average country spreads may set undertakings with riskier spread investments at an advantage. Thirdly the use of undertaking-specific spreads complicates the calculations.

Phasing out

A.364 One of the features of the macro-economic VA is that it phases out when the spread widening persists for a longer period. This ensures that also in a crisis situation an incentive exists to slowly disinvest from assets that are too risky. The phasing-out period should be long enough to provide sufficient time to undertakings to cope with the impact of a crisis situation and not to be forced to sell assets and subsequently put further pressure on asset prices. A period of 5 years seems sensible to ensure that.

A.365 In contrast, the current VA design as well as option 7 might give rise to an almost permanent country-specific increase when spreads of a country are wide and significantly higher than currency spreads on a permanent basis.

Application

A.366 The macro-economic VA could be applied in the same manner as the current volatility adjustment, i.e. as an adjustment to the interest rate term structure. However, given the aim of such a macro-economic VA to act in cases of extreme spread increases, and to mitigate pro-cyclical investment behaviour that could be triggered by a depreciation of asset values in such a situation, it could also be applied directly on the asset side (cf. option 3). In this case, a combination with option 4 becomes superfluous. The permanent VA would then still be applied to the liabilities.

Implications for the SCR standard formula calculation

A.367 The macro-economic VA should not be anticipated in the SCR, neither in the standard formula nor in internal models. Hence no change in the standard formula calculation of the SCR would be required. But the introduction of a macro-economic VA would have consequences for the application of the dynamic VA in internal models. The dynamic VA should only be based on the permanent VA, but not anticipate the macro-economic VA in order to provide appropriate investment incentives. Anticipating crisis measures would counteract building resilience against such crisis situations and care for extreme events in the SCR.

Pros and cons

Pros	Cons
Temporary mitigation of spread exaggerations on national bond markets. Time period of the average can be calibrated so as to ensure that the tool is a temporary one (e.g. where a high level of spread persists, the average increases leading to a situation where the crisis VA will phase out). Thereby, limiting procyclicality but at the same time setting incentives to take early action.	Specific considerations necessary to avoid double counting where the macro-economic VA is combined with a permanent VA (but application ratio AR and design of the formula have been chosen to ensure this).
Activation mechanism is smooth and avoids cliff effects. At the same time, sharp increases of spreads are directly reflected in the crisis VA. This ensures an efficient functioning of the tool in crisis situations.	The temporary nature of this tool would limit pro-cyclicality only up to its deactivation. Thus, in comparison to the current framework the ability to limit pro-cyclicality is reduced. It is not clear however, whether a spread movement can still have pro-cyclical effects 3 years later.
Focus on country spreads only (decoupled from currency VA) mitigates undershooting effects for undertakings located in countries experiencing a credit spread crisis.	Under- or overshooting issues due to deviations from country reference portfolio may persist if not addressed with an undertaking and/or liability specific application ratio.

Allows distinguishing the underlying objectives of the VA, thereby simplifying Solvency II and increasing transparency. Simplifications and transparency could be further enhanced by moving the crisis tool outside of the technical provision (e.g. as a buffer on the asset side or in the own funds).	

Annex 2.10 - Further technical specifications for the calculation of option 1

A.368 For each currency, undertaking should identify a portfolio of its investments backing the (re)insurance liabilities denominated in that currency. Each investment should only be allocated to one portfolio, there may be investments which are not allocated to any portfolio.

- Assets backing unit-linked/separate account liabilities valued as a whole should be excluded;
- Assets rated below investment grade (i.e. CQS 4 and below) should be assigned to the weight of the CQS 3 portfolio (which in practice means that the spread generated by such assets is capped at the level of CQS 3 assets);

Choice of eligible assets

A.369 The undertaking should identify the eligible assets in the portfolio according to the table below:

CIC Category	CIC Sub-category	YES/NO
1 - Government bonds	11 - Central Government bonds	YES
	12 - Supra-national bonds	YES
	13 - Regional government bonds *	YES *
	14 - Municipal government bonds *	YES *
	15 - Treasury bonds	YES
	16 - Covered bonds	YES
	17 - National Central banks	YES
	19 - Other	YES
2 - Corporate bonds	21 - Corporate bonds	YES
	22 - Convertible bonds	YES
	23 - Commercial paper	YES
	24 - Money market instruments	YES
	25 - Hybrid bonds	YES
	26 - Common covered bonds	YES
	27 - Covered bonds subject to specific law	YES
	28 - Subordinated bonds	YES
	29 - Other	YES
3 - Equity	31 - Common equity	NO
	32 - Equity of real estate related corporation	NO
	33 - Equity rights	NO
	34 - Preferred equity	NO
	39 - Other	NO
	41 - Equity funds	See note (1)
	42 - Debt funds (1)	

4 - Investment funds Collective Investment Undertakings (1)	43 - Money market funds	below the table
	44 - Asset allocation funds	
	45 - Real estate funds	
	46 - Alternative funds	
	47 - Private equity funds	
	48 - Infrastructure funds (2)	
	49 - Other	
5 - Structured notes	51 - Equity risk	NO
	52 - Interest rate risk	NO
	53 - Currency risk	NO
	54 - Credit risk	NO
	55 - Real estate risk	NO
	56 - Commodity risk	NO
	57 - Catastrophe and Weather risk	NO
	58 - Mortality risk	NO
	59 - Other	NO
6 - Collateralised securities	61 - Equity risk	NO
	62 - Interest rate risk	NO
	63 - Currency risk	NO
	64 - Credit risk	NO
	65 - Real estate risk	NO
	66 - Commodity risk	NO
	67 - Catastrophe and Weather risk	NO
	68 - Mortality risk	NO
	69 - Other	NO
7 - Cash and deposits	71 - Cash	NO
	72 - Transferable deposits (cash equivalents)	NO
	73 - Other deposits short term (less than or equal to one year)	NO
	74 - Other deposits with term longer than one year	NO
	75 - Deposits to cedants	NO
	79 - Other	NO
8 - Mortgages and loans	81 - Uncollateralized loans made	YES
	82 - Loans made collateralized with securities	YES
	84 - Mortgages	YES
	85 - Other collateralized loans made	YES
	86 - Loans on policies	YES
	89 - Other	YES
9 - Property	91 - Property (office and commercial)	NO
	92 - Property (residential)	NO
	93 - Property (for own use)	NO
	94 - Property (under construction)	NO
	95 - Plant and equipment (for own use)	NO

	99 - Other	NO
0 - Other investments		NO

* The CIC codes 13 and 14 were used to identify bonds issued by Regional government and local authorities (RGLA). RGLA should be allocated to government portfolio if they are listed in the Commission Implementing Regulation (EU) 2015/2011 (https://eur-lex.europa.eu/eli/reg_impl/2015/2011/oj) and otherwise to non-financial corporate portfolio according to their credit quality step.

(1) For investment funds look through should be performed and eligible assets within should be identified. When no look through is possible, the whole investment fund should be considered as NOT eligible, except for CIC 42, where in case no look-through is possible should be allocated in total to other corporate investments.
(2) Only debt infrastructure instruments would be eligible.

Treatment of unrated bonds

A.370 For bonds and loans for which a credit assessment by a nominated ECAI is not available,

2. *Alternative a)* the same approach as referred to in the revised Delegated Regulation for the purposes of SCR calculation according to the standard formula should be followed i.e. assignment to credit quality steps 2 or 3 of on the basis of the insurance or reinsurance undertaking's own internal credit assessment.
3. *Alternative b)* are assigned to credit quality step 0, typically the least attractive category. For the SCR calculations, the current approach as referred to in the revised Delegated Regulation for the purposes of SCR calculation according to the standard formula remains to be followed i.e. assignment to credit quality steps 2 or 3 of on the basis of the insurance or reinsurance undertaking's own internal credit assessment.
4. *Alternative c) are excluded from the allocation to credit quality steps (CQS) by distributing the respective share across the seven CQS of both the "financial" and "nonfinancial" asset category*[411]

Treatment of special types of bonds

A.371 Perpetual bonds are capped to the maximum maturity bucket for its currency and rating. Callable bonds, are considered eligible for the maturity according to the definitions for inclusions of the Markit and Bloomberg indices used.

[411] For the Danish krone (DKK) representative portfolio, unrated assets were distributed to CQS0-6 within the financial/non-financial category they are reported to belong to. The distribution is in accordance with the weights of assigned assets found for each CQS within that category.

Allowance for currency hedges

A.372 In principle, it would be possible to also allow investments denominated in a different currency, in case the currency risk is fully hedged. This would however require that the hedge applies to the full life-time of the investment, and further specifications on the type of hedges admissible for this purpose would need to be set. This would however require undertakings to assign specific investments of another currency to match the liabilities of a specific currency. The currency hedge should also match the whole term of the respective bond. This is considered to be too complex.

Annex 2.11 - Calibration of the risk correction for corporate bonds under Option 1

A.373 In order to calibrate the risk corrections (RC) differentiated by CQS for option 1, EIOPA considers that the average VA resulting from this option should be the same as the VA resulting from a fixed RC applied across all credit quality classes as envisaged in option 6.

A.374 For this purpose, we assume an undertaking which is fully invested in a corporate bond portfolio with weights and durations as in the representative portfolio for the euro currency. Moreover, a fixed RC equal to 50% is assumed (as proposed in Option 6). We use the current EIOPA representative portfolio for Euro (March 2019) and spreads computed on the basis of iBoxx indices as of 31 December 2018.

A.375 With these assumptions, the portfolio used for the calibration has the following weights and durations:

Table 1: portfolio used for calibration

	Fin 0	**Fin 1**	**Fin 2**	**Fin 3**	**Fin 4**	**Nonf in0**	**Nonf in1**	**Nonf in2**	**Nonf in3**	**Nonf in4**
Weight	18%	12%	22%	12%	1%	4%	7%	10%	13%	1%
Duratio n	7,2	7,0	5,2	5,3	3,6	8,5	8,0	6,3	5,2	3,9

A.376 It is further assumed that there is a difference of 10% between the risk corrections of any two ascending credit quality classes. Under these assumptions, for any given fixed RC ɑ there is a unique choice of risk corrections $ɑ_i$ (where 0 ≤ i ≤ 3) such that an application of the risk corrections $ɑ_i$ yield a VA equal to the case in which the fixed RC ɑ is used. For ɑ = 50%, these percentages are **28.06%** for CQS 0, **38.06%** for CQS 1, **48.06%** for CQS 2 and **58.06%** for CQS 3. These percentages would yield a VA equal to 52 bps, as in the case of a 50% fixed RC.[412]

A.377 On this basis, the following calibration is proposed:

CQS 0	**30,00%**
CQS 1	**40,00%**
CQS 2	**50,00%**
CQS 3	**60,00%**

A.378 This calibration would yield a VA of 50 bps, just 2 bps lower than the VA that would result assuming a 50% fixed RC, as it is shown in the table below.

[412] Note that, according to the description of option 1, for investments in sub-investment grade bonds a spread equal to CQS 3 bonds has been applied.

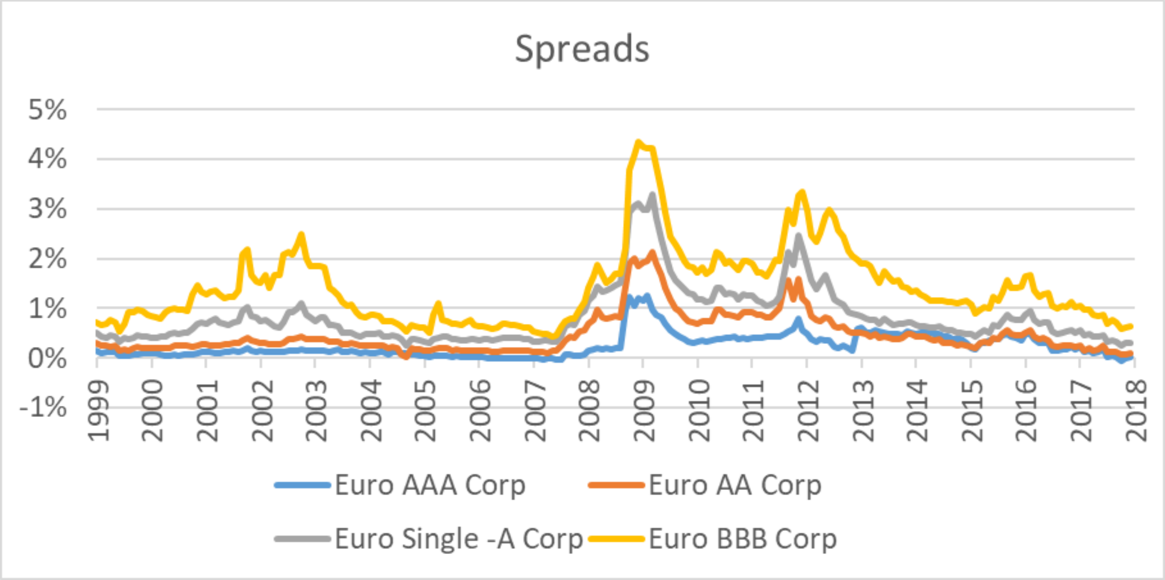
Table 2: VA resulting in the two settings

	Fin 0	Fin 1	Fin 2	Fin 3	Fin 4	Nonfin0	Nonfin1	Nonfin2	Nonfin3	Nonfin4	VA
Weight	18%	12%	22%	12%	1%	4%	7%	10%	13%	1%	
Duration	7,2	7,0	5,2	5,3	3,6	8,5	8,0	6,3	5,2	3,9	
Spread	0,49%	0,51%	1,11%	2,43%	1,91%	0,45%	0,53%	0,82%	1,46%	1,27%	
Fixed 50% RC spread	0,24%	0,26%	0,56%	1,22%	0,95%	0,23%	0,27%	0,41%	0,73%	0,64%	**52**
CQS-dependent RC spread	0,34%	0,31%	0,56%	0,97%	0,76%	0,32%	0,32%	0,41%	0,58%	0,51%	**50**

A.379 EIOPA has assessed the sensitivity of this calibration for different reference dates in the period 2016-18. Moreover, a number of sensitivities with respect to spreads have been performed. The results of these analysis confirm that the proposed calibration is sufficiently robust.

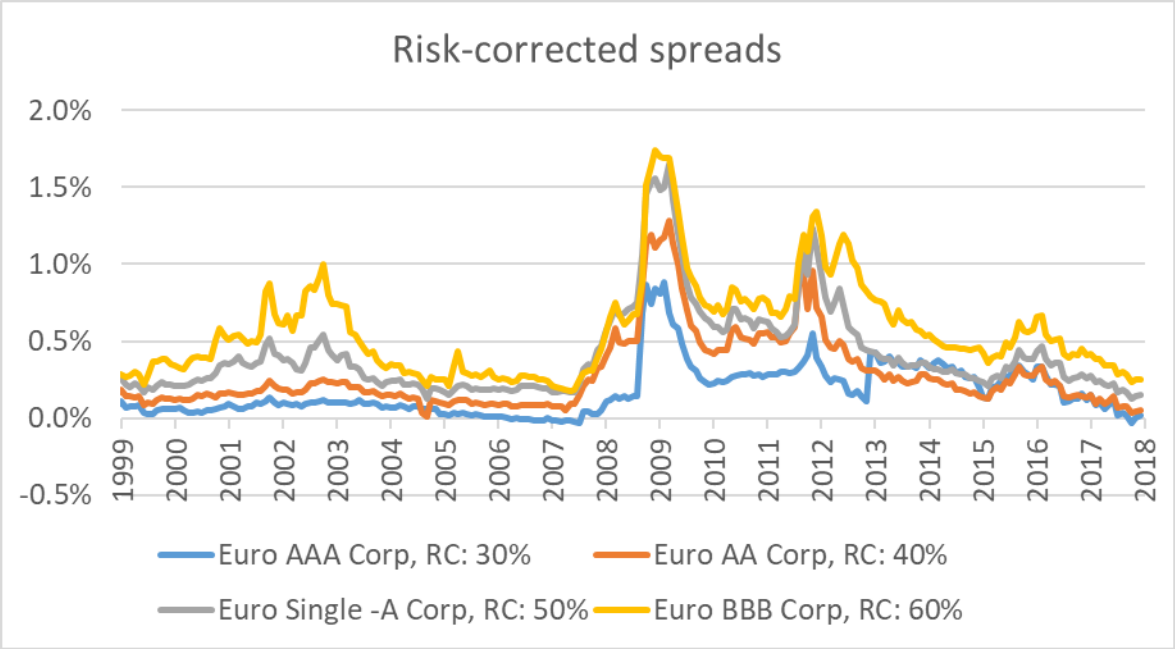
A.380 In the following figures a comparison between spreads and risk corrected spreads (according to the proposed calibration) on investment-grade corporate bonds is shown.

Figure 1: Spreads of investment-grade bonds in the period 1999-2018



Source: IHS Markit

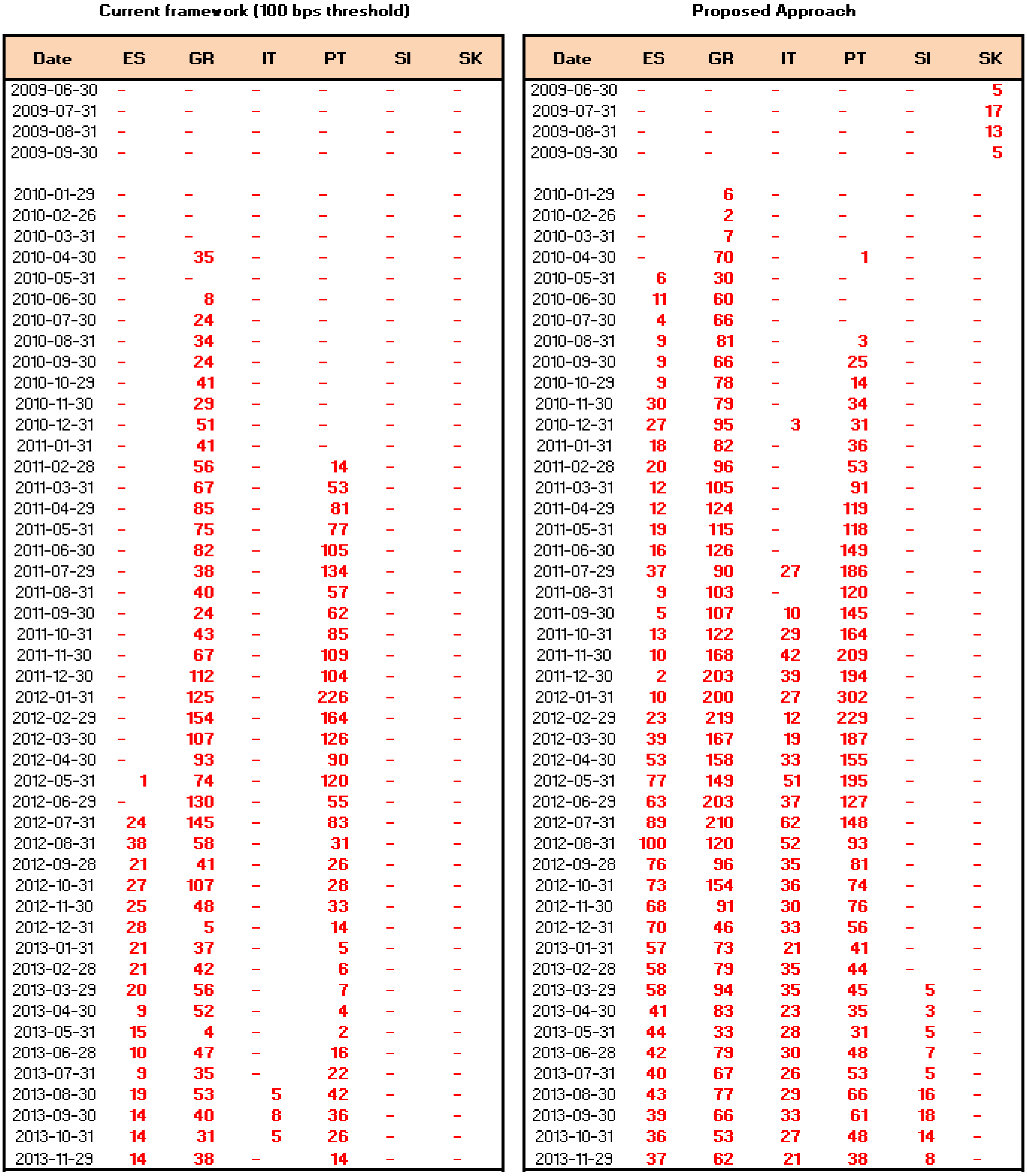
Figure 2: RC Spreads of investment-grade bonds in the period 1999-2018 computed with the proposed calibration



Source: IHS Markit

A.381 The figures on RC spreads shows that, although a higher risk correction is applied for BBB-rated bonds, RC spreads are still higher than those of higher rated bonds, so that the "ordering" of bonds among the different rating classes is maintained. This feature is desirable, because the objective of the VA is to mitigate the impact of exaggerations of bond spreads on own funds, and as BBB bonds are the most volatile (among investment-grade bonds), a risk correction which is too high for these bonds would insufficiently address spread exaggerations.

Annex 2.12 - Frequency of activation and value of the adjustment of the proposed approach compared to the current framework[413]



Current framework (100 bps threshold)

Date	ES	GR	IT	PT	SI	SK
2009-06-30	–	–	–	–	–	–
2009-07-31	–	–	–	–	–	–
2009-08-31	–	–	–	–	–	–
2009-09-30	–	–	–	–	–	–
2010-01-29	–	–	–	–	–	–
2010-02-26	–	–	–	–	–	–
2010-03-31	–	–	–	–	–	–
2010-04-30	–	35	–	–	–	–
2010-05-31	–	–	–	–	–	–
2010-06-30	–	8	–	–	–	–
2010-07-30	–	24	–	–	–	–
2010-08-31	–	34	–	–	–	–
2010-09-30	–	24	–	–	–	–
2010-10-29	–	41	–	–	–	–
2010-11-30	–	29	–	–	–	–
2010-12-31	–	51	–	–	–	–
2011-01-31	–	41	–	–	–	–
2011-02-28	–	56	–	14	–	–
2011-03-31	–	67	–	53	–	–
2011-04-29	–	85	–	81	–	–
2011-05-31	–	75	–	77	–	–
2011-06-30	–	82	–	105	–	–
2011-07-29	–	38	–	134	–	–
2011-08-31	–	40	–	57	–	–
2011-09-30	–	24	–	62	–	–
2011-10-31	–	43	–	85	–	–
2011-11-30	–	67	–	109	–	–
2011-12-30	–	112	–	104	–	–
2012-01-31	–	125	–	226	–	–
2012-02-29	–	154	–	164	–	–
2012-03-30	–	107	–	126	–	–
2012-04-30	–	93	–	90	–	–
2012-05-31	1	74	–	120	–	–
2012-06-29	–	130	–	55	–	–
2012-07-31	24	145	–	83	–	–
2012-08-31	38	58	–	31	–	–
2012-09-28	21	41	–	26	–	–
2012-10-31	27	107	–	28	–	–
2012-11-30	25	48	–	33	–	–
2012-12-31	28	5	–	14	–	–
2013-01-31	21	37	–	5	–	–
2013-02-28	21	42	–	6	–	–
2013-03-29	20	56	–	7	–	–
2013-04-30	9	52	–	4	–	–
2013-05-31	15	4	–	2	–	–
2013-06-28	10	47	–	16	–	–
2013-07-31	9	35	–	22	–	–
2013-08-30	19	53	5	42	–	–
2013-09-30	14	40	8	36	–	–
2013-10-31	14	31	5	26	–	–
2013-11-29	14	38	–	14	–	–

Proposed Approach

Date	ES	GR	IT	PT	SI	SK
2009-06-30	–	–	–	–	–	5
2009-07-31	–	–	–	–	–	17
2009-08-31	–	–	–	–	–	13
2009-09-30	–	–	–	–	–	5
2010-01-29	–	6	–	–	–	–
2010-02-26	–	2	–	–	–	–
2010-03-31	–	7	–	–	–	–
2010-04-30	–	70	–	1	–	–
2010-05-31	6	30	–	–	–	–
2010-06-30	11	60	–	–	–	–
2010-07-30	4	66	–	–	–	–
2010-08-31	9	81	–	3	–	–
2010-09-30	9	66	–	25	–	–
2010-10-29	9	78	–	14	–	–
2010-11-30	30	79	–	34	–	–
2010-12-31	27	95	3	31	–	–
2011-01-31	18	82	–	36	–	–
2011-02-28	20	96	–	53	–	–
2011-03-31	12	105	–	91	–	–
2011-04-29	12	124	–	119	–	–
2011-05-31	19	115	–	118	–	–
2011-06-30	16	126	–	149	–	–
2011-07-29	37	90	27	186	–	–
2011-08-31	9	103	–	120	–	–
2011-09-30	5	107	10	145	–	–
2011-10-31	13	122	29	164	–	–
2011-11-30	10	168	42	209	–	–
2011-12-30	2	203	39	194	–	–
2012-01-31	10	200	27	302	–	–
2012-02-29	23	219	12	229	–	–
2012-03-30	39	167	19	187	–	–
2012-04-30	53	158	33	155	–	–
2012-05-31	77	149	51	195	–	–
2012-06-29	63	203	37	127	–	–
2012-07-31	89	210	62	148	–	–
2012-08-31	100	120	52	93	–	–
2012-09-28	76	96	35	81	–	–
2012-10-31	73	154	36	74	–	–
2012-11-30	68	91	30	76	–	–
2012-12-31	70	46	33	56	–	–
2013-01-31	57	73	21	41	–	–
2013-02-28	58	79	35	44	–	–
2013-03-29	58	94	35	45	5	–
2013-04-30	41	83	23	35	3	–
2013-05-31	44	33	28	31	5	–
2013-06-28	42	79	30	48	7	–
2013-07-31	40	67	26	53	5	–
2013-08-30	43	77	29	66	16	–
2013-09-30	39	66	33	61	18	–
2013-10-31	36	53	27	48	14	–
2013-11-29	37	62	21	38	8	–

[413] Please note that, for the purposes of this analysis, simplified assumptions were made (same fixed reference portfolio throughout time period January 2007 to February 2019). As a consequence, the identified cases of triggering of the VA during the time period January 2016 to February 2019 are not fully consistent with the actual EIOPA data on the VA during that period. Note also that in the analysis the VA was computed at a monthly (not quarterly) basis.

Current framework (100 bps threshold)

Date	ES	GR	IT	PT	SI	SK
2013-12-31	9	31	–	11	–	–
2014-01-31	7	40	–	–	–	–
2014-02-28	–	19	–	–	–	–
2014-03-31	–	13	–	–	–	–
2014-04-30	–	–	–	–	–	–
2014-05-30	–	–	–	–	–	–
2014-06-30	–	–	–	–	–	–
2014-07-31	–	–	–	–	–	–
2014-09-30	–	–	–	–	–	–
2014-10-31	–	45	–	–	–	–
2014-11-28	–	49	–	–	–	–
2014-12-31	–	95	–	–	–	–
2015-01-30	–	134	–	–	–	–
2015-02-27	–	116	–	–	–	–
2015-03-31	–	147	–	–	–	–
2015-04-30	–	115	–	–	–	–
2015-05-29	–	131	–	–	–	–
2015-06-30	–	176	–	–	–	–
2015-07-31	–	135	–	–	–	–
2015-08-31	–	76	–	–	–	–
2015-09-30	–	50	–	–	–	–
2015-10-30	–	46	–	–	–	–
2015-11-30	–	45	–	–	–	–
2015-12-31	–	46	–	–	–	–
2016-01-29	–	80	–	–	–	–
2016-02-29	–	91	–	–	–	–
2016-03-31	–	66	–	–	–	–
2016-04-29	–	66	–	–	–	–
2016-05-31	–	46	–	–	–	–
2016-06-30	–	70	–	–	–	–
2016-07-29	–	75	–	–	–	–
2016-08-31	–	67	–	–	–	–
2016-09-30	–	68	–	–	–	–
2016-10-31	–	64	–	–	–	–
2016-11-30	–	34	–	–	–	–
2016-12-30	–	46	–	–	–	–
2017-01-31	–	50	–	–	–	–
2017-02-28	–	46	–	–	–	–
2017-03-31	–	43	–	–	–	–
2017-04-28	–	–	–	–	–	–
2017-05-31	–	–	–	–	–	–
2018-05-31	–	–	–	–	–	–
2018-06-30	–	–	–	–	–	–
2018-07-31	–	–	–	–	–	–
2018-08-31	–	–	45	–	–	–
2018-09-30	–	–	–	–	–	–
2018-10-31	–	–	44	–	–	–
2018-11-30	–	–	32	–	–	–
2018-12-31	–	–	–	–	–	–
2019-01-31	–	–	–	–	–	–
2019-02-28	–	–	–	–	–	–

Proposed Approach

Date	ES	GR	IT	PT	SI	SK
2013-12-31	32	54	17	34	1	–
2014-01-31	28	61	17	8	1	–
2014-02-28	22	39	6	1	–	–
2014-03-31	10	32	2	–	–	–
2014-04-30	4	3	–	–	–	–
2014-05-30	5	5	2	–	–	–
2014-06-30	3	–	–	–	–	–
2014-07-31	1	–	–	–	–	–
2014-09-30	–	16	–	–	–	–
2014-10-31	–	58	–	–	–	–
2014-11-28	–	61	–	–	–	–
2014-12-31	–	105	–	–	–	–
2015-01-30	–	142	–	–	–	–
2015-02-27	–	121	–	–	–	–
2015-03-31	–	154	–	–	–	–
2015-04-30	–	124	–	–	–	–
2015-05-29	–	141	–	–	–	–
2015-06-30	3	192	–	–	–	–
2015-07-31	–	147	–	–	–	–
2015-08-31	–	91	–	–	–	–
2015-09-30	1	69	–	–	–	–
2015-10-30	–	61	–	–	–	–
2015-11-30	–	58	–	–	–	–
2015-12-31	–	61	–	–	–	–
2016-01-29	–	98	–	–	–	–
2016-02-29	4	112	–	11	–	–
2016-03-31	–	80	–	–	–	–
2016-04-29	–	79	–	–	–	–
2016-05-31	–	60	–	–	–	–
2016-06-30	–	81	–	–	–	–
2016-07-29	–	83	–	–	–	–
2016-08-31	–	74	–	–	–	–
2016-09-30	–	75	–	–	–	–
2016-10-31	–	72	–	–	–	–
2016-11-30	–	46	–	8	–	–
2016-12-30	–	55	–	–	–	–
2017-01-31	–	62	–	–	–	–
2017-02-28	–	56	–	–	–	–
2017-03-31	–	53	–	–	–	–
2017-04-28	–	45	–	–	–	–
2017-05-31	–	33	–	–	–	–
2018-05-31	–	–	30	–	–	–
2018-06-30	–	–	29	–	–	–
2018-07-31	–	–	26	–	–	–
2018-08-31	–	–	55	–	–	–
2018-09-30	–	–	46	–	–	–
2018-10-31	–	–	55	–	–	–
2018-11-30	–	–	47	–	–	–
2018-12-31	–	–	33	–	–	–
2019-01-31	–	–	32	–	–	–
2019-02-28	–	–	38	–	–	–

Annex 2.13 - Background information on the motivation for the choice of PVBP(MV(FI$_{i,c}$)) and PVBP(BEL$_{i,c}$)

A.382 The idea behind introducing a ratio

$$\frac{PVBP\left(MV_{i,c}^{FI}\right)}{PVBP\left(BEL_{i,c}\right)}$$

in the calibration of the VA under option 4 and the combinations including this option is to achieve in a linear approximation, that the application of the VA to the best estimate liability compensates the loss in the market value of spread sensitive assets caused by the change in credit spreads (CS) that lead to the *VA* observed. In a simplified notation:

$$PVBP^{CS}(assets) = (assets(\mathbf{CS} + \mathrm{VA}) - assets(\boldsymbol{CS}))\ /\ VA$$

$$PVBP^{VA}(liabilities) = (liabilities(\mathbf{RFR} + \mathrm{VA}) - \mathrm{liabilitie}s(\boldsymbol{RFR}))\ /\ VA$$

A.383 Where *assets(**CS**)* amounts to the value of the assets under the given market spreads (***CS***) and *assets(**CS**+VA)* amounts to the value of these assets if the spreads would be increased by the amount of the VA value. *liabilities(**RFR**+VA)* amounts to the value of the liabilities valued with the risk free rates (RFR) including VA.

A.384 Under the assumption that a linear approximation would be appropriate for the valuation of assets and of liabilities the following would hold true:[414]

$$\begin{aligned} impact\ on\ assets &= \frac{asset\ impact\ (VA\ as\ uniform\ CS\ shock)}{liability\ impact(VA)} \cdot liability\ impact(VA) \\ &= \frac{PVBP^{CS}(assets) \cdot VA}{PVBP^{VA}(liabilities) \cdot VA} \cdot PVBP^{VA}\,(liabilities) \cdot VA \\ &= PVBP^{VA}\,(liabilities) \cdot \left(\frac{PVBP^{CS}(assets)}{PVBP^{VA}(liabilities)} \cdot VA\right) \\ &= liability\ impact\left(\frac{PVBP^{CS}(assets)}{PVBP^{VA}(liabilities)} \cdot VA\right) \end{aligned}$$

A.385 Under this approach for the assets the *VA* is considered as uniform adjustment to the credit spreads (i.e. irrespective of sector, CQS and maturity) which reflects in average the portion of the observed spreads that is intended to be mitigated by the VA. For the liabilities, the VA as usual is applied as VA-adjustment to the RFR, which especially implies that it is calculated under the given CS level at the relevant valuation date, only the RFR is adjusted by the VA.

A.386 Key assumptions under this approach are:

- VA applied as uniform CS adjustment exactly compensates exaggerated CS on the VA reference portfolio

[414] Note that with "impact on assets" it is intended to capture the impact of the part of the spread associated to the VA on the market value of the assets

- Undertakings portfolio is (sufficiently) near to the reference portfolio
- Linear approximation works sufficiently well

A.387 To best capture VA effects in the base case at the valuation date, the PVBPs would be calculated under conditions of the valuation date, e.g. as sensitivity under the given BasisVA before adjustment by undertaking specific factors, which in the notation of option 4 is $RC\_S_{i,c}$:

$$PVBP^{CS}(assets) = (assets(\mathbf{CS} + \mathrm{BasisVA}) - assets(\boldsymbol{CS}))\ /\ BasisVA$$

$$PVBP^{VA}(liabilities) = (liabilities(\mathbf{RFR} + \mathrm{BasisVA}) - \mathrm{liabilitie}s(\boldsymbol{RFR}))\ /\ BasisVA$$

A.388 Potential shortcomings:

- Potential algorithmic mismatch: VA currently is calculated as weighted average of spreads with the market values as weights, but this does not necessarily imply that the VA would be an 'implied uniform spread'. The latter would be defined as the uniform adjustment of all spreads which would lead to the same impact on the reference portfolio as if all spreads would be 'corrected' exactly (within their buckets).
- Potential allocation mismatch: The undertaking's portfolio is different from the VA reference portfolio, i.e. even if the VA would fit for the reference portfolio, this maybe would not hold true for each undertaking.
- Potential material convexity effects: The valuation of assets and liabilities could show not to be linear in the factor derived. This could be more relevant in cases of high spreads and high VA values.
- Potential asymmetry: *PVBP^{CS}(assets)* is calculated under an increase of spreads by *BasisVA* to have the same signs in numerator and denumerator. Alternatively one could calculate

5. $PVBP^{CS}(assets) = (assets(\mathbf{CS} - \mathrm{BasisVA}) - assets(\boldsymbol{CS}))\ /\ BasisVA$

and apply a negative sign to the ratio. This would potentially better reflect the interpretation of *BasisVA* as reduction of the current CS level and also take care of asymmetries in asset sensitivity to CS.

Annex 2.14 - Description of simulation of historic VA values

A.389 For the calculation of historic VA values, EIOPA used data on yields and spreads in the time period January 2007 to February 2019, with a focus on the Euro currency. For the computation of the VA over this time period, reference portfolios as at April 2018 was used. For the purposes of this analysis, it was assumed that the reference portfolios remained fixed.

A.390 Specifically, the following input data was used:

- Weights and durations in the representative portfolios
- For each month in the time period 01/2007 to 02/2019, information on the yield, the risk-corrected yield, the risk-free rate and the fundamental spread in the individual investment buckets which constitute the representative portfolio

A.391 The analysis resulted in a computation of the following variables:

- The aggregated yield, risk-corrected yield, risk-free rate and fundamental spread at the government bond and corporate bond portfolio level
- The average risk-corrected spread at the government bond and corporate bond portfolio level
- The currency VA for the Euro, as well as of the national VA for each country in the Euro zone

A.392 In addition, variants of these output variables were calculated corresponding to the alternative aggregation methods that were considered in the analysis of the deficiencies.

A.393 All output variables were calculated at the same time intervals as the input data and for all representative portfolios included in the assessment.

Annex 2.15 - Description of approximate impact analysis conducted by EIOPA

A.394 For each of the options 1, 4, 5 and 6 as well as their combinations the undertaking specific VAi is determined. Based on the impact of the current VA per year-end 2018 that undertakings have reported in their annual QRTs in template S22, the impact of the different options is approximated.

A.395 A change in the gross best estimate liabilities due to a change in the VA does not result in the same change in the excess of assets over liabilities for at least the following two reasons.

- A change in the VA also affects the valuation of the reinsurance recoverables, but the change in the net best estimate, i.e. the gross best estimate minus the reinsurance recoverables, also does not equal the change in the excess of assets over liabilities.
- A change in the VA also results in changes in the deferred taxes on the Solvency II balance sheet.

A.396 As an approximation the impact of the VA on the excess of assets over liabilities (EoAoL) from the annual QRTs in template S22 is used. This is denoted as $\Delta EoAoL_{i,S22}$ which equals the change in the excess of assets over liabilities for undertaking *i*.

A.397 The change in the excess of assets over liabilities of option *j* for undertaking *i* due to a change in the VA is approximated using a linear approximation as follows:

$$\Delta EoAoL_{i,S22}^{j} = \Delta EoAoL_{i,S22} \times \frac{VA_i^j}{VA_i^{current}}$$

where

- VA_i^j is the VA for undertaking *i* under option *j*
- $VA_i^{current}$ is the current VA for undertaking *i*

A.398 All the options differentiate between the different currencies of the liabilities; i.e. an undertaking should apply a VA specific for the currency to all its liabilities in that currency. Both the data in the annual QRTs in template S22 and the data in the VA overshooting information request do not differentiate between the different currencies of the liabilities of the undertakings. Therefore, the impact assessment is based on aggregated data over all the different currencies per undertaking, implicitly assuming that al liabilities are in a single currency, the reporting currency.

A.399 Whether the impact of a change in the VA is material or not also depends on the SCR of an undertaking. Therefore, to compare the impact between undertakings and jurisdictions the change in the excess of assets over liabilities is compared to the SCR of the undertaking or jurisdiction. Note that the comparison between jurisdictions does not necessarily indicate the expected impact for the corresponding jurisdiction, as the availability of data varies significantly across jurisdictions for this assessment.

A.400 Please mind that dividing the excess of assets over liabilities by the SCR does not necessarily approximate the impact on the SCR ratio. This is not only because of potential eligibility of own fund restrictions, but also because impacts on options and guarantees due to spread changes are not taken into account and a change in the VA method may imply a different dynamic modelling of the VA which would also affect the VA. The impact of a change in the VA on the SCR for standard formula users is considered to be relatively small as the impact of the shocks and factor based capital requirements are scaled by the same percentage as the impact of the VA on the net best estimate liabilities.

A.401 In the following sections a table with the impact of changing the VA according to the different options per jurisdiction is provided. Jurisdictions with fewer than 4 undertakings in the VA overshooting information request are grouped together and the UK has been excluded from the sample. For all options and combination of options, the general application ratio (GAR) remains equal to 65%.

A.402 The table below shows the impact of the application of the current VA on the undertakings with eligible data from the VA overshooting information request, eligible undertaking specific data from the EIOPA reference portfolio and the annual QRTs in template S22. The impact of the 120 undertakings in this sample equals 18.6 billion euros. The sample covers 2,900 billion euros net technical provisions, approximately 41% of the total technical provision for the whole EEA market of the undertakings that fill out the annual QRT template S22. The total impact of the current VA equals 18.4 billion euros; this is approximately 53 percent of the total VA impact reported in QRT template S22. This impact of the VA makes up approximately 5 percent of the eligible own funds of 360 billion euros for the undertakings in the sample; only in NL the VA makes up a significant larger percentage of the eligible own funds: 17 percent.

A.403 To be able to show the impacts on the SCR ratio, a subsample of undertakings is shown which only use Standard Formula (SF) models without an internal model for credit spread risk. This subsample is chosen as the expected impact of the VA on the SCR is not included in this assessment and expected to be limited for the SF undertakings. The table below shows that the sample decreases to 94 undertakings. The sample covers with a technical provision of 6.608 billion euros approximately 27% of the total reported technical provisions in the S22 QRT template.

Characteristics and impact of current VA of sample

	#	SPREAD ASSETS	NET TP	EOF SCR	SCR	RATIO	IMPACT CURRENT VA	CURRENT APPLICABLE VA	#SF	SF EOF SCR	SF SCR	SF RATIO
TOTAL	120	2,912,471	2,737,082	360,236	148,320	243%	18,400	0.24%	94	175,310	78,007	225%
OTH	4	39,219	38,816	7,996	3,323	241%	401	0.24%	4	7,996	3,323	241%
FR	24	1,130,573	1,130,394	97,034	46,749	208%	5,268	0.24%	22	85,767	40,752	210%
IT	14	330,599	318,049	84,937	37,304	228%	2,367	0.24%	8	11,267	6,135	184%
DE	21	710,645	543,750	94,405	24,794	381%	2,352	0.24%	9	20,908	4,071	514%
NL	16	319,625	328,687	36,866	18,221	202%	6,262	0.24%	11	13,926	7,529	185%
ES	20	120,765	133,503	15,433	6,571	235%	457	0.24%	20	15,433	6,571	235%
BE	5	153,318	147,142	15,283	6,819	224%	942	0.24%	4	11,731	5,087	231%
FI	4	45,633	43,210	5,018	2,724	184%	216	0.24%	4	5,018	2,724	184%
LU	6	55,193	47,160	1,882	1,089	173%	56	0.24%	6	1,882	1,089	173%
GR	6	6,902	6,371	1,382	726	190%	79	0.24%	94	1,382	726	190%

The number of undertakings, their total spread assets, net technical provisions, eligible own funds for the SCR, the SCR itself, the SCR ratio, the impact of the VA, the current VA, the number of undertakings with Standard Formula (SF), their eligible own funds for the SCR, the SCR itself for SF undertakings and the SCR ratio for SF undertakings for the different (grouped) jurisdictions per 31 December 2018; numerical amounts are in millions of euros.

A.404 The table below shows the coverage of the technical provision and current adjusted VA of the sample compared to the total reported technical provisions and VA impacts in the QRT data S22 per jurisdiction for the full sample and the subsample of SF undertakings. In the full sample for NL the coverage in technical provisions and VA is relatively high compared to other jurisdictions followed by FI.

A.405 In the subsample of SF undertakings the coverage in technical provisions and VA decreases significantly for NL from 96% to 28%. FI has relatively the highest coverage in terms of technical provisions, followed by ES.

A.406 Overall these distributions indicate that estimated impacts per jurisdiction are not necessarily representative of the actual expected impact per jurisdiction.

Coverage of current sample versus S22

	#	# SF	GROSS TP S22	IMPACT CURRENT VA S22	COVERAGE SAMPLE NET TP VERSUS S22	COVERAGE SF SAMPLE NET TP VERSUS S22	COVERAGE SAMPLE IMPACT CURRENT VA VERSUS S22	COVERAGE SF SAMPLE IMPACT CURRENT VA VERSUS S22
TOTAL	120	94	6,607,827	34,946	41%	27%	53%	27%
OTH	4	4	488,325	2,174	8%	8%	18%	18%
FR	24	22	2,018,656	10,664	56%	49%	49%	43%
IT	14	8	719,894	4,876	44%	20%	49%	18%
DE	21	9	1,051,149	4,197	52%	15%	56%	12%
NL	16	11	354,560	6,527	93%	28%	96%	28%
ES	20	20	196,259	1,012	68%	68%	45%	45%
BE	5	4	244,672	2,784	60%	45%	34%	17%
FI	4	4	50,076	284	86%	86%	76%	76%
LU	6	6	159,705	137	30%	30%	41%	41%
GR	6	6	10,873	99	59%	59%	80%	80%

The number of undertakings, the number of undertakings with SF, the total gross technical provisions from S22 data, the total VA impact from S22 data, the coverage of the technical provisions of the current sample versus the total technical provisions from the S22 data, the coverage of the technical provisions of the current SF sample versus the total technical provisions from the S22 data, the coverage of the adjusted current VA impact of the current sample versus the total VA impact from the S22 data and the coverage of the adjusted current VA impact of the current SF sample versus the total VA impact from the S22 data for the different (grouped) jurisdictions per 31 December 2018; numerical amounts are in millions of euros.

Annex 2.16 - Illustration of recommended changes to the SFCR template on the impact of the LTG measures

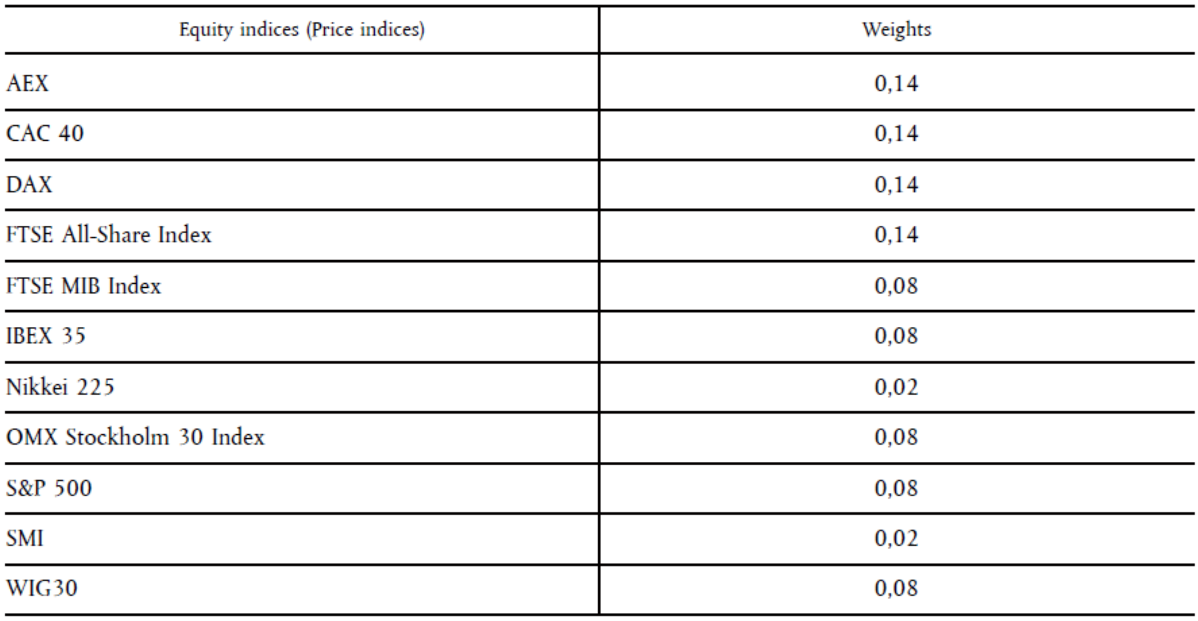
A.407 Current template S.22.01.01.21/22 (here only labels of the rows, no columns):

Technical provisions	R0010
Basic own funds	R0020
Eligible own funds to meet Solvency Capital Requirement	R0050
Solvency Capital Requirement	R0090
Eligible own funds to meet Minimum Capital Requirement	R0100
Minimum Capital Requirement	R0110

Proposed additions:

Solvency Capital Requirement ratio	=(R50/R90)*100 (in%)
Minimum Capital Requirement ratio	=(R100/R110)*100 (in%)

Annex 2.17 – Composition of the current EIOPA equity index



Equity indices (Price indices)	Weights
AEX	0,14
CAC 40	0,14
DAX	0,14
FTSE All-Share Index	0,14
FTSE MIB Index	0,08
IBEX 35	0,08
Nikkei 225	0,02
OMX Stockholm 30 Index	0,08
S&P 500	0,08
SMI	0,02
WIG30	0,08

Annex 2.18 - Comparison between the weights of each country in the reference portfolio and EIOPA equity index

A.408 Two perspectives are shown:

- Based on "absolute amounts", i.e. the distribution for the EEA insurers as a whole
- Based on "relatives weights", i.e. for each issuing country a percentage share of the overall equity investments is derived separately for insurers from each national market of the EEA and then a European percentage for the issuing country is derived as a simple average of the percentage for all national markets

country	EIOPA equity index	absolute amounts	relative weights
NL	14%	2,31%	2,85%
FR	14%	33,43%	5,88%
DE	14%	19,80%	8,32%
GB	14%	5,83%	4,80%
IT	8%	1,16%	1,34%
ES	8%	0,77%	2,58%
SE	8%	5,33%	1,81%
US	8%	4,86%	7,24%
PL	8%	0,53%	3,04%
JP	2%	0,35%	0,23%

CH	2%	0,64%	0,90%
DK		6,51%	2,59%
LU		5,97%	6,29%
NO		3,35%	2,10%
IE		2,59%	5,18%
BE		0,75%	1,54%
AT		0,69%	3,48%
FI		0,66%	1,94%
SI		0,12%	2,83%
CZ		0,11%	2,30%
IS		0,07%	3,05%
GR		0,06%	2,09%
HU		0,05%	2,43%
MT		0,05%	0,86%
HR		0,04%	2,02%
CY		0,03%	1,31%
BG		0,03%	2,24%
SK		0,03%	2,36%
PT		0,03%	0,74%
RO		0,02%	2,61%
LV		0,02%	2,45%
LT		0,01%	1,03%
LI		0,01%	0,23%
EE		0,00%	0,85%
other non EEA countries		3,77%	8,47%

Annex 2.19 - Calculation of the weights (extract from "Final report on public consultation No. 14/058 on the implementing technical standards on the equity index for the symmetric adjustment of the equity capital charge")

Option 4.1 (Absolute economic amount approach):

A.409 The weights correspond to the relative shares of each national stock market (or national stock markets of a group of countries) in the aggregated equity portfolio of EU insurance and reinsurance undertakings, based on a survey EIOPA performed in the first quarter of 2013.

A.410 Each national stock market selected has been assigned to a representative national equity index.

A.411 The weight *Wj* of country (or group of countries) *j* is calculated as:

$$W_j = \frac{\sum_{i=1}^{n} AE_i^j}{\sum_{j=1}^{m} \sum_{i=1}^{n} AE_i^j}$$

Total amount of equities from country *j* in the aggregated EU equity portfolio of insurance and reinsurance undertakings

Total amount of equities in the aggregated equity portfolio of EU insurance and reinsurance undertakings

with "equities from country *j*" being the equities whose main stock exchange is located in country *j*, *m* the number of Member States taken into account in the equity index (i.e. the number of indices used in the calculation), n the number of Member States for which equity holdings were available and AE_{ij} the amount of equities from country *j* held in total by (re)insurance undertakings in country *i*.

Option 4.2 (Average of national percentages approach):

A.412 The weight of one national stock market corresponds to the average of the relative shares of this stock market in the equity portfolios of the insurance and reinsurance undertakings of each Member State, based on a survey EIOPA performed in the first quarter of 2013.

A.413 Each national stock market selected has been assigned to a representative national equity index.

A.414 The weight *Wj* of country *j* is calculated as:

$$W_j = \frac{1}{n}\underbrace{\sum_{i=a}^{n}\frac{AE_i^j}{\sum_{k=0}^{z} AE_i^k}}_{\text{Share of equities from country } j \text{ in the aggregated equity portfolio of country i's insurance and reinsurance undertakings}}$$

A.415 with n the number of Member States taken into account in the equity index (i.e. the number of indices used in the calculation), z the number of countries that have stock exchanges in which some equities of the EU aggregated equity portfolio are mainly traded and AEij the amount of country j equities in the aggregated equity portfolio of country i (re)insurance undertakings.

Option 4.3 (Combined approach):

A.416 This approach combines the weights that result from the two approaches described above.

A.417 Some equity markets are important both in terms of the relative share of each national stock market in the aggregated equity portfolio of European insurers and in terms of the average of national percentages (e.g. France and the United Kingdom). For other equity markets, there are marked differences. The Swedish and Polish equity markets are for example much more important when looking at averages of national percentages.

A.418 The combined approach chooses equity indices with a high weight based on one or both measures. It also takes into account that all geographic parts of Europe should be represented. An index might also be included where it can be seen as a good representative for other equity markets (e.g. Japan as proxy for the Asian markets).

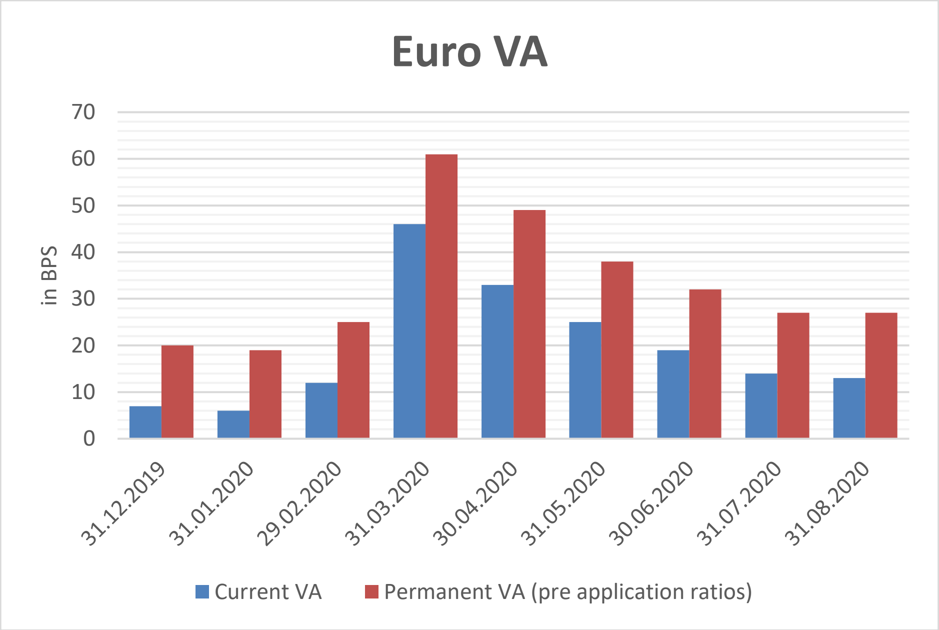
A.419 The starting point is the relative shares of the equity markets in the aggregated equity portfolios of European insurers. But the weights of smaller markets are adjusted upwards if insurers from many European countries have a meaningful allocation to this market or the market can be seen as a proxy for other non-included equity markets.

A.420 The selected indices are allocated to three categories. Each member of a category has the same weight (14%, 8% or 2%). The weights for the equity markets of Poland, Sweden and Japan reflect also the fact that they can be seen as proxies for the Eastern European, Scandinavian and Asian markets.

Annex 2.20 - Development of spreads and VA values during 2020

Overall development of spreads and of the permanent VA

A.421 During March 2020, credit spreads in fixed income investments have increased sharply. This led to a significant increase of the spread measured in the VA representative portfolios, and hence in the VA values. Following that, credit spreads decreased again in the second and the beginning of the third quarter of 2020. The following diagram compares the development of the current VA with the development of the proposed new design of the permanent VA since year-end 2019:

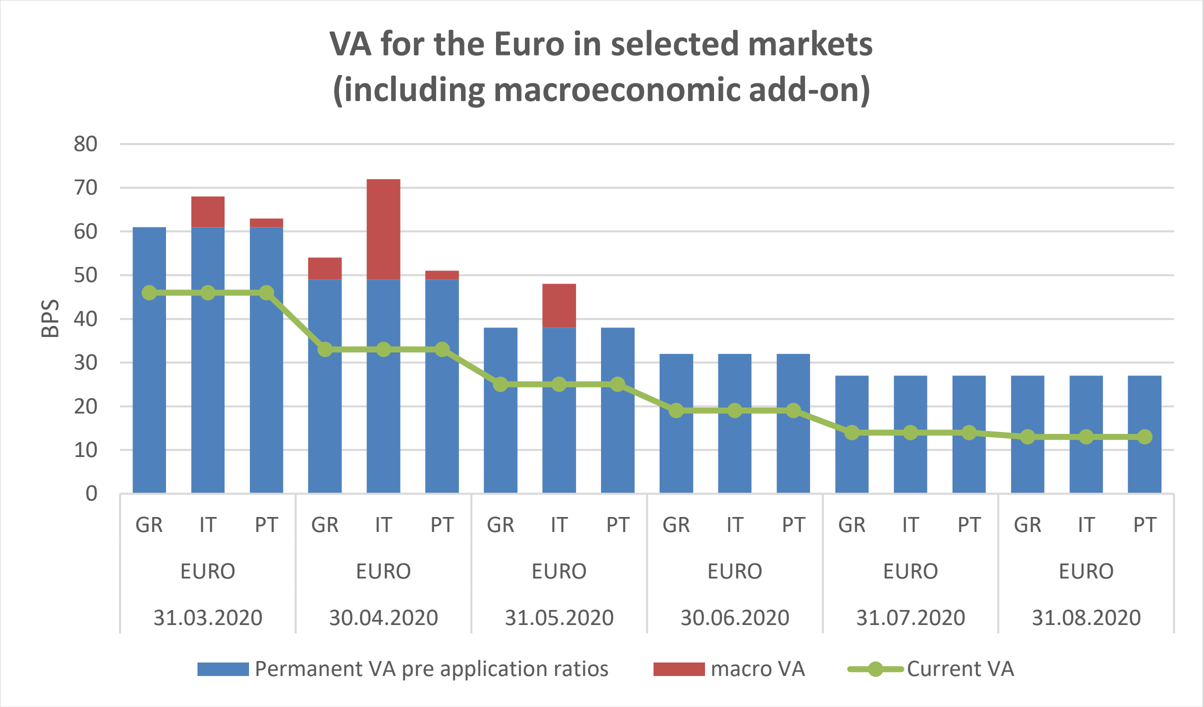


A.422 Note that the values shown here for the new design of the VA only refer to its permanent part, and do not yet include the application factors for duration mismatch and illiquidity. These factors intend to better tailor the impact of the VA to the risk profile of the insurer, and lead to a lower VA where the factors are less than 100%.

Development of spreads and of the VA in national markets

A.423 For the application of the VA in national markets, the proposed new design of the VA foresees an additional macroeconomic VA (country-specific increase with smoothing mechanism). This corresponds to the national VA add-on in the current design of the VA. The triggering of the macroeconomic VA depends on the difference between spreads observed in the national and the European representative portfolios.

A.424 In the first phase of the current crises, corporate spreads increased more strongly than government spreads. This surge affected all countries across Europe, and led to a strong increase of the permanent (currency) component of the VA. In this context, at the end of March, the conditions for the activation of the proposed macro-economic component of the VA would have been verified in Italy and in Portugal for small amounts. During April, the picture changed, as corporate spreads decreased whereas the volatility of government spreads increased, in particular in Greece, Italy, Portugal, and, to a lesser extent, in Spain. Whereas the country-specific increase of the current VA never activated in the considered period, the proposed macroeconomic VA would have triggered at the end of April in Italy, Portugal and Greece. In May government spreads started to decrease again: from June to August, in no country the conditions for the activation of the macro VA were verified, as illustrated below:[415]



Conclusions
The analysis of these data indicate that the proposed measure is better responsive to the increase of volatility in credit spreads than the current VA. Overall, under the new envisaged design of the VA, the value of the VA is higher than under the current design.

[415] Note that the permanent VA part is shown, as above, pre applications 4 and 5

Annex 2.21 – Identification of overshooting effects of the VA during the pandemic

A.425 In a number of countries, supervisors identified cases of an "overshooting" effect of the VA[416] during the first half of 2020. EIOPA identified the potential for the occurrence of such effects already in the consultation of the draft opinion.

A.426 The information gathered from the HIA and CIR has allowed EIOPA to conduct a more comprehensive assessment of the functioning of the VA during the first half of 2020, and on the identification of overshooting effects.

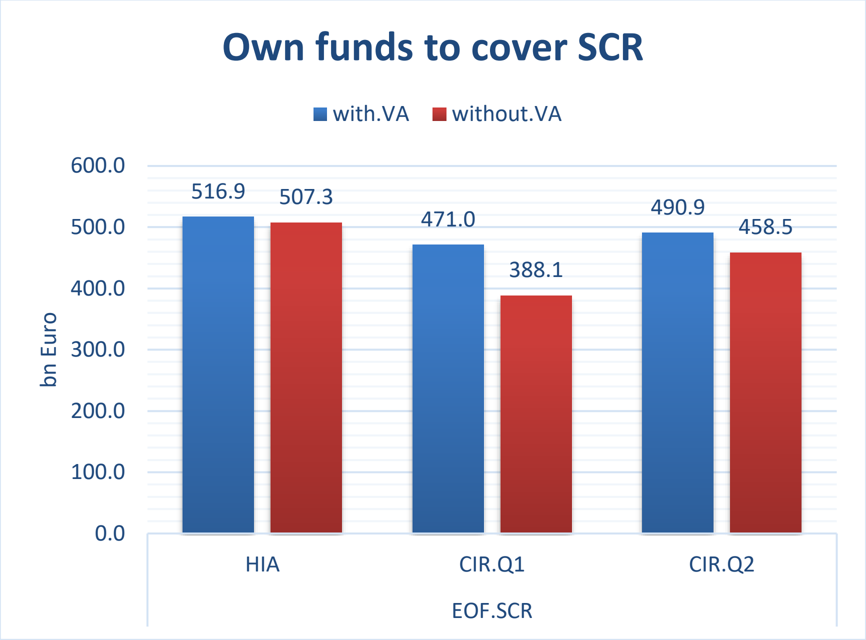
A.427 For this purpose, EIOPA analysed the financial data of 139 undertakings using the VA that participated in both the HIA and the CIR and that reported financial data for year end 2019 (as part of the HIA data) as well as for the first and second quarter of 2020 (as part of the CIR data). The total technical provisions of these undertakings – gross of reinsurance and with the use of the transitionals and the VA – amount to 4.030 billion Euro, which represents a market coverage of all undertakings in the EEA (without UK) that use the VA of 68%.

A.428 The assessment focused on the development of the own funds of the undertakings in the sample from year-end 2019 to Q2 2020 and on the observed impact of the current VA during this period.

A.429 The following diagram shows the evolution of the own funds eligible to cover the SCR for this sample over the three different reference dates:[417]

[416] See Annex 2.25 for a case study for the Belgian market. Other countries where "overshooting" cases were observed include the Netherlands and Germany.

[417] Note that all amounts refer to the value of own funds without transitional measures on technical provisions.



A.430 This shows that, in the aggregate, the amount of own funds decreased between year end 2019 and Q1 2020, and increased between Q1 and Q2 2020. This corresponds to the evolution of the financial markets during this period, which is characterised by a sharp downturn in the first quarter of 2020, followed by a partial relief in the second quarter.

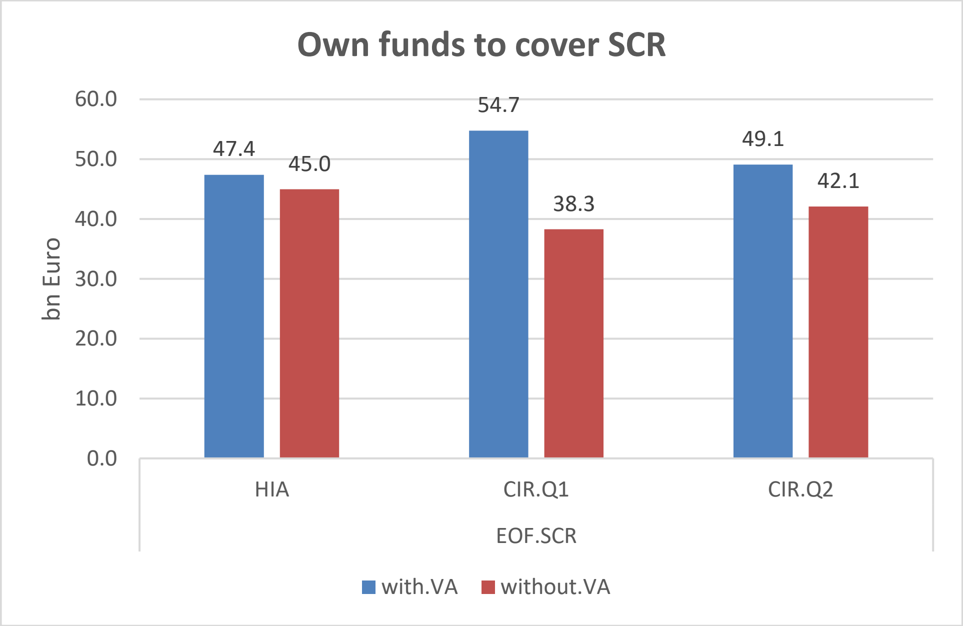
A.431 The diagram above also illustrates that the VA had a very strong impact on the solvency position of the undertakings. Between year-end 2019 and Q1 2020, the VA mitigated to a large extent the loss in own funds that the undertakings would have suffered without the VA. In fact, the impact of the VA on the own funds of the undertakings in the sample increased from 9,6 billion Euro to 82,9 billion Euro during this period, an increase of more than 73 billion Euro.

A.432 Likewise, in the second quarter of 2020, the VA mitigated the strong increase of the own funds calculated without the VA when market turbulences partly receded during this period. Between Q1 and Q2 2020, the impact of the VA decreased by 50.6 billion Euro, which led to an impact of 32.3 billion at Q2 2020 which is still more than three times as high as the year end 2019 impact.

A.433 Overall, these observations are commensurate with the evolution of the size of the VA as depicted at the beginning of this section, and confirm the strong role of the VA as a mitigating instrument during periods of sharp and steep spread changes.

A.434 However, whereas the impact of the VA in the aggregate appears satisfactory, this may mask the occurrence of "overshooting" effects at an undertaking specific level. To explore this aspect, EIOPA assessed the evolution of the own funds of each of the 139 undertakings on the sample. During the period from year-end 2019 to Q1 2020, 128 undertakings in the sample suffered a loss in own funds when calculated without the VA. When calculated with the VA, only 114 undertakings suffered a loss, whereas for 25 undertakings in the sample the value of own funds with the VA actually increased. For 15 of the 25 undertakings, in the period between year-end 2019 and Q1 2020 the value of own funds with the VA increased, whereas the value of own funds calculated without the VA decreased.

A.435 In the aggregate, these 15 undertakings have the following development of own funds:



A.436 Note that the pattern of the development shown here is characteristic for all of these undertakings: Whereas the value of own funds decreased from year-end 2019 to the first quarter and then partially recovered, as in the full sample, the undertakings experienced an actual increase in their own funds with the LTG measures in the first quarter and a loss in the second quarter.

A.437 This is a strong indication of an "overshooting" effect of the VA for these undertakings in the first quarter of 2020, since the loss of own funds without the VA is likely to exceed the loss in the market value of the fixed income investments of the undertakings, given that the downturn in the financial markets during the first quarter led to an overall loss in market values also in other asset categories, whereas the technical provisions generally increased due to a decline in risk-free rates during this quarter[418].

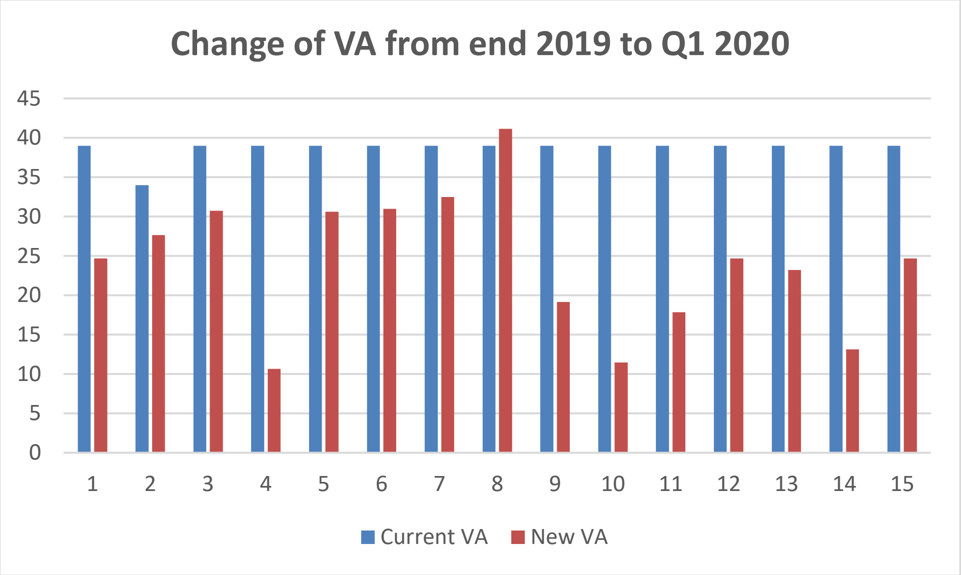
A.438 Note that this approach only allows for an identification of the "obvious" cases of overshooting. As the situation at Q1 compared to year-end 19 has also been considerably influenced by a further reduction in risk free interest rates, in cases where the own funds of an undertaking have increased in Q1 compared to year-end 19 when applying the VA, the VA has not only compensated for the losses incurred due to a widening of credit spreads but also the losses incurred due to the reduction in interest rate levels. Thus, there may be a considerable number of further undertakings – apart from the 15 identified – where the VA has overcompensated the losses from spread widening and where thus overshooting has occurred.

A.439 EIOPA also assessed as to whether the overshooting effects for the current VA, as observed above, would be reduced under the envisaged new design of the VA. Due to data limitations[419], EIOPA could not directly compare the observed change in own funds under the current VA with the change in own funds that would have resulted under the envisaged new VA. However, the available data allowed to determine the value of the envisaged new VA at Q1 2020, and to compare the change of the VA under the new design with the observed change of the current VA.

A.440 The following diagram illustrates the change of the VA under the current and the new envisaged design of the VA for the identified sample of 15 undertakings:

[418] EIOPA also assessed whether the decline in interest rates observed between year-end 2019 and Q1 2020 did in some cases offset the losses in fixed income assets from spreads. This could be in the special case where an insurers has a positive duration gap, i.e. in a situation when the asset duration exceeds the duration of liabilities. However, the analysis confirmed that this is not the case for any of the 15 identified cases - all of the identified undertakings have a negative duration gap, i.e. have a stronger sensitivity of liabilities than assets.

[419] For the CIR information request, it was decided to not include data on the financial impact of the new VA for Q1 2020 in order to reduce the burden for participants



A.441 Note that, whereas the change of the VA under the current VA is only dependent on the country and the currency[420], the change of the VA under the envisaged new design of the VA also depends on the application ratios for overshooting and illiquidity, and are therefore undertaking specific.

A.442 The diagram clearly shows that the change of the VA for the identified sample of undertakings under the envisaged new design of the VA is much lower than under the current design. On average, the change of the new VA for the 15 undertakings is 22 Basis Points (BPS), whereas the average change of the current VA is 38 BPS. There are a number of components in the envisaged new design of the VA which contribute to this reduction:

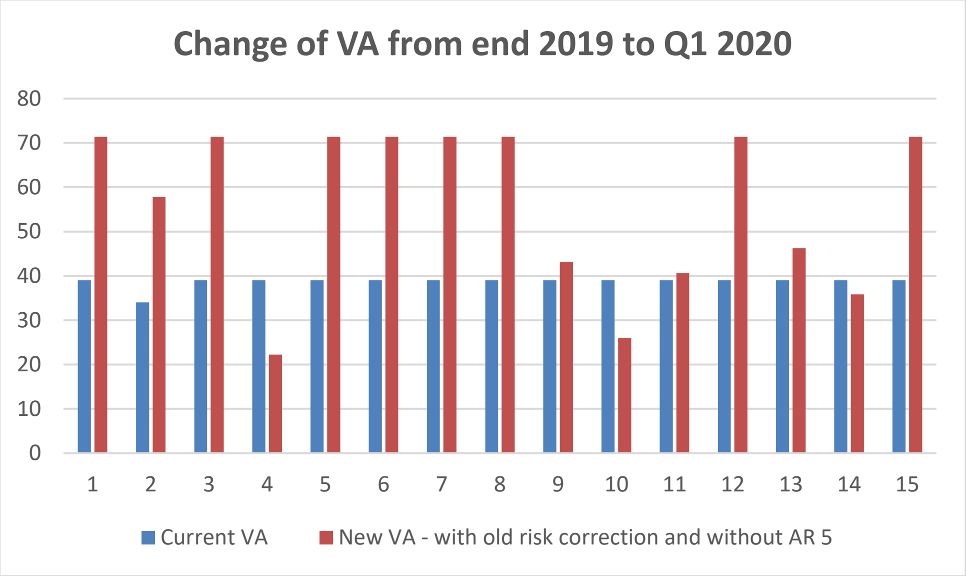
- The application factor for overshooting: For the 15 undertakings in the sample, the average "overshooting" application ratio amounts to 71%. Note that this is significantly lower than the average value of this ratio of 92% across the whole CIR and HIA sample.
- The application ratio for illiquidity, which reflects the degree of illiquidity of the liabilities
- The more risk-sensitive design of the risk correction

A.443 The significant reduction of the change of the VA under the envisaged new VA design is expected to reduce the overshooting effects for the identified undertakings.

A.444 EIOPA underlines that the reduction effect described above is dependent on the combination of all components in the envisaged new design of the VA. In case one of the components would be changed, this could significantly change the susceptibility of the VA towards changes in spreads and thereby lead to materially different results.

[420] Note that for the countries of the undertakings included in the sample, not country VA would have been activated under the envisaged new design of the VA

A.445 To illustrate this point, the following diagram compares the change of the current VA for the identified sample of 15 undertakings with the change of a VA that would follow the new design proposed by EIOPA but without the application ratio for illiquidity and with keeping the current risk correction component:



A.446 This shows that the change of the VA for the identified sample of undertakings under such a design of the VA would be materially different; instead to a reduction, such a design would lead to an increase in the change of the VA for 12 of the 15 undertakings in the sample. It can be expected that for these undertakings, the overshooting effects would persist if such a VA would be applied.

Conclusions

- Overall, the observations are commensurate with the evolution of the size of the VA as depicted at the beginning of this section, and confirm the strong role of the VA as a mitigating instrument during periods of sharp and steep spread changes.
- However, a more granular analysis at an undertaking-specific level revealed that in at least 15 cases (11% of the sample), there is a strong indication that an "overshooting" effect of the VA in the first quarter of 2020 occurred. For these undertakings, the VA effects were so strong that they overcompensated all other losses that the undertakings incurred, leading to an actual increase of the own funds in the first quarter of 2020.
- The analysis is likely to only reveal more "extreme" cases of overshooting effects of the VA. There may be a considerable number of further undertakings – apart from the 15 identified – where the VA has

overcompensated the losses from spread widening and where thus overshooting has occurred.

- Under the envisaged new design of the VA, the intention is to better target the impact of the VA and to limit such overshooting effects. Consistent with this aim, EIOPA found that for all but one of the 15 identified undertakings the envisaged new design of the VA would lead to a reduction in the change of the VA in Q1 2020 compared to the current VA. It is expected that this would reduce the effects described for the envisaged design of the VA. EIOPA underlines that this effect results from the combination of all new proposed components of the VA design. Changes in one of the components, such as the risk correction or the general application ratio, could lead to the risk that the identified overshooting effects persist or are even amplified.
- In cases where the overshooting is due to a “quality overshooting”, i.e. where the overshooting occurs since the undertakings concerned has invested in fixed income investments which are less sensitive to credit spread changes in the financial markets than the representative portfolios for the calculation of the currency VA, this effect may still persist under the new design of the VA[421]. This is the case since the application ratio 4 does not reflect on the degree of deviation between the quality of the undertaking’s individual investments and the mix of investments in the representative portfolios, while at the same time the new envisaged design of the VA foresees a higher general application ratio.

[421] This led in the context of the dynamic VA (DVA) to the proposal to introduce an enhancement of the prudency principle of EIOPA’s DVA opinion. For details see chapter 2 of the Opinion.

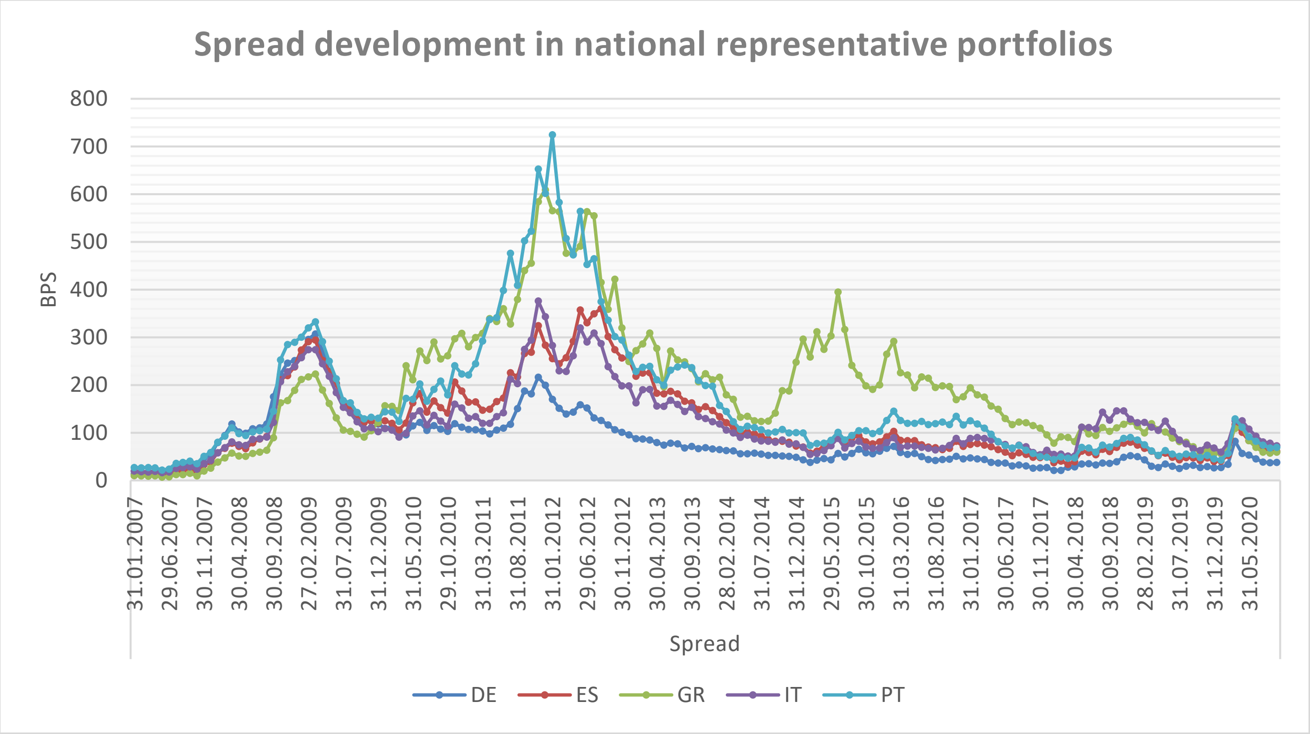
Annex 2.22 – Comparison of current and new VA design over longer time period

A.447 To assess the functioning of the VA under various economic conditions, EIOPA undertook a comparative analysis of the envisaged and the current VA during the time period from January 2007 to September 2020. This analysis is based on the observation of spread and other interest rate related data during this time period and a simulation of the resulting historical VA values for both the current and the new design of the VA. A more extensive assessment was made in regard to the development of the envisaged and the current VA since the start of Solvency II.

Evolution of VA during time period 2007 till 2020

A.448

A.449 The following diagram shows the evolution of spread levels in the national representative portfolios of DE, ES, GR, IT and PT during this period:

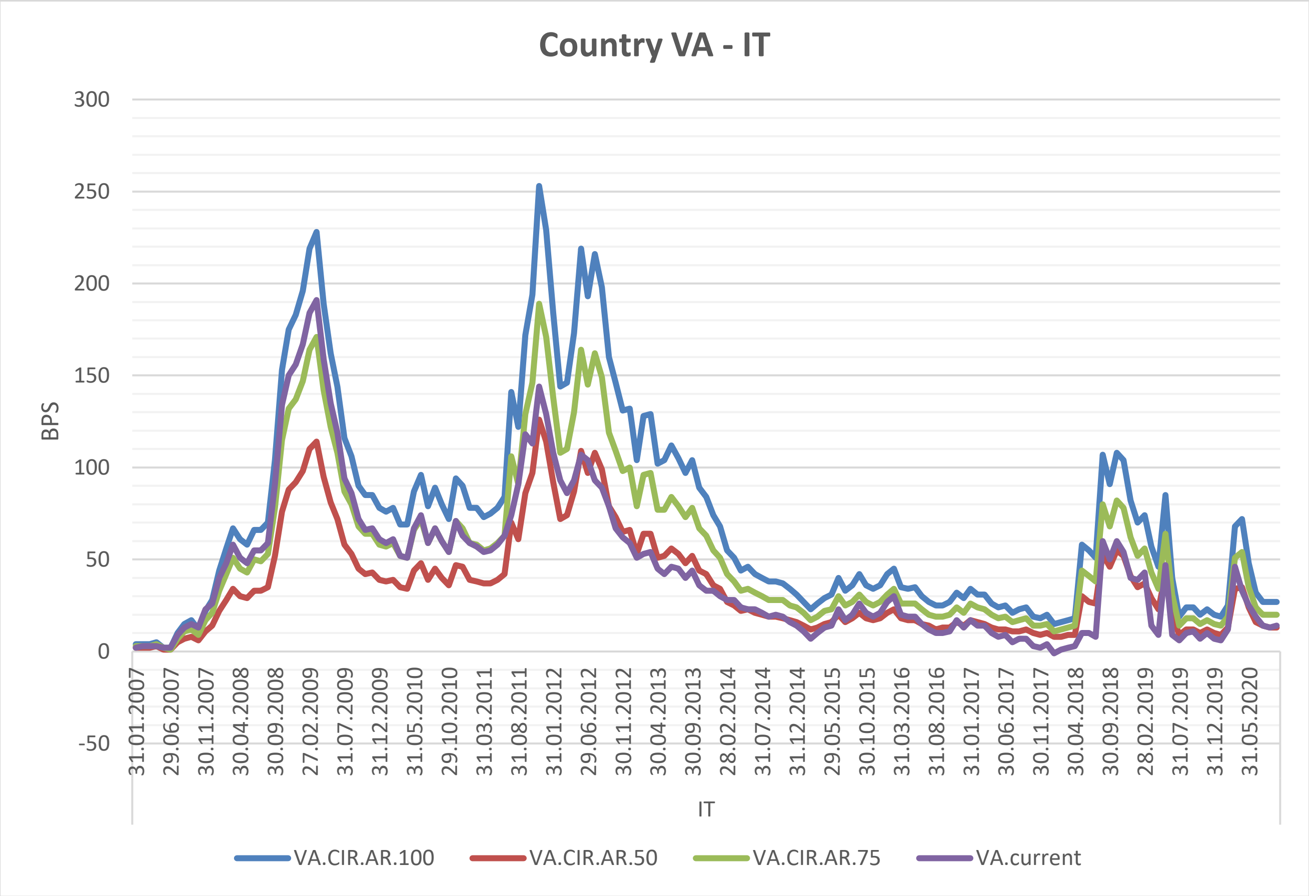


Source: Refinitiv, IHS Markit

A.450 Note that this time period includes several periods of very volatility of spreads, in particular during the financial crises during 2008 and 2009, and during the sovereign debt crisis during 2011 and 2012.

A.451 EIOPA undertook a comparative assessment of the simulated historical VA values – according to both the current design and the new envisaged design of the VA - during this period. To allow for such a comparison, an assumption on the average values of the application ratios under the new design of the VA needs to be taken. For this purpose, EIOPA computed the values for the envisaged new design of the VA by considering three different levels in the combined multiplicative impact of the VA, namely 50%, 75% and 100%. Note that, in the CIR, the average combined impact of the application ratios amounted to 70%.

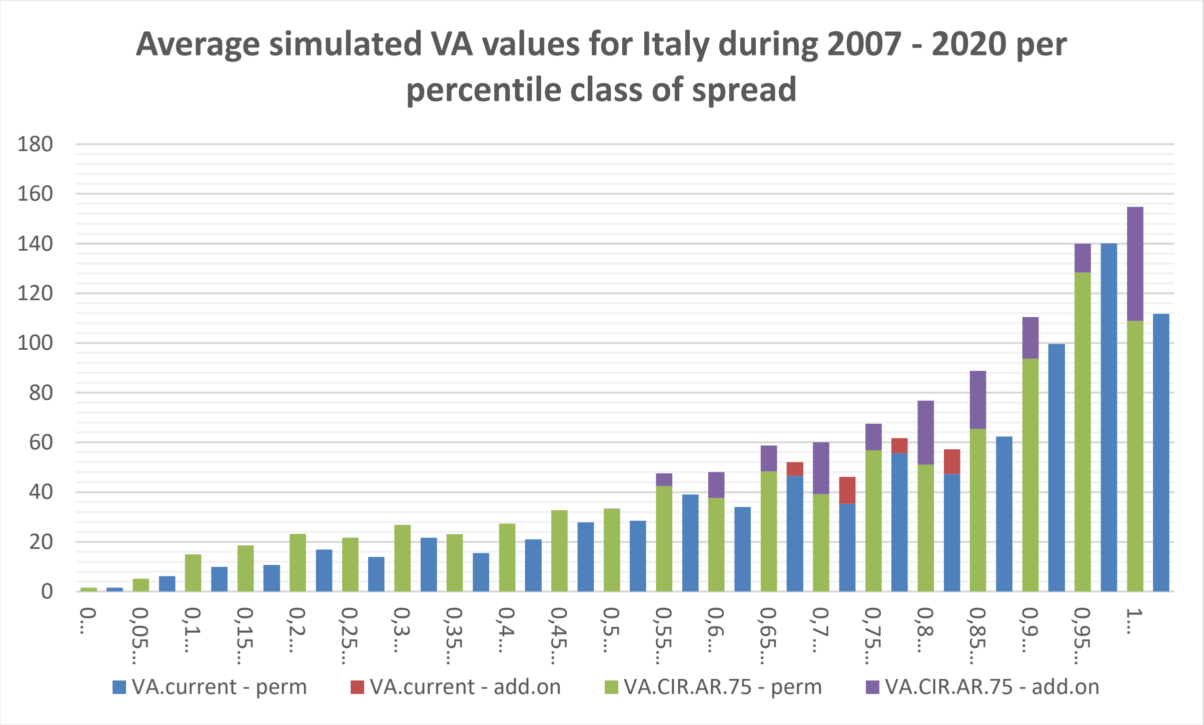
A.452 As an example, the following diagram shows the development of the VA under the current and the new envisaged design for Italy during the time period considered above.



A.453 In this diagram, the curve with the label "VA.current" refers to the values of the VA under the current design. VA values for the new envisaged design of the VA are labelled "VA.CIR.AR.50", "VA.CIR.AR.75" and "VA.CIR.AR.100" corresponding to the assumed level of the combined impact of the application ratios.

A.454 The diagram clearly shows that, in periods of medium or small spread levels, the current VA values are lower than the values for the new envisaged design of the VA. During the sovereign debt crisis 2011 – 2012, for medium or high levels of the applications ratios the new VA would have been significantly larger than under the current design. During the financial crisis, the values of the new VA corresponding to a 75% level of the application ratios would have been slightly smaller than under the current design.

A.455 The development of the VA during the time period 2007 to 2020 can also be analysed by assessing the average VA values depending on the size of the country spread for the respective country. The following diagram illustrates this for the above example of Italy:



A.456 In this diagram, average VA values for the current VA and for the new envisaged VA (with an assumed combined application ratio of 75%) are shown depending on the percentile of the observed country spread. The diagram also shows the split of the VA into the permanent and the macro component.

A.457 As expected, the average VA values increase with an increase of the spreads. For low and medium levels of spread, there is no activation of the macro component and the permanent part of the new VA is above the permanent part of the current VA.

A.458 For higher values of the spread, the macro components begin to be triggered. However, the frequency of the triggering of the VA is higher under new than under the current design of the VA. Moreover, when the macro VA is triggered, the size of the macro VA is significantly higher under the new envisaged design. Overall, this results in a combined value of the VA under the new design which is higher during all observed spread levels, even though the permanent part of the new VA is slightly lower than the permanent part of the current VA.

A.459 The conclusions on this analysis are as follows:

Conclusions

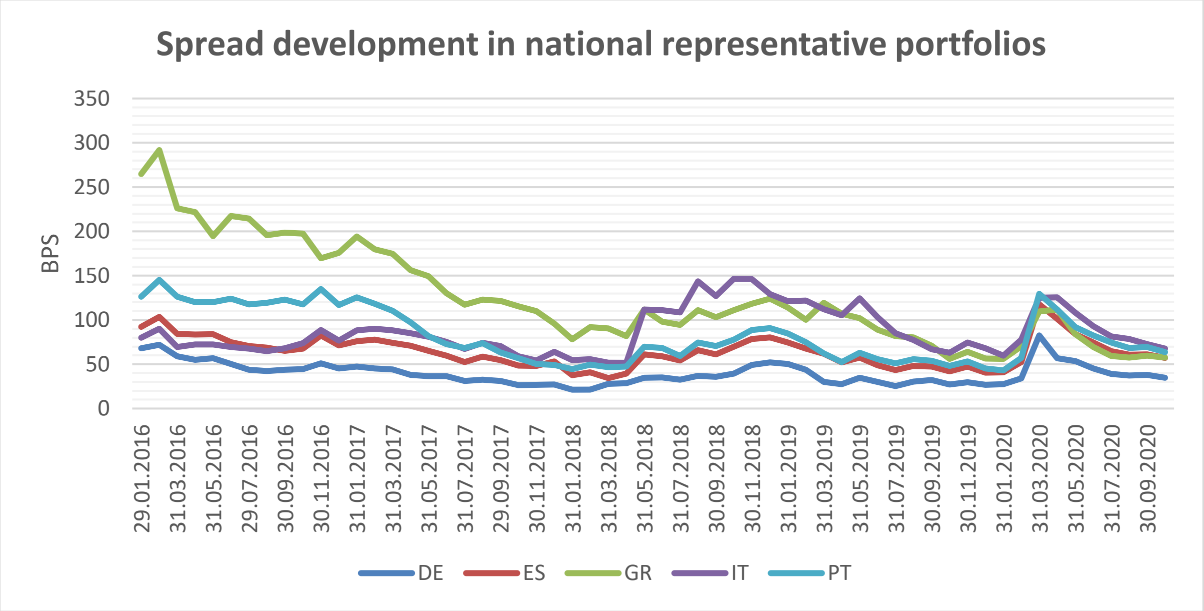
- The new envisaged design of the VA generally leads to higher values than under the current design, and is more effective than the current design during crisis situations.
- Where the new design of the VA leads to lower values than for the current VA, this is mostly the case where the combined impact of the application ratios is low. In such cases, a lower value of the VA is considered appropriate since low values of the application ratios indicate a low degree of illiquidity of the best estimate, or a risk of "overshooting" effects.

A.460 In annex 2.23, tables and graphs for the simulated VA values for further countries are contained (GR, DE, ES and PT). There show similar characteristics.

A.461 Overall, these analysis do not indicate a need to change the envisaged design of the VA.

Evolution of VA since the start of Solvency II

A.462 The following diagram shows the evolution of spread levels in the national representative portfolios of DE, ES, GR, IT and PT since the start of Solvency II:

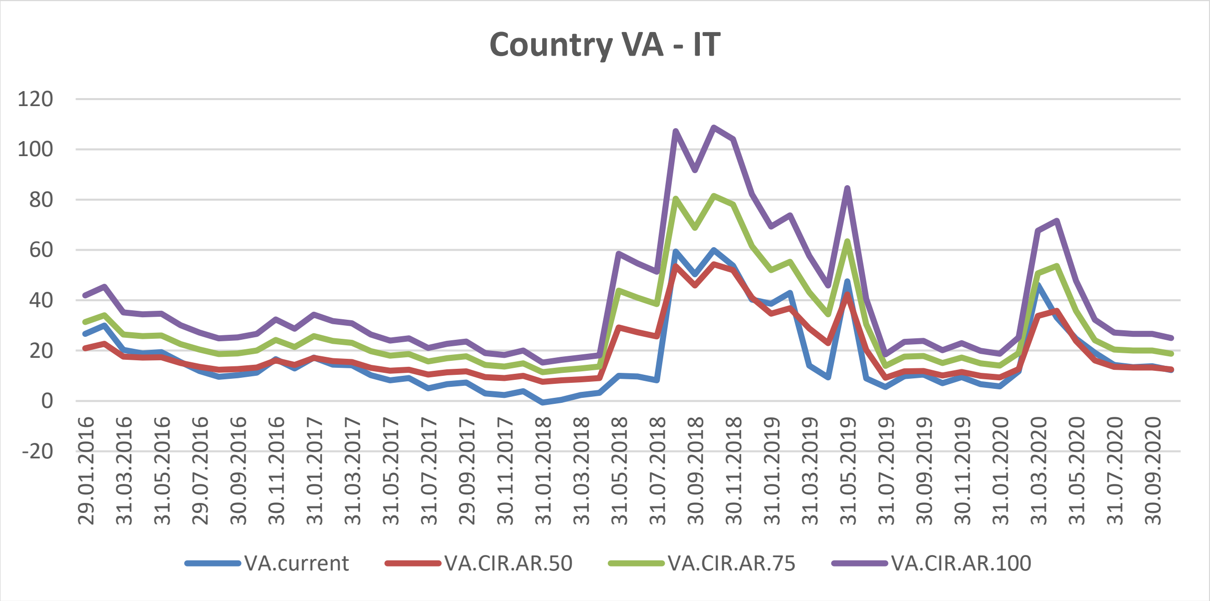


Source: Refinitiv

A.463 Note that this time period is characterised among others by an overall decline in spread values in 2016 and 2017, a rise in spread levels during 2018 followed by a gradual decline during 2019 and a sudden spike in spread levels at the beginning of the Covid-19 pandemic in the first quarter of this year.

A.464 As described above, EIOPA computed the values for the envisaged new design of the VA by considering three different levels in the combined multiplicative impact of the application ratios, namely 50%, 75% and 100%.

A.465 The following diagram shows the development of the VA under the current and the new envisaged design for Italy since the start of Solvency II:[422]



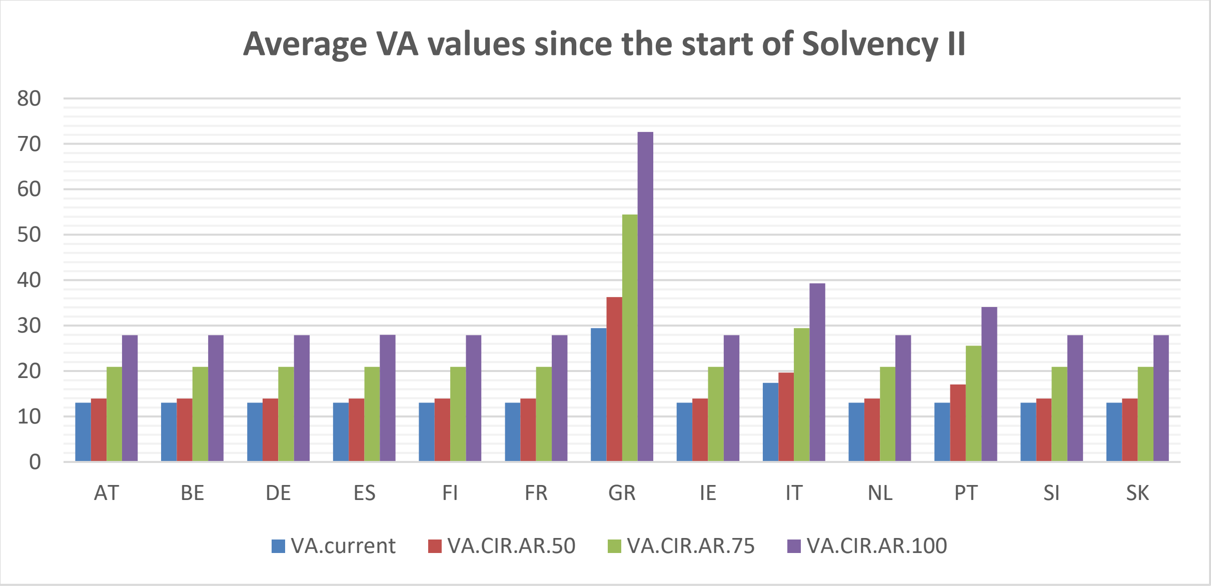
A.466 This diagram clearly show that the current VA values are lower than the values for the new envisaged design of the VA. In case where the impact of the application ratios is near to 100% - i.e. in cases where the undertakings' liabilities are highly illiquid and where the overshooting application ratio is near to 100% - the new design of the VA would have led to values that are more than twice as high as the current VA.

A.467 It can also be seen that the difference between the new envisaged VA and the current VA widens during the rise in credit spreads during 2018. This is due to the improved triggering mechanism for the macro component of the VA.

A.468 In annex 2.23, tables and graphs for the simulated VA values for further countries are contained (GR, DE, ES and PT). There show similar characteristics.

[422] Note that the calculation of the current VA shown here uses a value of 85 BPS for the absolute threshold for the country risk-corrected spread for the triggering of the national VA add-on. This value became effective during 2020, when it was decreased compared to its previous value of 100 BPS. This leads to differences between the current VA values shown in this analysis and the published VA values for Italy and Greece.

A.469 The following diagram summarises the average VA values for the current and envisaged new VA design since the start of Solvency II for all countries that use a Euro VA:



This shows that the differences between the VA values are particularly pronounced in the case of GR, IT and PT.

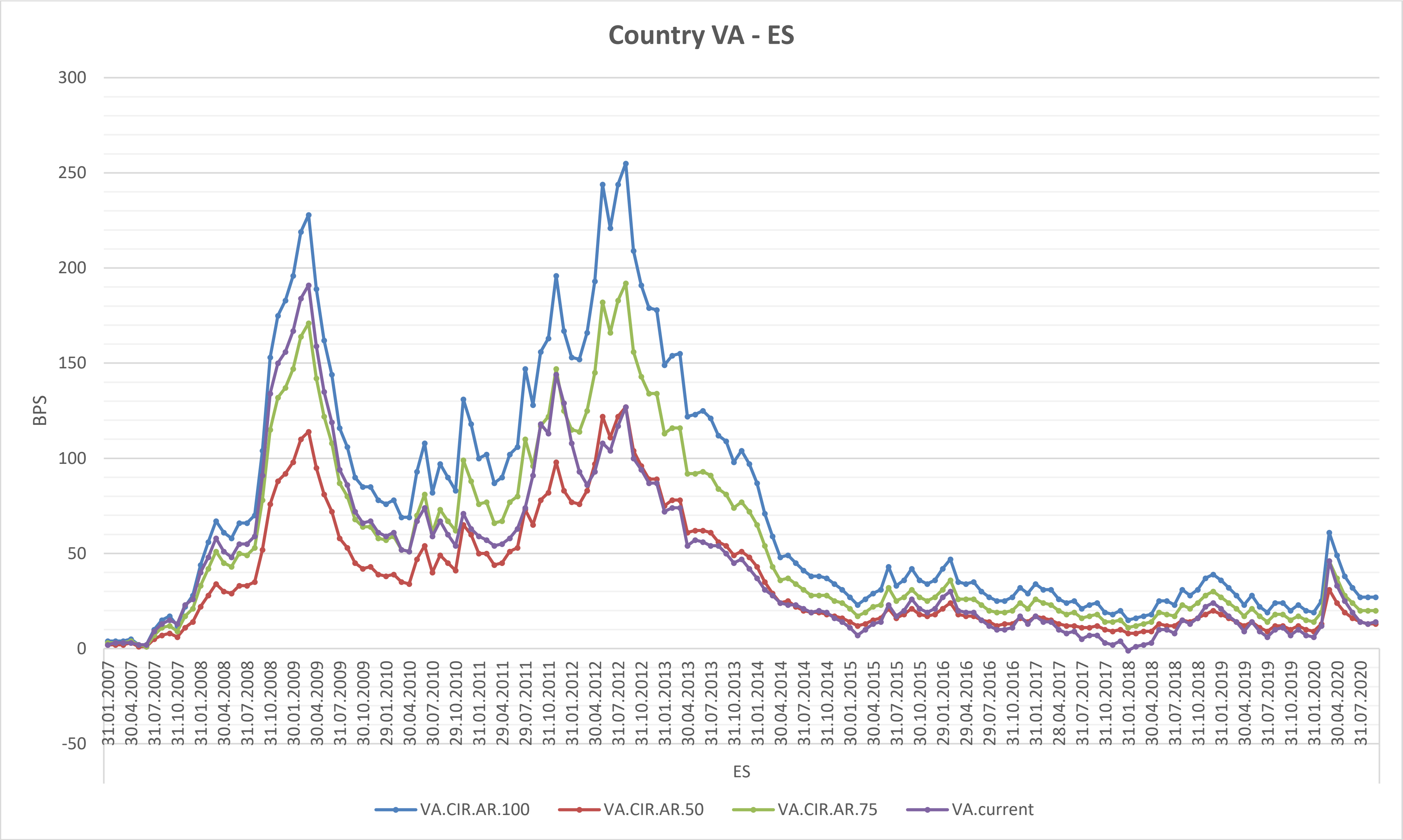
Annex 2.23 – Comparison of current and new envisaged VA – further country data

Evolution of VA during time period 2007 till 2020

A.470 The following diagrams show the development of the new envisaged design of the VA and the current design over the time period January 2007 to September 2020 for the countries ES, GR, PT and DE. The values of the VA have been simulated using data from the development of yields and spreads in the representative portfolios of the respective countries over this time period. For the new VA, three different levels of the combined multiplicative level of the application ratios were assumed (50%, 75% and 100%).

A.471 Note that these values confirm the conclusions of the comparison of the current and new VA as set out in annex 2.22.

Spain:


Country VA - ES
300
250
200
150
100
50
0
-50
BPS
31.01.2007
30.04.2007
31.07.2007
31.10.2007
31.01.2008
30.04.2008
31.07.2008
31.10.2008
30.01.2009
30.04.2009
31.07.2009
30.10.2009
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30.04.2010
30.07.2010
29.10.2010
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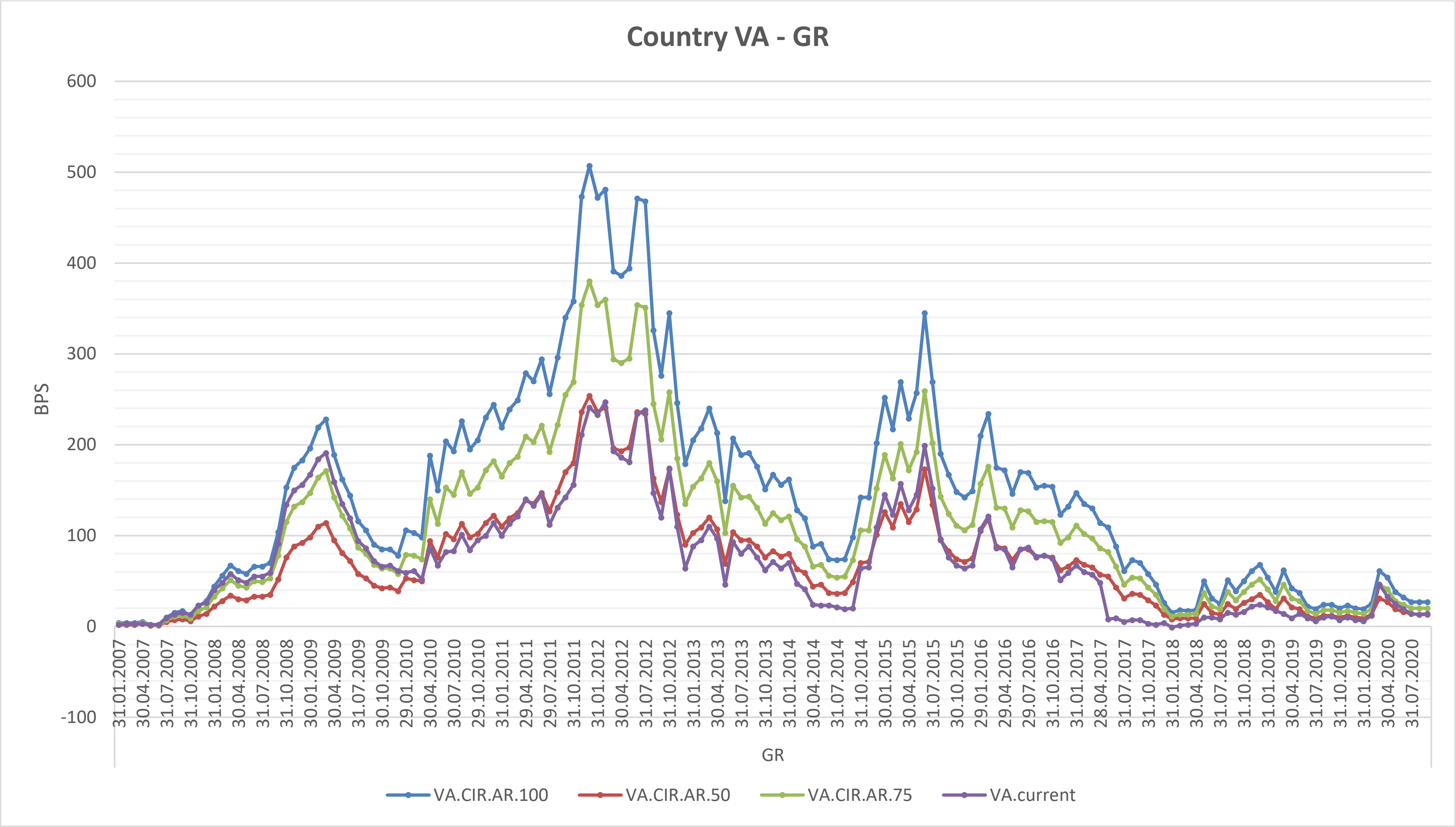
30.01.2015
30.04.2015
31.07.2015
30.10.2015
29.01.2016
29.04.2016
29.07.2016
31.10.2016
31.01.2017
28.04.2017
31.07.2017
31.10.2017
31.01.2018
30.04.2018
31.07.2018
31.10.2018
31.01.2019
30.04.2019
31.07.2019
31.10.2019
31.01.2020
30.04.2020
31.07.2020
ES
VA.CIR.AR.100
VA.CIR.AR.50
VA.CIR.AR.75
VA.current

Greece:


Country VA - GR
600
500
400
300
200
100
0
-100
BPS
31.01.2007
30.04.2007
31.07.2007
31.10.2007
31.01.2008
30.04.2008
31.07.2008
31.10.2008
30.01.2009
30.04.2009
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31.01.2011
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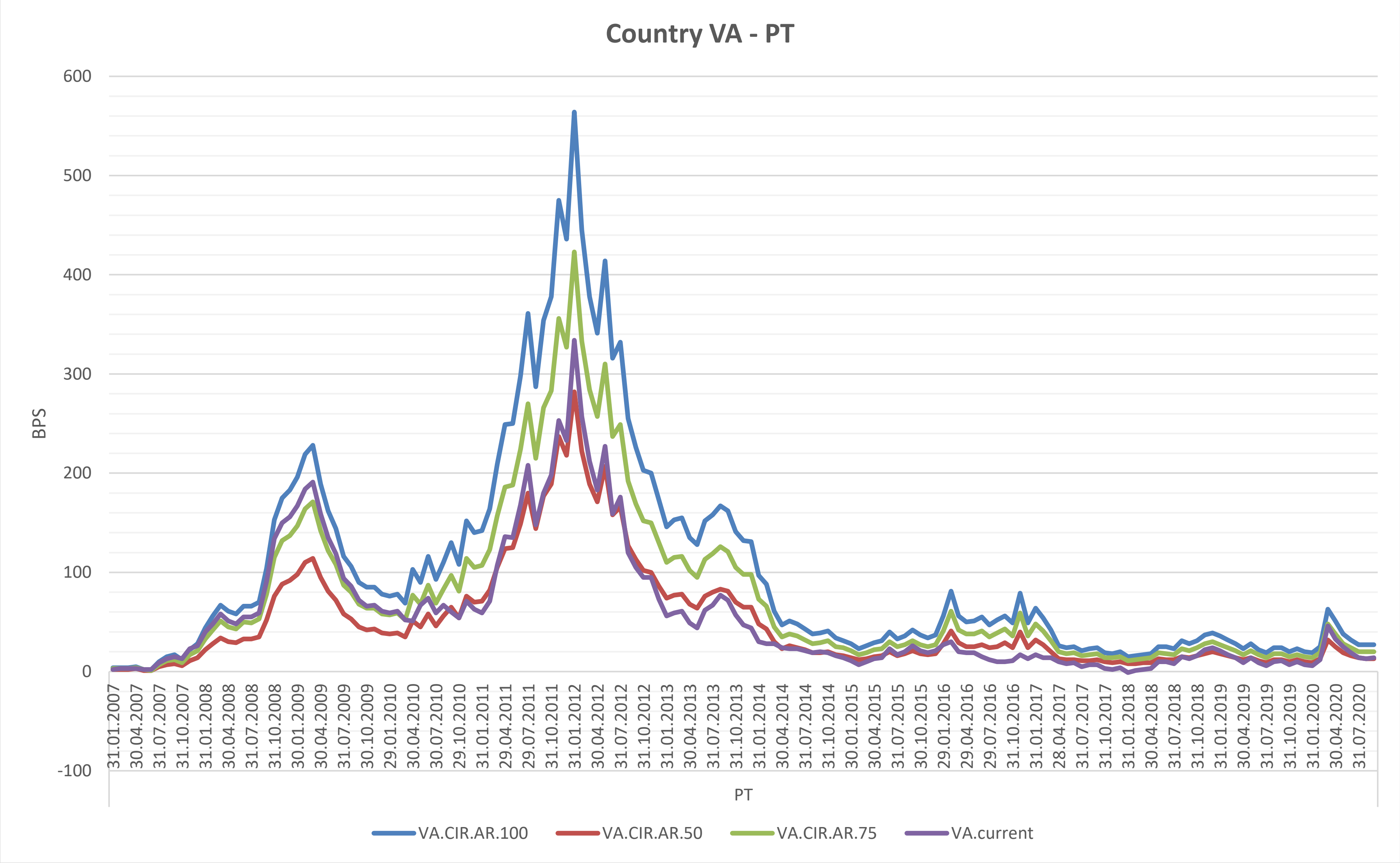
29.01.2016
29.04.2016
29.07.2016
31.10.2016
31.01.2017
28.04.2017
31.07.2017
31.10.2017
31.01.2018
30.04.2018
31.07.2018
31.10.2018
31.01.2019
30.04.2019
31.07.2019
31.10.2019
31.01.2020
30.04.2020
31.07.2020
GR
VA.CIR.AR.100
VA.CIR.AR.50
VA.CIR.AR.75
VA.current

Portugal:


Country VA - PT
600
500
400
300
200
100
0
-100
BPS
31.01.2007
30.04.2007
31.07.2007
31.10.2007
31.01.2008
30.04.2008
31.07.2008
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30.04.2009
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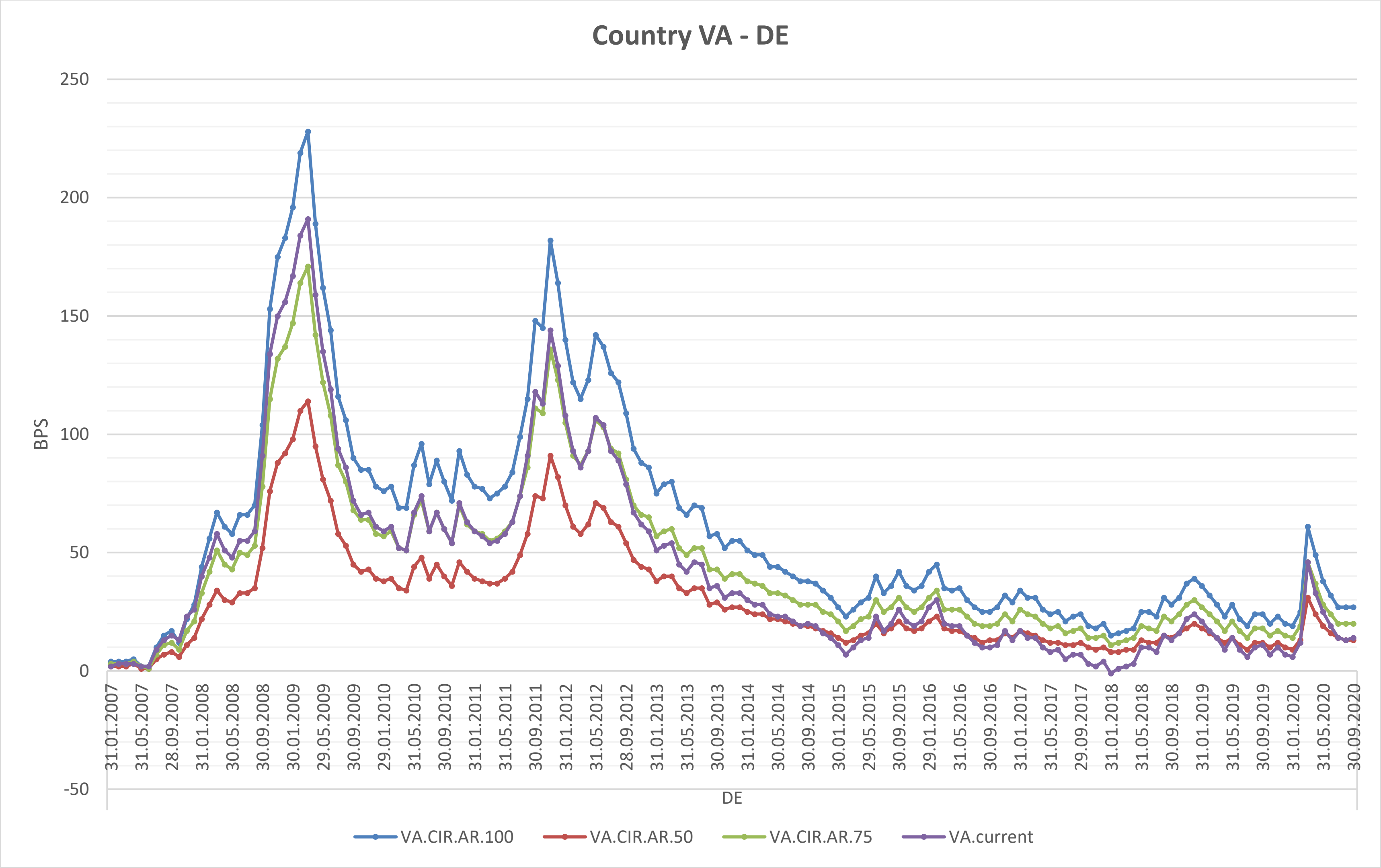
30.10.2015
29.01.2016
29.04.2016
29.07.2016
31.10.2016
31.01.2017
28.04.2017
31.07.2017
31.10.2017
31.01.2018
30.04.2018
31.07.2018
31.10.2018
31.01.2019
30.04.2019
31.07.2019
31.10.2019
31.01.2020
30.04.2020
31.07.2020
PT
VA.CIR.AR.100
VA.CIR.AR.50
VA.CIR.AR.75
VA.current

Germany:


Country VA - DE
250
200
150
100
50
0
-50
BPS
31.01.2007
31.05.2007
28.09.2007
31.01.2008
30.05.2008
30.09.2008
30.01.2009
29.05.2009
30.09.2009
29.01.2010
31.05.2010
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31.05.2012
28.09.2012
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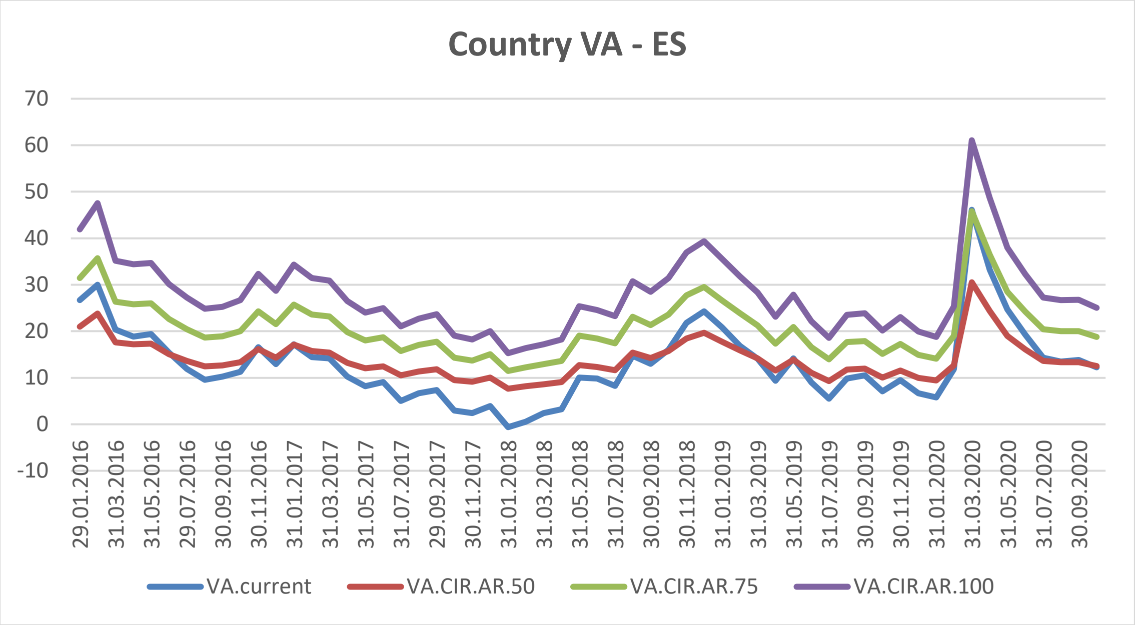
31.01.2018
31.05.2018
30.09.2018
31.01.2019
31.05.2019
30.09.2019
31.01.2020
31.05.2020
30.09.2020
DE
VA.CIR.AR.100
VA.CIR.AR.50
VA.CIR.AR.75
VA.current

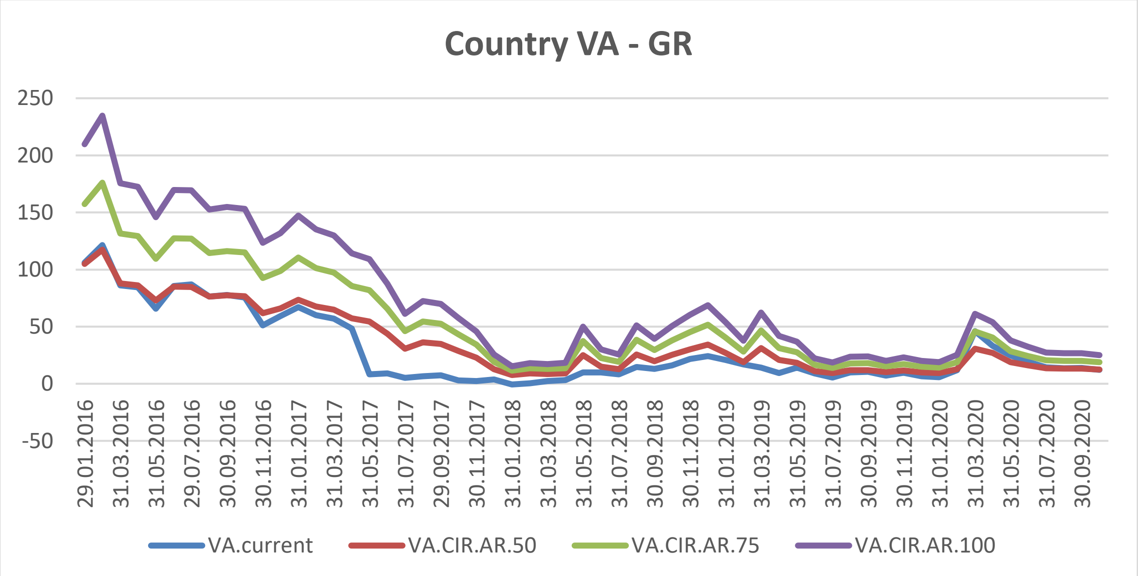
Evolution of VA since the start of Solvency II

A.472 The following diagrams show the development of the new envisaged design of the VA and the current design since the start of Solvency II for the countries ES, GR, PT and DE. For the new VA, as above, three different levels of the combined multiplicative level of the application ratios were assumed (50%, 75% and 100%).

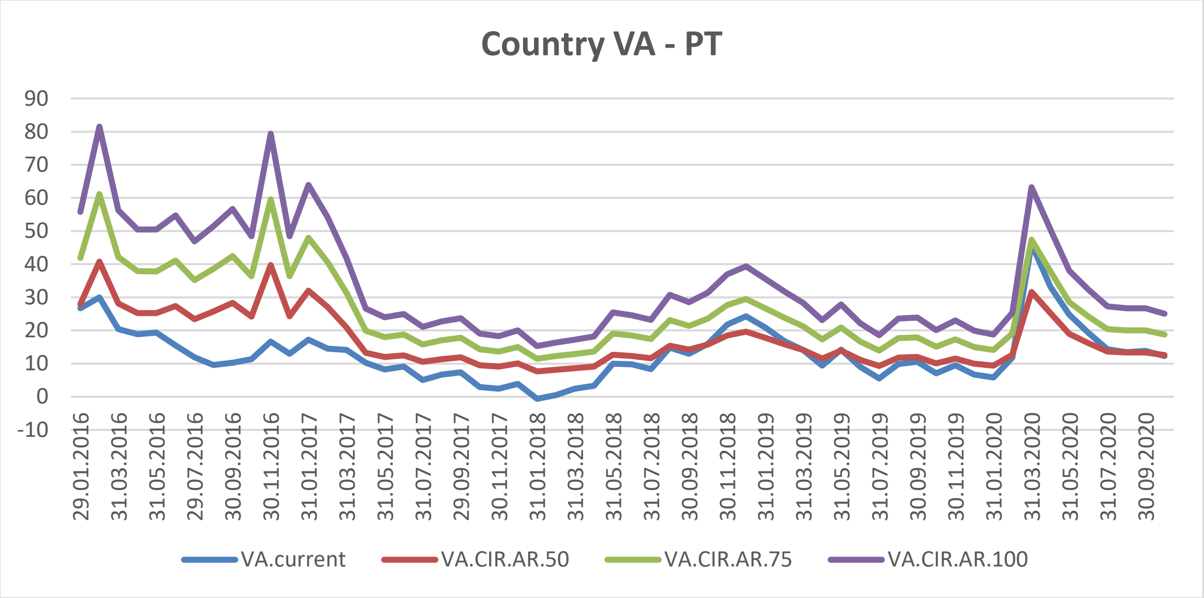
Spain:



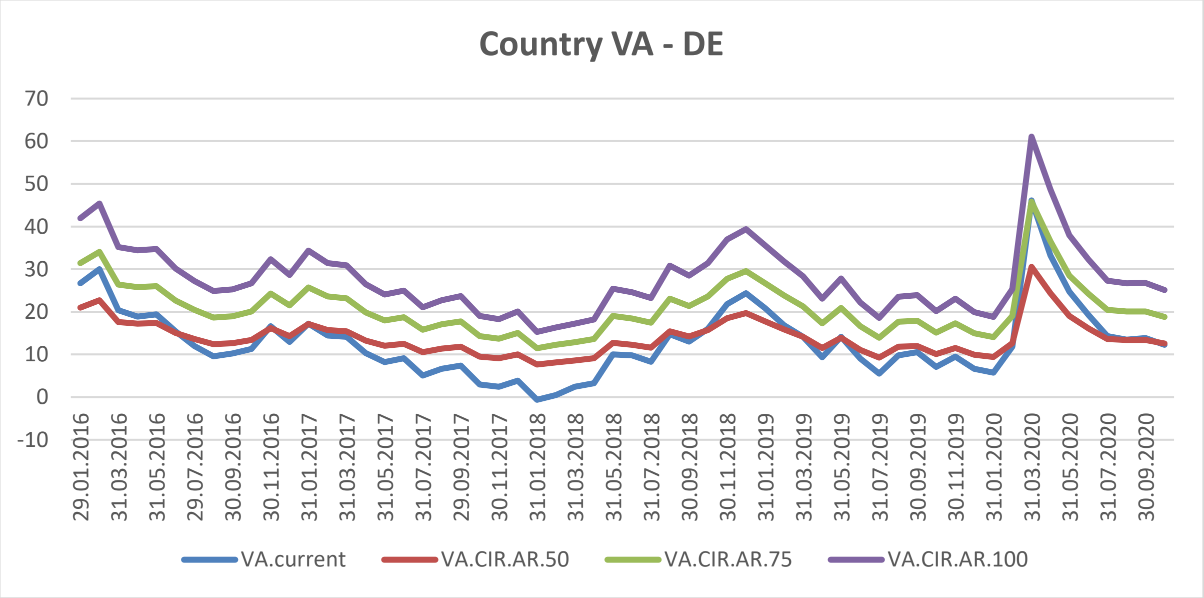
Greece:



Portugal:



Germany:

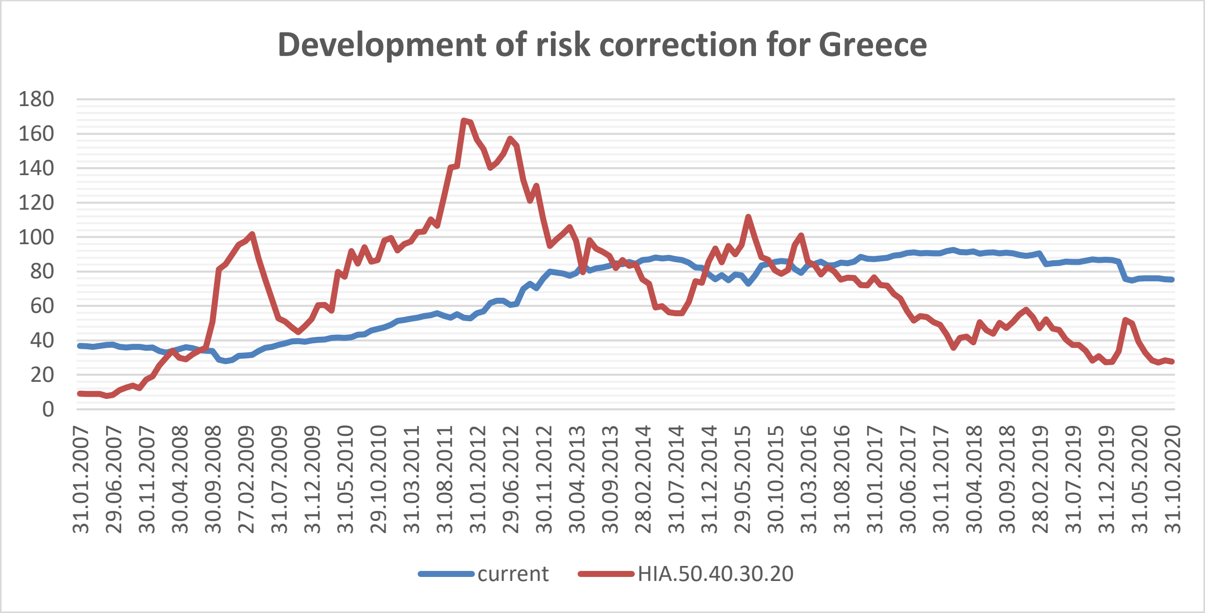


Annex 2.24 – Effects of the new VA design on the triggering of the macro VA

A.473 EIOPA has assessed the effects of the new VA design on the number of cases when the macro component of the VA is triggered. In this context, EOPA has found that the new risk correction methodology will improve the triggering of the macro VA in those countries that experienced severe crises in the past years.

A.474 In the current calculation of the VA, the "memory" of these past crises is incorporated in the risk correction, which is calculated as a long term (30 years) average of past spread data. This leads to an increase of the risk correction for these countries.

A.475 This effect is illustrated, for the example of Greece, in the following diagram, which shows the simulated development of the risk correction for the country spread of Greece during 2007 to 2020:

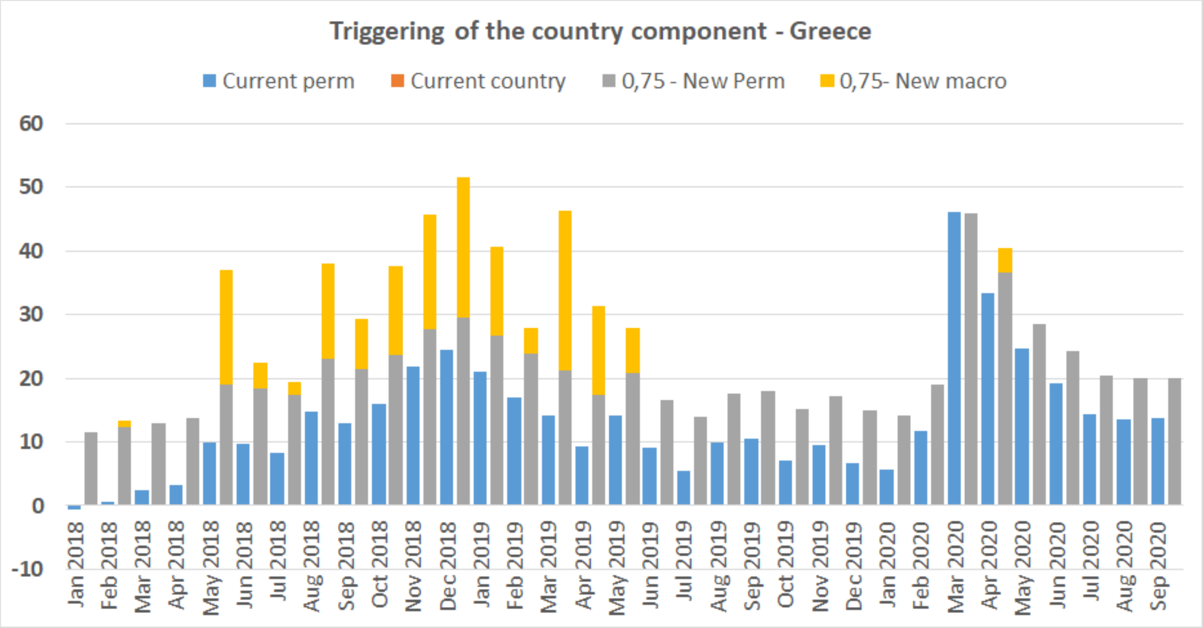


Source: Refinitiv

A.476 This shows that, under the current design of the VA, the risk correction has steadily increased since the beginning of 2009, due to the high spreads observed for the national representative portfolio for Greece. Due to this effect, since mid 2016 the risk correction for the envisaged new design of the VA would have been lower than under the current design.

A.477 In turn, this effect reduces the risk corrected country spread for these countries, potentially preventing the triggering of the macro VA. The new risk correction methodology, which is a percentage of the current spread, does not have this drawback, improving the responsiveness of the VA to the increase of volatility in credit spreads.

A.478 As an example, the following diagram shows the triggering of the macro VA in Greece in the period 2018-20. It shows that, in spite of the high level of Greek spreads in the period between May 2018 and June 2019, under the current setting the macro VA never activated.[423] On the contrary, under the proposed setting the activation would occur multiple times in this market environment.



Annex 2.25 – Effectiveness of current and new currency VA in terms of compensation

A.479 One of the aims of the VA is to dampen the impact of artificial volatility in credit spreads and to compensate part of the losses due to credit spread changes to prevent procyclical investment behaviour. Such procyclical investment behaviour may occur where undertakings would aim to de-risk and improve their financial position by selling spread sensitive assets, which would further increase spreads and market stress. Therefore, to assess the effectiveness of the VA, the change in the VA compared to changes in the spreads in the assets of the undertaking needs to be examined.

A.480 The following observations can be made in respect of the extent of compensation for the current and envisaged new design of the VA:

- Under the current design of the VA, the extent of compensation is dependent on the mismatch between the spread duration of the

[423] It should be noted that the country specific increase for Greece would not be triggered even if the new proposed methodology on macroeconomic VA according to option 7 of the consultation paper would be adopted in the current setting.

assets and the duration of the liabilities of the undertakings. However, this dependence works into the "wrong direction": Undertakings with a larger mismatch actually benefit from a higher degree of compensation, whereas undertakings with a smaller mismatch receive a smaller compensation.

- By the introduction of application ratio 4 and the scaling factor in the new design of the VA, the degree of compensation of spread changes is less depended on the extent of spread mismatches, so these unwanted effects are limited.
- The degree of compensation of the new VA still depends on the value of the application ratio for illiquidity (AR 5). On average, it is between 33% in case where this ratio is at its minimal value of 60% and 55% where this ratio is 100%, reflecting that illiquidity of the liabilities enable undertaking to hold on to their fixed income assets longer and as such better withstand artificial volatility in credit spreads.

Annex 2.26 – Belgian case study on impact of current VA during crisis

A.481 In this annex, the findings of a case study of the Belgian supervisory authority on the impact of the current VA during the first half of 2020 ere described.

A.482 Where the average spread of an undertaking's portfolio of bonds increases, the value of these bonds decreases, and subsequently the value of the own funds decreases. The volatility of the own funds caused by the volatility of spreads could have unintended consequences such as triggering procyclical behaviour. As part of its overall objectives, the VA is intended to mitigate the impact of exaggerations of bond spreads on own funds and to prevent procyclical investment behaviour. Where the impact of the VA is higher than is warranted to achieve this aim, an "overshooting" effect may occur. One can state that the volatility adjustment overshoots when the decrease in the best estimate caused by the volatility adjustment is higher than the decrease in the value of an undertaking's bonds portfolio caused by its average risk-corrected spread.

A.483 Assessing the over- or the undershooting of the VA is not straightforward in practice, as this requires information on the impact of the undertaking's specific risk-corrected spread, for instance provided by a specific sensitivity analyses on the spreads or the calculation of the so-called 'undertaking specific'-VA. An analysis of the evolution of the solvency position of an undertaking can in some specific circumstances provide an indication of the overshooting of the VA, this indication needs to be confirmed by an in-depth analysis before concluding the VA effectively overshoots.

Evidence of overshooting between 31/12/2019 and 24/04/2020

A.484 If we take for example the situation between year-end 2019 and 24 March 2020, the average basic RFR calculated as one single discount rate for the Belgian market (hereafter Basic RFR) decreased from 63 BPS to 40 BPS while the VA increased by 44 bps. Although a decrease in the basic RFR is an adverse scenario expected to negatively impact the solvency position of undertakings, it has been observed that the solvency position of some undertakings significantly improved in this period. As the VA increased strongly during this period, the overshooting of the VA could be one explanation for these improvements in the solvency positions. From an in-depth analysis performed by four undertakings for which the solvency ratio improved between 20pp and 41pp, it appeared[424] that the significant increase of the VA is the main explanation for the improvement of their solvency position, providing evidence that the VA is overshooting in their case.

Developing an overall indicator for overshooting

A.485 Considering the development of the difference between the value of technical provisions subject to the VA and the value of an undertaking’s portfolio of fixed income investments (sovereign and corporate bonds) could provide an indication of the overshooting of the VA. This indication is only credible where it is possible to identify that the observed development is mainly attributable to the change of risk-corrected spreads in both the technical provisions and in the undertaking’s bond portfolio.

A.486 Ideally, the following three requirements should be met:

- All the best estimate assumptions except the discount rates remain unchanged
- The undertaking’s portfolio of bonds remains unchanged
- Basic RFR and the VA evolve in different directions and the evolution of the VA is more important than the evolution of the Basic RFR

A.487 Although the first and the second conditions can only be confirmed by the undertaking, it appears reasonable to assume that these conditions are met if the observation period is very short, for example only one or two weeks. If the three conditions are met and an increase in the VA causes a decrease in the technical provisions which overcompensates the observed decrease in the undertaking’s bond portfolio[425], then this provides a strong indication that the VA is overshooting.

A.488 An analysis of the evolution of the basic risk-free rate and the VA shows that only two periods meet the third requirement, i.e. the period between 31/12/ 2019 and 24/03/2020 (T1) and the period between 06/04/2020 and 14/04/2020 (T2).

[424] Two of these undertakings provided this evidence by comparing their own undertaking specific VA with the current VA, the impact of the difference explains the improvement in their solvency position. The two other undertakings provided this evidence through an in-depth analysis of the impact of the spreads on their bond portfolio and compared it to the impact of the VA on their best estimate, the difference explained the improvement in their solvency position.

[425] so that the impact of the VA on the value of the technical provisions is higher than the impact of the undertaking’s risk corrected spread on its bond portfolio

	31/12/2019	24/03/2020	31/03/2020	06/04/2020	14/04/2020	30/04/2020
VA	7	51	46	46	36	33
Basic RFR	0,630%	0,403%	0,366%	0,351%	0,354%	0,224%

A.489 The indicator that will be used in the following analysis relates to the expected increase / decrease in eligible own funds that is attributable to the difference between the evolution of the total value of the bonds and the total value of the technical provisions subject to the VA. In T1 the VA increased more than the decrease in the Basic RFR, an increase in eligible own funds that is attributable to the difference between the evolution of the total value of the bonds and the total value of the technical provisions subject to the VA therefore indicates the VA is overshooting at the end of T1. Vice versa for T2, a decrease the in eligible own funds will indicate the VA was overshooting at the beginning of T2.

A.490 For the four undertakings for which the overshooting had been confirmed with factual evidence, the results of the indicator confirms the overshooting for three of the four undertakings in T1 and for the four undertakings in T2. This is in line with the expectation explained above that the indicator would perform better for very small periods.

A.491 Calculating the indicator in T2 for a broader sample of 25 Belgian undertakings using the VA indicates that the VA might be overshooting for 21 of 25 undertakings in the sample.

Annex 2.27 – Aggregation of spreads – “freezing” issue

General approach to aggregation of interest rates

A.492 For the aggregation of interest rates across the individual buckets of the representative portfolio, a so-called “zero coupon bond” approach is used.

A.493 This means that, at the level of the individual bucket, the portfolio is modelled as a (single) zero-coupon bond (ZCB). The aggregation is then carried out on basis of the modelled zero-coupon bonds per bucket.

A.494 Note that a ZCB is fully specified by the maturity of the bond and the cash flow at maturity (or notional amount), henceforth denoted by *CF*. Moreover, for a zero-coupon bond (ZCB), the (Macaulay) duration coincides with its maturity. So a ZCB can be determined by specifying its duration (henceforth denoted by *Dur*) and its nominal cash-flow.

A.495 Suppose now that the market value (*MV*) of a ZCB, and the interest rate *IR* to which this market value relates are known, so that:

$$MV = CF \cdot (1 + IR)^{-Dur}$$

A.496 In such a situation, to determine the ZCB it is sufficient to specify the duration *Dur* of the bond, since then the cash flow *CF* is given by:

$$CF = MV \cdot (1 + IR)^{Dur}$$

A.497 The EIOPA-methodology makes use of this observation by selecting information on the (relative) market-value *MV*$_i$, the (average) interest rate *IR*$_i$ and the (average) duration *Dur*$_i$ at the level of the individual buckets *i* in the corporate bond (respectively, government bond) portfolio.

A.498 The aggregated interest rate *IR* at portfolio level is then calculated as the (single) rate that, when used to discount the cash flows, gives the sum of market values across the individual buckets. This means that *IR* is the solution of the following equality:

$$\sum_i CF(i) \cdot (1 + IR)^{-Dur} = \sum_i CF(i) \cdot (1 + IR(i))^{-Dur(i)} = \sum_i MV(i)$$

A.499 Note that this equation simplifies to

$$\sum_i CF(i) \cdot (1 + IR)^{-Dur} = 1$$

in case the market values *MV(i)* are chosen as relative weights, so that

$$\sum_i MV(i) = 1$$

“Freezing” of assumptions on representative portfolios

A.500 For the calculation of the VA, EIOPA uses the following information for modelling the ZCB’s of the individual buckets of the representative portfolio:

- interest rates (yields, risk-free rates, fundamental spreads);
- the proportion (weight) of the market value of the bucket within the overall portfolio; and the
- average (modified) duration of assets in the bucket.

A.501 The information on the (average) modified durations is used to set the assumption on the Macaulay duration *Dur(i)* of the ZCB that models the bucket.

A.502 Whereas the VA is calculated at a monthly basis, the information on the duration and the market value weights is only updated at longer intervals (currently, every 12 months). Therefore, during these intervals, there is the need to freeze the assumptions on any two of the following three items concerning the ZCB used to model the bucket:

- the (Macaulay) duration Dur(i) of bucket i;

- the market value weight MV(i); or
- the cash flow (nominal value) CF(i) for assets in bucket i.

A.503 Such "freezing" could lead to a significant misestimation of aggregated spreads and yields. Hence, a careful assessment of the implications of such an approach appears necessary.

A.504 At current, EIOPA uses an approach where market value weights *MV(i)* and durations *Dur(i)* are frozen at a certain point in time t_0. In the following, we will refer to this approach as the *MV (market value)*-Freeze approach.

A.505 The MV-Freeze approach assumes that, for each bucket, the duration and the (relative) market value of the bucket remain constant during the freeze. Cash-flows *CF(i,t)* at time *t* per bucket *i* are determined as

$$CF(i,t) = MV(i,t_0) \cdot \left(1 + IR(i,t)\right)^{Dur(i,t_0)}$$

A.506 This means that, under the MV-Freeze approach, the weight of the cash flows in bucket *i* (relative to the overall amount of cash flows across all buckets) is given by

(1) $$CF_{weight}(i,t) = \frac{MV(i,t_0) \cdot \left(1+IR(i,t)\right)^{Dur(i,t_0)}}{\sum_j MV(j,t_0) \cdot \left(1+IR(j,t)\right)^{Dur(j,t_0)}}$$

A.507 The aggregated interest rate *IR(t)* at time t is then determined by the equation[426]:

(2) $$\sum_i CF(i,t) \cdot \left(1 + IR(t)\right)^{-Dur(i,t_0)} = 1,$$

which is equivalent to

(3) $$\sum_i MV(i,t_0) \cdot \left(\frac{1+IR(t)}{1+IR(i,t)}\right)^{-Dur(i,t_0)} = 1$$

Deficiencies of the MV-Freeze approach

A.508 As described in the previous sub-section, the MV-Freeze approach assumes that the relative weights of the market values of the buckets that constitute the representative portfolio are constant over time. At the same time, it assumes that the weight of the cash flows in the individual buckets change when there is a change in interest rates.

A.509 In case where, for a given bucket *i*, the interest rate *IR(i,t)* applicable to this bucket increases, the cash flow

$$CF(i,t) = MV(i,t_0) \cdot \left(1 + IR(i,t)\right)^{Dur(i,t_0)}$$

in bucket *i* (and the relative weight $CF_{weight}(i,t)$ of this cash flow) will increase as well. Vice versa, in case the interest rate *IR(i,t)* decreases, the cash flow $CF(i,t)$ and its relative weight $CF_{weight}(i,t)$ also decrease.

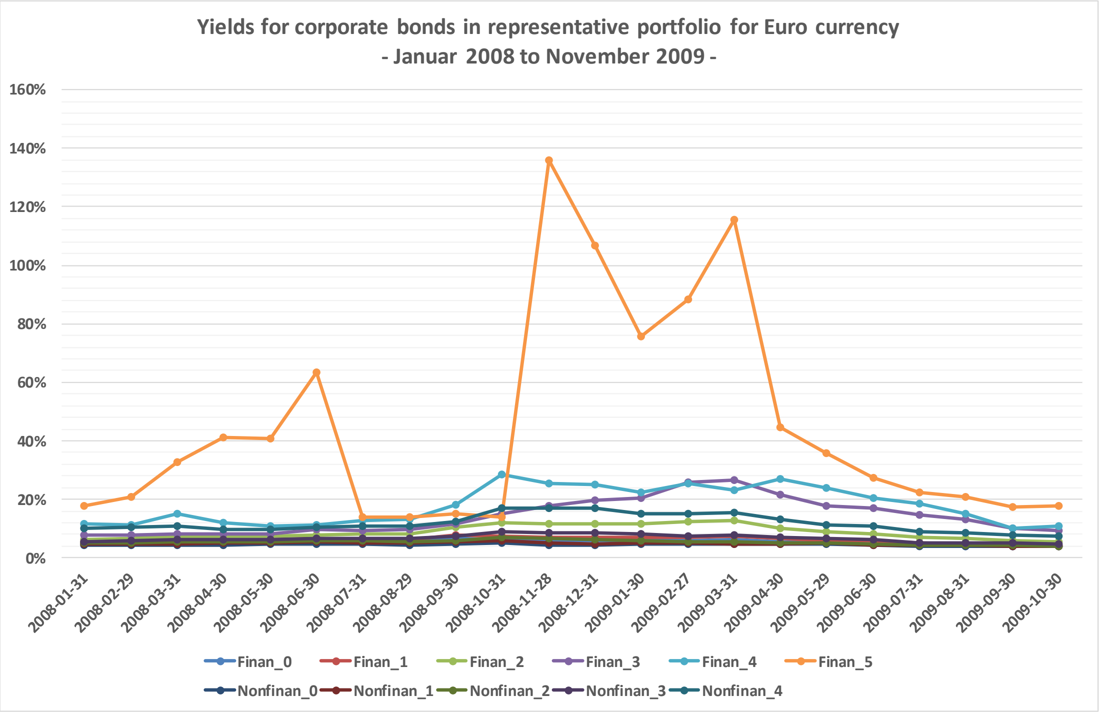
[426] where we assume that the market values *MV(i,t₀)* are chosen as relative weights

A.510 In reality, however, a change in interest rate will ceteris paribus lead to a change in market values, whereas cash flows will remain constant. Specifically, where the interest rate $IR(i,t)$ increases, it would be expected that the market value $MV(i,t)$ of investments in bucket i (and the relative market value weight of investments) would not remain constant, but decrease. This means that the MV-Freeze approach could lead to an over-estimation of the weight of buckets with high interest rates.

A.511 To assess the extent of this potential over-estimation, EIOPA has assessed the aggregation of interest rates using the MV-Freeze methodology using a simulated calculation of the VA over the time horizon January 2007 to February 2019. Note that this time horizon includes periods of extreme interest rate movements, in particular during the financial crises 2008-2009 and during the sovereign debt crises 2010-2012.

A.512 This assessment revealed that the MV-Freeze approach is indeed prone to lead to over-estimation effects, but only in cases of extreme interest rate spikes.

A.513 To illustrate this, the following diagram shows the yields for the individual buckets in the corporate bonds portfolio of the representative portfolio for the Euro currency during the time period January 2007 to November 2008. Note that the corporate bond portfolio is subdivided in 12 buckets according to the credit quality of the investments and a distinction between financial and non-financial bonds.[427]



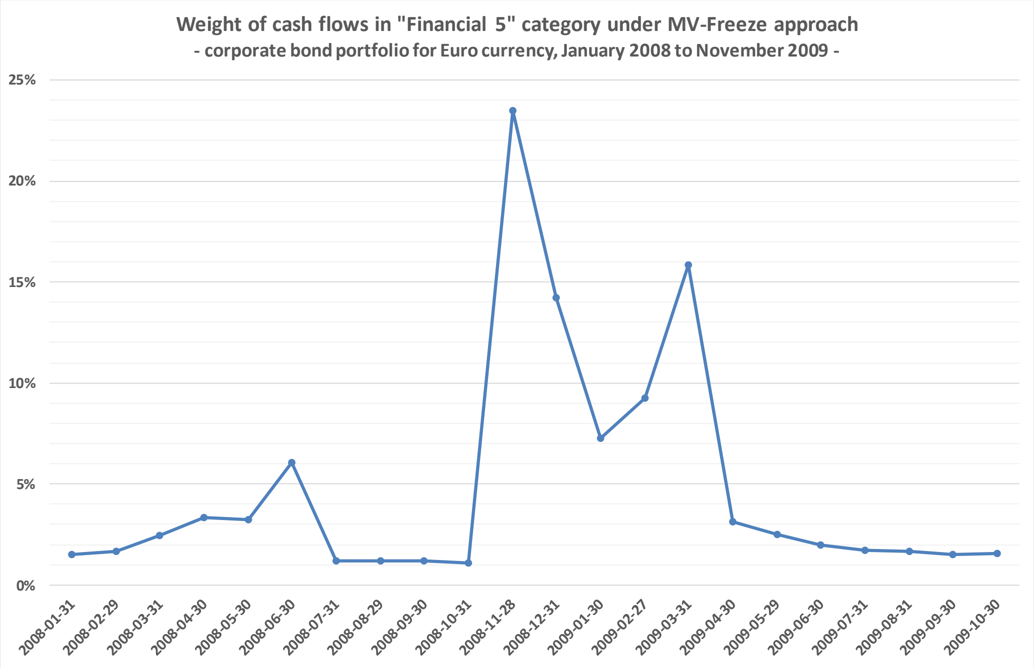
Source: IHS Markit indices

[427] in the diagram below, only 10 buckets are shown, since the "Nonfinancial 5" and "Nonfinancial 6" categories carry a zero weight in the representative portfolio used in the simulation

A.514 Note that this period is characterised by an extreme spike in the level of yields for corporate bonds in the "Financial 5" category (financial bonds with average "B" rating). Between end October 2008 and end November 2008 – i.e. within just a month – the average spreads for corporate bonds[428] increased from 14% to 136%.

A.515 In reality, this meant that the market value of bonds in this category would have significantly decreased. However, as outlined above, the MV-Freeze approach would assume that the market value weight of the "Financial 5" bucket[429] would remain unchanged.

A.516 At the same time, the MV-Freeze approach would assume that the weights of the cash flows in the buckets of the corporate bond portfolio would be impacted by the changes in yield. The following diagram shows the proportional weights of the cash flows assumed under the MV-Freeze approach in the same period:



Weight of cash flows in "Financial 5" category under MV-Freeze approach
- corporate bond portfolio for Euro currency, January 2008 to November 2009 -

Source: IHS Markit indices

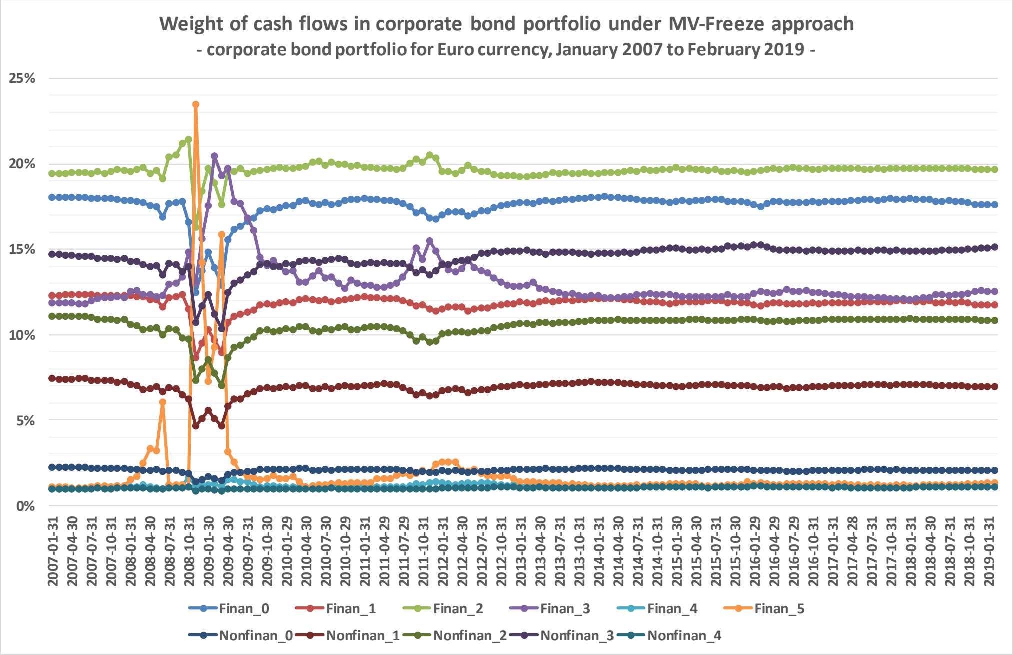
A.517 This shows that, during the peaks of the yields for bonds in the "Financial 5" category, the MV-Freeze approach would assume that the weight of cash flows for these bonds – relative to the volume of cash flows for all corporate bonds – would increase significantly. In particular, between end October 2008 and end November 2009, the weight of cash flows for "Financial 5" bonds would have increased from 1.1% to 23.5%. This would

[428] with an average duration of 4,6 years as assumed in the representative portfolio which was used in the simulation

[429] which amounts to 1% in the representative portfolio used for the simulation

only be possible under a scenario where insurers would massively shift their corporate bond investments into this category, or where there would be a very massive (and sudden) deterioration of ratings. However, such a scenario seems unrealistic.[430]

A.518 As mentioned above, the tendency of the MV-Freeze approach to overestimate the weights of buckets with high interest rates is less significant in a situation where interest rate levels are not extreme. To illustrate this, the following diagram visualises the weights of cash flows under the MV-Freeze approach for the whole time period January 2007 to February 2019:



Source: IHS Markit indices

A.519 This shows that, apart from the aforementioned period January 2008 to November 2009 (i.e. the height of the financial crises) and the sovereign debt crises 2011-2012, the weights of the buckets in the corporate bond portfolio remained relatively stable.

Options to address "freezing issue"

A.520 On this issue, the following two options have been identified:

Option 1: no change

Option 2: use of a cash flow (CF)-Freeze approach instead of a MV-Freeze approach

[430] It could be expected that a sudden and extreme increase of spreads would lead, instead, to a "flight to quality", i.e. to a shift into other investment classes with higher credit quality

Description of the CF-Freeze approach

A.521 Under a CF-Freeze approach, the cash flows CF(i) and durations Dur(i) are frozen.[431] Hence this approach assumes that, for each bucket, the duration and the (relative) volume of cash flows in the bucket remain constant during the freeze. The market value of bucket i at time t is then determined as

$$MV(i,t) = CF(i,t_0) \cdot \left(1 + IR(i,t)\right)^{-Dur(i,t_0)}$$

A.522 Under this approach, the aggregated interest rate *IR(t)* is determined as the solution of the equation

(4) $$\sum_i CF(i,t_0) \cdot \left(1 + IR(t)\right)^{-Dur(i,t_0)} = \sum_i MV(i,t),$$

which is equivalent to

(5) $$\sum_i W(i,t) \cdot \left(\frac{1+IR(t)}{1+IR(i,t)}\right)^{-Dur(i,t_0)} = 1,$$

where the weights *W(i,t)* are defined as

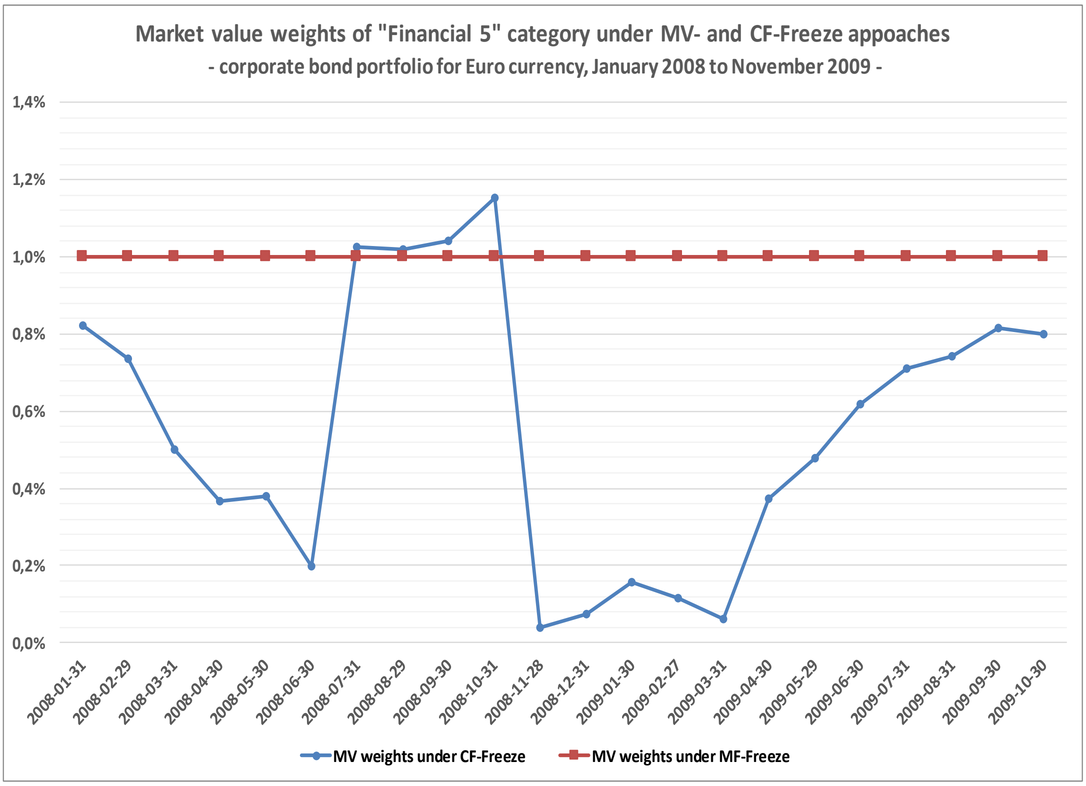
(6) $$W(i,t) = \frac{MV(i,t)}{\sum_j MV(j,t)}$$

A.523 Note that equation (6) is similar to equation (3) which defines the MV-Freeze approach. In contrast to the MV-Freeze approach, however, the weights W(i,t) are not constant, but vary with varying levels of interest rates IR(i,t).

A.524 The following diagram compares the market value weights under the MV-Freeze approach with the weights W(i,t) for the same investment bucket and time period as analysed before.[432]

[431] in the following, we use the notation introduced earlier in this section.

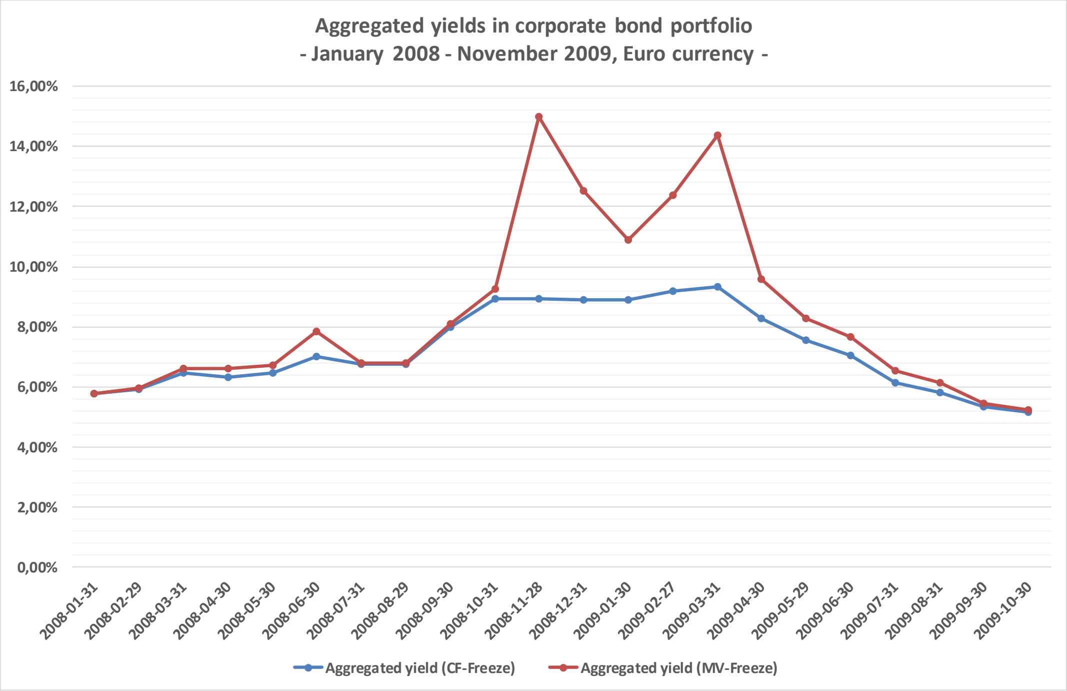
[432] "Financial 5" category of corporate bonds in the representative portfolio for the Euro currency during the time period January 2007 to November 2008.



Source: IHS Markit indices

A.525 This shows that under the CF-Freeze approach, where yields in the "Financial 5" investment bucket peaked, the market value weight of this bucket decreased, which is consistent with economic expectations.

A.526 Note that, through allowing a reflection of a change in the market value weights, the CF-Freeze approach avoids a potential over-estimation of high interest rates in buckets with small weight. The following diagram shows for comparison the aggregated yield resulting from the MV-Freeze and CF-Freeze approaches for the corporate bond portfolio during the same time period:

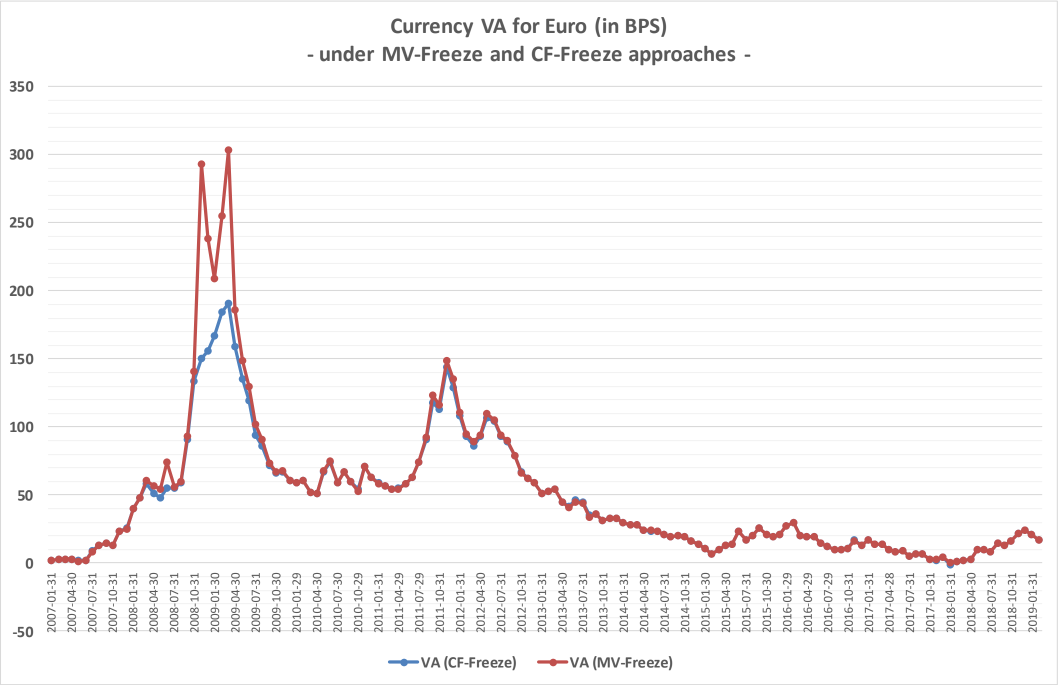


Source: IHS Markit indices

A.527 This shows that, whereas overall the aggregated yields are similar, the yields computed under the CF-Freeze avoid the peaks of the aggregated yields under the MF-Freeze approach which result from the over-estimation of the weight of "Financial 5" category yields under this approach. E

A.528 IOPA has also found that in situations as above (i.e. high interest rate increases in buckets of small weight), the aggregated interest rates computed under the MV-Freeze approach are much less robust than the aggregated interest rates under the CF-Freeze approach. With the MV-Freeze approach, small changes in the assumed market value weights can lead to significant changes of the aggregated rate.

A.529 Notwithstanding these effects in cases of extreme interest rate movements, the differences between the two approaches tend to be insignificant in case of non-extreme interest rate environments. To illustrate this, the following diagram shows the (simulated) value of the VA for the Euro currency for the whole time period 2007-2019 for both the MV-Freeze and the CF-Freeze method:



Source: IHS Markit indices

A.530 This shows that the computed VA-values for the two approaches are very close to another except for the afore-mentioned period of extreme interest rate movements. There are also differences – although to a much smaller degree – during the financial debt crises 2010-2012.

Conclusions

A.531 The preferred option for this issue is the use of a CF-Freeze approach instead of a MV-Freeze approach. The differences between these two approaches are expected to be negligible except in cases of extreme interest rate movements where the CF-Freeze approach leads to a more robust aggregation of interest rates that avoids potential over-estimation effects that could result when using the MV-Freeze approach.

A.532 To base the calculation of the VA on the CF-Freeze approach instead of the MV-Freeze approach does not require a change to the legal framework of Solvency II.

Annex 2.28 – Framework for the own funds buffer for compressed spreads

Objectives of the own funds buffer

A.533 One of the objectives of the volatility adjustment is to mitigate the impact of exaggerations of bond spreads on own funds. The proposed new design for the VA achieves this objective for spreads that are too wide. The VA does however not address spread compressions as they were observed, for example, before the financial crisis during 2006. The own funds buffer aims to complement the VA with regard to such excessive spread compressions. It introduces symmetry in the treatment of spread exaggerations and ensures that undertakings build resilience during times of market exuberance.

A.534 The introduction of the own funds buffer is in line with the recommendations of the ESRB on the VA design. As the own funds buffer relates to all fixed-income assets, including mortgage loans, it could also be used to address macroeconomic issues in relation to the provision of mortgage loans by insurance and reinsurance undertakings as suggested by the ESRB.[433]

Process for NSAs to activate the own funds buffer

A.535 Insurance and reinsurance undertakings should build up buffers of own funds during times when risk premia on fixed income assets are excessively compressed. For that purpose national supervisory authorities should be allowed to impose such buffers for their national market. The buffer would apply to all undertakings irrespective of whether they use the VA.

A.536 The imposition of the buffer should not be automatic but based on assessment of the national supervisory authority of the need to increase the resilience of the national market in view of bond market developments. The size of the buffers should depend on a spread adjustment decided by the national supervisory authority. The spread adjustment, and thus the size of the own funds buffer, should be limited by a maximum spread adjustment calculated based on the country representative portfolio for the VA. That adjustment should also serve as a non-binding indicator for spread compression.

A.537 Where an NSA decides to activate the buffer, there might be consequences in terms of level-playing field. In particular, the (re)insurance undertakings which do not have to hold a buffer of own funds might present a more favourable solvency ratio. Those (re)insurance undertakings which do not have to hold a buffer of own funds are expected

[433] The ESRB suggested the introduction of a loss-given-default floor for residential mortgage loans which authorities can increase during times of exuberance.

to be located in other countries where the own funds buffer was not activated by the NSA. In order to prevent distorting the single market and in order to preserve the level-playing field, a process could be set-up, involving EIOPA, the ESRB and the European Commission, to assess whether (i) the own funds buffer is justified in view of the likely presence of systemic risk; (ii) the own funds buffer activated in a specific country might have a negative effect on level-playing field and (iii) the own funds buffer should also be activated in other countries (reciprocation of the measure).

A.538 A similar process already exists for the banking sector and the reciprocation of macroprudential measures.[434] See also in appendix an extract of the relevant regulation. For the insurance sector and the own buffers, the process could be as follows:

- An NSA has identified a likely systemic risk and decides it is necessary to activate the own funds buffer for the (re)insurance undertakings under its supervision

- The NSA notifies EIOPA of its willingness to activate the measure.

- EIOPA assesses the measure taken and its potential for mitigating the risk identified, including its consequences on level-playing field and the EU single market. EIOPA might come to the conclusion that other NCAs should consider adopting a similar measure, in particular where it is proven that cross-border investments contribute to the compression of bond spreads. In this process, EIOPA may consult the ESRB to collect its view on the likely systemic risk identified.

- EIOPA shares with the European Commission its opinion on the measure taken.

- Taking utmost account of the opinions of EIOPA and of the ESRB and if there is robust, strong and detailed evidence that the measure will have a negative impact on the internal market that outweighs the financial stability benefits resulting in a reduction of the macroprudential or systemic risk identified, the Commission may, within one month, propose to the Council an implementing act to reject the draft national measures.

- In the absence of such implementing acts, the NSA implements the measure.

[434] The reciprocity framework is based on the following documents: Recommendation ESRB/2015/2; Article 5 of Decision ESRB/2015/4; and Chapter 11 ("Cross-border effects of macroprudential policy and reciprocity") of the ESRB Handbook on operationalising macroprudential policy in the banking sector. See also Box 11.4 of EIOPA’s advice on macroprudential policy and the ESRB website: https://www.esrb.europa.eu/national_policy/reciprocation/html/index.en.html

Calculation and application of the own funds buffer

A.539 The own funds buffer is an amount that should be deducted from the amount of eligible own funds to cover the SCR.

A.540 The own funds buffer should be calculated as follows:

a) Calculate the annual effective rate (*AER)* of the fixed-income portfolio of the participant. This corresponds to the single discount rate that, where applied to the cash flows of the fixed income assets, results in a value that is equal to the value of the fixed income portfolio (*FIP). AER* is calculated such that:

$$\sum_{n=1}^{N} \frac{Cash\ Flows_n}{(1+AER)^n} = FIP$$

b) Recalculate the value of the fixed income portfolio (*FIP)* by reducing the annual effective rate (*AER)* with the spread adjustment (*SA)* explained below.[435] It results in a new value of the fixed income portfolio (FIP^*).

$$FIP^* = \sum_{n=1}^{N} \frac{Cash\ Flows_n}{(1+AER-SA)^n}$$

c) The size of the own funds buffer (*OFB*) is equal to the difference:

$$OFB = FIP^* - FIP$$

d) One calculation of the buffer should be carried out and all fixed-income assets, irrespective of the currency they are denominated in.

e) The fixed-income assets relating to index and unit linked insurance and fixed-income assets in matching adjustment portfolios should not be included in the calculation of the buffer.

A.541 The maximum spread adjustment is calculated per country as follows:

$$\mathrm{SA}_t = -0.35 \times \left(CS_t\ - Av(CS_t)\right)$$

where:

- CS_t corresponds to the credit spread at time t for the reference portfolio of a given country; the credit spread is calculated as the difference between the yield of the assets of the reference portfolio and the basic risk-free interest rate term structure[436];

[435] Note that the sign convention for the spread adjustment was changed compared to the technical specification for the holistic impact assessment. Otherwise calculations are identical.

[436] Note that the full credit spread is taken, i.e. no risk correction is deducted from the credit spread.

- $Av(CS_t)$ corresponds to the 7-years average of the credit spread for the reference portfolio of a given country.

A.542 For countries that fall under the peer country approach for determining the government bond spreads of the VA the spread adjustment should be chosen to be equal to the adjustment of the peer country.[437]

A.543 The maximum spread adjustment should be calculated centrally by EIOPA.

Example calculation for a zero coupon bond with a duration of 10 years and nominal value of EUR 100

A.544 Assumptions:

- The 10-year risk-free interest rate is zero.
- The credit spread of the bond is 10 bps.
- The spread adjustment for the calculation of the own funds buffer is 20 bps.

A.545 The market value of the bond (FIP) is EUR 99.01. The annual effective rate (AER) for the bond is 0.1%.The adjusted market value of the bond (FIP*) is EUR 97.05. Hence the own funds buffer (OFB) is EUR 1.96.

[437] See table 12 on page 62 of the technical documentation of the methodology to derive EIOPA's risk-free interest rate term structures.

Annex 2.29 – Technical description of the proposed design of the VA

A.546 The following paragraphs contain a technical description of EIOPAs proposal for an improved design of the VA. This comprises the following sub-sections:

- The split of the VA into a permanent VA and a macroeconomic VA;
- The determination of the permanent VA;
- The determination of the macroeconomic VA; and
- The determination of the application factor for overshooting and illiquidity; and
- The determination of the risk-corrected spread.

Split of VA into permanent and macroeconomic component

A.547 The VA is split into two additive components, a permanent VA and a macroeconomic VA, as follows:

$$VA^i = VA^i_{perm} + VA^i_{macro,j}$$

where:

- VA^i_{perm} denotes the permanent VA applicable to undertaking i; and
- $VA^i_{macro,j}$ denotes the macro VA applicable to the insurance obligations of undertaking i for products sold in the insurance market in country j and denominated in the currency of that country.

Note that the VA needs to be determined for each currency of the liabilities it is applied to.

Determination of permanent VA

A.548 The permanent VA should be determined according to the following formula:

$$VA^i_{perm} = GAR \cdot AR^i_4 \cdot AR^i_5 \cdot Scale \cdot RC\_S$$

where:

- GAR denotes the general application ratio;
- AR^i_4 is the application ratio on overshooting;
- AR^i_5 is the application ratio that measures the degree of illiquidity of the liabilities of undertaking i;
- $Scale$ is the scaling factor of the representative portfolio; and
- RC_S is the risk-corrected spread of the representative portfolio.

A.549 The scaling factor is calculated as follows:

$$Scale = \frac{1}{w_{gov} + w_{corp}}$$

where:

- w_{gov} denotes the weight of the government bond portfolio; and
- w_{corp} denotes the weight of the corporate bond portfolio.

A.550 The macroeconomic VA should be determined according to the following formula:

$$VA_{macro,j} = GAR * AR_4^i \cdot AR_5^i * \omega_j * max\left(RC\_S_j * Scale_j - 1.3 * RC\_S * Scale; 0\right)$$

where

- $Scale_j$ denotes the scaling-factor of the representative portfolio for country *j;*
- RC_S_j denotes the risk-corrected spread of the reference portfolio for country j; and
- ω_j is a component designed to ensure a gradual and smooth activation of the country component and mitigating the cliff effect.

A.551 The component ω_j is equal to 0 when $RC\_S_{c,j}$ is below 60 bps and then increases linearly up to the point in which $RC\_S_{c,j}$ is equal or greater than 90 bps, where it assumes a value equal to 1. This means that ω_j is determined as follows:

$$\omega_j = \begin{cases} 0 & if\ RC\_S_{c,j} \leq\ 60\ bps \\ \dfrac{RC\_S_j - 60}{30} & if\ 60\ bps < RC\_S_{c,j} \leq 90\ bps \\ 1 & if\ RC\_S_{c,j} >\ 90\ bps \end{cases}$$

A.552 The scaling factor of the representative portfolio for country j is calculated as follows:

$$Scale_j = \frac{1}{w_{gov,j} + w_{corp,j}}$$

where:

- $w_{gov,j}$ denotes the weight of the government bond portfolio; and
- $w_{corp,j}$ denotes the weight of the corporate bond portfolio.

Determination of application factor for overshooting

A.553 The application ratio on overshooting AR_4^i is calculated as:

$$AR_4^i = \max\left\{\min\left\{\frac{PVBP\left(MV_i^{FI}\right)}{PVBP(BEL_i)}; 1\right\}; 0\right\}$$

where

- MV_i^{FI} denotes the market value of the investments in fixed income of undertaking i. The asset classes that are to be included in the government or corporate portfolio are listed in Annex 2.9, para A.191.

The undertaking shall only include those fixed income investments in the calculation of the PVBP where it is significantly exposed to these investments' credit spread risks.

- $PVBP(MV_i^{FI})$ denotes the price value of a basis point (PVBP) of the fixed income investments referred to in the preceding bullet point
- $PVBP(BEL_i)$ denotes the PVBP of the best estimate of the liabilities of undertaking *i*.

A.554 The PVBP of the best estimate liability should be computed according to the following formula:

$$PVBP(BEL_i) = \frac{BEL_i(RFR) - BEL_i(RFR + VA_{sens})}{VA_{sens}}$$

where:

- RFR denotes the basic risk-free interest rate term structure;
- VA_{sens} denotes the (hypothetical) value of the VA that is used in the computation of the PVBP of the fixed-income investments and of the best estimate; and
- $RFR + VA_{sens}$ denotes the risk-free interest rate term structure that results from applying VA_{sens} to the basic risk-free interest rate term structure.

A.555 The value VA_{sens} should be computed as follows:

$$VA_{sens} = GAR \cdot Scale \cdot RC\_S + GAR \cdot \omega_j \cdot max(RC\_S_j * Scale_j - 1.3 * RC\_S * Scale; 0)$$

Note that the term $GAR \cdot \omega_j \cdot max(RC\_S_j * Scale_j - 1.3 * RC\_S * Scale; 0)$ should be set to 0 if the macroeconomic VA is not activated.

A.556 The $PVBP$ of the fixed income investments should be computed according to the following formula:

$$PVBP(MV_i^{FI}) = \frac{MV_i^{FI}(CS) - MV_i^{FI}(CS + VA_{sens})}{VA_{sens}}$$

where:

- *CS* denotes the current level of spreads

Determination of application factor for illiquidity

A.557 For the purpose of the calculation of the application ratio AR_5^i that measures the degree of illiquidity of the liabilities, the undertaking should subdivide all its obligations into three buckets according to the methodology outlined in Annex 2.9, paras A.246-A.263.

A.558 AR_5^i should then be calculated as:

$$AR_5^i = \max(\min(\frac{BE_I \cdot AR_{5,I} + BE_{II} \cdot AR_{5,II} + BE_{III} \cdot AR_{5,III}}{BE_I + BE_{II} + BE_{III}}; 100\%); 60\%)$$

where:

- BE_I, BE_{II}, BE_{III} is the amount of best estimates allocated in each of the three buckets; and
- $AR_{5,I} = 100\%$, $AR_{5,II} = 75\%$, $AR_{5,III} = 60\%$ are the application ratios applicable to each bucket.

Determination of the risk-corrected spread

A.559 The risk correction used for the calculation of the risk corrected spreads RC_S and RC_S_j should be determined according to the following methodology.

A.560 For government bonds issued by EEA countries, the risk correction is determined as

$$RC = 30\% \cdot \min(S^+, LTAS^+) + 20\% \cdot \max(S^+ - LTAS^+, 0)$$

where:

- S denotes the average spread of government bonds in the respective sub-class[438] of government bonds in the representative portfolio;
- $S^+ = \max(S, 0)$ is the maximum of S and zero;
- $LTAS$ denotes the long-term average spread of government bonds in the respective sub-class of government bonds in the representative portfolio; and
- $LTAS^+ = \max(LTAS, 0)$ is the maximum of the long-term average spread and zero.

A.561 For other fixed income investments in the representative portfolio, the risk correction is determined as

$$RC = 50\% \cdot min(S^+, LTAS^+) + 40\% \cdot max(S^+ - LTAS^+, 0)$$

where

- S denotes the average spread of fixed income investments in the respective sub-class[439] within the representative portfolio;
- $S^+ = \max(S, 0)$ is the maximum of S and zero;
- $LTAS$ denotes the long-term average spread of fixed-income investments in the respective sub-class within the representative portfolio; and
- $LTAS^+ = \max(LTAS, 0)$ is the maximum of the long-term average spread and zero.

[438] Cf. section 8 in the technical documentation of the methodology to derive EIOPA's risk-free interest rate term structures

[439] Cf. section 8 in the technical documentation of the methodology to derive EIOPA's risk-free interest rate term structures

Annex 3.1 – Best Estimate

EIOPA has identified additional divergent practices during its assessment that, however, are not considered to require amendments to the Solvency II Directive or the Delegated Regulation 2015/35. Instead, this divergent practices will be addressed with additional guidance to be provided by EIOPA.

1. Economic Scenario Generator (ESG)

Relevant legal provisions

A.562 Recital 15 of the Delegated Regulation clarifies the principle of the use of simulation for the valuation of options and guarantees.

A.563 Article 22(3) of the Delegated Regulation establishes three requirements that undertaking should meet when using simulation methods for the valuation of their technical provisions in Solvency II.

Other regulatory background

A.564 Other regulatory background considered to issue the advice:

i. EIOPA Guidelines on Technical Provisions: Guidelines 55 to 60.

Identification of the issue

Divergent practice 1: Calibration of ESG

A.565 Article 22 of the Delegated Regulation establishes three general requirements for the use of ESG, which accordingly shall be market-consistent instead of real-world. However, even with these requirements, the complexity of ESG calibration leaves room for different choices and simplifications. EIOPA has identified several divergent practices in the calibration of ESG that can be grouped in two main categories:

i. Different technical decisions in the calibration of the ESG. The most relevant examples identified are:

- Simplifications. For example, not modelling a risk factor (e.g. credit risk) or not modelling negative interest rates.

- Appropriate choice of assets taking into consideration undertakings assets and liabilities, for example, its maturity.

- ➢ Replication of option prices or implied volatilities. Since the ESG has to be calibrated according to the EIOPA risk free rate, it is not possible to replicate both option prices and implied volatilities ad the same time.

ii. Calibration of the ESG by the provider of the ESG itself vs calibration of the ESG by the undertaking. In some cases the calibration is performed by the service provider because the undertaking does not have the knowledge to do it. Although this could be seen as a proportionality measure, some Members have identified that this practice is currently leading in some cases to inappropriate calibrations. Therefore, a balance between proportionality and the capability to ensure a proper outcome is needed.

A.566 Calibration of an ESG is a key part of stochastic valuation that significantly depends on the portfolio of the undertaking. In general terms, due to the asymmetric nature of options and guarantees, stochastic valuation leads to higher best estimates compared to deterministic valuation and, the more risks taken into account, the more accurate the scenarios would be.

A.567 Developing a calibrating an ESG can be a complex and burdensome task, which complicates stress testing, but the average impact of the use of stochastic valuation reported in the impact assessment is 0.8% of the best estimate, which represents approximately 25 p.p. of the SCR ratio.

3. Contract boundaries

Identification of the divergent practices

Divergent practice 1. Static vs dynamic contract boundaries

A.568 Article 18 of the Delegated Regulation allows different interpretations on the frequency of the assessment of the contract boundaries. The two main options are: assess contract boundaries only at the recognition date or assess them at each valuation date. The Guideline 5 on contract boundaries already partially addressed the issue stating that unbundling should be reassessed at each valuation date.

A.569 However, the Guideline 6 on contract boundaries that addresses the identification of a discernible effect on the economics of the contract does not state anything about the frequency of the calculation. This has been sometimes interpreted in line with the EIOPA Consultation Paper 14-0029 on the Impact Assessment on the EIOPA Solvency II Guidelines, i.e. as the assessment of the discernible effect is to be performed only at the recognition date. Nevertheless, in some Member States it has been interpreted that contract boundaries may change due to a reassessment on whether a cover, guarantee, limitation or restriction has a discernible effect on the economics of the contract after a significant change in the economic conditions, including changes in the interest rate environment.

A.570 In practice, even NSAs expecting a reassessment of the contract boundaries under such circumstances consider that only very material changes should lead to that reassessment to avoid frequent and significant changes in the best estimate. Therefore, the most relevant impact is not on the Solvency of the undertakings, but on the burden each option would create on the management of their portfolios. While the static approach could create situations where the same product has different contract boundaries only because of the underwriting date, the dynamic approach could lead to sudden changes of the best estimate under extraordinary circumstances.

Divergent practice 2. Horizon of projection and paid-in premiums

A.571 Contract boundaries define the limits to the obligations for best estimate valuation. However, contract boundaries are not supposed to limit the projection horizon but the future premiums and the related obligations to be included in these projections. However, in some cases, Article 18 of the Delegated Regulation has been used to justify shortening projection horizon. Two examples of this interpretation are:

i. Unit-linked products, where in some cases it is assumed that the whole policyholder’s balance account is to be paid on the first year of projection.

ii. Some savings products with a guaranteed rate that can be revised on a certain date, where the projection horizon is limited to the revision date.

iii. Obligations from paid-in premiums, where there are divergent practices considering whether Article 18(3) is applicable to that obligations or not.

A.572 All NSAs consulted agreed that Article 18 should not limit the projection horizon of obligations that belong to the contract, but only determine which premiums and obligations do belong to the contract. In particular, only 25% of the undertakings consulted reported to apply Article 18(3) to obligations form paid-in premiums, although the best estimate of such obligations represented on average only 4.2% of the total best estimate. The impact of the application of Article 18(3) to paid-in premiums was not consistent among undertakings: 38% reported that it lead to a decrease of technical provisions, 36% that it lead to an increase and 26% that it had no impact.

Divergent practice 3. Unbundling

A.573 Article 18(4) and (6) of the Delegated Regulation establish the obligation to apply the provisions of paragraphs (3) and (5) respectively to each part of a contract when determining contract boundaries. However, there are different interpretations on what shall be considered as a different “part” of a contract and when they shall be considered separately. EIOPA has identified three divergent practices relating to unbundling parts of a contract:

1. EIOPA has identified several interpretations on when a contract can be unbundled:
   i. In some cases, it has been interpreted that a contract can be unbundled when there is no inter-dependencies among the parts of the contract.
   ii. In some cases, it has been considered that a contract cannot be unbundled if the pricing of one part depends on the pricing of another part, even if both parts can lapse at different points in time.
   iii. In some cases, it has been considered that a contract cannot be unbundled when each part cannot be legally sold independently.
   iv. In some cases, it has been considered that a contract can be unbundled if both parts can lapse at different points in time.
   v. In some cases, it has been considered that a contract can be unbundled when a separate price can be determined for each part.
2. As a more specific issue and quite linked to the previous one, EIOPA has also identified divergent interpretation on the dependencies between different parts of a contract. For example, in case of a contract with a savings part and a risk cover (e.g. mortality cover):
   i. In some cases, the charges made to the policyholders account (savings part) to cover the risk of the mortality cover are considered to be premiums. This means that Article 18(3)(b) and (c) are relevant for contract boundaries assessment.
   ii. In some cases, the charges made to the policyholders account (savings part) to cover the risk of the rider are not considered to be premiums. This means that Article 18(3)(b) and (c) are not relevant for contract boundaries assessment.
3. Finally, EIOPA has also identified divergent criteria regarding the link between unbundling and Article 18(4), i.e. whether Article 18(4) is only applicable to parts that can be unbundled.

A.574 Only 4% of undertakings reported to have products with different parts that they consider that cannot be unbundled. This products represent only 1% of the total best estimate and their EPIFP only represent around 1% of the own funds. However, even if at European level this may not have a significant impact, in some markets the situation is indeed significant and the products affected add up to 10% of the best estimate and their EPIFPs are almost 5% of the own funds. After bilateral discussions with some NCAs, EIOPA also has the intuition that, in some cases, this situation may have been underreported because some undertakings may have considered that different parts that cannot be unbundled are not even “different parts” of a contract.

Divergent practice 4. Discernible effect

A.575 Covers, guarantees, limitations and restrictions that do not have a discernible effect on the economics of the contract shall not be considered for the assessment of contract boundaries. EIOPA has already provided some guidance on the assessment of the discernible effect in the Guidelines on contract boundaries. However, there are still different interpretations for some features of a contract. For example, a financial guarantee of 0% interest rate or a capital guarantee in some cases are considered to have a discernible effect on the economics of the contract, while in other cases they are not for different reasons:

i. In some cases, the assessment is made from the undertaking's point of view, in others taking into consideration the policyholder's point of view and in other cases both points of view are considered.

ii. In some cases, the assessment is based on a quantitative valuation of the cover or guarantee. In other cases, the assessment was qualitative, e.g. whether there are other products offering the same covers or guarantees.

A.576 5% of the undertakings considered that some of their financial guarantees do not have a discernible effect, being the best estimate of these products 6% of the total best estimate. 9% of the undertakings considered that some of their covers do not have a discernible effect, being the best estimate of these products only 1% of the total best estimate. However, again, this situation was more frequent in some jurisdictions reaching even the 30% in some cases, which may indicate that indeed the approach is not fully consistent across Europe. One particular case, the capital guarantee, raised some controversy: 31% of the undertakings considered it does not have a discernible effect, while 69% considered it does have a discernible effect on the economics of the contract. Again, in this case, the answers varied significantly across jurisdictions.

3. Future Management Actions (FMA)

Identification of the divergent practice

Divergent practice 1. Comprehensive future management action plan

A.577 Article 23(3) of the Delegated Regulation lays down the requirements for the comprehensive future management actions plan that needs to be approved by the administrative, management or supervisory body. However, it does not specifically require the future management actions plan to be a single document and in some cases the approval by the administrative, management or supervisory body has been granted through different procedures for several independent documents.

Divergent practice 2. Consideration of new business in setting future management actions

A.578 Point 23(1)(b) of the Delegated Regulation requires that expected future management actions are consistent with the insurance or reinsurance undertaking's current business practice and business strategy. However, undertakings or supervisors can interpret such principle in different manners when setting up the assumptions of future management actions for similar situations. This is particularly relevant for assumptions related to new business due to an extensive interpretation the going-concern principle due to current wording of Article 31(4) of the Delegated Regulation. For more details on that issue, please see policy issue 1 of section 3.1.6 "Expenses".

A.579 Some divergent practices that have been identified when projecting of cash-flows to calculate the technical provisions are described in the following paragraphs.

A.580 Undertakings have to choose bonds on which they can reinvest when needed so they can manage bond duration. In some cases the duration of the liabilities may be decreasing, for example due to a reduction of expected new business or due to constraints on contract boundaries. When the duration of the liabilities is decreasing, in some cases undertakings assume bonds duration and reinvestment to be constant, but in other cases they adapt bonds duration and reinvestment to the liabilities duration. Currently, some supervisors support the constant duration while some others support a modification of the asset duration.

A.581 Undertakings have to define their asset allocation. Again, when the duration of the liabilities is decreasing, for equity and property investments there are two options: a constant allocation over the projection period or decreasing according to liabilities duration.

A.582 Usually undertakings have to fulfil legal and contractual requirements at each point in time and for each scenario. However, the fulfilment of these requirements can be evaluated considering that new business will be underwritten or make an evaluation of these requirements considering only current business. For example, calculation of profit sharing considering only current assets or also assets acquired with the premiums from new business.

A.583 The number of undertakings that reported the use of future management actions during the impact assessment is significantly low (below 10%). Around one third of the undertakings reported that the impact of asset duration has an impact of at least 1% of the best estimate, while the asset allocation was reported to have a minor impact (below 0.5% of the best estimate). The impact of future management actions based on profit sharing rules including premiums outside contract boundaries was also significant, 50% of the undertakings reported an impact higher than 1% of the best estimate. However, the sample of undertakings using this future management action was particularly small.

4. Expenses

Identification of the divergent practice

Divergent practice 1: Allocation of expenses

A.584 EIOPA has identified several different practices regarding allocation of expenses. Different approaches have been observed for the consideration of expenses for future years compared to past expenses, the allocation of different acquisition costs, allocation of overhead expenses, kick-backs or allocation of extraordinary expenses. However, investment management expenses is one of the topics with the most significant differences in expense projection. The following practices have been identified regarding projected investment management expenses:

- Expenses of all assets.
- Expenses covering Technical Provisions + SCR
- Expenses covering Technical Provisions
- Expenses covering Best Estimate
- Expenses covering local GAAP technical provisions

A.585 More than 50% of the undertakings reported to include expenses from all assets, while the next most common options where expenses covering local GAAP technical provisions (17%) and Solvency II technical provisions (12%). In this case, differences are concentrated among undertakings instead of among jurisdictions, in all Members except for one at least two different approaches were reported, while in some jurisdictions all options are used to some extent. The impact of any of the options is not material, although local GAAP technical provisions and Solvency II technical provisions options would lead to a reduction of the technical provisions of 0.5% and 0.4% respectively for the undertakings in the sample.

5. Valuation of Options and Guarantees

Identification of the divergent practice

Divergent practice 1: Use of stochastic modelling

A.586 Article 34(5) requires that undertaking use calculation methods that reflect the dependencies of future cash flows on future events and developments in different scenarios. Where options and guarantees exist, this usually require stochastic valuation techniques to ensure a proper valuation of the obligations.

A.587 However, EIOPA has identified that the use economic scenario generators is highly dependent on the jurisdiction. In some Member States stochastic valuation is the default approach when options and guarantees exist, while in other Member States calculation is almost always deterministic.

A.588 The use of stochastic valuation has a penetration ranging from 0% to 98% of the undertakings. Only in 57% of the jurisdictions more than 50% of the undertakings reported to use stochastic valuation, with and average scope of 58% of the best estimate.

A.589 The use of stochastic modelling was reported to increase best estimate a 0.8%, which led to an average decrease of 25 p.p. in the SCR ratio considering only the impact in the own funds. Considering also the impact on the SCR, the impact raised to 100 p.p., although in this case the sample was very small and concentrated in a few jurisdictions.

Divergent practice 2. Bidirectional assumptions

A.590 Among those cases where dynamic policyholder behaviour has been modelled, one of the main differences identified is the direction of the dynamic adjustment to the static baseline. Dynamic policyholder behaviour is usually modelled as an adjustment over the baseline or static component (for more details, please see policy issue 1 of Section 3.1.7). However, this adjustment in some cases is considered to be unidirectional, i.e. only increasing the baseline, while in other cases is considered to be bidirectional, i.e. increasing or decreasing the baseline depending on the external circumstances.

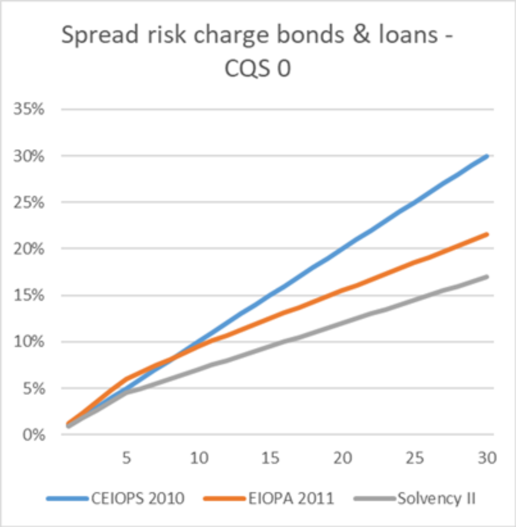
A.591 Approximately 70% of the undertakings using dynamic modelling considered bidirectional assumptions. Considering that the impact of dynamic modelling of policyholder behaviour is low (average of 0.1% of the best estimate), the impact of the use of bidirectional assumptions can be considered, at least, as low. However, in some cases, in particular where combined with stochastic valuation, it may be more relevant, especially for SCR calculation purposes. All NCAs consulted supported bidirectional assumptions as a general approach.

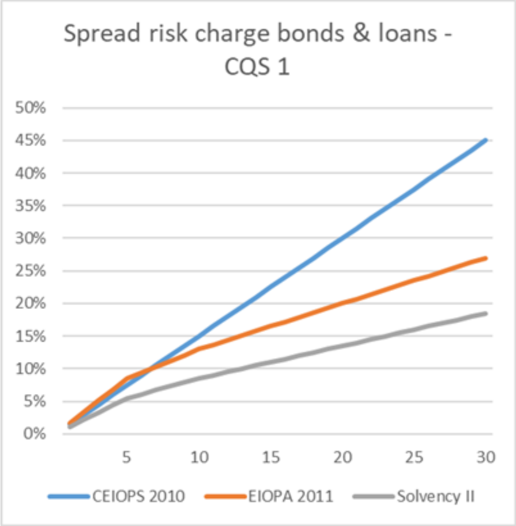
Annex 5.1 – High-level overview of SCR spread risk sub-module

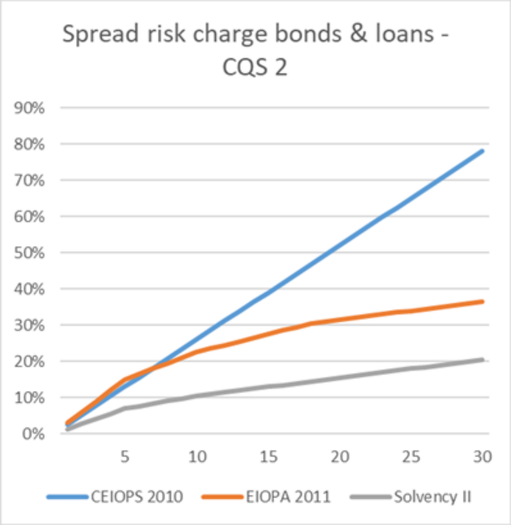
Element of spread risk sub-module	**Article Delegated Regulation**	**Comment**
Spread risk on bonds and loans	**Art 176**	
- bonds and loans with credit assessment of ECAI	Art 176(3)	
- bonds and loans without credit assessment of ECAI and no collateral	Art 176(4)	
- bonds and loans without credit assessment of ECAI and no collateral with credit quality steps based on internal assessment or approved internal model	Art 176(4a)	
- bonds and loans without credit assessment of ECAI and with collateral	Art 176(5)	
- mortgage loans meeting the requirements in Article 191	Art 176(1)	included in counterparty default risk module
Spread risk on securitisation positions	**Art 177, 178**	
- type 1 securitisation positions with credit assessment of ECAI	Art 177(1), 177(2), 178(1)	
- type 2 securitisation positions with credit assessment of ECAI	Art 177(1), 177(3), 178(2)	
- resecuritisation positions with credit assessment of ECAI	Art 177(1), 178(3)	
- securitisation positions without credit assessment of ECAI	Art 178(5)	
Spread risk on credit derivatives	**Art 179**	
Specific exposures	**Art 180**	
- covered bonds	Art 180(1)	
- exposures in the form of bonds and loans to ECB, MS central banks and governments, incl. recognised regional governments and local authorities, international organisations	Art 180(2), 180(9)	no risk charge
- exposures in the form of bonds and loans to non-MS governments/central banks	Art 180(3)	

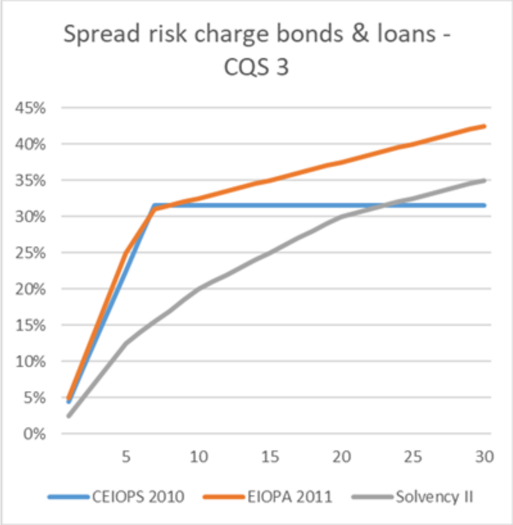
- exposures in the form of bonds and loans to MS regional governments and local authorities which are not recognised	Art 180(3a)	
- exposures in the form of bonds and loans guaranteed by MS regional governments and local authorities which are not recognised	Art 180(3b)	
- exposures in the form of bonds and loans to (re)insurers without credit assessment of ECAI and meeting the MCR	Art 180(4)	
- exposures in the form of bonds and loans to (re)insurers not meeting the MCR	Art 180(5)	
- exposures in the form of bonds and loans to third country (re)insurers without credit assessment of ECAI with solvency regime deemed equivalent and meeting the solvency requirements	Art 180(7)	
- exposures in the form of bonds and loans to credit and financial institutions without credit assessment of ECAI and meeting the solvency requirements	Art 180(8)	
- type 1 securitisation positions guaranteed by the European Investment Fund or the European Investment Bank	Art 180(10)	no risk charge
- exposures in the form of bonds and loans relating to qualifying infrastructure investments with credit assessment of ECAI	Art 180(11), 180(12)	
- exposures in the form of bonds and loans relating to qualifying infrastructure investments without credit assessment of ECAI	Art 180(13)	
- exposures in the form of bonds and loans relating to qualifying infrastructure corporate investments with credit assessment of ECAI	Art 180(14), 180(15)	
- exposures in the form of bonds and loans relating to qualifying infrastructure corporate investments without credit assessment of ECAI	Art 180(16)	
Application of the spread risk scenarios to matching adjustment portfolios	**Art 181**	
Simplified calculation for spread risk on bonds and loans	**Art 104**	

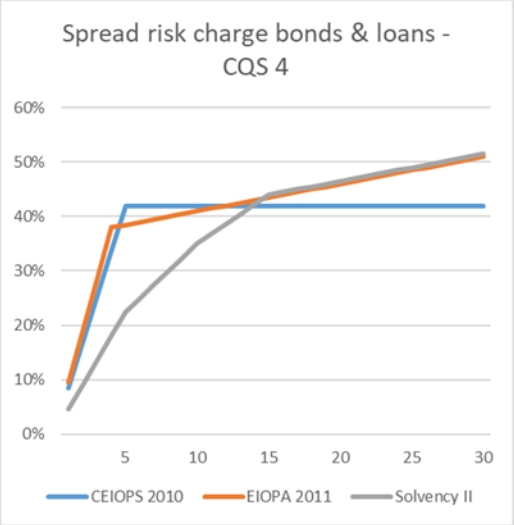
Annex 5.2 – Solvency II calibration of spread risk charge for bonds and loans by credit quality step (CQS) and duration compared to CEIOPS advice of April 2010 and EIOPA proposal of June 2011

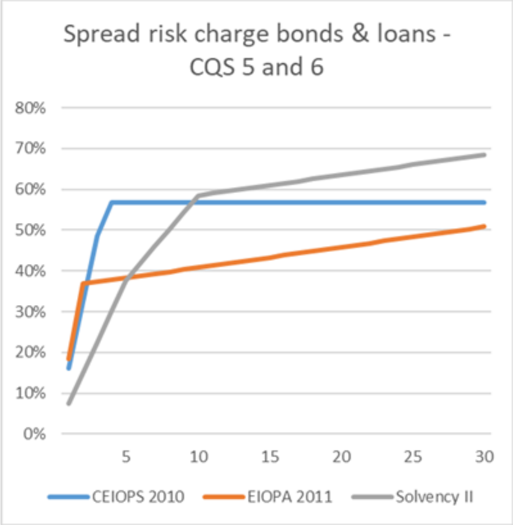

Spread risk charge bonds & loans - CQS 0


Spread risk charge bonds & loans - CQS 1


Spread risk charge bonds & loans - CQS 2


Spread risk charge bonds & loans - CQS 3


Spread risk charge bonds & loans - CQS 4


Spread risk charge bonds & loans - CQS 5 and 6

Annex 5.3: Analysis of downgrades of corporate bonds against the background of COVID-19

Conceptual analysis of downgrades concerning spread and market risk concentrations sub-modules

A.592 The aim of the conceptual analysis is to investigate whether Solvency II can potentially result in pro-cyclical investment behaviour due to widening credit spreads as well as downgrades of credit ratings.

A.593 Higher credit spreads (and yields), which are equivalent to a fall in bond prices, may result in a decline in the excess of assets over liabilities of undertakings. If the excess of assets over liabilities is no longer sufficient to cover the SCR then undertakings have the choice to either de-risk their investment portfolio or to attract additional capital. Undertakings face the same choice if they no longer comply with the SCR due to an increase in capital requirements. Downgrades will raise capital requirements in SCR sub-modules that rely on credit ratings to establish risk-based capital charges, like the spread risk and market risk concentrations sub-modules. Undertakings are expected to continuously manage the risks arising from fluctuations of corporate bond spreads as part of risk management requirements, which implies that downgrades should not be the sole key driver of reactions to the deterioration in the credit quality of assets held.

Spread risk sub-module

A.594 The spread risk sub-module, like other SCR (sub-)modules, is calibrated to ensure that the market value of assets exceeds the value of liabilities with 99.5% certainty within one year. As long as the market value of assets exceeds the value of liabilities, undertakings have enough means to meet obligations towards policyholders. Conversely, once the market value of assets falls below the amount of technical provisions, obligation towards policyholders can no longer be fulfilled with sufficient certainty.[440]

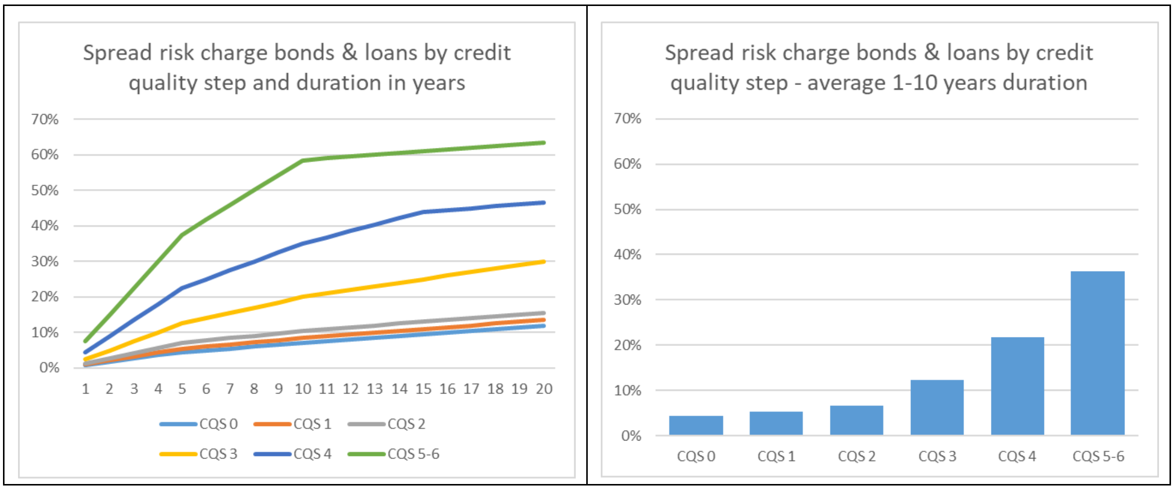
A.595 The spread risk charges on bonds and loans were estimated using historical data on daily spreads over the risk-free rate, distinguishing the credit quality step (CQS) and maturity of corporate bonds.[441,442] The spread risk charges correspond to the 0.5% quantile of the (rolling) year-on-year widening of corporate spreads. The calibration allows spread risk charges to increase non-linearly with the duration of bonds and loans, the so-called "kinked" approach. The charts below show that the resulting spread risk charges increase with the CQSs, i.e. bonds with a higher credit quality are

[440] See section 5.2.5.2.

[441] See section 2.5 in EIOPA, The underlying assumptions in the standard formula for the Solvency Capital Requirement calculation, EIOPA-14-322, 25 July 2014.

[442] Monthly corporate bond indices were constructed broken down by credit quality steps and one-year maturity buckets for the first ten years and an overall bucket for maturities exceeding ten years. Subsequently, daily yield spread data were generated given the index composition at the beginning of each month.

subject to lower capital charges than bonds with lower credit quality. In interpreting the spread risk charges, it should be noted that the chart does not take into account information on the incidence of bonds and loans with a certain CQS and duration. Typically, bonds with low ratings have a lower duration than bonds and loans with high ratings, as investors will be reluctant to lend to speculative grade issuers for prolonged, fixed periods.


Spread risk charge bonds & loans by credit quality step and duration in years

Spread risk charge bonds & loans by credit quality step - average 1-10 years duration

A.596 The fact that capital charges increase with a decrease in credit quality means that a downgrade of a bond or loan from one step, e.g. CQS 3, to another step, e.g. CQS 4, results in higher capital requirements. This reflects the higher risk (of losses in market value corresponding to a 0.5% one-year VaR) on bonds and loans with lower credit quality.

A.597 The increase in the capital charges occurs in discrete steps because of the level of granularity assumed in the spread risk sub-module. The Delegated Regulation distinguishes an objective scale of 7 credit quality steps, i.e. CQS 0 to 6, and not the intermediate steps within credit quality steps that rating agencies tend to assign to corporates. Moreover, for the purpose of calibrating the capital charges on bonds and loans, credit quality steps 5 and 6 were combined, presumably to address the lack of observations in the individual steps 5 and 6.

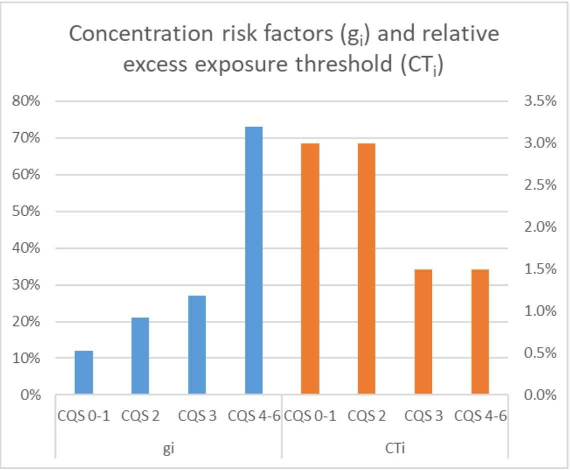
A.598 The discrete nature of the calibration may have binary effects on capital charges for individual bonds in the context of downgrades. On the one hand, a downgrade of one intermediate step within a credit quality set will have no impact on capital requirements. On the other hand, the same one intermediate-step downgrade may have a large impact if the credit rating crosses from one credit quality step to another, e.g. from CQS 3 to CQS 4. However, these binary effects take place in a very dynamic way and they would be expected to average out when considering all bonds and loans of an undertaking – or all undertakings, which would be the most relevant from a financial stability perspective.

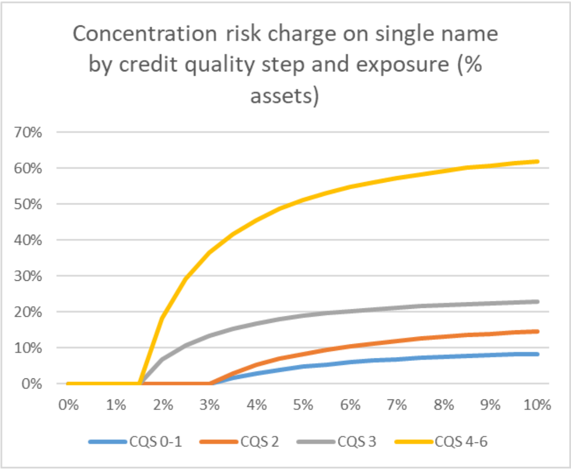
Market risk concentrations sub-module

A.599 The market risk concentrations sub-module accounts for the idiosyncratic risk associated with non-diversified exposures to single issuers or, in Solvency II terminology, names. The capital charge for concentration risk is applied on top of the regular risk charges on assets distinguished in the market risk module, like bonds and equities.

A.600 The capital charge for concentration risk depends on the credit quality step of the single name. The credit quality step determines both the relative excess exposure threshold and the concentration risk factors that are applied to exposures in excess of this threshold. The risk factors were calibrated by gradually increasing exposures to a single name to a well-diversified portfolio of bonds and equities.[443,444] Subsequently, the increase in the 0.5% one-year VaR relative to the diversified portfolio can be calculated for each credit quality step and degree of concentrated excess exposure.

A.601 The left-hand chart below shows that the empirical risk factors (g_i) increase with the credit quality of the issuer. The relative excess exposure threshold (CT_i) equals 3% for CQS 0-2 and 1.5% for CQS 3-6. The right-hand chart presents the resulting capital charge after applying the risk factors to the exposures exceeding the thresholds. The capital charge for each credit quality step increases in a continuous fashion with exposures increasing beyond the threshold.


Concentration risk factors (g_i) and relative excess exposure threshold (CT_i)


Concentration risk charge on single name by credit quality step and exposure (% assets)

[443] See section 3.1.6 in CEIOPS, Solvency II Calibration paper, CEIOPS-SEC-40-10, 15 April 2010: https://www.eiopa.europa.eu/sites/default/files/publications/submissions/ceiops-calibration-paper-solvency-ii.pdf

[444] The diversified portfolio was assumed to be comprised of 25% risk-free bonds, 55% corporate bonds and 20% equities.

A.602 The calibration for the concentration risk sub-module was conducted using a lower level of granularity compared to the spread risk sub-module, combining CQS 0 and 1 as well as CQS 4 to 6. The reason is that the single names considered in the calibration[445], presumably, did not allow for precise estimates for these credit quality steps individually. The lower resolution may result in a disproportionate increase in capital requirements, especially in a scenario with substantial downgrades from CQS 3 to CQS 4[446]. Even if this would be the case, the question is whether this would have material negative effects on financial stability. Undertakings will likely aim to minimise concentrated exposures to single issuers. Not only because this will lead to higher capital requirements, but also because this will result in inefficient portfolios. Financial markets do not reward idiosyncratic risk since it can be diversified away for free.

Factors mitigating the pro-cyclical impact of downgrades

A.603 Downgrades of bonds/names may raise capital charges for spread risk and concentration risk, reflecting the higher risk of (downgraded) corporate bond holdings and concentrated exposures. The extent to which the higher capital charges result in a higher SCR, and potentially lead to pro-cyclical investment behaviour, depends on several factors:

- Loss-absorbency of technical provisions and unit/index-linked products The capital charges for spread risk and concentration risk discussed above are gross capital charges, which do not take into account the loss-absorbency of technical provisions. Some of the higher risk may be borne by policyholders, e.g. in case of profit-sharing policies and unit/index-linked products;
- Excess solvency capital The increase in capital requirements will only force undertakings to de-risk their investment portfolio when the excess of assets over liabilities is insufficient to cover the higher SCR. Other undertakings may dispose of sufficient excess solvency capital to absorb the rise in capital requirements without having to resort to forced sales of assets.

A.604 Moreover, Solvency II already contains a range of tools to limit pro-cyclicality[447], including:

- The volatility adjustment allows undertakings to reflect part of the credit spreads on government and corporate bonds in the risk-free interest rate curve. As such, the volatility adjustment will mitigate the adverse consequence

[445] The calibration considered companies in the EURO STOXX 50 index together with additional names "to complete all the buckets of the cross-table resulting from, on one dimension rating categories considered, and on the other dimension economic sectors included in this exercise."

[446] The CQS4 capital charge for market risk concentrations seems globally consistent – as one would expect - with the CQS4 capital charge for counterparty default risk when comparing holdings in near-term bank deposits, i.e. duration close to zero, (subject to market risk concentrations sub-module) and cash at bank (subject to counterparty default risk module). The counterparty default risk charge for a single exposure to cash at bank with CQS4, i.e. default probability of 1.2%, equals 54% (= $5x\sqrt{1.2\%(1-1.2\%)}$).

[447] See Table 11.2 in Section 11.3.3.

of an increase in spreads (and accompanying downgrades) will be mitigated by a higher discount curve and a lower value of technical provisions.

- An extension of recovery periods In the event of exceptional adverse situations, as declared by EIOPA, and where appropriate after consulting the ESRB, supervisory authorities may extend the recovery period of 6 months to restore compliance with the SCR by a maximum period of seven years.

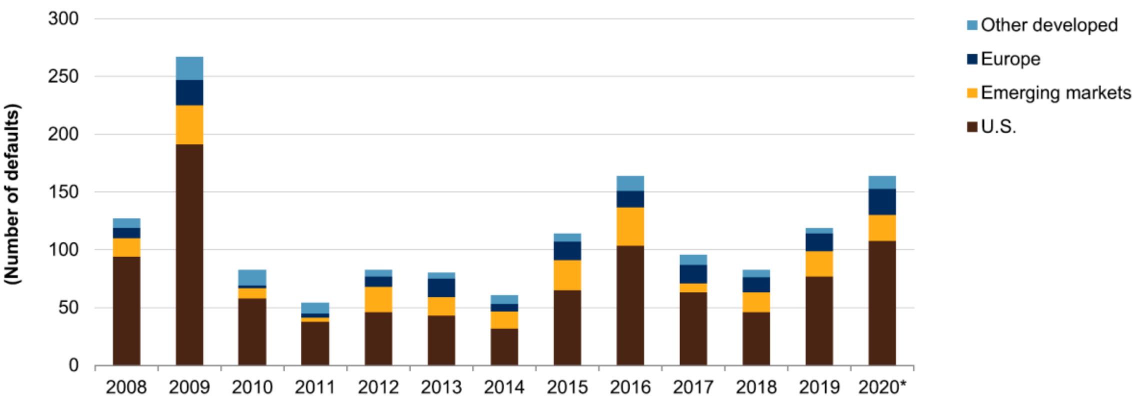
A.605 Finally, it is important to note that undertakings may encourage pro-cyclicality in the wake of downgrades, regardless of Solvency II capital requirements. For example, undertakings may consider it prudent and in the interest of policyholders to restrict corporate bond allocations through asset management mandates and investment funds to investment grade bonds. This means that asset managers would have to sell corporate bonds following a downgrade from investment to speculative grade.

Market information on downgrades and defaults

A.606 As a result of the large impact of the COVID-19 crisis on global economic activity, evidence collected at the initial stages of the crisis indicated a material impact of the deterioration of the economic conditions in bond downgrades and defaults. Given the risk-based nature of Solvency II, this triggered concerns that a mass downgrade scenario could lead to sector-wide negative impacts on the solvency positions of undertakings, which could be transmitted to the wider financial system through undertakings' investment behaviour.

A.607 Based on S&P data, the number of defaults has increased significantly in 2020 compared to previous years, to a level which already matches the total defaults observed in 2016. Full-year figures are likely to be close to 2009 levels. It should however the noted that defaults continue to be concentrated in the US. Analysts expect that global defaults will continue to increase, especially concerning speculative grade corporate bonds.

2020 Global Defaults Are Level With The Year-End 2016 Tally



*Data as of Sept. 2, 2020. Other developed region is Australia, Canada, Japan, and New Zealand. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

A.608 Concerning downgrades at global level, information from S&P evidences an increase in the number of downgrades in the first months after the start of the crisis, which seems to have slowed in more recent months.

		March	April	May	June	July
Financials	Upgrade	1	0	0	0	0
	Same	8281	8203	7788	7678	7545
	Downgrade	96	0	33	0	9
	Default	0	0	0	0	0
	TOTAL	8378	8203	7821	7678	7554
Non-Financials	Upgrade	0	0	0	5	1
	Same	4833	4807	4790	4931	4945
	Downgrade	125	129	148	24	15
	Default	2	7	10	18	8
	TOTAL	4960	4943	4948	4978	4969

Source: S&P Global Market Intelligence LLC

A.609 Looking at S&P transition matrices, a similar pattern is observed. The likelihood of a given bond to be downgraded was lower in July when compared with the assessment performed in March. For example, for a BBB non-financial bond, in March 2020 there was a 1.11% likelihood of being downgraded to a BB rating, which reduced to 0.61% in July 2020.

Analysis of HIA and CIR data

A.610 The information gathered in the information requests may provide some indication of potential cliff-edge effects due to corporate bond downgrades in the spread or concentration risk sub-module of the standard formula. Information in the QRT is not considered sufficiently granular to allow for such an assessment. In the HIA and in the CIR participants provided information on the size of the spread risk charge for bonds and loans as well as for concentration risk.

A.611 The size of the spread risk charge for bonds and loans as well as for concentration risk is compared for YE 2019 and Q2 2020 for those undertakings providing information in both requests.

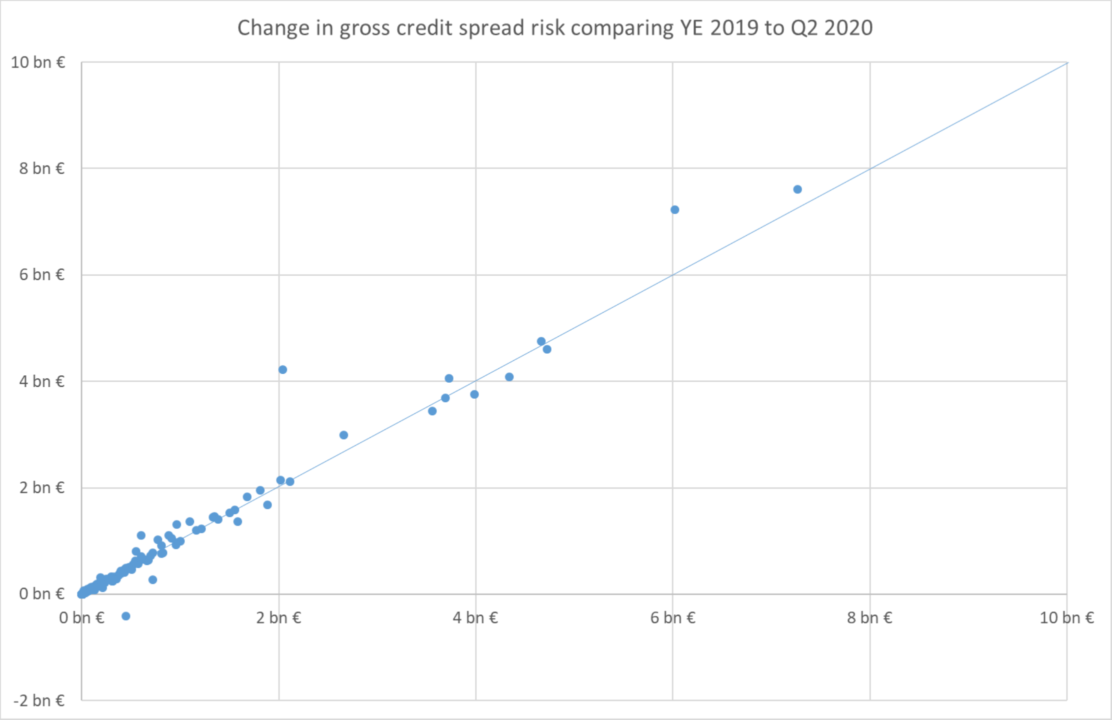
A.612 It should be noted, however, that the differences observed cannot be directly assigned to movements in credit quality of the assets or even corporate bond downgrades but may be a result of different sources, such as:

- the reduction of interest rates in the first half of 2020 leading to an increase in the market value of bonds, leading to an increase in spread risk;
- the reduction of interest rates leading to a reduction in future discretionary benefits (FDB), leading to an increase in net risks (due to the lower loss-absorbing capacity of technical provisions);
- the increase in spread levels reducing the market value of bonds, leading to a decrease in spread risk;
- changes in asset allocation which can also have a positive or negative impact on the size of market risks.

As such, no direct conclusions can be drawn from the simple comparison of results.

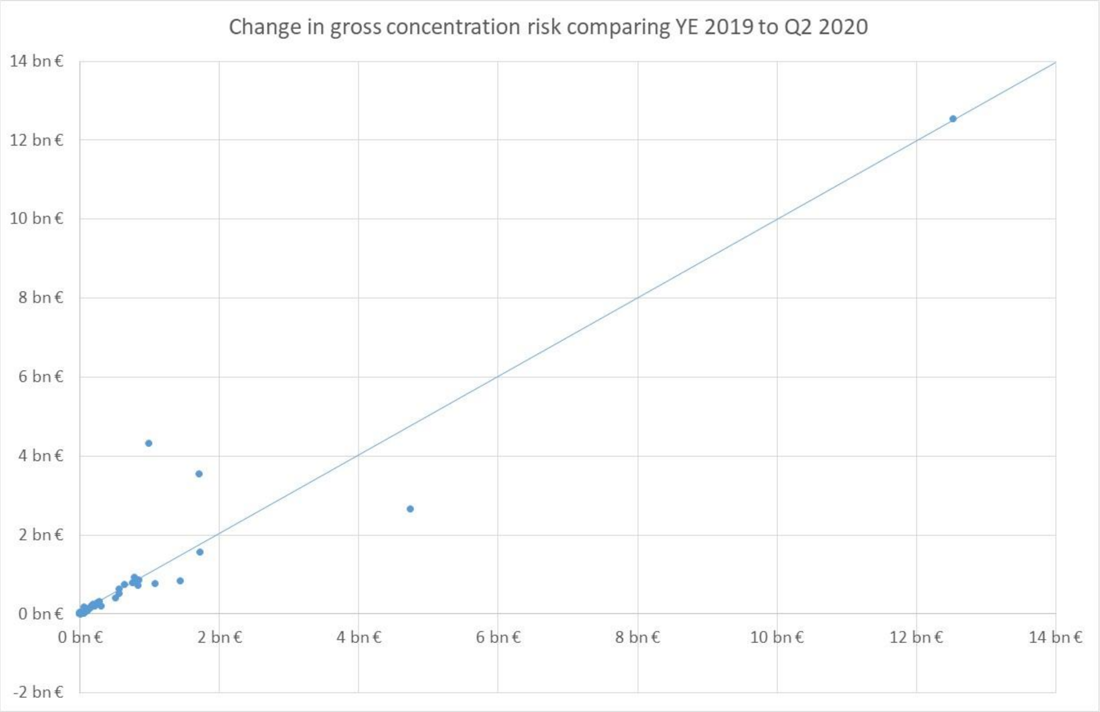
A.613 The data show that the net spread risk and net concentration risk charges increased from YE 2019 to Q2 2020 by 28% and 7% for the undertakings participating in both information requests. This increase seems mainly driven by the reduced impact of the loss absorbing capacity of technical provisions, as the evolution of the gross figures is rather different.

A.614 The following chart compares the size of the gross spread risk charge for bonds and loans for YE 2019 and Q2 2020:



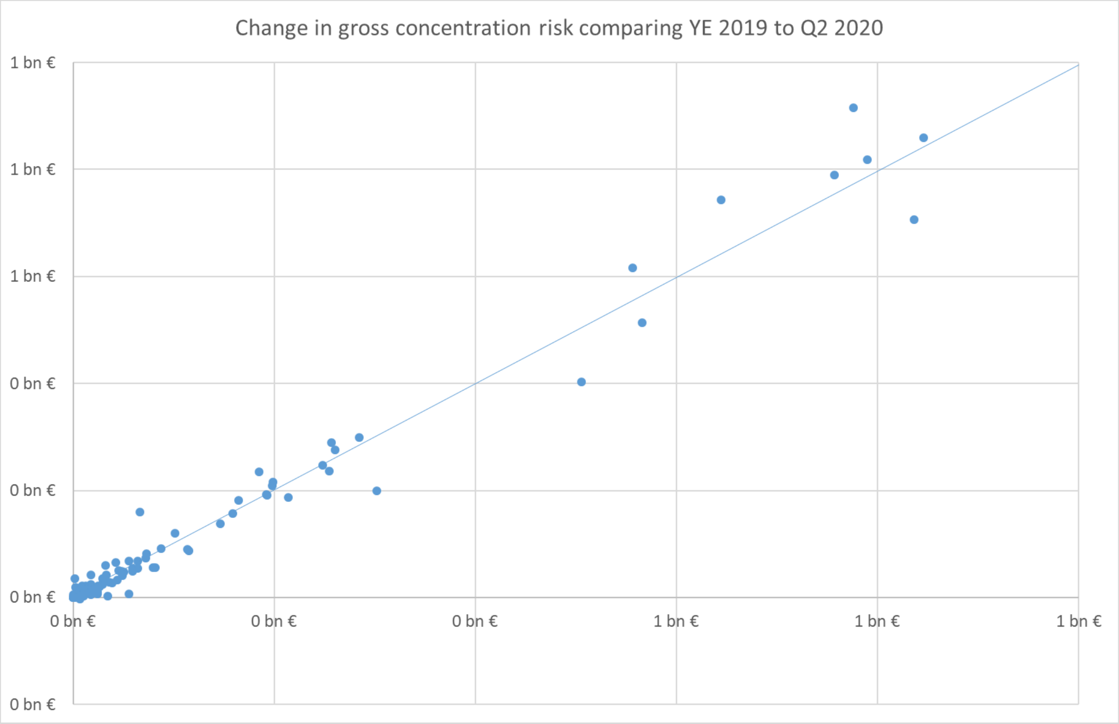
A.615 As can be seen, for the vast majority of undertakings the risk has hardly changed in Q2 2020 compared to YE 2019. On average, an increase in gross spread risk charge of only 1% can be observed. Despite this, a number of undertakings have reported a comparably high increase. For those, EIOPA has investigated further and liaised with NSAs. NSAs provided further information on some of these cases and identified reinvestments (e.g. from government bonds to corporate bonds) as a major trigger for the observed increase.

A.616 The following chart compares results for the market concentration risk charge for YE 2019 and Q2 2020:



A.617 As can be seen, similar to the spread risk charge, the gross concentration risk charge is comparable or decreases in the majority of cases. On average though, an increase by 6% can be observed which is driven by two undertakings.

A.618 Due to the scale though, the details for the majority of the undertakings are difficult to distinguish. Therefore, the following chart shows an extract of the previous chart with more detail. On the basis of this, a number of undertakings with a considerable increase of the market concentration risk can be identified:



A.619 Again, similar to spread risk, these undertakings were investigated further through follow-up with NCAs. NCAs provided further information on some of these cases and identified an increase in specific exposures as a major trigger for the observed increases.

Investment behaviour of undertakings

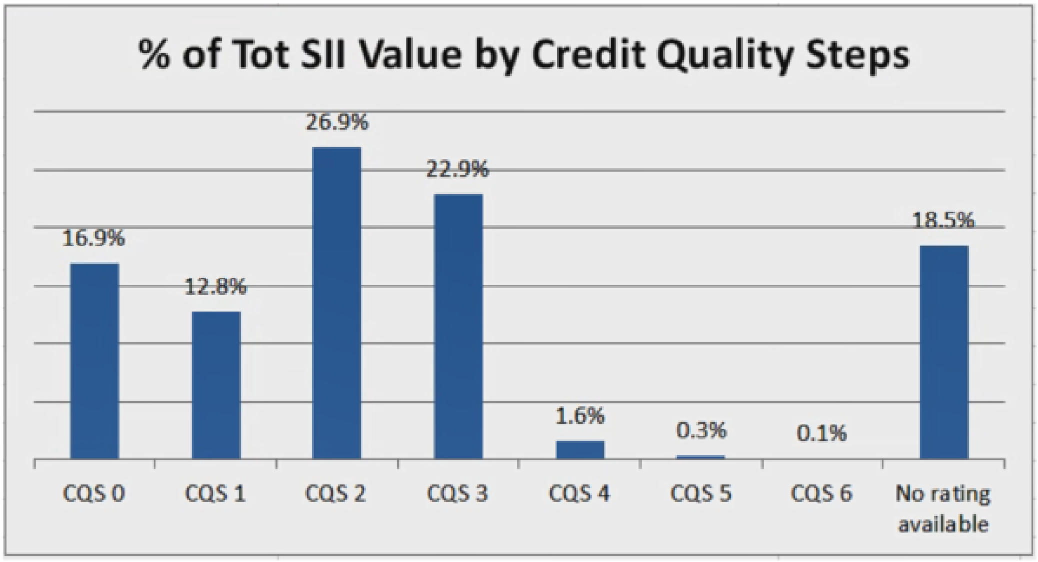
A.620 This analysis investigated trading activity by undertakings in relation to actual downgrades of corporate bonds, aiming to assess whether such trading is driven by bond downgrades and to identify potential pro-cyclical behaviour that could jeopardise financial stability.

A.621 The analysis was based on QRT information for a long historical period and including Q1 and Q2 2020. To enable a comparison between quarters, the sample had to be reduced to include only those undertakings which are continuously present throughout the analysis period.

A.622 The EU insurance industry has EUR 11,357bn of investment assets. The largest investment categories are government and corporate bonds with respectively EUR 2,545bn and EUR 2,325bn corresponding to shares of 22% and 20% of total investments. These figures refer only to direct investments, i.e. holdings through investment funds are not considered.

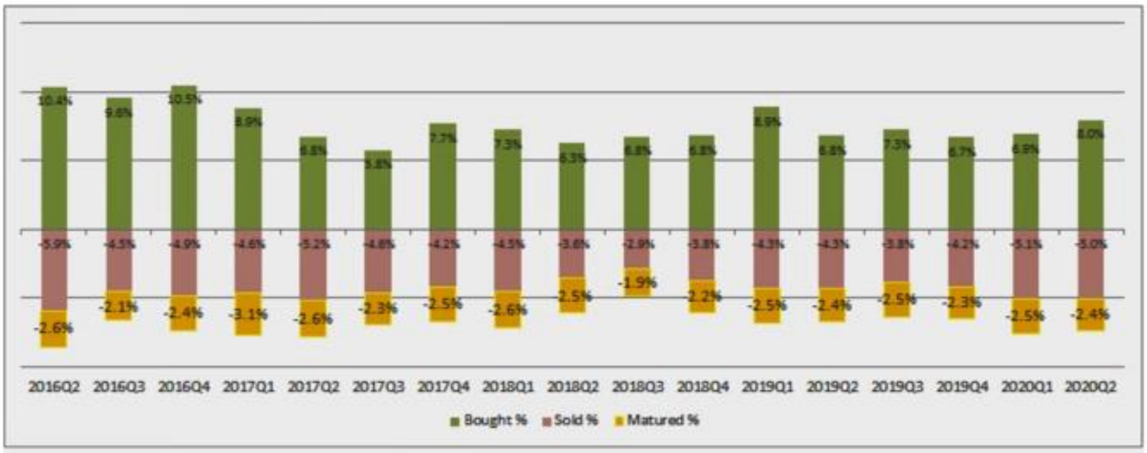
A.623 When looking at the (NACE) sectoral distribution of corporate bond holdings, at Q4 2019, undertakings have the highest exposure to 'Financial and insurance activities', which amount to 56.5% of total corporate bond holding, followed by the 'Manufacturing sector' with only 11.8%. Geographically, most exposures are concentrated in the EU (excl. UK) with 64.7%, followed by the UK (13.9%) and the US (13.2%).

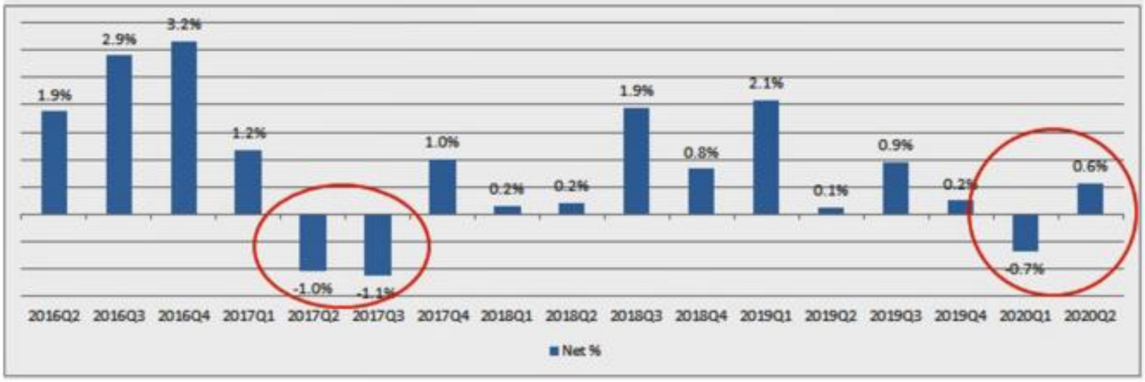
A.624 The breakdown by credit quality step (CQS) can be observed in the following chart.



Source: EIOPA Central Repository, Prudential solo reporting Q4-2019.

A.625 When assessing the buying and selling behaviour of undertakings over the time period Q2 2016 to Q2 2020, the following pattern can be observed.

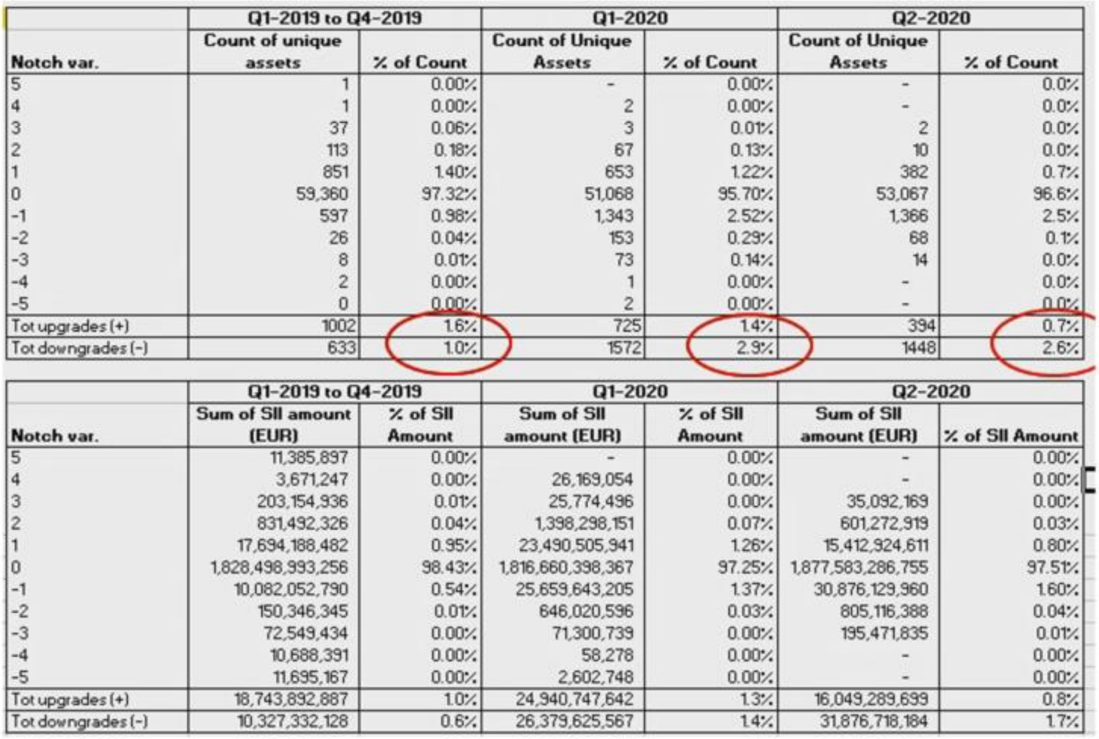




Source: EIOPA, Prudential solo reporting. The sample covered goes from Q1-2016 to Q2-2020.

A.626 The chart shows that undertakings are usually net buyers of corporate bonds. Only in 3 quarters undertakings were net sellers, including in Q1 2020. However, in Q2 2020 undertakings were again net buyers of corporate bonds, despite the persistence of an above-average selling pressure. In Q1 2020, the largest amount of bonds sold had a AAA rating, whereas in Q2 2020 the largest amount sold corresponded to BBB bonds. Undertakings appear to buy mostly newly issued bonds, still without CQS information being assigned to them.

A.627 When looking at downgrades of corporate bonds in the EIOPA database, it can be observed that the number and amount of downgrades increased in Q1 and Q2 2020, representing 2.9% and 2.6% of total bonds held, respectively. These figures compare to about 1% of bond downgrades in 2019. The number of upgrades, on the other hand, decreased somewhat.

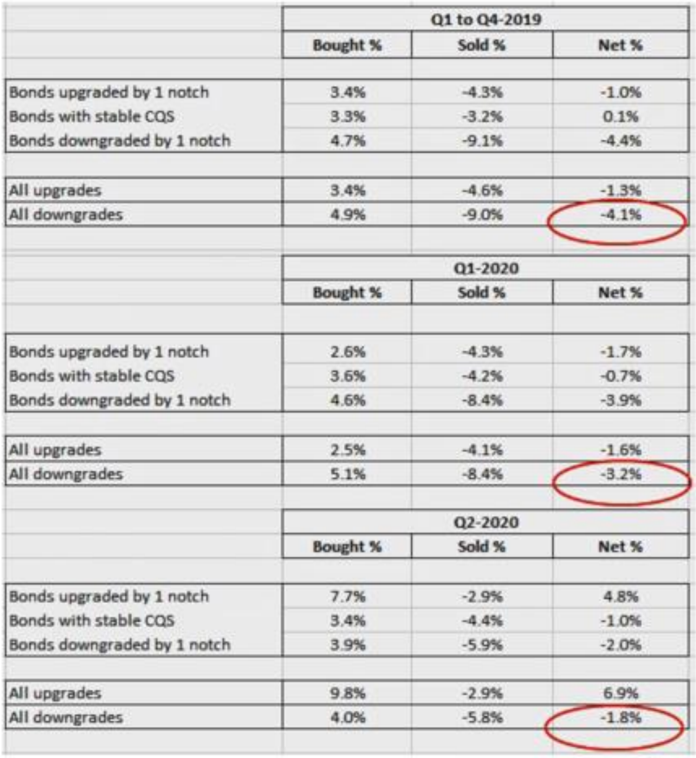


	Q1-2019 to Q4-2019		Q1-2020		Q2-2020	
Notch var.	Count of unique assets	% of Count	Count of Unique Assets	% of Count	Count of Unique Assets	% of Count
5	1	0.00%	-	0.00%	-	0.0%
4	1	0.00%	2	0.00%	-	0.0%
3	37	0.06%	3	0.01%	2	0.0%
2	113	0.18%	67	0.13%	10	0.0%
1	851	1.40%	653	1.22%	382	0.7%
0	59,360	97.32%	51,068	95.70%	53,067	96.6%
-1	597	0.98%	1,343	2.52%	1,366	2.5%
-2	26	0.04%	153	0.29%	68	0.1%
-3	8	0.01%	73	0.14%	14	0.0%
-4	2	0.00%	1	0.00%	-	0.0%
-5	0	0.00%	2	0.00%	-	0.0%
Tot upgrades (+)	1002	1.6%	725	1.4%	394	0.7%
Tot downgrades (-)	633	1.0%	1572	2.9%	1448	2.6%

	Q1-2019 to Q4-2019		Q1-2020		Q2-2020	
Notch var.	Sum of SII amount (EUR)	% of SII Amount	Sum of SII amount (EUR)	% of SII Amount	Sum of SII amount (EUR)	% of SII Amount
5	11,385,897	0.00%	-	0.00%	-	0.00%
4	3,671,247	0.00%	26,169,054	0.00%	-	0.00%
3	203,154,936	0.01%	25,774,496	0.00%	35,092,169	0.00%
2	831,492,326	0.04%	1,398,298,151	0.07%	601,272,919	0.03%
1	17,694,188,482	0.95%	23,490,505,941	1.26%	15,412,924,611	0.80%
0	1,828,498,993,256	98.43%	1,816,660,398,367	97.25%	1,877,583,286,755	97.51%
-1	10,082,052,790	0.54%	25,659,643,205	1.37%	30,876,129,960	1.60%
-2	150,346,345	0.01%	646,020,596	0.03%	805,116,388	0.04%
-3	72,549,434	0.00%	71,300,739	0.00%	195,471,835	0.01%
-4	10,688,391	0.00%	58,278	0.00%	-	0.00%
-5	11,695,167	0.00%	2,602,748	0.00%	-	0.00%
Tot upgrades (+)	18,743,892,887	1.0%	24,940,747,642	1.3%	16,049,289,699	0.8%
Tot downgrades (-)	10,327,332,128	0.6%	26,379,625,567	1.4%	31,876,718,184	1.7%

Source: EIOPA Central Repository, Prudential solo reporting. The sample covered goes from Q1-2016 to Q4-2019, Q1-2020 and Q2-2020. Where more insurers report the same bond the mode of the reporting CQS is taken in each period. For Fitch Ratings, Moody's Investor Service and S&P Global Ratings the mapping is the following: CQS 0 (AAA), CQS 1 (AA), CQS 2 (A), CQS 3 (BBB), CQS 4 (BB), CQS 5 (B) and CQS 6 (CCC).

A.628 When considering the investment behaviour of undertakings, it can be observed that undertakings tend to sell both upgraded and downgraded bonds, although the underlying motivations for the two behaviours are likely to be very distinct. However, when expressing the corporate bonds that were 'net bought/sold' as a percentage of the position at the beginning of the quarter, it can be concluded that, despite the increase in the number and value of downgraded bonds, the proportion of those which were actually sold decreased 4.1% in 2019 to 3.2% in Q1 and 1.8% in Q2 2020.



	Q1 to Q4-2019		
	Bought %	Sold %	Net %
Bonds upgraded by 1 notch	3.4%	-4.3%	-1.0%
Bonds with stable CQS	3.3%	-3.2%	0.1%
Bonds downgraded by 1 notch	4.7%	-9.1%	-4.4%
All upgrades	3.4%	-4.6%	-1.3%
All downgrades	4.9%	-9.0%	-4.1%

	Q1-2020		
	Bought %	Sold %	Net %
Bonds upgraded by 1 notch	2.6%	-4.3%	-1.7%
Bonds with stable CQS	3.6%	-4.2%	-0.7%
Bonds downgraded by 1 notch	4.6%	-8.4%	-3.9%
All upgrades	2.5%	-4.1%	-1.6%
All downgrades	5.1%	-8.4%	-3.2%

	Q2-2020		
	Bought %	Sold %	Net %
Bonds upgraded by 1 notch	7.7%	-2.9%	4.8%
Bonds with stable CQS	3.4%	-4.4%	-1.0%
Bonds downgraded by 1 notch	3.9%	-5.9%	-2.0%
All upgrades	9.8%	-2.9%	6.9%
All downgrades	4.0%	-5.8%	-1.8%

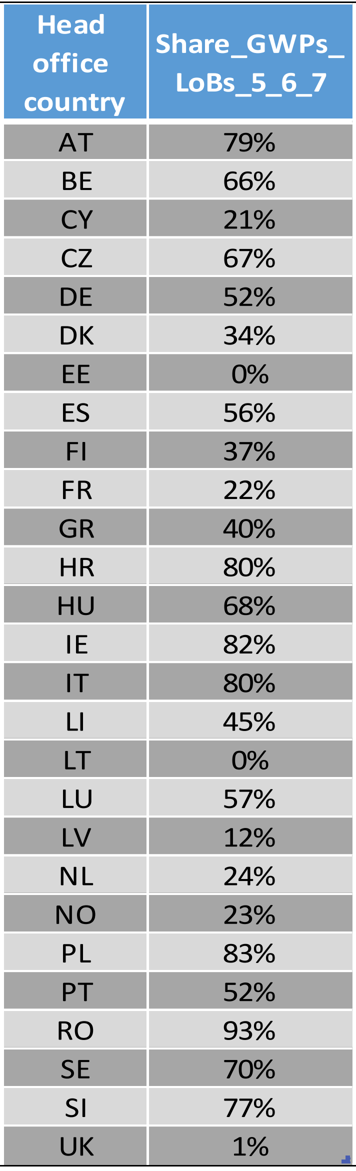
Source: EIOPA Central Repository, Prudential solo reporting. The sample covered goes from Q1-2016 to Q4-2019, Q1-2020 and Q2-2020[10]. Maturing bonds is 2.5% and very stable across quarters; therefore this figure can be ignored for the purpose of comparing trading activity, however to have a view on the total net activity it has to be factored in the calculation.

A.629 Looking at more granular data by CQS, it can be observed that, among the downgraded bonds, undertakings tend to sell the highest proportion of those that were rated BBB at the start of the period, with a net sale of about 6%. However, the total amounts are relatively small when looking at the total portfolio of bonds held. In Q2 2020, about EUR 384mn of bonds were sold, compared to a total value of EUR 6,244mn of BBB bonds that were downgraded.

A.630 Overall, net sales represented less than EUR 0.6bn compared to about EUR 30bn of all downgraded bonds from all CQS in Q2 2020, within a total of over EUR 2,300bn of corporate bonds held.

Annex 5.4 – Catastrophe risk

A.631 Representativeness of non-life business was first measured through the premiums written gross of reinsurance (GWPs) in the country where the head office of the solo undertaking is located. Only business generated by the LoBs covered by the SF NAT CAT risk sub-module was considered (5 – Other Motor, 6 – Marine, Aviation & Transport, and 7 – Fire & Other Damage to Property). Table 1 below displays this GWPs-based representativeness measure computed on the sample collected by solo head office country.



Head office country	Share_GWPs_ LoBs_5_6_7
AT	79%
BE	66%
CY	21%
CZ	67%
DE	52%
DK	34%
EE	0%
ES	56%
FI	37%
FR	22%
GR	40%
HR	80%
HU	68%
IE	82%
IT	80%
LI	45%
LT	0%
LU	57%
LV	12%
NL	24%
NO	23%
PL	83%
PT	52%
RO	93%
SE	70%
SI	77%
UK	1%

Table 1 – GWPs-based representativeness by solo head office country
Both SF & IM users from the sample (YE2018 figures)

A.632 However, in the current specific case of natural catastrophe risks, the risks insured – from now on referred as exposure or sum insured – might be located in another country. Assimilating solo head office country and exposure country can be considered sensible and acceptable in most solos head office countries – but not for DK, IE, LU, MT and UK head office countries. The validity of this approximation can also vary from one peril to another. Table 2 below, generated by the whole (i.e. not only from the sample) SF EIOPA QRT S.27.01 ('Solvency Capital Requirement - Non-life and Health catastrophe risk') at YE2018, displays to which extent the NAT CAT exposure is located in the same country as the head office of the solo undertaking that underwrote the business[448].

Head office country	Share of domestic exposure Peril WS	Share of domestic exposure Peril EQ	Share of domestic exposure Peril FL	Share of domestic exposure Peril HA	Share of domestic exposure Peril SU	Share of domestic exposure All perils
AT	98%	91%	92%	99%	NA	97%
BE	84%	100%	99%	98%	NA	95%
BG	NA	98%	98%	NA	NA	98%
CY	NA	99%	NA	NA	NA	98%
CZ	100%	97%	97%	NA	NA	98%
DE	98%	99%	98%	99%	NA	98%
DK	65%	NA	NA	NA	NA	63%
EL	NA	94%	NA	NA	NA	94%
ES	98%	NA	NA	100%	NA	97%
FI	0%	NA	NA	NA	NA	0%
FR	99%	99%	100%	99%	100%	99%
HR	NA	99%	NA	NA	NA	93%
HU	0%	96%	97%	NA	NA	96%
IE	18%	NA	NA	NA	NA	7%
IS	100%	NA	NA	NA	NA	100%
IT	NA	100%	99%	100%	NA	100%
LU	6%	NA	NA	8%	NA	4%
MT	NA	33%	NA	NA	NA	4%
NL	97%	NA	NA	95%	NA	92%
NO	92%	NA	NA	NA	NA	92%
PL	100%	NA	100%	NA	NA	100%
PT	NA	100%	NA	NA	NA	100%
RO	NA	100%	100%	NA	NA	100%
SE	96%	NA	NA	NA	NA	89%
SI	0%	99%	100%	NA	NA	99%
SK	NA	100%	99%	NA	NA	99%
UK	62%	NA	72%	NA	NA	47%

Table 2 – Share of domestic exposure by solo head office country for each SF peril and for all SF perils
All SF undertakings YE2018

A.633 As the purpose of this data collection is related to the (exposure) country factors and the policy conditions underlying their calibration, the exposure is deemed to be a more relevant measure of representativeness than the GWPs. However it is worth noting an important limitation of the current regulatory

[448] Cells with 'NA' indicate perils for which no country factor is defined in the Standard Formula.

reporting: only SF users are required to populate on a regular basis the natural catastrophe template (S.27.01) where esp. the exposures are reported. Therefore any exposure-based representativeness measure can be computed only on SF undertakings. Table 3 displays by solo head office country[449] the share of natural catastrophe exposure covered by the SF undertakings from the sample (still with reference date YE2018).

Head office country	Share Exposure SF only All NAT CAT perils
AT	58%
BE	35%
CY	30%
CZ	40%
DE	71%
DK	30%
EE	NA
ES	60%
FI	88%
FR	8%
GR	36%
HR	73%
HU	71%
IE	8%
IT	14%
LI	8%
LT	NA
LU	5%
LV	100%
NL	24%
NO	6%
PL	74%
PT	42%
RO	89%
SE	23%
SI	56%
UK	5%

Table 3 – Exposure-based representativeness by solo head office country
Only SF users from the sample (YE2018 figures)

A.634 Table 4 displays by SF exposure country and peril the share of natural catastrophe exposure covered by the SF undertakings from the sample.

[449] This view is especially useful for EIOPA to check the representativeness with each NCA. On the other hand the exposure country view is especially useful for EIOPA or PERILS to have a market-wide view.

Empty cells reflect the fact that, in the SF framework, not all countries are deemed to be exposed to the 5 SF perils. In total approx. 32% of the total SF exposure for all SF perils in the EEA are captured in the sample.

Exposure country	Share Exposure SF only Peril WS	Share Exposure SF only Peril EQ	Share Exposure SF only Peril FL	Share Exposure SF only Peril HA	Share Exposure SF only Peril SU	Share Exposure SF only All perils
AT	45%	68%	67%	50%		**53%**
BE	26%	24%	25%	28%		**26%**
BG		53%	51%			**52%**
CH	2%	2%	2%	2%		**2%**
CR		66%				**66%**
CY		26%				**26%**
CZ	38%	37%	2%			**29%**
DE	62%	62%	62%	61%		**62%**
DK	33%					**33%**
ES	57%			56%		**56%**
FR	8%	8%	8%	8%	10%	**8%**
GU	14%	15%				**14%**
HE		34%				**34%**
HU		62%	61%			**61%**
IE	20%					**20%**
IS	3%					**3%**
IT		7%	7%	13%		**10%**
LU	45%			39%		**42%**
MA	15%	14%				**14%**
MT		1%				**1%**
NL	25%			24%		**25%**
NO	7%					**7%**
PL	64%		66%			**65%**
PT		34%				**34%**
RE	15%					**15%**
RO		64%	67%			**66%**
SE	22%					**22%**
SI		39%	57%			**49%**
SK		5%	4%			**4%**
SM	3%	4%				**4%**
UK	10%		9%			**9%**
All countries	**34%**	**30%**	**29%**	**37%**	**10%**	**32%**

Table 4 – Exposure-based representativeness by exposure country and peril
Only SF users from the sample (YE2018 figures)

A.635 For comparison (across undertakings) purposes, deductibles (also called lower limits or floors) and loss limits (also called upper limits or ceilings) were expressed as a percentage of the sum insured. Strictly speaking, these percentages should therefore be referred as relative deductibles and loss limits. When computing average (relative) floors and ceilings, these percentages were weighted by the underlying sum insured. From each selected undertaking a "best estimate" of these (relative) deductibles and loss limits was requested to be reported, as well as a lower and an upper limit around each of these "best estimates". Given the sufficient volume of collected data, these lower and upper limits were eventually computed as the weighted average +/- one (weighted) standard deviation around this average. All these calculations were performed at the granularity Peril x Exposure country x Type of exposure (x LoB, where applicable). The final table, which shows very volatile averages, can be found as a separate Excel file under the name '2020 review - NAT CAT average policy conditions - Statistics_Floor_Ceiling.xlsx'.

A.636 Validation of the average policy conditions and their related uncertainty was performed by participating NCAs, when possible with the support of their national insurance associations. It is worth noting that not all national insurance associations have the information available to perform such a validation. Furthermore, for time constraints reasons, it was not possible to put in place a proper validation process. Therefore the figures shared should be used with caution.

A.637 The importance and impact of the accuracy of the average relative deductibles and loss limits should be considered from 3 different perspectives depending on their ultimate usage:

A.638 When used by individual undertakings to position themselves w.r.t. to the rest of the market (primary goal of the EU Call for Advice), only the ordinal nature of these averages is useful and therefore their accuracy is only of second importance;

A.639 In the same vein, if these figures are used by EIOPA to perform a quantitative assessment of the NAT CAT protection gap in Europe, it is essentially the ordinal aspect of these averages that is informative and therefore their accuracy is of moderate importance;

A.640 On the other hand, if these average relative deductibles and loss limits were to be used as a transparent basis for the recalibration of the SF NAT CAT country factors, then their cardinal nature becomes crucial and a lot of care should be required as for their accuracy, especially regarding the relative deductibles. Indeed, for a given peril x country combination, the distribution function of the degree of damage (w.r.t. the sum insured) is strongly increasing for "small" (typically between 0% and 10%) values of the degree of damage, while this curve becomes almost constant by reaching a plateau from already approx. 60% of degree of damage: it means that small variations in low values of the degree of damage – on the x-axis – generate significant variations in occurrence (cumulated) probabilities – on the y-axis (while the same variations in higher values of the degree of the damage generate only small to no variations in occurrence (cumulated) probabilities).

Annex 7.1 – RSR content proposal

A.641 Please note that this Annex reflects the streamlining of the structure proposed (merging of Risk profile section with Capital management section).

Level 1 Articles

New paragraph in Article 35 – new paragraph 2a

2a. Member States shall, taking into account the information required in paragraphs 1 and 2 and the principles set out in paragraphs 3 and 4, require insurance and reinsurance undertakings to submit to the Supervisory Authorities a regular supervisory report on their solvency and financial condition.

New Article 256a

Group regular supervisory report

1. Member States shall require participating insurance and reinsurance undertakings, insurance holding companies and mixed financial holding companies to submit to the supervisory authorities, on an annual basis, a regular supervisory report at the level of the group. Article 35(2a) shall apply mutatis mutandis.

2. A participating insurance or reinsurance undertaking, an insurance holding company or a mixed financial holding company may, subject to the agreement of the national supervisory authorities concerned, provide a single regular supervisory report which shall comprise the following:

(a) the information at the level of the group which shall be reported in accordance with paragraph 1;

(b) the information for any of the subsidiaries within the group, which shall be individually identifiable, shall be reported in accordance with Article 35(2a). It shall not result in less information than the one it would be provided by insurance and reinsurance undertakings submitting regular supervisory report in accordance with Article 35(2a).

The non-agreement by the national supervisory authorities concerned shall be duly justified. If the single regular supervisory report in accordance with paragraph 2 is approved, it shall be the responsibility of each solo insurance undertaking to submit the single regular supervisory report to each supervisory authority. Each supervisory authority shall have the power, to supervise the specific part of the single regular supervisory report to the relevant subsidiary. If the single regular supervisory report submitted is not satisfactory for the national supervisory authorities the approval can be withdrawn.

4. Where the report referred to in paragraph 2 fails to include information which the supervisory authority having authorised a subsidiary within the group requires comparable undertakings to provide, and where the omission is material, the supervisory authority concerned shall have the power to require the subsidiary concerned to report the necessary additional information.

5. Where the supervisory authority having authorised a subsidiary within the group identifies any non-compliance with Article 35(2a) or requests any amendment or clarification regarding the single regular supervisory report it shall also inform the college of supervisors and the group supervisor shall submit to the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company the same request.

6. The Commission shall adopt delegated acts in accordance with Article 301a further specifying the information which shall be reported, the format to be used and the deadlines for the annual reporting of the information as regards the single regular supervisory report in accordance with paragraph 2 and the regular supervisory report at the level of the group in accordance with paragraph 1.

Delegated Regulation articles

A.642 The articles proposed below refer to "full description" to be applied in certain circumstances. EIOPA believes that EIOPA Guidelines could be used to clarify expectations on what to expect in those cases. If the European Commission believes that such clarifications should be defined in the Delegated Regulation EIOPA advises that the articles addressing the full description are added separately and using as a basis the description as referred to in the articles as applied today.

Article 304

Elements of the regular supervisory reporting

1. The information which supervisory authorities require insurance and reinsurance undertakings to submit at predefined periods in accordance with Article 35(2)(a)(i) of Directive 2009/138/EC shall comprise the following:

   (a) both parts of the solvency and financial condition report disclosed by the insurance or reinsurance undertaking in accordance with Article 300 of this Regulation, together with any equivalent information disclosed publicly under other legal or regulatory requirements to which the solvency and financial condition report refers to as well as any updated version of that report disclosed in accordance with Article 302 of this Regulation;

   (b) the regular supervisory report comprising the information referred to in Articles 307 to 311 of this Regulation. When Articles 307 to 311 refer to material changes this shall be understood as:

      i. material changes since the last regular supervisory report submitted if the regular supervisory report was submitted at least once in the past; or

      ii. the full description of the relevant area if the regular supervisory report is submitted for the first time.

It shall also present any information referred to in Articles 293 to 297 of this Regulation which supervisory authorities have permitted insurance and reinsurance undertakings not to disclose in their solvency and financial condition report, in accordance with Article 53(1) of Directive 2009/138/EC. The regular supervisory report shall follow the same structure as the one set out in Annex XX for the solvency and financial condition report;

(c) the own-risk and solvency assessment supervisory report ('ORSA supervisory report') comprising the results of each regular own risk and solvency assessment performed by the insurance and reinsurance undertakings in accordance with Article 45(6) of Directive 2009/138/EC, whenever an own-risk and solvency assessment is performed in accordance with Article 45(5) of that Directive;

(d) annual and quarterly quantitative templates specifying in greater detail and supplementing the information presented in the solvency and financial condition report and in the regular supervisory report, taking into account possible limitations and exemptions in accordance with Article 35(6), (6bis), (7) and (7bis) of Directive 2009/138/EC. To the extent that undertakings are exempted from quarterly reporting obligations in accordance with Article 35(6) of Directive 2009/138/EC they shall submit annual quantitative templates only. Annual reporting obligations shall not include reporting on an item-by-item basis where undertakings are exempted from it according to Article 35(7) of Directive 2009/138/EC.

~~2. The regular supervisory report shall include a summary which shall in particular highlight any material changes that have occurred in the undertaking's business and performance, system of governance, risk profile, valuation for solvency purposes and capital management over the reporting period, and provide a concise explanation of the causes and effects of such changes. The summary shall include information on the own risk and solvency assessment for the purposes of Article 45(6) of Directive 2009/138/EC.~~

3. The scope of the quarterly quantitative templates shall be narrower than that of the annual quantitative templates.

4. Paragraph 1 shall be without prejudice to the power of supervisory authorities to require insurance and reinsurance undertakings to communicate on a regular basis any other information prepared under the responsibility of – or at the request of – the administrative, management or supervisory body of those undertakings.

5. If after receiving the regular supervisory report referred to in paragraph 1(b) supervisory authorities consider that the information regarding material changes do not allow supervisory authorities to have a clear view of the information received, supervisory authorities may require insurance and reinsurance undertakings to submit a full description of the concerned specific sections of the report.

A.643 Article 307 and following do not show amendments comparing to current draft due to the high number of changes but instead show EIOPA proposal for the new draft.

Art. 307

Business and performance

1. The regular supervisory report shall include all of the following information regarding the business of the insurance or reinsurance undertaking:

   (a) the name and legal form of the undertaking;

   (b) Legal Entity Identifier;

   (c) the main trends and factors that contribute to the development, performance and position of the undertaking over its business planning time period including the undertaking's competitive position and any significant legal or regulatory issues;

   (d) material changes of the business objectives of the undertaking, including the relevant strategies and time frames;

2. The regular supervisory report shall include all of the following qualitative and quantitative information regarding the underwriting performance of the insurance or reinsurance undertaking, as shown in the undertaking's financial statements:

   (a) projections of the undertaking's underwriting performance by material line of business, and material geographical area, with information on significant factors that might affect such underwriting performance, over its business planning time period. The information shall be provided by material line of business and includes information on the assumptions underlying the projections.

3. The regular supervisory report shall include all of the following qualitative and quantitative information regarding the performance of the investments of the insurance or reinsurance undertaking, as shown in the undertaking's financial statements:

   (a) an analysis of the undertaking's overall investment performance during the reporting period and also by relevant asset class and reasons for any material changes;

   (b) projections of the undertaking's expected investment performance, with information on significant factors that might affect such investment performance, over its business planning time period and the key assumptions which the undertaking makes in its investment decisions with respect to the movement of interest rates, exchange rates, and other relevant market parameters, over its business planning time period.

(c) information about any investments in securitisation, and the undertaking’s risk management procedures in respect of such securities or instruments.

4. The regular supervisory report shall include information of any material income and expenses, other than underwriting or investment income and expenses, over the undertaking’s business planning time period.

5. The regular supervisory report shall include any other material information regarding their business and performance.

Art. 308

System of governance

1. The regular supervisory report shall include all of the following information regarding the insurance or reinsurance undertaking’s system of governance:

   (a) material changes in the structure of the undertaking's administrative, management or supervisory body, providing material changes in the description of its main roles and responsibilities and a brief description of the material changes in the segregation of responsibilities within these bodies, in particular whether relevant committees exist within them, as well as a description of the material changes in the main roles and responsibilities of key functions;

   (b) material changes in the remuneration entitlements, including an explanation of the relative importance of the fixed and variable components of remuneration, of the members of the administrative, management or supervisory body and other key function, over the reporting period and the reasons for any material changes.

2. The regular supervisory report shall include all of the following information regarding the compliance of the insurance or reinsurance undertaking with fit and proper requirement:

   (a) in accordance with the requirements set out in Article 42 of Directive 2009/138/EC, a list of the persons in the undertaking that are responsible for key functions,

   (b) a description of the material changes in undertaking's specific requirements concerning skills, knowledge and expertise applicable to the persons who effectively run the undertaking or have other key functions.

3. The regular supervisory report shall include all of the following information regarding the risk management system of the insurance or reinsurance undertaking focusing on material changes:

   (a) a description of material changes on how the risk management system including the risk management function are implemented and integrated into the organisational structure and decision-making processes of the undertaking

(b) material changes on the undertaking's risk management strategies, objectives, processes and reporting procedures for each category of risk;

(c) material changes on how the undertaking verifies the appropriateness of credit assessments from external credit assessments institutions including how and the extent to which credit assessments from external credit assessments institutions are used;

(d) results of the assessments regarding the extrapolation of the risk-free rate, the matching adjustment and the volatility adjustment, as referred to in Article 44(2a) of Directive 2009/138/EC

4. The regular supervisory report shall include all of the following information regarding the own risk and solvency assessments which were performed over the reporting period by the insurance or reinsurance undertaking, if the same information is not covered by the ORSA Supervisory Report already submitted to the supervisory authority as referred in Article 304 (1)(c):

(a) any material changes to the process undertaken by the undertaking to fulfil its obligation to conduct an own risk and solvency assessment as part of its risk management system including how the own risk and solvency assessment is integrated into the organisational structure and decision making processes of the undertaking;

(b) any change in the frequency of the own risk and solvency assessment.

5. The regular supervisory report shall include all of the following information regarding the internal control system of the insurance or reinsurance undertaking:

(a) a description of material changes on the internal control system elements;

(b) information on the activities performed in accordance with Article 46(2) of Directive 2009/138/EC during the reporting period, including the ones planned and not implemented and the reason why some planned activities were not implemented;

(c) any significant changes to the compliance policy during the reporting period.

6. The regular supervisory report shall include all of the following information regarding the internal audit function of the insurance or reinsurance undertaking:

(a) a description of internal audits performed during the reporting period, with a summary of the material findings and recommendations reported to the undertaking's administrative, management or supervisory body, and any action taken with respect to these findings and recommendations;

(b) any material change to the audit policy or the frequency of its revision;

(c) a description of the undertaking's audit plan, including future internal audits and the rationale for these future audits.

7. The regular supervisory report shall include all of the following information regarding the actuarial function of the insurance or reinsurance undertaking:

   (a) any material change on how the actuarial function of the insurance or reinsurance undertaking is implemented;

   (b) an overview of the activities undertaken by the actuarial function in each of its areas of responsibility during the reporting period, describing how the actuarial function contributes to the effective implementation of the undertaking's risk management system and including the main findings of the actuarial function.

8. The regular supervisory report shall include all of the following information regarding outsourcing:

   (a) any material change to the outsourcing policy of the insurance or reinsurance undertaking;

   (b) a list of the persons responsible for the outsourced key functions in the service provider.

9. The regular supervisory report shall include any other material information regarding the system of governance of the insurance or reinsurance undertaking.

Art. 310

Valuation for solvency purposes

1. The regular supervisory report shall include any important information, other than that already disclosed in the solvency and financial condition report of the insurance or reinsurance undertaking, regarding the valuation of its assets, technical provisions and other liabilities for solvency purposes.

2. The regular supervisory report shall include a description of:

   (a) detailed information on the most relevant assumptions used in the calculation of the Best Estimate, its sensitivity to changes and results of back testing.

3. The regular supervisory report shall include the following information regarding the areas set out in Article 263 of this Regulation:

   (a) Material changes regarding the justification why alternative valuation methods are used by class of assets and liabilities;

   (b) Material changes regarding the assumptions of each alternative valuation method used for assets and liabilities;

   (c) Material changes regarding the valuation uncertainty by class of assets and liabilities;

   (d) Information of the adequacy of the valuation of the assets and liabilities to which the alternative valuation is used against experience.

4. Where insurance or reinsurance undertakings value assets or liabilities based on the valuation methods they use to prepare their financial statements in accordance with Article 9(4) of this Regulation, they shall report an assessment, in qualitative and quantitative terms, of the criterion set out in Article 9(4)(d).

Art. 311

Capital management and risk profile

1. The regular supervisory report shall include all of the following information regarding the own funds of the insurance or reinsurance undertaking:

   (a) information on any material change to the policies and processes employed by the undertaking for managing its own funds;

   (b) information on any material change in the material terms and conditions of the main items of own funds held by the undertaking;

   (c) the expected developments of the undertaking's own funds over its business planning time period given the undertaking's business strategy, and appropriately stressed capital plans and whether there is any intention to repay or redeem any own-fund item or plans to raise additional own funds;

   (d) the undertaking's plans on how to replace basic own-fund items that are subject to the transitional arrangements referred to in Article 308b(9) and (10) of Directive 2009/138/EC over the timeframe referred to in that Article

   (e) information regarding deferred taxes that shall contain as a minimum all of the following:

      i. a description of the calculated amount of deferred tax assets without assessing their probable utilisation, and the extent to which those deferred tax assets have been recognised;

      ii. for the deferred tax assets which have been recognised, a description of the amounts being recognised as likely to be utilised by reference to probable future taxable profit and by reference to the reversion of deferred tax liabilities relating to income taxes levied by the same taxation authority;

      iii. a detailed description of the underlying assumptions used for the projection of probable future taxable profit for the purposes of Article 15;

      iv. an analysis of the sensitivity of the net deferred tax assets to changes in the underlying assumptions referred to in point (iii).

2. The regular supervisory report shall include all of the following information regarding the Solvency Capital Requirement and the Minimum Capital Requirement of the insurance or reinsurance undertaking:

(a) the expected developments of the undertaking's anticipated Solvency Capital Requirement and Minimum Capital Requirement over its business planning time period given the undertaking's business strategy, if the same information is not covered by the ORSA Supervisory Report already submitted to the supervisory authority as referred in Article 304 (1)(c);

(b) an estimate of the undertaking's Solvency Capital Requirement determined in accordance with the standard formula, where the supervisory authority requires the undertaking to provide that estimate pursuant to Article 112(7) of Directive 2009/138/EC;

(c) for the future profit projected for the purpose of the loss-absorbing capacity of deferred taxes in accordance with Article 207:

   i. a description, and the relevant amount of each of the components used to demonstrate a positive value of the increase in deferred tax assets;

   ii. a detailed description of the underlying assumptions used for the projection of probable future taxable profit for the purposes of Article 207;

   iii. an analysis of the sensitivity of the value of the adjustment to changes in the underlying assumptions referred to in point (ii).

3. Where undertaking-specific parameters are used to calculate the Solvency Capital Requirement, or a matching adjustment is applied to the relevant risk-free interest term structure, the regular supervisory report shall include information regarding whether there have been changes to the information included in the application for approval of the undertaking-specific parameters or matching adjustment that are relevant for the supervisory assessment of the application.

4. The regular supervisory report shall include information on any reasonably foreseeable risk of non-compliance with the undertaking's Minimum Capital Requirement or Solvency Capital Requirement, and the undertaking's plans for ensuring that compliance with each is maintained, if the same information is not covered by the ORSA Supervisory Report already submitted to the supervisory authority as referred in Article 304 (1)(c).

5. The regular supervisory report shall include qualitative and quantitative information regarding the material risks not captured by the Solvency Capital Requirement calculation.

6. The regular supervisory report shall include description on the approach taken for the calculation of the capital requirements for immaterial risks of the SCR standard formula. Specifically, undertakings shall briefly describe for what risk modules the approach is applied and what volume measures have been used to calculate the immaterial risks.

7. With respect to the liquidity risk, the regular supervisory report shall include in particular information of the insurance or reinsurance undertaking regarding the expected profit included in future premiums as calculated in

accordance with Article 260(2) of this Regulation for each line of business, the result of the qualitative assessment referred to in Article 260(1)(d)(ii) and a description of the methods and main assumptions used to calculate the expected profit included in future premiums.

8. The regular supervisory report shall include all of the following information regarding the risk exposure of the insurance or reinsurance undertaking, including the exposure arising from off-balance sheet positions and the transfer of risk to special purpose vehicles:

   (a) where the undertaking sells or re-pledges collateral, within the meaning of Article 214 of this Regulation, the amount of that collateral, valued in accordance with Article 75 of Directive 2009/138/EC;

   (b) where the undertaking has provided collateral, within the meaning of Article 214, the nature of the collateral, the nature and value of assets provided as collateral and the corresponding actual and contingent liabilities created by that collateral arrangement.

   (c) information on the material terms and conditions associated with the collateral arrangement.

   (d) where the undertaking sells variable annuities, information on guarantee riders and hedging of the guarantees.

9. The regular supervisory report shall include information regarding the volume and nature of the loan portfolio of the insurance or reinsurance undertaking.

10. With respect to risk concentration the regular supervisory report shall include information on the material risk concentrations to which the undertaking is exposed to and an overview of any future risk concentrations anticipated over the business planning time period given that undertaking's business strategy, and how these risk concentrations will be managed.

11. The regular supervisory report shall include all the following information regarding the risk-mitigation techniques of the insurance or reinsurance undertaking:

    (a) material changes on the techniques used to mitigate risks, and a description of any material risk-mitigation techniques that the undertaking is considering purchasing or entering into over the business planning time period given the undertaking's business strategy, and the rationale for and effect of such risk mitigation techniques;

    (b) where the insurance or reinsurance undertaking holds collateral, within the meaning of Article 214 of this Regulation, information on the material terms and conditions associated with the collateral arrangement.

12. The regular supervisory report shall include all of the following information regarding the risk sensitivity of the insurance or reinsurance undertaking, if the same information is not covered by the ORSA Supervisory Report

already submitted to the supervisory authority as referred in Article 304 (1)(c).

(a) a description of the relevant stress tests and scenario analysis referred to in Article 259(3), carried out by the undertaking including their outcome;

(b) a description of the methods used and the main assumptions underlying those stress tests and scenario analysis.

13. The regular supervisory report shall include any other material information regarding their risk profile of the insurance or reinsurance undertaking.

Article 312

Deadlines

1. Insurance and reinsurance undertakings shall submit to the supervisory authorities:

(a) in case of insurance and reinsurance undertakings not classified as low risk profile, the regular supervisory report referred to in Article 304(1)(b) of this Regulation at least every 3 years no later than 18 weeks after the undertaking's financial year in question ends;

(abis) in case of insurance and reinsurance undertakings classified as low risk profile, the regular supervisory report referred to in Article 304(1)(b) of this Regulation every 3 years no later than 18 weeks after the undertaking's financial year in question ends;

(abis2) in case of the request in accordance with Article 304(5), the full description of one or more sections of the regular supervisory report referred to in Article 304(4)(1)(b), within a timeframe to be agreed with the supervisory authority, and no later than 1 month after the request;

(b) the ORSA supervisory report referred to in Article 304(1)(c) within 2 weeks after concluding the assessment.

(c) the annual quantitative templates referred to in Article 304(1)(d) of this Regulation no later than 16 weeks after the undertaking's financial year end.

(d) the quarterly quantitative templates referred to in Article 304(1)(d) of this Regulation no later than five weeks related to any quarter ending.

2. Supervisory authorities may require, having duly justified the request , any insurance or reinsurance undertaking to submit its regular supervisory report at the end of any financial year of the undertaking, subject to the deadlines set out in paragraph 1(a) or 1(abis).

3. Where there is no requirement, under paragraph (1)(a) or (1)(abis) for a regular supervisory report to be submitted in relation to a given financial year,

insurance and reinsurance undertakings shall assess if any material changes occurred and submit information on the material changes to supervisory authorities.

Article 313

Means of communication

Insurance and reinsurance undertakings shall submit the information referred to in Article 312~~(1)~~ in a human readable electronic form allowing for application of search function for relevant text and numbers.

Delete Article 314 - Transitional information requirements

Art. 372

Elements and contents

1. Articles 304 to 311 of this Regulation shall apply to the information which participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies shall be required to submit to the group supervisor. Where all insurance and reinsurance undertakings in the group are exempted from quarterly reporting obligations in accordance with Article 35(6) of Directive 2009/138/EC, the group regular supervisory report shall include annual quantitative templates only. Annual reporting obligations shall not include reporting on an item-by-item basis where all undertakings in the group are exempted from it according to Article 35 (7) of that Directive.
2. The group regular supervisory report shall include all of the following additional information:

(a) regarding the group's business and performance:

(i) a description of material changes in the activities and sources of profits or losses for each material related undertaking within the meaning of Article 256a of Directive 2009/138/EC and for each significant branch within the meaning of Article 354(1) of this Regulation;

(ii) qualitative and quantitative information on significant intra-group transactions by insurance and reinsurance undertakings with the group and the amount of the transactions over the reporting period and their outstanding balances at the end of the reporting period;

(b) regarding the group's system of governance:

(i) a material change to how the risk management and internal control systems and reporting procedures are implemented consistently in all the undertakings within the scope of group supervision, as required by Article 246 of Directive 2009/138/EC;

(ii) where applicable, information on the subsidiaries included in the own risk and solvency assessment as referred to in the third subparagraph of Article 246(4) of Directive 2009/138/EC if not covered by the ORSA Supervisory Report as referred in Article 304 (1)(c);

(iii) qualitative and quantitative information on material specific risks at group level not captured by the Group Solvency Capital Requirement calculation;

(iv) material changes regarding information on any material intra-group outsourcing arrangements;

(c) regarding the group's capital management:

[drafting simplification and clarification of the aim replacing sub-para (i) to (vi)]

(i) qualitative and quantitative information on the Solvency Capital Requirement and own funds, in so far as it is included in the calculation of the group solvency, allowing for an assessment of the availability of the own funds at group level for:

a) each insurance and reinsurance undertaking within the group;

b) each intermediate insurance holding company, insurance holding company, intermediate mixed financial holding company, mixed financial holding company and ancillary services undertaking within the group;

c) each related undertaking which is a credit institution, investment firm, financial institution, UCITS management company, alternative investment fund manager or institutions for occupational retirement provisions;

d) for each related undertaking which is a non-regulated undertaking carrying out financial activities, in this case notional solvency requirement;

e) each related third country insurance or reinsurance undertaking; when method 2 within the meaning of Article 233 of Directive 2009/138/EC is used in the case of a related third country insurance or reinsurance undertaking that has its head office in a third country whose solvency regime is deemed to be equivalent pursuant to Article 227 of that Directive, the Solvency Capital Requirement and the own funds eligible to satisfy that requirement as laid down by the third country concerned shall be separately identified;

f) any other related undertaking;

(ii) a description of special purpose vehicles within the group which comply with the requirements set out in Article 211 of Directive 2009/138/EC;

(iii) a description of special purpose vehicles within the group, which are regulated by a third country supervisory authority and comply with requirements equivalent to those set out in Article 211(2) of Directive 2009/138/EC, for the purposes of including a description of the verification carried out by the participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company whether the requirements to which these special purpose vehicles are subject to in the third country are equivalent to those set out in Article 211(2) of Directive 2009/138/EC;

(iv) a description of each special purpose entity within the group other than those referred to in points (vii) and (viii) together with qualitative and quantitative information on the solvency requirement and own funds of these entities, in so far as they are included in the calculation of the group solvency;

(v) where relevant, for all related insurance and reinsurance undertakings which are included in the calculation of the group solvency, qualitative and quantitative information on how the undertaking complies with Article 222(2) to (5) of Directive 2009/138/EC;

(vi) where relevant, qualitative and quantitative information on the own fund items referred to in Article 222(3) of Directive 2009/138/EC that cannot effectively be made available to cover the Solvency Capital Requirement of the participating insurance or reinsurance undertaking, insurance holding company or mixed financial holding company for which the group solvency is calculated, including a description of how the adjustment to group own funds has been made;

(vii) where relevant, qualitative information on the reasons for the classification of own-fund items referred to in Articles 332 and 333 of this Regulation.

New Article 372a

Single Regular Supervisory Report

Structure and contents

1. Where participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies provide a single regular supervisory report, the requirements set out in this Section shall apply.

2. The single regular supervisory report shall present separately the information which shall be reported at group level in accordance with Article 372 and the information which shall be reported in accordance with Articles 307 to 311 for each subsidiary covered by that report.

3. The information at group level and the information for any subsidiary covered by that report shall each follow the structure set out in Annex XX. Participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies may decide, when providing any part of the information to be reported for a subsidiary covered, to refer to information at group level, where that information is equivalent in both nature and scope.

Article 373

Deadlines

Article 312 of this Regulation shall apply to the submission by participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies of their group regular supervisory reporting or single group regular supervisory reporting. For the purposes of this Article the deadlines referred to in Article 312 shall be extended by 6 weeks, except for the ORSA supervisory report.

Article 374

Languages

1. Where the college of supervisors comprises supervisory authorities from more than one Member State, the group supervisor may, after consultation with the other supervisory authorities concerned and the group itself, require the participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company to report the group regular supervisory reporting in a language most commonly understood by the supervisory authorities concerned, as agreed in the college of supervisor.

2. Participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies shall report their single regular supervisory report in the language or languages determined by the group supervisor.

3. Where the college of supervisors comprises supervisory authorities from more than one Member State, the group supervisor may, after consulting the other supervisory authorities concerned and the group itself, require the participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company to also submit the report referred to in paragraph 1 in another language most commonly understood by the other supervisory authorities concerned, as agreed in the college of supervisors.

4. Where any of the subsidiaries covered by the single regular supervisory report has its head office in a Member State whose official language or languages are

different from the language or languages in which that report is reported in accordance with paragraphs 1 and 2, the supervisory authority concerned may require the participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company to include in that report a translation of the information related to that subsidiary into an official language of that Member State.

Annex 7.2 – SFCR content proposal

A.644 Please note that this Annex reflects the streamlining of the structure proposed (merging of Risk profile section with Capital management section).

Level 1 Articles

SECTION 3

Public disclosure

Article 51

Report on solvency and financial condition: contents

1. Member States shall, taking into account the information required in paragraph 3 and the principles set out in paragraph 4 of Article 35, require insurance and reinsurance undertakings to disclose publicly, on an annual basis, a report on their solvency and financial condition.

The solvency and financial condition report shall contain two separate parts. The first part shall consist of information addressed to policyholders and beneficiaries, and the second part shall be addressed to other stakeholders. Both parts shall either be disclosed in a single document or as separate documents clearly indicating that both parts form part of the solvency and financial condition report.

The part of the solvency and financial condition report consisting of information addressed to policyholders and beneficiaries shall contain the following information:

(a) a description of the business and the performance of the undertaking;

(b) a description of the capital management and the risk profile of the undertaking.

The part of the solvency and financial condition report consisting of information addressed to other stakeholders shall contain the following information, either in full or by way of references to equivalent information, both in nature and scope, disclosed publicly under other legal or regulatory requirements:

(a) a description of the business and the performance of the undertaking;

(b) a description of the system of governance ~~and an assessment of its adequacy for the risk profile of the undertaking~~;

~~(c) a description, separately for each category of risk, of the risk exposure, concentration, mitigation and sensitivity;~~

(~~d~~c) a description, separately for assets, technical provisions, and other liabilities, of the bases and methods used for their valuation~~, together with an explanation of any major differences in the bases and methods used for their valuation in financial statements~~;

(~~e~~d) a description of the capital management and the risk profile, including at least the following:

(i) the structure and amount of own funds, and their quality;

(ii) the amounts of the Solvency Capital Requirement and of the Minimum Capital Requirement;

(ii bis) for insurance and reinsurance undertakings relevant for the financial stability of the financial systems in the European Union, information on risk sensitivity;

(iii) the option set out in Article 304 used for the calculation of the Solvency Capital Requirement;

(iv) information allowing a proper understanding of the main differences between the underlying assumptions of the standard formula and those of any internal model used by the undertaking for the calculation of its Solvency Capital Requirement;

(v) the amount of any non-compliance with the Minimum Capital Requirement or any ~~significant~~ noncompliance with the Solvency Capital Requirement during the reporting period, even if subsequently resolved, with an explanation of its origin and consequences as well as any remedial measures taken.

1a. Where the matching adjustment referred to in Article 77b is applied, the description referred to in points (c), (d)(i) and (ii) of paragraph 1 shall include a description of the matching adjustment and of the portfolio of obligations and assigned assets to which the matching adjustment is applied, as well as a quantification of the impact of a change to zero of the matching adjustment on the undertaking’s financial position.

The description referred to in points (c), (d)(i) and (ii) of paragraph 1 shall also include a statement on whether the volatility adjustment referred to in Article 77d is used by the undertaking and a quantification of the impact of a change to zero of the volatility adjustment on the undertaking’s financial position.

2. The description referred to in point (~~e~~d)(i) of paragraph 1 shall include an analysis of any ~~significant~~ changes as compared to the previous reporting period and an explanation of any major differences in relation to the value of such elements in financial statements, and a brief description of the capital transferability.

The disclosure of the Solvency Capital Requirement referred to in point (~~e~~d)(ii) of paragraph 1 shall show separately the amount calculated in accordance with Chapter VI, Section 4, Subsections 2 and 3 and any capital add-on imposed in accordance with Article 37 or the impact of the specific parameters the insurance or reinsurance undertaking is required to use in accordance with Article 110, together with concise information on its justification by the supervisory authority concerned.

~~However, and without prejudice to any disclosure that is mandatory under any other legal or regulatory requirements, Member States may provide that, although the total Solvency Capital Requirement referred to in paragraph 1(e)(ii) is disclosed, the capital add-on or the impact of the specific parameters the insurance or reinsurance undertaking is required to use in accordance with Article 110 need not be separately disclosed during a transitional period ending no later than 31 December 2020.~~

The disclosure of the Solvency Capital Requirement shall be accompanied, where applicable, by an indication that its final amount is still subject to supervisory assessment.

3. Captive insurance and captive reinsurance undertakings without any insurance cover provided in relation to natural persons shall not disclose the part of the solvency and financial condition report addressed to policyholders and beneficiaries. The scope of the part addressed to other stakeholders shall only include quantitative information in the formats and templates to be defined in an implementing technical standard.

4. Reinsurance undertakings shall not prepare the part of the solvency and financial condition report addressed to policyholders and beneficiaries.

Article 51bis

Audit requirements

1. Insurance and reinsurance undertakings, other than captive insurance and captive reinsurance undertakings, shall ensure that at least the balance sheet, disclosed as part of the solvency and financial condition report or as part of the single solvency and financial condition report is subject to audit or similar requirement as decided by the relevant Member State.
2. Member States may require that captive insurance and captive reinsurance undertakings carry out an audit or similar requirement as provided for in paragraph 1.
3. The audit or similar requirement shall be performed in accordance with the requirements of international standards on auditing endorsed by the Union where it is an audit or in accordance with other applicable international or national standards.
4. A separate report, including at least the identification of the type of audit or similar requirement as well as the results, prepared by the auditor or similar service provider shall be submitted to the supervisory authority.

[…]

Article 53

Report on solvency and financial condition: applicable principles

1. Supervisory authorities shall permit insurance and reinsurance undertakings not to disclose information where:

(a) by disclosing such information, the competitors of the undertaking would gain significant undue advantage;

(b) there are obligations to policy holders or other counterparty relationships binding an undertaking to secrecy or confidentiality.

2. Where non-disclosure of information is permitted by the supervisory authority, undertakings shall make a statement to this effect in their report on solvency and financial condition and shall state the reasons.

3. Supervisory authorities shall permit insurance and reinsurance undertakings, to make use of – or refer to – public disclosures made under other legal or regulatory requirements, to the extent that those disclosures are equivalent to the information required under Article 51 in both their nature and scope.

4. Paragraphs 1 and 2 shall not apply to the information referred to in Article 51(1)(~~e~~d).

[…]

Article 56

Solvency and financial condition report: delegated acts, ~~and~~ implementing technical standards and guidelines

The Commission shall adopt delegated acts in accordance with Article 301a further specifying the information which must be disclosed and the deadlines for the annual disclosure of the information in accordance with Section 3.

In order to ensure uniform conditions of application of this Section, EIOPA shall develop draft implementing technical standards on the procedures, formats and templates.

~~EIOPA shall submit those draft implementing technical standards to the Commission by 30 June 2015.~~

Power is conferred on the Commission to adopt the implementing technical standards referred to in the second paragraph in accordance with Article 15 of Regulation (EU) N° 1094/2010.

In order to ensure uniform conditions of application of this Section, EIOPA shall develop guidelines to define the insurance and reinsurance undertakings relevant for the financial stability of the financial systems in the European Union.

[…]

Article 256

Group solvency and financial condition report

1. Member States shall require participating insurance and reinsurance undertakings, insurance holding companies and mixed financial holding companies to disclose publicly, on an annual basis, a report on solvency and financial condition at the level of the group consisting solely of the part addressed to other stakeholders. Articles 51, 53, 54 and 55 shall apply mutatis mutandis.

2. A participating insurance or reinsurance undertaking, an insurance holding company or a mixed financial holding company may, subject to the agreement of the group supervisor, provide a single report on its solvency and financial condition which shall comprise the following:

(a) the information at the level of the group which must be disclosed in accordance with paragraph 1;

(b) the information for any of the subsidiaries within the group, which information must be individually identifiable, include both parts of the solvency and financial condition report, and must be disclosed in accordance with Articles 51, 53, 54 and 55.

Before granting the agreement in accordance with the first subparagraph, the group supervisor shall consult and duly take into account any views and reservations of the members of the college of supervisors.

3. Where the report referred to in paragraph 2 fails to include information which the supervisory authority having authorised a subsidiary within the group requires comparable undertakings to provide, and where the omission is material, the supervisory authority concerned shall have the power to require the subsidiary concerned to disclose the necessary additional information.

4. The Commission shall adopt delegated acts in accordance with Article 301a further specifying the information which must be disclosed and the deadlines for the annual disclosure of the information as regards the single solvency and financial condition report in accordance with paragraph 2 and the report on the solvency and financial condition report at the level of the group in accordance with paragraph 1.

5. In order to ensure uniform conditions of application in relation to the single and group solvency and financial condition report, EIOPA shall develop draft implementing technical standards on the procedures and templates for, and the means of, disclosure of the single and group solvency and financial report as laid down in this Article.

~~EIOPA shall submit those draft implementing technical standards to the Commission by 30 June 2015.~~

Power is conferred on the Commission to adopt the implementing technical standards referred to in the first subparagraph in accordance with Article 15 of Regulation (EU) N° 1094/2010.

In order to ensure uniform conditions of application of the paragraphs above, EIOPA shall develop guidelines to define the groups relevant for the financial stability of the financial systems in the European Union.

Article 256bis

Audit requirements

1. Participating insurance or reinsurance undertaking, an insurance holding company or a mixed financial holding company, shall ensure that at least the consolidated balance sheet, disclosed as part of the Group solvency and financial condition report or as part of the single solvency and financial condition report is subject to audit or similar requirement.
2. The audit or similar requirement shall be performed in accordance with the requirements of international standards on auditing endorsed by the Union

where it is an audit or in accordance with other applicable international or national standards.

3. A separate report, including at least the identification of the type of audit or similar requirement as well as the results, prepared by the auditor or similar service provider shall be submitted to the group supervisory authority.
4. In case of a single solvency and financial condition report the audit requirements established at solo level shall be complied with and the report referred to in Article 51bis(4) shall be submitted to the solo supervisory authority.

Delegated Regulation articles

A.645 Please note that this Annex focus on the proposed content of the SFCR and reflects the streamlining of the structure proposed.

CHAPTER XII

Public disclosure

SECTION 1

Solvency and financial condition report: structure and contents

Article 290

Structure

1. The solvency and financial condition report shall follow the structure set out in Annex XXa for the part addressed to policyholders and beneficiaries according to subparagraph 2 of Article 51(1) of Directive 2009/138/EU and disclose the information referred to in Article 292a of this Regulation. The solvency and financial condition report shall follow the structure set out in Annex XX for the part addressed to other stakeholders according to subparagraph 2 of Article 51(1) of Directive 2009/138/EU and disclose the information referred to in Articles ~~292~~ 293 to 298 of this Regulation.
2. The solvency and financial condition report shall contain narrative information in quantitative and qualitative form supplemented, where appropriate, with quantitative templates.
3. Where information of at least equal scope and level of detail is provided for the reporting period in other public reports available on the insurance or reinsurance undertaking’s website, the undertaking may provide the required information in the part addressed to other stakeholders by providing a direct link to the relevant part of the public reports.
4. The part of the solvency and financial condition report addressed to policyholders and beneficiaries shall contain the information in full and shall not contain any link.

Article 291

Materiality

For the purposes of this Chapter, the information to be disclosed in the solvency and financial condition report shall be considered as material if its omission or misstatement could influence the decision-making or the judgement of the users of that document, including the supervisory authorities.

~~*Article 292*~~

~~*Summary*~~

~~1. The solvency and financial condition report shall include a clear and concise summary. The summary of the report shall be understandable to policy holders and beneficiaries.~~

~~2. The summary of the report shall highlight any material changes to the insurance or reinsurance undertaking's business and performance, system of governance, risk profile, valuation for solvency purposes and capital *management over the reporting period.*~~

Art. 292a

Part addressed to policyholders and beneficiaries

1. The part of the solvency and financial condition report addressed to policyholders and beneficiaries shall include all of the following information regarding the business and performance of the insurance undertaking:

   (a) the name and legal form of the undertaking;

   (b) the name and contact details of the supervisory authority responsible for financial supervision of the undertaking;

   (c) a list of the shareholders of qualifying holdings in the undertaking;

   (d) where the insurance undertaking belongs to a group, the name of the group, its legal form and the jurisdiction of the group;

   (e) any significant business or other events that have occurred over the reporting period that has a material impact on the undertaking's risk profile;

   (f) quantitative information on the insurance undertaking's underwriting and investment performance at an aggregate level over the reporting period.

2. The part of the solvency and financial condition report addressed to policyholders and beneficiaries shall include all of the following information regarding the capital management and risk profile of the insurance undertaking:

(a) the Solvency Capital Requirement and Minimum Capital Requirement as well as the eligible own funds and the ratio of coverage for both at the end of the reporting period and the previous reporting period;

(b) regarding any non-compliance with the Minimum Capital Requirement or the Solvency Capital Requirement during the reporting period or at the time of disclosure, the period of each non-compliance, an explanation of its origin and consequences, any remedial measures taken, as provided for pursuant to Article 51(1)(d)(v) of Directive 2009/138/EC and an explanation of the effects of such remedial measures;

(c) a description of the material risks the undertaking is exposed to, including any material changes over the reporting period, as well as a description of the applied risk mitigation techniques.

3. The section referred to in paragraph 2 shall include at the beginning the following description: "Two capital requirements aim at measuring the financial soundness of the undertaking: the Solvency Capital Requirement (SCR) and the Minimum Capital Requirement (MCR). The SCR should deliver a level of capital that enables an undertaking to absorb significant unforeseen losses over a one-year time horizon and should give reasonable assurance to policyholders that payments will be made as they fall due. The MCR is intended to provide a minimum level of security to be held at all times by the undertaking and below which the amount of financial resources (own funds) should not fall.

   The capital requirements will need to be covered by capital (own funds) of sufficient quality to ensure that losses can be covered on a going-concern basis as well as in the event of winding-up."

4. The part of the solvency and financial condition report addressed to policyholders and beneficiaries shall include a section containing any other material information for policyholders.

5. The part of the solvency and financial condition report addressed to policyholders and beneficiaries shall include the following statement: "in case of cross-border business ….policyholders have the right to request … language."

Art. 293

Part addressed to other stakeholders - Business and performance

1. The part addressed to other stakeholders of the solvency and financial condition report shall include all of the following information regarding the business of the insurance or reinsurance undertaking:

(a) the name and legal form of the undertaking;

(aa) Legal Entity Identifier;

(b) the name and contact details of the supervisory authority responsible for financial supervision of the undertaking and, where applicable, the name and contact details of the group supervisor of the group to which the undertaking belongs;

(c) the name and contact details of the external auditor of the undertaking and the scope of the audit or similar requirement;

(d) names and description of the holders of qualifying holdings in the undertaking;

(e) where the undertaking belongs to a group, details of the undertaking's position within the legal structure of the group, where appropriate by using a full or simplified group chart;

(f) the undertaking's material lines of business and material geographical areas where it carries out business;

(g) any significant business or other events that have occurred over the reporting period that have had a material impact on the undertaking.

2. The solvency and financial condition report shall include qualitative ~~and quantitative~~ information on the insurance or reinsurance undertaking's underwriting performance, at an aggregate level ~~and by material line of business and material geographical areas where it carries out business~~ over the reporting period, together with a comparison of the information with that reported on the previous reporting period, as shown in the undertaking's financial statements.

2a. The solvency and financial condition report shall include qualitative and quantitative information regarding the consideration of Environmental, Social, and Governance factors in the underwriting policy of the insurance or reinsurance undertaking, and any activities related to the development of products and services which reduce sustainability risks and have a positive impact on Environmental, Social, and Governance issues.

3. The solvency and financial condition report shall include all of the following qualitative ~~and quantitative~~ information regarding the performance of the investments of the insurance or reinsurance undertaking over the reporting period together with a comparison of the information with that reported on the previous reporting period, as shown in that undertaking's financial statements:

(a) information on income and expenses arising from investments b~~y asset class following the classification as set out in the solvency balance sheet~~ and, where necessary for a proper understanding of the income and expenses, the components of such income and expenses;

(b) information about the nature and amount of any gains and losses recognised directly in equity;

(c) information about the nature and amount of any investments in securitisation.

(d) information on the investment policy, including qualitative and quantitative information regarding the consideration of Environmental, Social, and Governance factors in the investment policy of the undertaking and any stewardship activities related to the investees on account of Environmental, Social, and Governance issues.

4. The solvency and financial condition report shall describe the nature and amount of the other material income and expenses of the insurance or reinsurance undertaking incurred over the reporting period together with a comparison of the information with that reported on the previous reporting period, as shown in that undertaking's financial statements.

5. The solvency and financial condition report shall include in a separate section any other material information regarding their business and performance of the insurance or reinsurance undertaking.

6. If the insurance and reinsurance undertaking decides to use the solvency and financial condition report to comply with Articles 3, 4 and 5 of Regulation (EU) 2019/2088 of the European Parliament and of the Council and Article 5 of Regulation (EU) 2020/852 of the European Parliament and of the Council the relevant information shall be disclosed together with the information in paragraph 4(d) of this Article.

7. The solvency and financial condition report shall describe, where applicable, compliance of the insurance activity with the criteria for substantial contribution to climate change adaptation in accordance with Article 3 of Regulation (EU) 2020/852.

Art. 294

Part addressed to other stakeholders - System of governance

1. The solvency and financial condition report shall include all of the following information regarding the system of governance of the insurance or reinsurance undertaking:

~~(a) the structure of the undertaking's administrative, management or supervisory body, providing a description of its main roles and responsibilities and a brief description of the segregation of responsibilities within these bodies, in particular whether relevant committees exist within them, as well as a description of the main roles and responsibilities of key functions;~~

(a~~b~~) any material changes in the system of governance that have taken place over the reporting period;

(b~~c~~) information on the remuneration policy and practices regarding administrative, management or supervisory body and, unless otherwise stated, employees, including:

(i) principles of the remuneration policy, with an explanation of at least the relative importance of the fixed and variable components of remuneration and deferral of variable component and how the remuneration policy is consistent with the integration of sustainability risks;

(ii) information on the individual and collective performance criteria on which any entitlement to share options, shares or variable components of remuneration is based;

(iii) a description of the main characteristics of supplementary pension or early retirement schemes for the members of the administrative, management or supervisory body and other key function holders.

(c~~d~~) information about the nature and scope of material transactions during the reporting period with shareholders, with persons who exercise a significant influence on the undertaking, and with members of the administrative, management or supervisory body.

~~2. The solvency and financial condition report shall include all of the following information regarding the 'fit and proper' policy of the insurance or reinsurance undertaking:~~

~~(a) a description of the undertaking's specific requirements concerning skills, knowledge and expertise applicable to the persons who effectively run the undertaking or have other key functions;~~

~~(b) a description of the undertaking's process for assessing the fitness and the propriety of the persons who effectively run the undertaking or have other key functions.~~

~~3. The solvency and financial condition report shall include all of the following information regarding the risk management system of the insurance or reinsurance undertaking:~~

~~(a) a description of the undertaking's risk management system comprising strategies, processes and reporting procedures, and how it is able to effectively identify, measure, monitor, manage and report, on a continuous basis, the risks on an individual and aggregated level, to which the undertaking is or could be exposed;~~

~~(b) a description of how the risk management system including the risk management function are implemented and integrated into the organisational structure and decision-making processes of the undertaking.~~

~~4. The solvency and financial condition report shall include all of the following information regarding the process the insurance or reinsurance undertaking has adopted to fulfil its obligation to conduct an own risk and solvency assessment:~~

~~(a) a description of the process undertaken by the undertaking to fulfil its obligation to conduct an own risk and solvency assessment as part of its~~

~~risk management system including how the own risk and solvency assessment is integrated into the organisational structure and decision making processes of the undertaking;~~

~~(b) a statement detailing how often the own risk and solvency assessment is reviewed and approved by the undertaking's administrative, management or supervisory body;~~

~~(c) a statement explaining how the undertaking has determined its own solvency needs given its risk profile and how its capital management activities and its risk management system interact with each other.~~

~~5. The solvency and financial condition report shall include all of the following information regarding the internal control system of the insurance or reinsurance undertaking:~~

~~(a) a description of the undertaking's internal control system;~~

(b) ~~a description of how the compliance function is implemented.~~

~~6. The solvency and financial condition report shall include all of the following information regarding the internal audit function of the insurance or reinsurance undertaking:~~

(a) ~~a description of how the undertaking's internal audit function is implemented;~~

~~(b) a description of how the undertaking's internal audit function maintains its independence and objectivity from the activities it reviews.~~

~~7. The solvency and financial condition report shall include a description of how the actuarial function of the insurance or reinsurance undertaking is implemented.~~

2. The solvency and financial condition report shall include ~~a description of the outsourcing policy of the insurance or reinsurance undertaking, that undertaking's outsourcing~~ the identification of any critical or important operational functions or activities outsourced, the names of the service providers and the jurisdiction in which the service providers of such functions or activities are located.

~~8. The solvency and financial condition report shall include an assessment of the adequacy of the system of governance of the insurance or reinsurance undertaking to the nature, scale and complexity of the risks inherent in its business.~~

3. The solvency and financial condition report shall include in a separate section any other material information regarding the system of governance of the insurance or reinsurance undertaking.

Article 295 is proposed to be deleted.

Art. 296

Part addressed to other stakeholders - Valuation for solvency purposes

~~1.~~ The solvency and financial condition report shall include ~~all of the following information regarding the valuation of the assets of the insurance or reinsurance undertaking for solvency purposes:~~ separately for each material class of assets, following the classification as set out in the solvency balance sheet, the value of the assets, as well as a description of the bases, methods and main assumptions used for valuation for solvency purposes, including, where relevant, the consideration of sustainability risks and factors in the valuation methods. ~~separately for each material class of assets, a quantitative and qualitative explanation of any material differences between the bases, methods and main assumptions used by that undertaking for the valuation for solvency purposes and those used for its valuation in financial statements.~~

2. The solvency and financial condition report shall include all of the following information regarding the valuation of the technical provisions of the insurance or reinsurance undertaking for solvency purposes

(a) separately for each material line of business the value of technical provisions, including the amount of the best estimate and the risk margin, as well as a description of the bases, methods and main assumptions used for its valuation for solvency purposes, including, where relevant, the consideration of sustainability risks and factors in the valuation methods;

(b) a description of the level of uncertainty associated with the value of technical provisions;

~~(c) separately for each material line of business, a quantitative and qualitative explanation of any material differences between the bases, methods and main assumptions used by that undertaking for the valuation for solvency purposes and those used for their valuation in financial statements;~~

(~~d~~c) where the matching adjustment referred to in Article 77b of Directive 2009/138/EC is applied, a description of the matching adjustment and of the portfolio of obligations and assigned assets to which the matching adjustment is applied, as well as a quantification of the impact of a change to zero of the matching adjustment on ~~that undertaking's financial position, including on~~ the amount of technical provisions~~, the Solvency Capital Requirement, the Minimum Capital Requirement, the basic own funds and the amounts of own funds eligible to cover the Minimum Capital Requirement and the Solvency Capital Requirement~~;

(~~e~~d) a statement on whether the volatility adjustment referred to in Article 77d of Directive 2009/138/EC is used by the undertaking, a description per currency of the volatility adjustment used and the amount of the best estimate it is applied to ~~and~~ quantification of the impact of a change to zero of the volatility adjustment on ~~that undertaking's financial position, including on~~ the amount of technical provisions~~, the Solvency Capital Requirement, the Minimum Capital Requirement, the basic own~~

~~funds and the amounts of own funds eligible to cover the Minimum Capital Requirement and the Solvency Capital Requirement~~;

(~~f~~e)a statement on whether the transitional risk-free interest rate-term structure referred to Article 308c of Directive 2009/138/EC is applied, the reason for applying the transitional, ~~and~~ a quantification of the impact of not applying the transitional measure on ~~the undertaking's financial position, including on~~ the amount of technical provisions and the prospect to reduce any dependence on the transitional by the end of the transitional period~~, the Solvency Capital Requirement, the Minimum Capital Requirement, the basic own funds and the amounts of own funds eligible to cover the Minimum Capital Requirement and the Solvency Capital Requirement~~;

(~~g~~f)a statement on whether the transitional deduction referred to in Article 308d of Directive 2009/138/EC is applied, the reason for applying the transitional, ~~and~~ a quantification of the impact of not applying the deduction measure on ~~the undertaking's financial position, including on~~ the amount of technical provisions and the prospect to reduce any dependence on the transitional by the end of the transitional period~~, the Solvency Capital Requirement, the Minimum Capital Requirement, the basic own funds and the amounts of own funds eligible to cover the Minimum Capital Requirement and the Solvency Capital Requirement~~.

(~~h~~g)a description of the following:

(i) the recoverables from reinsurance contracts and, separately, from special purpose vehicles;

(ii) any material changes in the relevant assumptions made in the calculation of technical provisions compared to the previous reporting period.

3. The solvency and financial condition report shall include ~~all of the following information regarding the valuation of the other liabilities of the insurance or reinsurance undertaking for solvency purposes:~~ separately for each material class of other liabilities the value of other liabilities as well as a description of the bases, methods and main assumptions used for their valuation for solvency purposes.

~~(a) separately for each material class of other liabilities, a quantitative and qualitative explanation of any material differences with the valuation bases, methods and main assumptions used by the undertaking for the valuation for solvency purposes and those used for their valuation in financial statements.~~

4. The solvency and financial condition report shall include information on the areas set out in Article 263 in complying with the disclosure requirements of the insurance or reinsurance undertaking as laid down in paragraphs 1 and 3 of this Article.

5. The solvency and financial condition report shall include in a separate section any other material information regarding the valuation of assets and liabilities for solvency purposes.

Art. 297

Part addressed to other stakeholders - Capital management and risk profile

1. The solvency and financial condition report shall include all of the following information regarding the own funds of the insurance or reinsurance undertaking:

   (a) information on undertaking-specific objectives~~, policies and processes employed by the undertaking~~ ~~for~~ in managing its own funds, including information on the time horizon used for business planning and explanations for any material changes over the reporting period;

   ~~(b) separately for each tier, information on the structure,~~ and ~~amount and quality of own funds at the end of the reporting period and at the end of the previous reporting period, including an analysis of the material changes in each tier over the reporting period;~~

   (c) the eligible amount of own funds to cover the Solvency Capital Requirement, classified by tiers, at the end of the reporting period and at the end of the previous reporting period, including an analysis of the material changes in each tier over the reporting period;

   (d) the eligible amount of basic own funds to cover the Minimum Capital Requirement, classified by tiers;

   (e) where the matching adjustment referred to in Article 77b of Directive 2009/138/EC is applied, a quantification of the impact of a change to zero of the matching adjustment on the basic own funds and the amounts of own funds eligible to cover the Minimum Capital Requirement and the Solvency Capital Requirement;

   (f) where the volatility adjustment referred to in Article 77d of Directive 2009/138/EC is used by the undertaking ~~a~~ quantification of the impact of a change to zero of the volatility adjustment on the basic own funds and the amounts of own funds eligible to cover the Minimum Capital Requirement and the Solvency Capital Requirement;

   (g) where the transitional risk-free interest rate-term structure referred to Article 308c of Directive 2009/138/EC is applied a quantification of the impact of not applying the transitional measure on the basic own funds and the amounts of own funds eligible to cover the Minimum Capital Requirement and the Solvency Capital Requirement;

   (h) where the transitional deduction referred to in Article 308d of Directive 2009/138/EC is applied a quantification of the impact of not applying the deduction measure on the basic own funds and the amounts of own funds eligible to cover the Minimum Capital Requirement and the Solvency Capital Requirement;

(i) an analysis of significant changes in own funds during the reporting period, including the value of own fund items issued during the year, and the extent to which the issuance has been used to fund redemption, the value of instruments redeemed during the year, and changes with regard to the key elements of the reconciliation reserve;

(j) a quantitative and qualitative explanation of any material differences between equity as shown in the undertaking's financial statements and the excess of assets over liabilities as calculated for solvency purposes;

(k) for each basic own-fund item that is subject to the transitional arrangements referred to in Articles 308b(9) and 308b(10) of Directive 2009/138/EC, a description of the nature of the item, ~~and~~ its amount and its maturity date;

(l) for each material item of ancillary own funds, a description of the item, the amount of the ancillary own-fund item and, where a method by which to determine the amount of the ancillary own-fund item has been approved, that method as well as the nature and the names of the counterparty or group of counterparties for the items referred to in points (a), (b) and (c) of Article 89(1) of Directive 2009/138/EC;

(m) a description of any item deducted from own funds and a brief description of any significant restriction affecting the availability and transferability of own funds within the undertaking.

For the purposes of paragraph (~~g~~l), the names of the counterparties shall not be disclosed where such disclosure is legally not possible or impracticable or where the counterparties concerned are not material.

2. The solvency and financial condition report shall include all of the following information regarding the Solvency Capital Requirement and the Minimum Capital Requirement of the insurance or reinsurance undertaking:

(a) the amounts of the undertaking's Solvency Capital Requirement and the Minimum Capital Requirement as well as the eligible own funds and the ratio of coverage for both at the end of the reporting period ~~, accompanied, where applicable, by an indication that the final amount of the Solvency Capital Requirement is still subject to supervisory assessment~~;

(b) With regard to risk sensitivity of insurance and reinsurance undertakings relevant for the stability of the financial systems of the European Union ~~the solvency and financial condition report shall include~~ a description of the methods used, the assumptions made and the outcome of ~~stress testing and~~ this sensitivity analysis for material risks and events, and at least following information:

	SCR coverage in % after	Impact on the SCR in thousand currency units	Impact on Eligible Own Funds to cover the SCR in

	the sensitivity		thousand currency units
Equity markets (-25%)			
Equity markets (+25%)			
Risk-free interest rates (-50bps)			
Risk-free interest rates (+50bps)			
Credit spreads of fixed-income investments (-50bps)			
Credit spreads of fixed-income investments (+50bps)			
Property values (-25%)			
Property values (+25%)			

Each sensitivity will impact the balance sheet and, as a consequence, the eligible own funds and the SCR. Each sensitivity shall be assessed independently from the rest of them. Each sensitivity can lead to an increase or a decrease of the eligible own funds and SCR.

The sensitivity on equity markets shall be based on the change in the balance sheet that would result from an instantaneous change in the value of all equity investments, including participations, by 25% and reflect the consequent impact on the eligible own funds and SCR.

The sensitivity on interest rates shall be based on the change in the balance sheet that would result from an instantaneous parallel shift in the risk-free interest rate term structure for all maturities and for each currency by 50bps, and reflect the consequent impact on eligible own funds and SCR.

The sensitivity on credit spreads shall be based on the change the balance sheet that would result from an instantaneous change in credit spreads for all investments sensitive to a change in credit spreads by 50bps and reflect the consequent impact on the eligible own funds and SCR.

Spread sensitivities shall include government bonds and allow for the reassessment of the matching adjustment in line with the reduction factors of Article 181(b)(ii). The volatility adjustment shall be assumed to remain constant through the analysis.

The sensitivity on property markets shall be based on the change in the balance sheet that would result from an instantaneous change in the value of all immovable property by 25% and reflect the consequent impact on the own funds and SCR.

All sensitivities shall be calculated based on the look-through approach according to Article 84 of Directive 2009/138/EC.

The analyses shall demonstrate the effect of each sensitivity without considering future management actions and keeping any remaining assumptions stable (e.g. changes on rent prices linked to the real state sensitivity).

Where undertakings add additional sensitivity analyses to the table they shall explain the reasons behind the sensitivities performed.

(c) With regard to risk sensitivity of undertakings other than insurance and reinsurance undertakings relevant for the stability of the financial systems of the European Union a description of the methods used, the assumptions made and the outcome of this sensitivity analysis for material risks and events

~~(d) where applicable, a statement that the undertaking's Member State has made use of the option provided for in the third subparagraph of Article 51(2) of Directive 2009/138/EC;~~

~~(e) unless the undertaking's Member State has made use of the option provided for in the third subparagraph of Article 51(2) of Directive 2009/138/EC, the impact of any undertaking-specific parameters that undertaking is required to use in accordance with Article 110 of that Directive and the amount of any capital add-on applied to the Solvency Capital Requirement, together with concise information on its justification by the supervisory authority concerned;~~

(d) where the matching adjustment referred to in Article 77b of Directive 2009/138/EC is applied, a quantification of the impact of a change to zero of the matching adjustment on the Solvency Capital Requirement and the Minimum Capital Requirement;

(f) where the volatility adjustment referred to in Article 77d of Directive 2009/138/EC is used by the undertaking a quantification of the impact of a change to zero of the volatility adjustment on the Solvency Capital Requirement and the Minimum Capital Requirement;

(g) where the transitional risk-free interest rate-term structure referred to Article 308c of Directive 2009/138/EC is applied a quantification of the impact of not applying the transitional measure on the Solvency Capital Requirement and the Minimum Capital Requirement;

(h) where the transitional deduction referred to in Article 308d of Directive 2009/138/EC is applied a quantification of the impact of not applying the deduction measure on the Solvency Capital Requirement and the Minimum Capital Requirement;

(i) the amount of the undertaking's Solvency Capital Requirement split by risk modules where that undertaking applies the standard formula, and by risk categories where the undertaking applies an internal model and a qualitative description of the material risks captured by the Solvency Capital Requirement calculation;

(j) actions taken by the undertaking to ensure that sustainability risks are taken into consideration in the risk management areas set out in Article 260;

(k) information on whether and for which risk modules and sub-modules of the standard formula that undertaking is using simplified calculations;

(l) information on whether and for which parameters of the standard formula that undertaking is using undertaking-specific parameters pursuant to Article 104(7) of Directive 2009/138/EC;

(m) information on the inputs used by the undertaking to calculate the Minimum Capital Requirement;

(n) any material change to the Solvency Capital Requirement and to the Minimum Capital Requirement over the reporting period, and the reasons for any such change.

3. The solvency and financial condition report shall include all of the following information regarding the option set out in Article 304 of Directive 2009/138/EC:

(a) an indication that that undertaking is using the duration-based equity risk sub-module set out in that Article for the calculation of its Solvency Capital Requirement, after approval from its supervisory authority;

(b) the amount of the capital requirement for the duration-based equity risk sub-module resulting from such use.

4. Where an internal model is used to calculate the Solvency Capital Requirement, the solvency and financial condition report shall also include all of the following information:

(a) a description of the various purposes for which that undertaking is using its internal model;

(b) a description of the scope of the internal model in terms of business units and risk categories;

(c) where a partial internal model is used, a description of the technique which has been used to integrate any partial internal model into the standard formula including, where relevant, a description of alternative techniques used;

(d) a description of the methods used in the internal model for the calculation of the probability distribution forecast and the Solvency Capital Requirement;

(e) an explanation, by risk module, of the main differences in the methodologies and underlying assumptions used in the standard formula and in the internal model;

(f) the risk measure and time period used in the internal model, and where they are not the same as those set out in Article 101(3) of Directive 2009/138/EC, an explanation of why the Solvency Capital Requirement calculated using the internal model provides policy holders and beneficiaries with a level of protection equivalent to that set out in Article 101 of that Directive;

~~(g) a description of the nature of the data used in the internal model and an explanation why the data is appropriate.~~

(g) a statement on whether a dynamic volatility adjustment is used in the internal model.

5. The solvency and financial condition report shall include qualitative and quantitative information regarding the material risks not captured by the Solvency Capital Requirement calculation~~ profile of the insurance or reinsurance undertaking, in accordance with paragraphs 2 to 7, separately for the following categories of risk~~:

~~(a) underwriting risk;~~

~~(b) market risk;~~

~~(c) credit risk;~~

~~(d) liquidity risk;~~

~~(e) operational risk;~~

(f) ~~other material risks~~.

(a) ~~The solvency and financial condition report shall include the following information regarding~~ the risk exposure, including any material changes over the reporting period, ~~of the insurance or reinsurance undertaking, including the~~ and any exposure arising from off-balance sheet positions and the transfer of risk to special purpose vehicles:

~~(b) a description of the measures used to assess these risks within that undertaking, including any material changes over the reporting period;~~

~~(c) a description of the material risks that that undertaking is exposed to, including any material changes over the reporting period;~~

~~(d) a description of how assets have been invested in accordance with the 'prudent person principle' set out in Article 132 of Directive 2009/138/EC so that the risks mentioned in that Article and their proper management are addressed in that description.~~

~~6. With regard to risk concentration, the solvency and financial condition report shall include a description of the material risk concentrations to which the insurance or reinsurance undertaking is exposed.~~

~~7. With regard to risk mitigation, the solvency and financial condition report shall include a description of the techniques used for mitigating risks, and the processes for monitoring the continued effectiveness of these risk-mitigation techniques.~~

(b) With regard to liquidity risk, ~~the solvency and financial condition report shall include~~ the total amount of the expected profit included in future premiums as calculated in accordance with Article 260(2).

~~8. The solvency and financial condition report shall include in a separate section any other material information regarding their risk profile of the insurance or reinsurance undertaking.~~

9. The solvency and financial condition report shall include information on how the undertaking has determined its own solvency needs given its risk profile, including the effect of sustainability risks, and how its capital management activities and its risk management system interact with each other.

10. The solvency and financial condition report shall include all of the following information regarding any non-compliance with the Minimum Capital Requirement or significant non-compliance with the Solvency Capital Requirement of the insurance or reinsurance undertaking:

    (a) regarding any non-compliance with that undertaking's Minimum Capital Requirement: the period and maximum amount of each non-compliance during the reporting period, an explanation of its origin and consequences, any remedial measures taken, as provided for under Article 51(1)(e)(v) of Directive 2009/138/EC and an explanation of the effects of such remedial measures;

    (b) where non-compliance with the undertaking's Minimum Capital Requirement has not been subsequently resolved: the amount of and the consequences of the non-compliance at the reporting date;

    (c) regarding any ~~significant~~ non-compliance with the undertaking's Solvency Capital Requirement during the reporting period: the period and maximum amount of each significant non-compliance, in addition to the explanation of its origin and consequences as well as any remedial measures taken, as provided for under Article 51(1)(~~e~~d)(v) of Directive 2009/138/EC and an explanation of the effects of such remedial measures;

    (d) where a ~~significant~~ non-compliance with the undertaking's Solvency Capital Requirement has not been subsequently resolved: the amount of the non-compliance at the reporting date.

11. The solvency and financial condition report shall include in a separate section any other material information regarding the capital management of the insurance or reinsurance undertaking.

Article 298

Additional voluntary information

Where insurance and reinsurance undertakings disclose publicly, in accordance with Article 54(2) of Directive 2009/138/EC, any information or explanation related to their solvency and financial condition whose public disclosure is not legally required these undertakings shall ensure that such additional information is consistent with any information provided to the supervisory authorities pursuant to Article 35 of that Directive.

Article 298bis

Languages

Where the insurance contract was concluded with a policyholder from another Member State under the freedom of establishment or the freedom to provide services, the part of the solvency and financial condition report referred to in subparagraph 3 of Article 51(1) of Directive 2009/138/EC, upon request from the policyholder, shall be provided to that policyholder in the official language or one of the official languages of that Member State as chosen by the policyholder. Insurance and reinsurance undertakings shall send the report within 10 working days from that request.

SECTION 2

Solvency and financial condition report: non-disclosure of information

Article 299

1. Where supervisory authorities permit insurance and reinsurance undertakings, in accordance with Article 53(1) and (2) of Directive 2009/138/EC, not to disclose certain information, such permission shall remain valid only for as long as the reason for non-disclosure continues to exist.

2. Insurance and reinsurance undertakings shall notify supervisory authorities as soon as the reason for any permitted non-disclosure ceases to exist.

SECTION 3

Solvency and financial condition report: deadlines, means of disclosure and updates

Article 300

Deadlines

1. Insurance and reinsurance undertakings shall disclose both parts of their solvency and financial condition report ~~within the deadlines set out in Article 308b(6) of Directive 2009/138/EC and, after the end of the transitional period set out in that Article,~~ no later than 18 weeks after the undertaking's financial year end.

2. As soon as the solvency and financial condition report, as well as any updated version of that report, is disclosed by insurance and reinsurance undertakings it shall be submitted to the supervisory authorities.

Article 301

Means of disclosure

1. Where insurance and reinsurance undertakings own and maintain a website related to their business, both parts of the solvency and financial condition report shall be disclosed on that website.

2. Where insurance and reinsurance undertakings do not own and maintain a website but are a member of a trade association which does own and maintain a website, both parts of the solvency and financial condition report shall, where permitted by that trade association, be disclosed on the website of that association.

3. Where insurance and reinsurance undertakings disclose ~~their~~ both parts of solvency and financial condition report on a website in accordance with paragraph 1 or 2, that report shall remain available on that website for at least five years after the disclosure date referred to in Article 300(1).

4. Where insurance and reinsurance undertakings do not disclose ~~their~~ both parts of solvency and financial condition report on a website in accordance with paragraphs 1 and 2, they shall send an electronic copy of their report to any person who, within five years of the disclosure date referred to in Article 300(1) requests the report. Insurance and reinsurance undertakings shall send the report within 10 working days from that request.

~~5. Insurance and reinsurance undertakings shall, irrespective of whether the undertaking's report has been made available on a website in accordance with paragraph 1 or 2, send, to any person who so requests within two years of the disclosure date referred to in Article 300(1), a printed copy of their report within 20 working days from that request.~~

5. (old 6) Insurance and reinsurance undertakings shall submit to the supervisory authorities ~~their~~ both parts of the solvency and financial condition report, and any updated version of that report thereto, in a human readable electronic form allowing for application of search function for relevant text and numbers.

6. Insurance and reinsurance undertakings shall submit to National Competent Authorities, with the information foreseen in Article 304 (d) of these Regulation the exact location where the both parts of the SFCR report is available, or will be in due time, in the website. If this location changes during the following three years, insurance and reinsurance undertakings shall submit the updated location to National Competent Authorities.

7. The exact location of both parts of the SFCR report in the website and/or the electronic format submitted according to paragraph 6 may be used by National Competent Authorities and by EIOPA to collect, extract, analyse and publicly disclose the underlying information from the corresponding SFCR reports. The responsibility for the accuracy of the information, in particular the consistency between information publicly disclosed and information reported to the supervisory authority rests with the undertakings.

Article 302

Updates

1. Where insurance and reinsurance undertakings have to disclose publicly, in accordance with Article 54(1) of Directive 2009/138/EC, appropriate information on the nature and effects of any major development significantly affecting the relevance of their solvency and financial condition report, the undertaking shall publish an updated version of that report in accordance with paragraph 2 of this Article. Articles 290 to 299 of this Regulation shall apply to that updated version.
2. Without prejudice to any disclosure which shall be immediately provided by insurance and reinsurance undertakings in accordance with the requirements of Article 54(1) of Directive 2009/138/EC, any updated version of the solvency and financial condition report shall be identified as an updated version and disclosed with the date of update as soon as possible after the major development referred to in paragraph 1 of this Article, in accordance with the provisions set out in Article 301 of this Regulation replacing the previous version disclosed.
3. Notwithstanding paragraphs 1 and 2, insurance and reinsurance undertakings may decide, for the purposes of paragraph 5 of Article 301, to disclose appropriate information on the nature and effects of any major development significantly affecting the relevance of their solvency and financial condition report in the form of amendments supplementing the initial report.

~~*Article 303*~~

~~*Transitional arrangements on comparative information*~~

~~Where a comparison of the information with that reported on the previous reporting period is required in accordance with this Chapter, insurance and reinsurance undertakings shall comply with such a requirement only where the previous reporting period covers a period after the date of application of Directive 2009/138/EC.~~

CHAPTER V

Public disclosure

SECTION 1

Group solvency and financial condition report

Article 359

Structure and contents

Articles 290 to 298 of this Regulation, excluding Article 292a, shall apply to the group solvency and financial condition report which participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies are required to disclose publicly. In addition, the group solvency and financial condition report shall include all of the following information:

(a) regarding the group's business and performance:

(i) a description of the legal structure and the governance and organisational structure of the group, with a description of all subsidiaries, material related undertakings within the meaning of Article 256a of Directive 2009/138/EC and significant branches within the meaning of Article 354(1) of this Regulation;

(ii) qualitative and quantitative information on relevant operations and transactions within the group;

(b) regarding the group's system of governance:

~~(i) a description of how the risk management and internal control systems and reporting procedures are implemented consistently in all the undertakings within the scope of group supervision, as required by Article 246 of Directive 2009/138/EC;~~

(ii) where applicable, a statement that the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company has made use of the option provided for in the third subparagraph of Article 246(4) of Directive 2009/138/EC;

~~(iii) information on any material intra-group outsourcing arrangements;~~

(c) regarding the group's risk profile: qualitative and quantitative information on any significant risk concentration at the level of the group, as referred to in Article 376 of this Regulation;

(d) regarding the group's valuation for solvency purposes: where the bases, methods and main assumptions used at group level for the valuation for solvency purposes of the group's assets, technical provisions and other liabilities differ materially from those used by any of its subsidiaries for the valuation for solvency purposes of its assets, technical provisions and other liabilities, a quantitative and qualitative explanation of any material differences;

(e) regarding the group's capital management:

(i) where applicable whether method 1 or method 2, as referred to in Articles 230 and 233 of Directive 2009/138/EC, is used to calculate the group solvency and where a combination of method 1 and 2 is used for which related undertakings method 2 is used;

(ii) qualitative and quantitative information on any significant restriction to the fungibility and transferability of own funds eligible for covering the group Solvency Capital Requirement;

(iii) where method 1 is used to calculate the group solvency, the amount of the consolidated group Solvency Capital Requirement, with separate indication of the amounts referred to in Article 336 of this Regulation;

(iv) qualitative and quantitative information on the material sources of group diversification effects;

(v) where applicable, the sum of amounts referred to in points (a) and (b) of the second subparagraph of Article 230(2) of Directive 2009/138/EC;

(vi) where applicable, a description of the undertakings which are in the scope of any internal model used to calculate the group Solvency Capital Requirement;

(vii) a description of the main differences, if any, between any internal model used at individual undertaking level and any internal model used to calculate the group Solvency Capital Requirement.

Article 360

Languages

1. Participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies shall disclose their group solvency and financial condition report in the language or languages determined by the group supervisor.
2. Where the college of supervisors comprises supervisory authorities from more than one Member State, the group supervisor may, after consultation with the other supervisory authorities concerned and the group itself, require participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company to also disclose the report referred to in paragraph 1 in another language most commonly understood by the other supervisory authorities concerned, as agreed in the college of supervisors.
3. ~~Where any of the insurance or reinsurance subsidiaries of the participating insurance or reinsurance undertaking, insurance holding company or mixed financial holding company has its head office in a Member State whose official language or languages are different from the language or languages in which the group solvency and financial condition report is disclosed by application of paragraphs 1 and 2, the participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company shall disclose a translation of the summary of that report into the official language or languages of that Member State.~~

Article 361

Non-disclosure of information

Article 299 shall apply to non-disclosure of information in the group solvency and financial condition report by participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies.

Article 362

Deadlines

Article 300 shall apply to the disclosure by participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies of their group solvency and financial condition report. For the purposes of this Article the deadlines referred to in Article 300 shall be extended by 6 weeks.

Article 363

Updates

1. Where participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies have to disclose publicly, appropriate information on the nature and effects of any major development that materially affect the relevance of their group solvency and financial condition report, they shall provide an updated version of that report. Articles 359, 360 and 361 of this Regulation shall apply to that updated version.
2. Without prejudice to the requirements for immediate disclosure set out in Article 54(1) of Directive 2009/ 138/EC, any updated version of the group solvency and financial condition report shall be identified as an updated version and disclosed with the date of update as soon as possible after the major development referred to in paragraph 1 of this Article replacing the previous version disclosed.

~~*Article 364*~~

~~*Transitional arrangements on comparative information*~~

~~Article 303 shall apply to the disclosure of comparative information by participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies.~~

SECTION 2

Single solvency and financial condition report

Article 365

Structure and contents

4. Where participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies provide a single solvency and financial condition report, the requirements set out in this Section shall apply.
5. The single solvency and financial condition report shall present separately the information which must be disclosed at group level in accordance with Article 256(1) of Directive 2009/138/EC and the information which must be

disclosed in accordance with Articles 51, 51bis, 53, 54 and 55 of that Directive for any subsidiary covered by that report.

6. The information at group level shall each follow the structure set out in Annex XX. ~~and~~ The information for any subsidiary covered by that report shall each contain two parts in accordance with subparagraph 2 of Article 51(1) of Directive 2009/138/EC and follow the structure set out in Annexes XX and XXa. Participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies may decide, when providing any part of the information to be disclosed for a subsidiary covered, to refer to information at group level, where that information is equivalent in both nature and scope, except in the part addressed to policyholders and beneficiaries.

Article 366

Languages

1. Participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies shall disclose their single solvency and financial condition report in the language or languages determined by the group supervisor.

2. Where the college of supervisors comprises supervisory authorities from more than one Member State, the group supervisor may, after consulting the other supervisory authorities concerned and the group itself, require the participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company to also disclose the report referred to in paragraph 1 in another language most commonly understood by the other supervisory authorities concerned, as agreed in the college of supervisors.

3. Where any of the subsidiaries covered by the single solvency and financial condition report has its head office in a Member State whose official language or languages are different from the language or languages in which that report is disclosed in accordance with paragraphs 1 and 2, the supervisory authority concerned may, after consulting the group supervisor and the group itself, require the participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company to include in that report a translation of the information related to that subsidiary into an official language of that Member State. The participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company shall disclose a translation ~~into the official language or languages of that Member State of all of the following information:~~

   ~~(a) the summary of the information from that report related to the group;~~

   ~~(b~~ information from that report related to that subsidiary, unless exemption has been granted by the supervisory authority concerned.

Article 367

Non-disclosure of information

1. Article 361 shall apply as regards the information at the level of the group.
2. Article 299 shall apply as regards the information for any of the subsidiaries within the group.

Article 368

Deadlines

Article 300 of this Regulation shall apply to the deadlines for disclosure by participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies of their single solvency and financial condition report. For the purposes of this Article the deadlines referred to in Article 300 shall be extended by 6 weeks ~~only during a period not exceeding four years from 1 January 2016~~. This extension shall not apply to the parts addressed to policyholders and beneficiaries of any of the subsidiaries covered by the solvency and financial condition report.

Article 369

Updates

1. Where participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies have to disclose publicly information on the nature and effects of any major development that materially affect the relevance of their single solvency and financial condition report, they shall provide an updated version of that report. Articles 365, 366 and 367 of this Regulation shall apply to that updated version.
2. Without prejudice to the requirements for immediate disclosure set out in Article 54(1) of Directive 2009/138/EC, any updated version of the single solvency and financial condition report shall be identified as an updated version and disclosed with the date of update as soon as possible after the major development referred to in paragraph 1 of this Article replacing the previous version disclosed.

Article 370

Reference

1. Where participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies provide a single solvency and financial condition report in respect of some of their subsidiaries only, all of the following obligations shall apply:

(a) the other insurance and reinsurance undertakings which are subsidiaries of that participating insurance or reinsurance undertaking, insurance holding company or mixed financial holding company shall include in their solvency and financial condition report a reference to the single solvency and financial condition report disclosed;

(b) the single solvency and financial condition reports disclosed in accordance with Article 256(2) of Directive 2009/138/EC shall equally include a reference to the solvency and financial condition report of those other insurance and reinsurance undertakings.

2. Where participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies do not provide a single solvency and financial condition report, the insurance and reinsurance undertakings which are subsidiaries of that participating insurance or reinsurance undertaking, insurance holding company or mixed financial holding company shall include in their solvency and financial condition report a reference to the group solvency and financial condition reports disclosed in accordance with Article 256(1) of Directive 2009/138/EC.

~~*Article 371*~~

~~*Transitional arrangements on comparative information*~~

~~Article 303 shall apply to the disclosure of comparative information by participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies.~~

ANNEX XX

STRUCTURES OF THE SOLVENCY AND FINANCIAL CONDITION REPORT

1. STRUCTURE OF THE SOLVENCY AND FINANCIAL CONDITION REPORT AND REGULAR SUPERVISORY REPORT

~~Summary~~

A. Business and Performance

A.1 Business

A.2 Underwriting Performance

A.3 Investment Performance

A.4 Performance of other activities

A.5 Any other information

B. System of Governance

B.1 General information on the system of governance

B.2 Fit and proper requirements (only for RSR)

B.3 Risk management system including the own risk and solvency assessment (only for RSR)

B.4 Internal control system (only for RSR)

B.5 Internal audit function (only for RSR)

B.6 Actuarial function (only for RSR)

B.7 Outsourcing

B.8 Any other information

~~C. Risk Profile~~

~~C.1 Underwriting risk~~

~~C.2 Market risk~~

~~C.3 Credit risk~~

~~C.4 Liquidity risk~~

~~C.5 Operational risk~~

~~C.6 Other material risks~~

~~C.7 Any other information~~

C. Valuation for Solvency Purposes

C1 Assets

C.2 Technical provisions

C.3 Other liabilities

C.4 Alternative methods for valuation

C.5 Any other information

D. Capital Management and Risk Profile

D.1 Own funds

D.2 Solvency Capital Requirement and Minimum Capital Requirement

D.3 Use of the duration-based equity risk sub-module in the calculation of the Solvency Capital Requirement

D.4 Differences between the standard formula and any internal model used

D.5 Material risks not captured by the Solvency Capital Requirement

D.6 Own solvency needs

D.7 Non-compliance with the Minimum Capital Requirement and non-compliance with the Solvency Capital Requirement

D.8 Any other information

ANNEX XXa

A. Business and Performance

B. Capital Management and Risk Profile

C. Any other information

Annex 7.3 – Article 159 proposal

Article 159

~~Statistical~~ ~~i~~Information on cross-border activities

Every insurance undertaking shall inform the competent supervisory authority of its home Member State, separately in respect of transactions carried out under the right of establishment and those carried out under the freedom to provide services, and with respect of the location of underwriting and the location of risk, of the amount of the premiums, claims and acquisition expenses and commissions, without deduction of reinsurance, by Member State and as follows:

(a) for non-life insurance, by lines of business in accordance with the relevant delegated act;

(b) for life insurance, by lines of business in accordance with the relevant delegated act

As regards class 10 in Part A of Annex I, excluding carrier's liability, the undertaking concerned shall also inform that supervisory authority of the frequency and average cost of claims.

The supervisory authority of the home Member State shall submit annually, through EIOPA, the information referred to in the first and second subparagraphs within reasonable time and in aggregate form to the supervisory authorities of each of the Member States concerned~~, upon their request~~.

Annex 8.1– Number of undertakings excluded under the options on thresholds for Article 4 of the Solvency II Directive[450]

Option 2.2: Raise all thresholds to align Solvency II with the European Commission's definition of small-sized companies by doubling all quantitative thresholds (10 Million GWP, 50 Million TP, 1 Million GWP Re, 5 Million TP Re).

NSA	TOTAL NUMBER OF SII REPORTING UNDERTAKINGS	TOTAL NUMBER OF UNDERTAKINGS EXCLUDED[451]	UNDERTAKINGS EXCLUDED %	GWP excl. (%)	TP excl. (EUR)
AT	35	0	0.00%	0.00%	0.00%
BE	66	0	0.00%	0.00%	0.00%
BG	32	4	12.90%	0.44%	0.69%
CY	31	0	0.00%	0.00%	0.00%
CZ	27	3	11.54%	0.06%	0.03%
DE	338	12	3.57%	0.02%	0.00%
DK	72	7	9.46%	0.04%	0.00%
EE	10	0	0.00%	0.00%	0.00%
EL	36	2	5.56%	0.16%	0.19%
ES	152	8	5.44%	0.03%	0.01%
FI	46	2	4.35%	0.06%	0.01%
FR	462	48	10.50%	0.08%	0.01%
HR	18	3	18.75%	0.91%	0.71%
HU	23	1	4.55%	0.25%	0.00%
IE	187	10	5.35%	0.01%	0.00%
IS	8	1	12.50%	0.99%	0.37%
IT	96	0	0.00%	0.00%	0.00%
LI	35	2	6.06%	0.00%	0.14%
LT	9	1	12.50%	1.11%	4.17%
LU	268	9	3.36%	0.01%	0.01%
LV	6	0	0.00%	0.00%	0.00%
MT	65	3	4.48%	0.00%	0.00%
NL	132	5	4.03%	0.02%	0.01%
NO	70	19	27.94%	0.21%	0.02%
PL	59	3	5.17%	0.10%	0.03%
PT	40	2	5.00%	0.01%	0.00%
RO	27	1	3.85%	0.15%	0.28%
SE	135	7	5.47%	0.04%	0.00%

[451] Numbers included reflect the number of undertakings whose technical provisions are below 50 million euro and whose annual gross written premium are below 10 million euro at year end 2018 and could be excluded from the scope of Solvency II under this option

SI	15	0	0.00%	0.00%	0.00%
SK	14	0	0.00%	0.00%	0.00%
Total	**2.526**	**153**	**6.18%**	**0.04%**	**0.05%**

Option 2.3: Raise size thresholds but with Member States discretion to decide on the premiums (50 million euro TP, 5 million euro annual GWP).

NSA	TOTAL NUMBER OF SOLVENCY II REPORTING UNDERTAKINGS	TOTAL NUMBER OF UNDERTAKINGS EXCLUDED[452]	UNDERTAKINGS EXCLUDED %	GWP excl. (%)	TP excl. (EUR)
AT	35	0	0.00%	0.00%	0.00%
BE	66	0	0.00%	0.00%	0.00%
BG	32	3	9.68%	0.19%	0.22%
CY	31	0	0.00%	0.00%	0.00%
CZ	27	3	11.54%	0.06%	0.03%
DE	338	8	2.38%	0.00%	0.00%
DK	72	5	6.76%	0.00%	0.00%
EE	10	0	0.00%	0.00%	0.00%
EL	36	2	5.56%	0.16%	0.19%
ES	152	6	4.08%	0.01%	0.01%
FI	46	1	2.17%	0.00%	0.02%
FR	462	20	4.38%	0.01%	0.00%
HR	18	1	6.25%	0.00%	0.00%
HU	23	0	0.00%	0.00%	0.00%
IE	187	9	4.81%	0.00%	0.00%
IS	8	0	0.00%	0.00%	0.00%
IT	96	0	0.00%	0.00%	0.00%
LI	35	2	6.06%	0.00%	0.14%
LT	9	0	0.00%	0.00%	0.00%
LU	268	9	3.36%	0.01%	0.01%
LV	6	0	0.00%	0.00%	0.00%
MT	65	3	4.48%	0.00%	0.00%
NL	132	3	2.42%	0.00%	0.01%
NO	70	17	25.00%	0.15%	0.02%
PL	59	2	3.45%	0.04%	0.02%
PT	40	2	5.00%	0.01%	0.00%
RO	27	1	3.85%	0.15%	0.28%
SE	135	6	4.69%	0.02%	0.00%
SI	15	0	0.00%	0.00%	0.00%
SK	14	0	0.00%	0.00%	0.00%
Total	**2.525**	**103**	**4.16%**	**0.01%**	**0.02%**

[452] Numbers included reflect the number of undertakings whose technical provisions are below 50 million euro and whose annual gross written premium are below 25 million euro at year end 2018 and could be excluded from the scope of Solvency II under this option

Option 2.3: Raise size thresholds but with Member States discretion to decide on the premiums (50 million euro TP, 15 million euro annual GWP).

NSA	TOTAL NUMBER OF SOLVENCY II REPORTING UNDERTAKINGS	TOTAL NUMBER OF UNDERTAKINGS EXCLUDED[453]	UNDERTAKINGS EXCLUDED %	GWP excl. (%)	TP excl. (EUR)
AT	35	0	0.00%	0.00%	0.00%
BE	66	0	0.00%	0.00%	0.00%
BG	32	4	12.90%	0.44%	0.69%
CY	31	1	3.23%	1.19%	1.66%
CZ	27	3	11.54%	0.06%	0.03%
DE	338	15	4.46%	0.03%	0.00%
DK	72	8	10.81%	0.08%	0.01%
EE	10	0	0.00%	0.00%	0.00%
EL	36	2	5.56%	0.16%	0.19%
ES	152	11	7.48%	0.09%	0.04%
FI	46	2	4.35%	0.06%	0.01%
FR	462	66	14.44%	0.15%	0.01%
HR	18	3	18.75%	0.91%	0.71%
HU	23	1	4.55%	0.25%	0.00%
IE	187	10	5.35%	0.01%	0.00%
IS	8	2	25.00%	2.96%	2.99%
IT	96	1	1.03%	0.01%	0.00%
LI	35	2	6.06%	0.00%	0.14%
LT	9	1	12.50%	1.11%	4.17%
LU	268	9	3.36%	0.01%	0.01%
LV	6	0	0.00%	0.00%	0.00%
MT	65	3	4.48%	0.00%	0.00%
NL	132	7	5.65%	0.06%	0.01%
NO	70	19	27.94%	0.21%	0.02%
PL	59	5	8.62%	0.29%	0.05%
PT	40	2	5.00%	0.01%	0.00%
RO	27	1	3.85%	0.15%	0.28%
SE	135	8	6.25%	0.08%	0.00%
SI	15	0	0.00%	0.00%	0.00%
SK	14	0	0.00%	0.00%	0.00%
Total	**2.525**	**186**	**7.51%**	**0.07%**	**0.06%**

[453] Numbers included reflect the number of undertakings whose technical provisions are below 50 million euro and whose annual gross written premium are below 25 million euro at year end 2018 and could be excluded from the scope of Solvency II under this option

Option 2.3: Raise size thresholds but with Member States discretion to decide on the premiums (50 million euro TP, 25 million euro annual GWP).

NSA	TOTAL NUMBER OF SOLVENCY II REPORTING UNDERTAKINGS	TOTAL NUMBER OF UNDERTAKINGS EXCLUDED[454]	UNDERTAKINGS EXCLUDED %	GWP excl. (%)	TP excl. (EUR)
AT	35	0	0.00%	0.00%	0.00%
BE	66	1	1.54%	0.04%	0.01%
BG	32	4	12.90%	0.44%	0.69%
CY	31	1	3.23%	1.19%	1.66%
CZ	27	3	11.54%	0.06%	0.03%
DE	338	19	5.65%	0.06%	0.01%
DK	72	8	10.81%	0.08%	0.01%
EE	10	0	0.00%	0.00%	0.00%
EL	36	2	5.56%	0.16%	0.19%
ES	152	16	10.88%	0.21%	0.05%
FI	46	2	4.35%	0.06%	0.01%
FR	462	85	18.60%	0.27%	0.01%
HR	18	3	18.75%	0.91%	0.71%
HU	23	1	4.55%	0.25%	0.00%
IE	187	10	5.35%	0.01%	0.00%
IS	8	4	50.00%	8.45%	12.37%
IT	96	1	1.03%	0.01%	0.00%
LI	35	2	6.06%	0.00%	0.14%
LT	9	2	25.00%	3.85%	8.93%
LU	268	9	3.36%	0.01%	0.01%
LV	6	0	0.00%	0.00%	0.00%
MT	65	3	4.48%	0.00%	0.00%
NL	132	12	9.68%	0.19%	0.02%
NO	70	20	29.41%	0.32%	0.04%
PL	59	6	10.34%	0.40%	0.11%
PT	40	2	5.00%	0.01%	0.00%
RO	27	2	7.69%	0.90%	0.77%
SE	135	10	7.81%	0.19%	0.01%
SI	15	0	0.00%	0.00%	0.00%
SK	14	0	0.00%	0.00%	0.00%
Total	**2.525**	**228**	**9.20%**	**0.14%**	**0.09%**

[454] Numbers included reflect the number of undertakings whose technical provisions are below 50 million euro and whose annual gross written premium are below 25 million euro at year end 2018 and could be excluded from the scope of Solvency II under this option

Annex 8.2 – Proposals for the amendment of Article 4

Article 3

Statutory systems

Without prejudice to Article 2(3)(c), this Directive shall not apply to insurance forming part of a statutory system of social security.

Article 4

Exclusion from scope due to size

1. Without prejudice to Article 3 and Articles 5 to 10, this Directive shall not apply to an insurance undertaking which fulfils all the following conditions:
(a) the undertaking's annual gross written premium does not exceed EUR 5 million;
(b) the total of the undertaking's technical provisions, gross of the amounts recoverable from reinsurance contracts and special purpose vehicles, as referred to in Article 76, does not exceed EUR 50 million;
(c) where the undertaking belongs to a group, the total of the technical provisions of the group defined as gross of the amounts recoverable from reinsurance contracts and special purpose vehicles does not exceed EUR 25 million;
(d) the business of the undertaking does not include insurance or reinsurance activities covering liability, credit and suretyship insurance risks, unless they constitute ancillary risks within the meaning of Article 16(1);
(e) the business of the undertaking does not include reinsurance operations exceeding EUR 0,5 million of its gross written premium income or EUR 2,5 million of its technical provisions gross of the amounts recoverable from reinsurance contracts and special purpose vehicles, or more than 10% of its gross written premium income or more than 10% of its technical provisions gross of the amounts recoverable from reinsurance contracts and special purpose vehicles.
1a. Member States may define a different threshold than laid down in paragraph 1(a) if that threshold applies to a material number of insurance and reinsurance undertakings with low risk profile and representing a residual market share. Such threshold shall not exceed EUR 25 million.
2. If any of the amounts set out in paragraph 1 is exceeded for three consecutive years this Directive shall apply as from the fourth year.
3. By way of derogation from paragraph 1, this Directive shall apply to all undertakings seeking authorisation to pursue insurance and reinsurance activities of which the annual gross written premium income or technical provisions gross of the amounts recoverable from reinsurance contracts and special purpose vehicles are expected to exceed any of the amounts set out in paragraph 1 within the following five years.
4. This Directive shall cease to apply to those insurance undertakings for which the supervisory authority has verified that all of the following conditions are met:
(a) none of the thresholds set out in paragraph 1 has been exceeded for the three previous consecutive years;
and
(b) none of the thresholds set out in paragraph 1 is expected to be exceeded during the following five years.

For as long as the insurance undertaking concerned pursues activities in accordance with Articles 145 to 149, paragraph 1 of this Article shall not apply.
5. Paragraphs 1 and 4 shall not prevent any undertaking from applying for authorisation or continuing to be authorised under this Directive.

Article 6

Assistance

This Directive shall not apply to an assistance activity which fulfils all the following conditions:
(a) the assistance is provided in the event of an accident or breakdown involving a road vehicle when the accident or breakdown occurs in the territory of the Member State of the undertaking providing cover;
(b) the liability for the assistance is limited to the following operations:
(i) an on-the-spot breakdown service for which the undertaking providing cover uses, in most circumstances, its own staff and equipment;
(ii) the conveyance of the vehicle to the nearest or the most appropriate location at which repairs may be carried out and the possible accompaniment, normally by the same means of assistance, of the driver and passengers to the nearest location from where they may continue their journey by other means; and
(iii) where provided for by the home Member State of the undertaking providing cover, the conveyance of the vehicle, possibly accompanied by the driver and passengers, to their home, point of departure or original destination within the same State; and
(c) the assistance is not carried out by an undertaking subject to this Directive.
2. In the cases referred to in points (i) and (ii) of paragraph 1(b), the condition that the accident or breakdown must have happened in the territory of the Member State of the undertaking providing cover shall not apply where the beneficiary is a member of the body providing cover and the breakdown service or conveyance of the
vehicle is provided simply on presentation of a membership card, without any additional premium being paid, by a similar body in the country concerned on the basis of a reciprocal agreement~~, or, in the case of Ireland and the United Kingdom, where the assistance operations are provided by a single body operating in both States~~.
3. This Directive shall not apply in the case of operations referred to in point (iii) of paragraph 1(b), where the accident or the breakdown has occurred in the territory of Ireland or, in the case of the United Kingdom, in the territory of Northern Ireland and the vehicle, possibly accompanied by the driver and passengers, is conveyed
to their home, point of departure or original destination within the~~either~~ territory of Ireland.
4. This Directive shall not apply to assistance operations carried out by the Automobile Club of the Grand Duchy of Luxembourg where the accident or the breakdown of a road vehicle has occurred outside the territory of the Grand Duchy of Luxembourg and the assistance consists in conveying the vehicle which has been involved in that accident or breakdown, possibly accompanied by the driver and passengers, to their home.

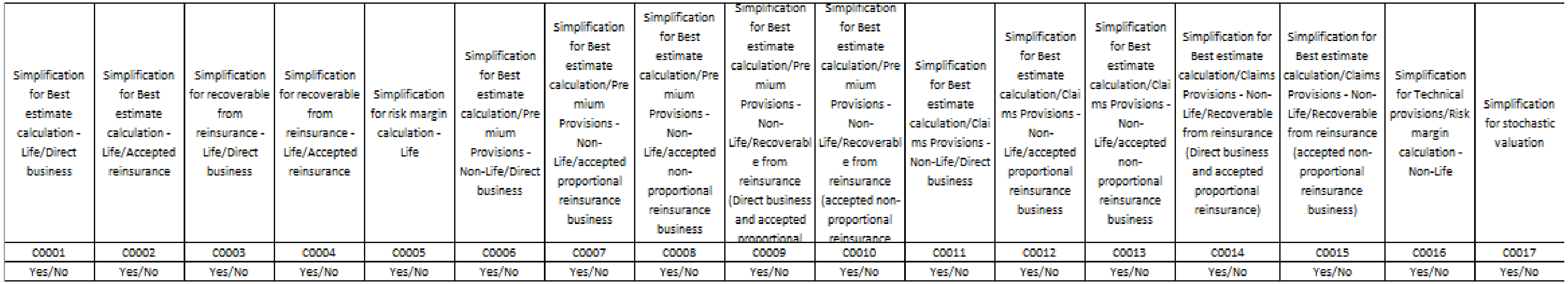
Article 8
Institutions

This Directive shall not apply to the following institutions which pursue non-life insurance activities unless their statutes or the applicable law are amended as regards capacity:

(1) in Denmark, Falck Danmark;
(2) in Germany, the following semi-public institutions:
(a) Postbeamtenkrankenkasse,
(b) Krankenversorgung der Bundesbahn-beamten;
~~(3) in Ireland, the Voluntary Health Insurance Board;~~
(4) in Spain, the Consorcio de Compensación de Seguros.

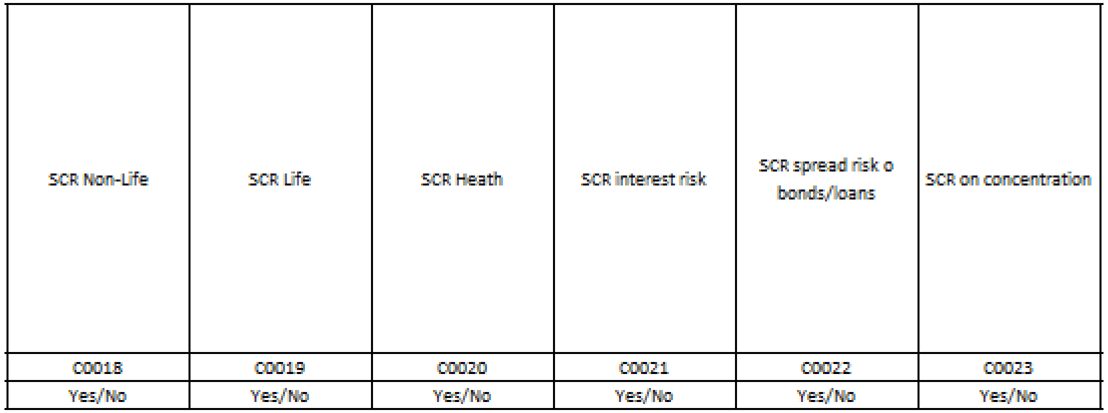
Annex 8.3 – Example of a new QRT with the list of simplification and proportionality measures used during the year (not final)

a) Simplification for Technical provisions calculation



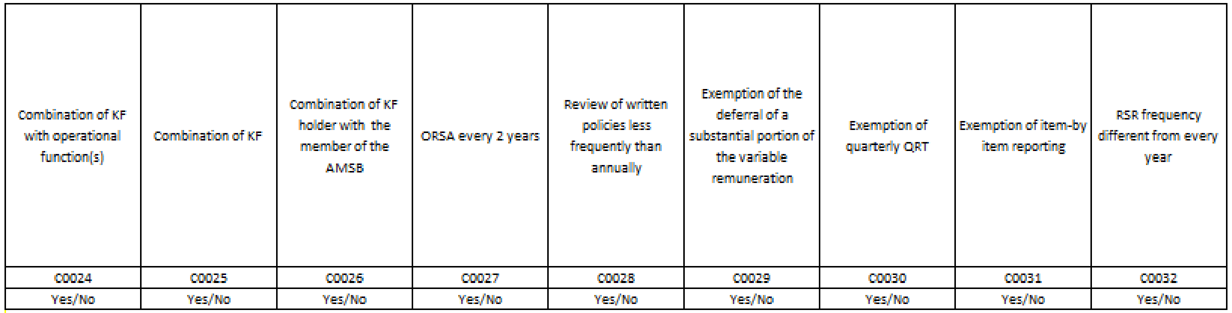
Simplification for Best estimate calculation - Life/Direct business	Simplification for Best estimate calculation - Life/Accepted reinsurance	Simplification for recoverable from reinsurance - Life/Direct business	Simplification for recoverable from reinsurance - Life/Accepted reinsurance	Simplification for risk margin calculation - Life	Simplification for Best estimate calculation/Premium Provisions - Non-Life/Direct business	Simplification for Best estimate calculation/Premium Provisions - Non-Life/accepted proportional reinsurance business	Simplification for Best estimate calculation/Premium Provisions - Non-Life/accepted non-proportional reinsurance business	Simplification for Best estimate calculation/Premium Provisions - Non-Life/Recoverable from reinsurance (Direct business and accepted proportional	Simplification for Best estimate calculation/Premium Provisions - Non-Life/Recoverable from reinsurance (accepted non-proportional reinsurance	Simplification for Best estimate calculation/Claims Provisions - Non-Life/Direct business	Simplification for Best estimate calculation/Claims Provisions - Non-Life/accepted proportional reinsurance business	Simplification for Best estimate calculation/Claims Provisions - Non-Life/accepted non-proportional reinsurance business	Simplification for Best estimate calculation/Claims Provisions - Non-Life/Recoverable from reinsurance (Direct business and accepted proportional reinsurance)	Simplification for Best estimate calculation/Claims Provisions - Non-Life/Recoverable from reinsurance (accepted non-proportional reinsurance business)	Simplification for Technical provisions/Risk margin calculation - Non-Life	Simplification for stochastic valuation
C0001	C0002	C0003	C0004	C0005	C0006	C0007	C0008	C0009	C0010	C0011	C0012	C0013	C0014	C0015	C0016	C0017
Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

b) Simplification for SCR calculation



SCR Non-Life	SCR Life	SCR Heath	SCR interest risk	SCR spread risk o bonds/loans	SCR on concentration
C0018	C0019	C0020	C0021	C0022	C0023
Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

C) Proportionality on pillar II and pillar III requirements



Combination of KF with operational function(s)	Combination of KF	Combination of KF holder with the member of the AMSB	ORSA every 2 years	Review of written policies less frequently than annually	Exemption of the deferral of a substantial portion of the variable remuneration	Exemption of quarterly QRT	Exemption of item-by item reporting	RSR frequency different from every year
C0024	C0025	C0026	C0027	C0028	C0029	C0030	C0031	C0032
Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

Annex 8.4 – Draft proposal for enhanced use of proportionality in the Solvency II Directive - Level 1 amendments from the proportionality framework

Article 29

General principles of supervision

1. Supervision shall be based on a prospective and risk-based approach. It shall include the verification on a continuous basis of the proper operation of the insurance or reinsurance business and of the compliance with supervisory provisions by insurance and reinsurance undertakings.

2. Supervision of insurance and reinsurance undertakings shall comprise an appropriate combination of offsite activities and on-site inspections.

3. Member States shall ensure that the requirements laid down in this Directive are applied in a manner which is proportionate to the nature, scale and complexity of the risks inherent in the business of an insurance or reinsurance undertaking. Member States shall ensure that supervisory authorities have the power to allow for a proportionate application of the requirements, in particular by insurance and reinsurance undertakings classified as low risk profile undertaking.

4. Supervisory authorities shall not require authorisation for the use of proportionality measures provided in this Directive or its delegated acts by undertakings classified as low risk profile undertakings.

5. Subject to paragraph 7 and paragraph 2b of Article 36, supervisory authorities may allow the use of proportionality measures not provided in this Directive or its delegated acts to any insurance or reinsurance undertaking in the context of the supervisory dialogue, considering the undertaking's specific risk profile and following an approval process. The approval of supervisory authorities for additional proportionality measures shall not lead to a complete non-application of the requirements laid down in this Directive.

6. The Commission shall adopt delegated acts specifying the criteria to define low risk profile insurance and reinsurance undertakings in view of the application of proportionality measures.

7. In order to ensure consistent supervisory practices in the application of proportionality, EIOPA shall use its instruments as provided for in Regulation (EU) No 1094/2010 in particular, with regard to additional proportionality measures to be allowed by supervisory authorities concerning the requirements defined in Article 35 (Information to be provided for supervisory purposes), Articles 51 to 56 (Public disclosure), Chapter VI (Rules relating to the valuation of assets and liabilities, technical provisions, own funds, Solvency Capital Requirement, Minimum Capital Requirement and investment rules) or Chapter VII Insurance and reinsurance undertakings in difficulty or in an irregular situation.

8. In order to ensure consistent supervisory practices in the application of proportionality, EIOPA shall develop guidelines to facilitate common tools and further specifying the process and methodology to be used when classifying insurance and reinsurance undertakings as low risk profile.

Article 36

Supervisory review process

1. Member States shall ensure that the supervisory authorities review and evaluate the strategies, processes and reporting procedures which are established by the insurance and reinsurance undertakings to comply with the laws, regulations and administrative provisions adopted pursuant to this Directive.

That review and evaluation shall comprise the assessment of the qualitative requirements relating to the system of governance, the assessment of the risks which the undertakings concerned face or may face and the assessment of the ability of those undertakings to assess those risks taking into account the environment in which the undertakings are operating.

2. The supervisory authorities shall in particular review and evaluate compliance with the following:

a) the system of governance, including the own-risk and solvency assessment, as set out in Chapter IV, Section 2;
b) the technical provisions as set out in Chapter VI, Section 2;
c) the capital requirements as set out in Chapter VI, Sections 4 and 5;
d) the investment rules as set out in Chapter VI, Section 6;
e) the quality and quantity of own funds as set out in Chapter VI, Section 3;
f) where the insurance or reinsurance undertaking uses a full or partial internal model, on-going compliance with the requirements for full and partial internal models set out in Chapter VI, Section 4, Subsection 3.

2a. When reviewing compliance with point a) of paragraph 2 supervisory authorities may allow the use of proportionality measures not provided in this Directive or its delegated acts.

2b. When reviewing compliance with points b) to f) of paragraph 2 supervisory authorities may allow the use of proportionality measures not provided in this Directive or its delegated acts only if foreseen in EIOPA *convergence tools to promote common supervisory approaches and practices as referred to in Article 29(7).*

3. The supervisory authorities shall have in place appropriate monitoring tools that enable them to identify deteriorating financial conditions in an insurance or reinsurance undertaking and to monitor how that deterioration is remedied.

4. The supervisory authorities shall assess the adequacy of the methods and practices of the insurance and reinsurance undertakings designed to identify possible events or future changes in economic conditions that could have adverse effects on the overall financial standing of the undertaking concerned.

The supervisory authorities shall assess the ability of the undertakings to withstand those possible events or future changes in economic conditions.

5. The supervisory authorities shall have the necessary powers to require insurance and reinsurance undertakings to remedy weaknesses or deficiencies identified in the supervisory review process.

6. The reviews, evaluations and assessments referred to in paragraphs 1, 2 and 4 shall be conducted regularly.

The supervisory authorities shall establish the minimum frequency and the scope of those reviews, evaluations and assessments having regard to the nature, scale and complexity of the activities of the insurance or reinsurance undertaking concerned.

Article 52

Information for and reports by the European Insurance and Occupational Pensions Authority

1. Without prejudice to Article 35 of Regulation (EU) No 1094/2010, Member States shall require the supervisory authorities to provide the following information to EIOPA on an annual basis:

   …

   (e) the number of insurance and reinsurance undertakings, split by low risk profile undertakings and others, using simplifications or other proportionality measures with a description of the ones provided in this Directive or its delegated acts and any other proportionality measure allowed by the supervisory authorities.

2. EIOPA shall publicly disclose, on an annual basis, the following information:

   …

   (f) for each Member States separately, the number of insurance and reinsurance undertakings, split by low risk profile undertakings and others, and by simplifications or other proportionality measures provided in this Directive or its delegated acts and any other proportionality measure allowed by the supervisory authorities.

3. EIOPA shall provide the information referred to in paragraph 2 to the European Parliament, the Council and the Commission, together with a report outlining the degree of supervisory convergence in the use of capital add-ons and in the use of proportionality measures between supervisory authorities in the different Member States.

Annex 8.5 – Draft proposal for enhanced use of proportionality in the Solvency II Directive - Amendments to the Delegated Regulation concerning the proportionality framework

Chapter I

NEW Section 3 – Proportionality principle

Article 6a – Criteria for low risk profile undertakings

1. Insurance and reinsurance undertakings shall be classified as low risk profile undertakings, following the process defined in Article 6b, when they meet all the following criteria for the last two consecutive annual financial years:
   a) For life undertakings whose ratio of the gross SCR for interest rate risk submodule over the gross technical provisions is not higher than 5%. This criterion applies to undertakings pursuing both life and non-life insurance activities only when the life business is material;

   b) For life insurance undertakings, excluding the index/unit linked business, investment returns are at least higher to the average guaranteed interest rates, and non-life undertakings the combined ratio is less than 100 percent. Insurance undertakings pursuing both life and non-life insurance activities are required to fulfil both criteria for life or non-life business. In case one of the two type of business is not material, composite undertakings are not required to apply the criteria regarding that type of business;

   c) For undertaking other than insurance or reinsurance captives undertakings, business underwritten outside of the undertaking's home Member State is not higher than 5% of its total annual gross written premium;

   d) For life undertakings, gross technical provisions not higher than 1 billion EUR and for non-life undertakings, gross written premium is not higher than EUR 100 million. Insurance undertakings pursuing both life and non-life insurance activities are required to fulfil both the above mentioned criteria;

   e) For non-life undertakings and undertakings pursuing both life and non-life insurance activities, the annual gross written premium in 'Marine, Aviation and transport' or 'Credit and Suretyship' line of businesses is not higher than 30% of total annual written premiums of non-life business;

   f) Investments in non-traditional investments does not represent more than 20% of total investments. For the purpose of this point, traditional investments are considered bonds, equities, cash and cash equivalents and deposits and total investments are considered all assets excluding investments covering unit-index linked contracts, excluding Property (for own use), excluding Plant and equipment (for own use), excluding Property (under construction for own use) and including Derivatives;

g) For undertaking other than insurance or reinsurance captives undertakings, accepted reinsurance gross annual written premiums is not higher than 50% of the total annual written premium.

2. Newly authorised insurance and reinsurance undertakings which do not have a track record of two financial years shall consider only the last financial year.
3. With prejudice to paragraph 1, the following undertakings cannot be classified as low risk profile regardless of compliance with the criteria identified in paragraph 1:
    a. undertakings using an approved partial or full internal model to calculate the Solvency Capital Requirement;
    b. undertakings which are parent undertaking of an insurance group.
4. Insurance and reinsurance undertakings shall consider in their assessment of compliance with the criteria defined in paragraph 1 the business plans for the next 3 financial years.
5. Insurance and reinsurance undertakings, other than those identified in paragraph 2, not complying with the criteria defined in paragraph 1 but having reasons to believe that the classification as 'low risk profile' should be applicable to them may obtain such a classification after approval of the supervisory authority.

Article 6b – Process of classification as low risk profile undertaking of undertakings complying with the criteria

1. Insurance and reinsurance undertakings shall perform a self-assessment of the criteria identified in Article 6a and shall notify the supervisory authority in case they comply with the criteria and intend to be classified as a low risk profile undertaking.
2. If within one month upon receipt of the notification, the supervisory authority do not oppose, in writing and by stating the reasons, the proposed classification as low risk profile, it shall be deemed to be approved. The decision of the supervisory authority shall address aspects of the risk profile of the insurance and reinsurance undertakings not properly captured by the criteria defined in Article 6a.
3. Regarding notifications received by supervisory authorities within the first six months upon entry into force of this Regulation, the period referred to in paragraph 2 is extended to two months.
4. One month after submitting the notification the insurance and reinsurance undertaking shall be classified as low risk profile if it has not received any communication from the supervisory authority.

5. The notification to be submitted to the supervisory authority shall be submitted by the Administrative, Management or Supervisory Body of the undertaking and include the following:
    a) Evidence of the compliance with the criteria for low risk profile undertakings;
    b) Declaration that the undertaking does not plan any strategic change that would materially impact the business model or the risk profile with an expected outcome of not fulfilling the criteria within the next three years;
    c) If possible, an early identification of the proportionality measures the undertaking expects to implement, in particular if the best estimate simplification is intended to be used and whether the undertaking plans to use Prudent Harmonised Reduced Set of Scenarios published by EIOPA to calibrate and ad-hoc stochastic supplement;
    d) Any other information the undertaking considers material regarding its own risk profile.

Article 6c – Process of classification as low risk profile undertaking of undertakings not complying with criteria

1. Insurance and reinsurance undertakings that after performing a self-assessment of the criteria identified in Article 6a conclude that they do not comply with the criteria but have reasons to believe they should be classified as low risk profile undertaking may request approval by the supervisory authority for such classification.
2. The written request for approval to be submitted to the supervisory authority shall be submitted by the Administrative, Management or Supervisory Body of the undertaking and include the following:
    e) Detailed explanation of the reasons why despite not complying with the criteria the undertaking believes it should be classified as low risk profile undertaking, taking into consideration the nature, scale and complexity of the risks inherent in its business;
    f) Declaration that the undertaking does not plan any strategic change that would materially impact the business model or the risk profile within the next three years ;
    g) If possible, an early identification of the proportionality measures the undertaking expects to implement;
    h) Any other quantitative or qualitative information the undertaking considers material regarding its own risk profile.
3. After receiving the request, the supervisory authority shall, within two month of upon receipt thereof, assess the documentation and inform the undertaking of its approval or rejection.

4. The supervisory authority may request any further information that is necessary to complete the assessment. For the period between the date of request for information by the supervisory authorities and the receipt of a response thereto by the concerned undertaking, the assessment period shall be interrupted. Any further requests by the supervisory authority shall not result in an interruption of the assessment period.
5. Regarding requests, received by supervisory authorities within the first six months of entry into force of this Regulation, the period referred to in paragraph 3 is extended to four months.

Article 6d – Use of proportionality measures

1. Without prejudice to specific requirements defined in this Regulation, insurance and reinsurance undertakings classified as low risk profile undertaking may use any proportionality measures provided for in the Directive and its implementing measures without prior notification to the supervisory authority and at least for the two following financial years.
2. Insurance and reinsurance undertakings not classified as low risk profile undertaking may also use proportionality measures provided for in the Directive and its implementing measures after approval by the supervisory authority with the following exception: when specific criteria are defined in this Regulation for the use of simplified methods to calculate technical provisions and solvency capital requirements insurance and reinsurance undertakings may use it as long as the criteria is complied with and without the need for an approval by the supervisory authority.
3. Insurance and reinsurance undertakings regardless of their classification may use proportionality measures not provided in the Directive or its implementing measures in the context of the supervisory dialogue, considering the undertaking’s specific risk profile and following after approval by the supervisory authority.
4. When an insurance or reinsurance undertaking no longer complies with one of the criteria defined in Article 6a for two consecutive financial years, the concerned undertaking shall promptly initiate a formal dialogue with the supervisory authority. After completed the assessment, the supervisory authority shall inform the concerned undertaking which if any proportionality measures may continue to be used, taking into consideration the impact on the organisation of undertaking and the change of its risk profile.

Article 6e –Use of proportionality measures by non-low risk profile undertakings

1. Insurance and reinsurance undertakings not classified as low risk profile undertakings intending to use any proportionality measure, other than simplified method to calculate technical provisions and solvency capital requirements, shall request the prior approval of the supervisory authority.

The written request for approval to be submitted to the supervisory authority shall be submitted by the Administrative, Management or Supervisory Body of the undertaking and include the following:

a) Identification of the proportionality measure(s) intended to be used and reasons for it;

b) the adequacy of the use of the proportionality measure, taking into consideration the nature, scale and complexity of the risks inherent in its business, and any information the undertaking considers material regarding its own risk profile.

2. After receiving the request, the supervisory authority shall, within two month upon receipt thereof, assess the documentation and inform the undertaking of its approval or rejection.
3. The supervisory authority may request any further information that is necessary to complete the assessment. For the period between the date of request for information by the supervisory authorities and the receipt of a response thereto by the concerned undertaking, the assessment period shall be interrupted. Any further requests by the supervisory authority shall not result in an interruption of the assessment period.
4. Regarding requests received by supervisory authorities within the first six months of entry into force of this Regulation, the period referred to in paragraph 5 is extended to four.

Article 6f – Monitoring of the classification as LRU

After the initial classification as low risk profile undertakings, the supervisory authorities may at any point, following an observed change of the insurance or reinsurance undertaking's risk profile, re-assess the classification as low risk profile undertaking and adopt a decision not allowing an insurance or reinsurance undertaking's classification as low risk profile, stating the reasons accordingly.

Article 6f – Reporting of the use of proportionality measures

Insurance and reinsurance undertakings using proportionality measures shall report annually to the supervisory authorities as part of the annual quantitative templates referred to in Article 304 of Commission Delegated Regulation (EU) 2015/35 information on the proportionality measures used.

Article 6g – Transitional measure

Insurance and reinsurance undertakings applying some proportionality measure by [insert the time of the intro of force of the changes to the Solvency II included in this advice] may continue to apply such measures, without applying new requirements referred to this Section, for a period not exceeding four financial years.

Insurance and reinsurance undertakings shall apply the new requirements laid down in this Section with regard to new proportionality measures.

CHAPTER IX

System of governance

(NEW) SECTION 6

Proportionality

Article 275a

Provisions for proportionality for captives

Captive insurance undertakings and captive reinsurance undertakings as defined in points (2) and (5) of Article 13 of Directive 2009/138/EC may use the proportionality measures set out in Articles 45a of this Regulation where all of the following requirements are met:

a) in relation to the insurance obligations of the captive insurance undertaking or captive reinsurance undertaking, all insured persons and beneficiaries are legal entities of the group or natural persons eligible to be covered under the group insurance policies of which the captive insurance or captive reinsurance undertaking is part, as long as the business covering natural persons eligible to be covered under the group insurance policies remains immaterial;

b) in relation to the reinsurance obligations of the captive insurance or captive reinsurance undertaking, all insured persons and beneficiaries of the insurance contracts underlying the reinsurance obligations are legal entities of the group of which the captive insurance or captive reinsurance undertaking is part;

c) the insurance obligations and the insurance contracts underlying the reinsurance obligations of the captive insurance or captive reinsurance undertaking do not relate to any compulsory third party liability insurance.

CHAPTER XII

Public disclosure

Article 291a

Provisions for proportionality for captives

1. Captive insurance undertakings and captive reinsurance undertakings as defined in points (2) and (5) of Article 13 of Directive 2009/138/EC may use the proportionality measures set out in Articles 51 of this Regulation where all of the following requirements are met:
   a) in relation to the insurance obligations of the captive insurance undertaking or captive reinsurance undertaking, all insured persons and beneficiaries are legal entities of the group or natural persons eligible to be covered under the group insurance policies of which the captive insurance or captive reinsurance undertaking is part, as long as the business covering natural persons eligible to be covered under the group insurance policies remains immaterial;
   b) in relation to the reinsurance obligations of the captive insurance or captive reinsurance undertaking, all insured persons and beneficiaries of the insurance contracts underlying the reinsurance obligations are legal entities of the group of which the captive insurance or captive reinsurance undertaking is part;
   c) the insurance obligations and the insurance contracts underlying the reinsurance obligations of the captive insurance or captive reinsurance undertaking do not relate to any compulsory third party liability insurance.

CHAPTER XIII

Regular supervisory reporting

Article 305a

Provisions for proportionality for captives

1. Captive insurance undertakings and captive reinsurance undertakings as defined in points (2) and (5) of Article 13 of Directive 2009/138/EC may use the proportionality measures set out in Articles 35(6a), 35(7a) and 35(10) of this Regulation where all of the following requirements are met:
   a) in relation to the insurance obligations of the captive insurance undertaking or captive reinsurance undertaking, all insured persons and beneficiaries are legal entities of the group or natural persons eligible to be covered under the group insurance policies of which the captive insurance or captive reinsurance undertaking is part, as long as the business covering natural persons eligible to be covered under the group insurance policies remains immaterial;
   b) in relation to the reinsurance obligations of the captive insurance or captive reinsurance undertaking, all insured persons and beneficiaries of the insurance contracts underlying the reinsurance obligations are

legal entities of the group of which the captive insurance or captive reinsurance undertaking is part;

c) the insurance obligations and the insurance contracts underlying the reinsurance obligations of the captive insurance or captive reinsurance undertaking do not relate to any compulsory third party liability insurance.

2. Captive reinsurance undertakings as defined in points (5) of Article 13 of Directive 2009/138/EC may only use any further specific exemptions [the annual reporting package to consist of only the SFCR templates] to be defined in the ITS in accordance with Article 35(10) of Directive 2009/138/EC where all of the following requirements are met:

   a) in relation to the insurance obligations of the captive insurance undertaking or captive reinsurance undertaking, all insured persons and beneficiaries are legal entities of the group or natural persons eligible to be covered under the group insurance policies of which the captive insurance or captive reinsurance undertaking is part, as long as the business covering natural persons eligible to be covered under the group insurance policies remains immaterial;

   b) in relation to the reinsurance obligations of the captive insurance or captive reinsurance undertaking, all insured persons and beneficiaries of the insurance contracts underlying the reinsurance obligations are legal entities of the group of which the captive insurance or captive reinsurance undertaking is part;

   c) the insurance obligations and the insurance contracts underlying the reinsurance obligations of the captive insurance or captive reinsurance undertaking do not relate to any compulsory third party liability insurance.

   d) The policyholders of the reinsurance contracts are legal entities of the group (i.e. the Parent company or other entities of the industrial group to which the captive belongs);

   e) Loans in place with the Parent or any group company do not exceed 20% of total assets held by the captive, groups cashpools included;

   f) The maximum loss resulting from the exposures can be deterministically assessed without use of stochastic methods (i.e. limits to losses covered are included in the reinsurance contracts in place).

Annex 8.6 – Draft proposal for enhanced use of proportionality in the Solvency II Directive – Article 35 of the Solvency II Directive amendments

Article 35:

Option 1:

Article 35

Information to be provided for supervisory purposes

1. Member States shall require insurance and reinsurance undertakings to submit to the supervisory authorities the information which is necessary for the purposes of supervision, taking into account the objectives of supervision laid down in Articles 27, 28 and 29. Such information shall include at least the information necessary for the following when performing the process referred to in Article 36:
   (a) to assess the system of governance applied by the undertakings, the business they are pursuing, the valuation principles applied for solvency purposes, the risks faced and the risk-management systems, and their capital structure, needs and management;
   (b) to make any appropriate decisions resulting from the exercise of their supervisory rights and duties.

2. Member States shall ensure that the supervisory authorities have the following powers:
   (a) to determine the nature, the scope and the format of the information referred to in paragraph 1 which they require insurance and reinsurance undertakings to submit at the following points in time:
      (i) at predefined periods;
      (ii) upon occurrence of predefined events;
      (iii) during enquiries regarding the situation of an insurance or reinsurance undertaking;
   (b) to obtain any information regarding contracts which are held by intermediaries or regarding contracts which are entered into with third parties; and
   (c) to require information from external experts, such as auditors and actuaries.

2a. Member States shall, taking into account the information required in paragraph 1 and 2 and the principles set out in paragraphs 3 and 4, require insurance and reinsurance undertakings to submit to the supervisory authorities a Regular Supervisory Report.

3. The information referred to in paragraphs 1 and 2 shall comprise the following:
   (a) qualitative or quantitative elements, or any appropriate combination thereof;
   (b) historic, current or prospective elements, or any appropriate combination thereof; and

(c) data from internal or external sources, or any appropriate combination thereof.

4. The information referred to in paragraphs 1 and 2 shall comply with the following principles:
   (a) it must reflect the nature, scale and complexity of the business of the undertaking concerned, and in particular the risks inherent in that business;
   (b) it must be accessible, complete in all material respects, comparable and consistent over time; and
   (c) it must be relevant, reliable and comprehensible.

5. Member States shall require insurance and reinsurance undertakings to have appropriate systems and structures in place to fulfil the requirements laid down in paragraphs 1 to 4 as well as a written policy, approved by the administrative, management or supervisory body of the insurance or reinsurance undertaking, ensuring the ongoing appropriateness of the information submitted.

5a. When undertakings have been classified as low risk profile undertakings according to Articles 6a and 6b of Delegated Regulation (EU) 2015/35, the frequency of the Regular Supervisory Report referred to in paragraph 2a shall be of every 3 years unless the supervisory authorities have duly justified concerns.

The frequency of the Regular Supervisory Report for the remaining undertakings shall consider the nature, scale and complexity of the risks of the undertaking and be as a minimum every 3 years.

6. Without prejudice to Article 129(4), where the predefined periods referred to in paragraph 2(a)(i) are shorter than one year the supervisory authorities concerned may limit regular supervisory reporting, where:
   (a) the submission of that information would be overly burdensome in relation to the nature, scale and complexity of the risks inherent in the business of the undertaking;
   (b) the information is reported in the annual reporting package~~at least annually~~.

When the information is limited according to the paragraph above the relevant template as defined in the Implementing Technical Standards referred to in paragraph 10 shall always be reported at least with the data point referring to the result of the Minimum Capital Requirement.

~~Supervisory authorities shall not limit regular supervisory reporting with a frequency shorter than one year in the case of insurance or reinsurance undertakings that are part of a group within the meaning of Article 212(1)(c), unless the undertaking can demonstrate to the satisfaction of the supervisory authority that regular supervisory reporting with a frequency shorter than one year is inappropriate, given the nature, scale and complexity of the risks inherent in the business of the group.~~

The limitation to regular supervisory reporting shall be granted only to undertakings that do not represent more than 20% of a Member State's life and non-life insurance and reinsurance market respectively, where the nonlife market share is based on gross written premiums and the life market share is based on gross technical provisions.

Supervisory authorities shall give priority to the ~~smallest~~ undertakings complying with the criteria of low risk-profile undertakings as defined in Article 6a of Delegated Regulation (EU) 2015/35 and that have notified the supervisory authority as defined in Article 6b of that regulation, when determining the eligibility of the undertakings for those limitations.

6a. Notwithstanding paragraph 6, where the predefined periods referred to in paragraph 2(a)(i) are shorter than one year, captive insurance and reinsurance undertakings shall be exempted from regular supervisory reporting on an item-by-item basis.

7. The supervisory authorities concerned may limit regular supervisory reporting or exempt insurance and reinsurance undertakings from reporting on an item-by-item basis, where:

(a) the submission of that information would be overly burdensome in relation to the nature, scale and complexity of the risks inherent in the business of the undertaking;

(b) the submission of that information is not necessary for the effective supervision of the undertaking;

(c) the exemption does not undermine the stability of the financial systems concerned in the Union; and

(d) the undertaking is able to provide the information upon request~~on an ad-hoc basis~~.

~~Supervisory authorities shall not exempt from reporting on an item-by-item basis insurance or reinsurance undertakings that are part of a group within the meaning of Article 212(1)(c), unless the undertaking can demonstrate to the satisfaction of the supervisory authority that reporting on an item-by-item basis is inappropriate, given the nature, scale and complexity of the risks inherent in the business of the group and taking into account the objective of financial stability.~~

The exemption from reporting on an item-by-item basis shall be granted only to undertakings that do not represent more than 20% of a Member State's life and non-life insurance or reinsurance market respectively, where the non-life market share is based on gross written premiums and the life market share is based on gross technical provisions.

Supervisory authorities shall give priority to the ~~smallest~~ undertakings complying with the criteria of low risk-profile undertakings as defined in Article 6a of Delegated Regulation (EU) 2015/35 and that have notified the supervisory authority as defined in Article 6b of that regulation, when determining the eligibility of the undertakings for those limitations or exemptions.

7a. Captives insurance and reinsurance undertakings shall be exempted from regular supervisory reporting currency-by-currency information.

8. For the purposes of paragraphs 6 and 7, as part of the supervisory review process, supervisory authorities shall assess whether the submission of information would be overly burdensome in relation to the nature, scale and complexity of the risks of the undertaking, taking into account, at least:
   (x) the classification as low risk profile as defined in Article 6a of Delegated Regulation (EU) 2015/35;
   (a) ~~the volume of premiums, technical provisions and assets of the undertaking;~~
   ~~(b) the volatility of the claims and benefits covered by the undertaking;~~
   (c) the market risks that the investments of the undertaking give rise to;
   (d) the level of risk concentrations;
   (e) ~~the total number of classes of life and non-life insurance for which authorisation is granted;~~
   (f) possible effects of the management of the assets of the undertaking on financial stability;
   (g) the systems and structures of the undertaking to provide information for supervisory purposes and the written policy referred to in paragraph 5;
   (h) ~~the appropriateness of the system of governance of the undertaking;~~
   ~~(i) the level of own funds covering the Solvency Capital Requirement and the Minimum Capital Requirement;~~
   ~~(j) whether the undertaking is a captive insurance or reinsurance undertaking only covering risks associated with the industrial or commercial group to which it belongs.~~

8a. For the purposes of paragraphs 6 and 7, as part of the supervisory review process, when assessing undertakings not complying with the criteria of low risk-profile undertakings, supervisory authorities shall assess whether the submission of information would be overly burdensome in relation to the nature, scale and complexity of the risks of the undertaking, taking into account, in addition to the previous paragraph, at least:
   (a) the volume of premiums, technical provisions and assets of the undertaking;
   (b) the volatility of the claims and benefits covered by the undertaking;
   (e) the total number of classes of life and non-life insurance for which authorisation is granted;
   (h) the appropriateness of the system of governance of the undertaking;
   (i) the level of own funds covering the Solvency Capital Requirement and the Minimum Capital Requirement;
   (j) whether the undertaking is a captive insurance or reinsurance undertaking only covering risks associated with the industrial or commercial group to which it belongs.

9. The Commission shall adopt delegated acts in accordance with Article 301a specifying the information referred to in paragraphs 1 to 4 of this Article, ~~and~~ the deadlines for the submission of that information, with a view to ensuring to the appropriate extent convergence of supervisory reporting and criteria for limited supervisory reporting for captive insurance and reinsurance undertakings.

10. In order to ensure uniform conditions of application of this Article, EIOPA shall develop draft implementing technical standards on regular supervisory reporting with regard to the templates for the submission of information to the

supervisory authorities referred to in paragraphs 1 and 2, including the risk-based thresholds establishing the trigger for reporting requirement when applicable or any exemption of specific information for certain types of undertakings such as captive insurance and reinsurance undertakings considering the nature, scale and complexity of the risks of specific types of undertakings.
~~EIOPA shall submit those draft implementing technical standards to the Commission by 30 June 2015.~~
Power is conferred on the Commission to adopt the implementing technical standards referred to in the first subparagraph in accordance with Article 15 of Regulation (EU) N° 1094/2010.

11. In order to enhance a coherent and consistent application of paragraphs 6 and 7, EIOPA shall issue guidelines in accordance with Article 16 of Regulation (EU) N° 1094/2010 to further specify the methods to be used when determining the market shares referred to in the third subparagraph of paragraphs 6 and 7 and further specify the process to be used by the supervisory authorities to inform the insurance and reinsurance undertakings about any limitation or exemption of reporting.

Option 2:

Article 35
Information to be provided for supervisory purposes

1. Member States shall require insurance and reinsurance undertakings to submit to the supervisory authorities the information which is necessary for the purposes of supervision, taking into account the objectives of supervision laid down in Articles 27, 28 and 29. Such information shall include at least the information necessary for the following when performing the process referred to in Article 36:
   (a) to assess the system of governance applied by the undertakings, the business they are pursuing, the valuation principles applied for solvency purposes, the risks faced and the risk-management systems, and their capital structure, needs and management;
   (b) to make any appropriate decisions resulting from the exercise of their supervisory rights and duties.

2. Member States shall ensure that the supervisory authorities have the following powers:
   (a) to determine the nature, the scope and the format of the information referred to in paragraph 1 which they require insurance and reinsurance undertakings to submit at the following points in time:
      (i) at predefined periods;
      (ii) upon occurrence of predefined events;
      (iii) during enquiries regarding the situation of an insurance or reinsurance undertaking;

(b) to obtain any information regarding contracts which are held by intermediaries or regarding contracts which are entered into with third parties; and
(c) to require information from external experts, such as auditors and actuaries.

2a. Member States shall, taking into account the information required in paragraph 1 and 2 and the principles set out in paragraphs 3 and 4, require insurance and reinsurance undertakings to submit to the supervisory authorities a Regular Supervisory Report.

3. The information referred to in paragraphs 1 and 2 shall comprise the following:
(a) qualitative or quantitative elements, or any appropriate combination thereof;
(b) historic, current or prospective elements, or any appropriate combination thereof; and
(c) data from internal or external sources, or any appropriate combination thereof.

4. The information referred to in paragraphs 1 and 2 shall comply with the following principles:
(a) it must reflect the nature, scale and complexity of the business of the undertaking concerned, and in particular the risks inherent in that business;
(b) it must be accessible, complete in all material respects, comparable and consistent over time; and
(c) it must be relevant, reliable and comprehensible.

5. Member States shall require insurance and reinsurance undertakings to have appropriate systems and structures in place to fulfil the requirements laid down in paragraphs 1 to 4 as well as a written policy, approved by the administrative, management or supervisory body of the insurance or reinsurance undertaking, ensuring the ongoing appropriateness of the information submitted.

5a. When undertakings have been classified as low risk profile undertakings according to Articles 6a and 6b of Delegated Regulation (EU) 2015/35, the frequency of the Regular Supervisory Report referred to in paragraph 2a shall be of every 3 years unless the supervisory authorities have duly justified concerns.

The frequency of the Regular Supervisory Report for the remaining undertakings shall consider the nature, scale and complexity of the risks of the undertaking and be as a minimum every 3 years.

6. Without prejudice to Article 129(4), where the predefined periods referred to in paragraph 2(a)(i) are shorter than one year the supervisory authorities concerned shall ~~may~~ limit regular supervisory reporting, where:
(a) the undertaking has been classified as low risk profile undertaking according to Articles 6a and 6b of Delegated Regulation (EU) 2015/35;

~~a~~b) the submission of that information would be overly burdensome in relation to the nature, scale and complexity of the risks inherent in the business of the undertaking;

(~~b~~c) the information is reported in the annual reporting package~~at least annually~~;

(d) the undertaking is able to provide the information upon request.

When the information is limited according to the paragraph above the relevant template as defined in the Implementing Technical Standards referred to in paragraph 10 shall always be reported at least with the data point referring to the result of the Minimum Capital Requirement.

~~Supervisory authorities shall not limit regular supervisory reporting with a frequency shorter than one year in the case of insurance or reinsurance undertakings that are part of a group within the meaning of Article 212(1)(c), unless the undertaking can demonstrate to the satisfaction of the supervisory authority that regular supervisory reporting with a frequency shorter than one year is inappropriate, given the nature, scale and complexity of the risks inherent in the business of the group.~~

The limitation to regular supervisory reporting shall be granted only to undertakings that do not represent more than 5%~~20%~~ of a Member State's life and non-life insurance and reinsurance market respectively, where the nonlife market share is based on gross written premiums and the life market share is based on gross technical provisions.

Supervisory authorities shall give priority to the undertakings complying with the criteria of low risk-profile undertakings as defined in Article 6a of Delegated Regulation (EU) 2015/35 and that have notified the supervisory authority as defined in Article 6b of that regulation, when determining the eligibility of the undertakings for those limitations.

Supervisory authorities may also exempt from regular supervisory reporting with a frequency shorter than one year additional undertakings up-to the limit of 20% of a Member State's market as defined above.

The exemption referred to in this paragraph may be withdraw by supervisory authorities at any time, duly justifying the reasons, to a specific undertaking in case of a change in the risk profile is observed or any early warning indicator is triggered leading to the need for more frequent reporting or to all undertakings in case supervisory authorities identify the need to monitor closely the market or economic deteriorating conditions are observed.

6a. Notwithstanding paragraph 6, where the predefined periods referred to in paragraph 2(a)(i) are shorter than one year, captive insurance and reinsurance undertakings shall be exempted from regular supervisory reporting on an item-by-item basis.

7. ~~The supervisory authorities concerned may limit regular supervisory reporting or exempt insurance and reinsurance undertakings from reporting on an item-by-item basis, where:~~

~~(a) the submission of that information would be overly burdensome in relation to the nature, scale and complexity of the risks inherent in the business of the undertaking;~~

~~(b) the submission of that information is not necessary for the effective supervision of the undertaking;~~

~~(c) the exemption does not undermine the stability of the financial systems concerned in the Union; and~~

~~(d) the undertaking is able to provide the information on an ad-hoc basis.~~

~~Supervisory authorities shall not exempt from reporting on an item-by-item basis insurance or reinsurance undertakings that are part of a group within the meaning of Article 212(1)(c), unless the undertaking can demonstrate to the satisfaction of the supervisory authority that reporting on an item-by-item basis is inappropriate, given the nature, scale and complexity of the risks inherent in the business of the group and taking into account the objective of financial stability.~~

~~The exemption from reporting on an item-by-item basis shall be granted only to undertakings that do not represent more than 20% of a Member State's life and non-life insurance or reinsurance market respectively, where the non-life market share is based on gross written premiums and the life market share is based on gross technical provisions.~~

~~Supervisory authorities shall give priority to the smallest undertakings when determining the eligibility of the undertakings for those limitations or exemptions.~~

7a. Captive insurance and reinsurance undertakings shall be exempted from regular supervisory reporting currency-by-currency information.

8. For the purposes of the fifth sub-paragraph of paragraph~~s~~ 6 ~~and 7~~, as part of the supervisory review process, supervisory authorities shall assess whether the submission of information would be overly burdensome in relation to the nature, scale and complexity of the risks of the undertaking, taking into account, at least:

(a) the classification as low risk profile as defined in Article 6a of Delegated Regulation (EU) 2015/35;

(a) ~~the volume of premiums, technical provisions and assets of the undertaking;~~

~~(b) the volatility of the claims and benefits covered by the undertaking;~~

(b) the market risks that the investments of the undertaking give rise to;

(c) the level of risk concentrations;

(e) ~~the total number of classes of life and non-life insurance for which authorisation is granted;~~

(d) possible effects of the management of the assets of the undertaking on financial stability;

(e) the systems and structures of the undertaking to provide information for supervisory purposes and the written policy referred to in paragraph 5;

(h) ~~the appropriateness of the system of governance of the undertaking;~~

~~(i) the level of own funds covering the Solvency Capital Requirement and the Minimum Capital Requirement;~~

~~(j) whether the undertaking is a captive insurance or reinsurance undertaking only covering risks associated with the industrial or commercial group to which it belongs.~~

9. The Commission shall adopt delegated acts in accordance with Article 301a specifying the information referred to in paragraphs 1 to 4 of this Article, ~~and~~ the deadlines for the submission of that information, with a view to ensuring to the appropriate extent convergence of supervisory reporting and criteria for limited supervisory reporting for captive insurance and reinsurance undertakings.

10. In order to ensure uniform conditions of application of this Article, EIOPA shall develop draft implementing technical standards on regular supervisory reporting with regard to the templates for the submission of information to the supervisory authorities referred to in paragraphs 1 and 2, including the risk-based thresholds establishing the trigger for reporting requirement when applicable or any exemption of specific information for certain types of undertakings such as captive insurance and reinsurance undertakings considering the nature, scale and complexity of the risks of specific types of undertakings.
~~EIOPA shall submit those draft implementing technical standards to the Commission by 30 June 2015.~~
Power is conferred on the Commission to adopt the implementing technical standards referred to in the first subparagraph in accordance with Article 15 of Regulation (EU) N° 1094/2010.

11. In order to enhance a coherent and consistent application of paragraphs 6 and 7, EIOPA shall issue guidelines in accordance with Article 16 of Regulation (EU) N° 1094/2010 to further specify the methods to be used when determining the market shares referred to in the third subparagraph of paragraphs 6 and 7 and further specify the process to be used by the supervisory authorities to inform the insurance and reinsurance undertakings about any exemption of quarterly reporting.

EIOPA Guidelines on the methods for determining the market shares for reporting

Guideline 1 – Scope of market

National competent authorities should ensure that the market share:

a) includes the business underwritten by all insurance and reinsurance undertakings which are established according to Article 2 of Solvency II Directive;
b) does not include the business underwritten by insurance and reinsurance undertakings that meet the criteria laid down in Article 4 of Solvency II Directive.

Guideline 2 – Calculation of the Life Market

National competent authorities should ensure that the life insurance and reinsurance market is determined annually by aggregating the amount of gross technical provisions of the life business, including technical provisions for index-linked and unit-linked insurance, of the relevant insurance and reinsurance undertakings identified in Guideline 1.

Guideline 3 – Calculation of the Non-Life Market

National competent authorities should ensure that the non-life insurance and reinsurance market is determined annually by aggregating the amount of gross written premiums of the non-life business of the relevant insurance and reinsurance undertakings identified in Guideline 1.

Guideline 4 – Inclusion of the business of insurance and reinsurance undertakings with a different financial year than the calendar year end in the market

National competent authorities should ensure that where an insurance or reinsurance undertaking has a different financial year than the calendar year, the latest annual information available is considered in the calculation of the non-life or life market.

Guideline 5 – Treatment of insurance and reinsurance undertakings that pursue both life and non-life insurance obligation

National competent authorities should ensure that an insurance or reinsurance undertaking which has business in both the non-life and the life market are not exempted if its business is above the 5% threshold in one of the market shares.

Guideline 6 – Information to be used to determine the market

~~National competent authorities should consider the latest annual information available from the solvency regime previously in place to the maximum extent possible to apply Guidelines 1 to 5 regarding the first and second year of Solvency II Directive's application.~~

National competent authorities should consider the information reported in the annual quantitative reporting templates S.05.01 and S.12.01 as defined under the Implementing Technical Standard on Supervisory Reporting~~ of the third and following years after the application of Solvency II Directive~~.

Guideline 7 - Information to undertakings

National competent authorities should inform the AMSB of the undertaking, the latest within 2 months of the reception of the annual reporting of the end of year n-1 [for info: 16 weeks + 8 weeks – around June of year n] that the undertaking is exempted from quarterly reporting in year n+1, starting on the first quarter ending in n+1.

If an insurance undertaking is exempted from quarterly reporting in year n and does not receive such notification after 26 weeks after the end of December of year n-1, it should continue to be exempted from quarterly reporting for the year n+1.

National competent authorities should inform the AMSB of the undertaking, the latest within 2 months of the reception of the annual reporting of the end of year n-1 [for info: 16 weeks + 8 weeks – around June of year n] that the undertaking is no longer exempted from quarterly reporting in year n+1, starting on the first quarter ending in n+1.

In case the aggregated market share of the undertakings classified as Low Risk Profile Undertakings in the specific Member State is higher than the 5% and due to the market structure the national competent authorities observe that the number of undertakings being exempted or not is very volatile, the national competent authority may decide to perform the assessment only every odd year.

[for info: This should provide undertakings with more than 10 months preparation to start reporting quarterly (first reporting due 6 weeks after end March)].

~~Guideline 8 – Information to undertakings that are part of a group~~

~~National competent authorities should inform the insurance or reinsurance undertakings that are part of a group of the process, including the timeframe, to demonstrate to the satisfaction of the supervisory authority that quarterly reporting or reporting on an item-by-tem basis is inappropriate, given the nature, scale and complexity of the risks inherent to the business of the group and taking into account the objective of financial stability.~~

~~Guideline 9 – Consultation with the group supervisor~~

~~When assessing the request for exemption of insurance or reinsurance undertakings that are part of a group, national competent authorities should take into account the opinion of the group supervisor.~~

Annex 11.1 - Triggers, risk profile, systemic risk drivers and transmission channels

Triggering events (Examples)	Risk profile of the company	Potential systemic risk drivers	Main transmission channels
• **Macroeconomic factors** ○ Unemployment ○ Inflation ○ Bubbles (e.g. housing) ○ Others • **Financial factors** ○ Yield movements ○ Market prices (equity, fixed income, etc.) ○ State of the banking system ○ Financial innovation ○ Others • **Non-financial factors** ○ Demographic changes (mortality/ longevity) ○ Natural catastrophes ○ Legislative changes ○ Political changes ○ Technological changes ○ Consumer/ policyholder behaviour (e.g. mass lapses, etc.) ○ Cyber attack ○ Others	• **Market risks** ○ Interest rate ○ Equity ○ Property ○ Etc. • **Health risks** ○ Mortality ○ Longevity ○ Lapse ○ Etc. • **Default risks** • **Life risks** ○ Technical provision ○ Mortality ○ Longevity ○ Lapse ○ CAT ○ Etc. • **Non-life risks** ○ Premium reserve ○ Lapse ○ CAT • **Operational risk** (incl. fraud) • **Model risk**	**Entity-based related sources – Direct sources** ➢ Deterioration of the solvency position leading to: a) Failure of a G-SII, D-SII b) Collective failures of non-systemically important institutions as a result of exposures to common shocks	
		• Size • Global activities • Interconnectedness ○ Counterparty exposure ○ Macroeconomic exposure • Substitutability (incl. market niches)	• Exposure channel • Lack of supply of certain products • Expectations and information asymmetries • Asset liquidation
		Activity-based related sources – Indirect sources (i) ➢ Involvement in certain activities or products with greater potential to pose systemic risk ➢ Potentially dangerous interconnections	
		• Derivative trading (non-hedging) • Financial guarantees (incl. monolines) • Asset lending (e.g. securities lending) and management activities • Direct lending • Lapsable products and products that entail maturity transformation • Guaranteed products • Variable annuities	• Exposure channel • Asset liquidation channel • Bank-like activities channel (maturity transformation and leverage)
		Behaviour-based related sources – Indirect sources (ii) ➢ Collective behaviour by insurers that may exacerbate market price movements (e.g. fire-sales or herding behaviour) ➢ Excessive risk-taking by insurance companies ➢ Excessive concentrations ➢ Inappropriate provisioning (e.g. under-pricing as a result of competitive dynamics)	
		• Concentrations in certain asset classes and common exposures on the asset side • Excessive risk taking ○ 'Search for yield' ○ Too-big-to-fail/moral hazard problems • Heightened competition potentially leading to insufficient technical provisions or premiums	• Exposure channel • Asset liquidation channel

Annex 13.1 - Overview of existing national IGSs and other mechanisms

Disclaimer: This table only provides an overview of the national IGSs and other mechanisms currently in place in the Member States. It does not represent a pre-assessment of the mechanisms that could be considered compliant with the set of harmonised features proposed in the Opinion.

Country	Name of IGS	Type of business lines covered by IGS
Austria	Deckungsstock	• **Non-life insurance:** Health and accident insurance, as far as these are operated in a manner similar to life insurance • **Life insurance:** All types of life insurance
Belgium	Agence fédérale des Risques professionnels / Federaal Agenschap voor Beroepsrisico's	• **Non-life insurance:** Medical expense insurance, income protection insurance and workers' compensation insurance • **Life insurance:** Annuities stemming from non-life insurance contracts and relating to health insurance obligations and annuities stemming from non-life insurance contracts and relating to insurance obligations other than health insurance obligations
	Fonds de garantie pour les services financiers / Garantiefonds voor financiële producten	• **Life insurance:** Insurance with profit participation
Bulgaria	Compensation Fund of the Guarantee Fund	• **Non-life insurance:** Motor vehicle liability insurance, compulsory accident insurance for passengers in public transport vehicles • **Life insurance:** Insurance with profit participation, index-linked and unit-linked insurance and other life insurance
Croatia	N/A	
Cyprus	N/A	

Czech Republic	N/A	
Denmark	Guarantee Fund for non-life insurance companies	• **Non-life insurance:** Medical expense, Income protection, Workers' compensation, Motor vehicle liability, Other motor, Marine, aviation and transport, Fire and other damage to property, General liability, Legal expenses, Assistance, Miscellaneous financial loss, General property, Casualty insurance
Estonia	Pension Contracts Sectoral Fund of the Guarantee Fund	• Pension contracts which are insurance contracts for mandatory funded pensions
Finland	Joint guarantee payment system - Patient Insurance Centre	• **Non-life insurance:** General liability insurance (statutory patient insurance only)
	Joint guarantee payment system - Worker's Compensation Centre	• **Non-life insurance:** Workers' compensation insurance (statutory workers' compensation insurance only)
France	Fonds de garantie des assurances de personnes	• **Life insurance:** All types of life and health insurance
	Fonds de garantie des assurances obligatoires	• **Non-life insurance:** Motor vehicle liabilities and construction insurance
	Fonds de garantie des dommages consécutifs à des Actes de Prévention, de Diagnostic ou de Soins dispensés par des professionnels de santé	• **Non-life insurance:** Medical liabilities
Germany	Deckungsstock / Sicherungsvermögen	• **All life and health insurance business**
	Sicherungsfonds für die Lebensversicherer	• **Life insurance:** Insurance with profit participation, index-linked and unit-linked insurance and other life insurance
	Sicherungsfonds für die Krankenversicherer	• **Health insurance calculated TP similar to Life**

	Verkehrsopferhilfe e.V.	• **Non-life insurance:** Motor vehicle liabilities in the event of insolvency of motor insurers and accidents caused by uninsured or unknown cars.
	Deckungsstock / Sicherungsvermögen	• **For all non-life policies**: BaFin has got the specific power to instruct undertakings to add all assets, open claims towards policyholders, open claims to reinsurers and all other open claims directly to the Deckungsstock / Sicherungsvermögen, shortly before BaFin is submitting the insolvency file towards court.
Greece	Private Life Insurance Guarantee Fund	• **Life insurance:** Insurance with profit participation and index-linked and unit-linked insurance
	Auxiliary Fund	• **Non-life insurance:** Motor vehicle liabilities in the event of insolvency of motor insurers
Hungary	Kártalanítási Alap	• **Non-life insurance:** Motor vehicle liabilities in the event of insolvency of motor insurers
Iceland	N/A	
Ireland	Insurance Compensation Fund	• **Non-life insurance:** Motor vehicle liability, Other motor, Fire and other damage to property, General liability, Credit and suretyship, Legal expenses, Assistance, Miscellaneous financial loss, General property, Casualty insurance
Italy[455]	Fondo di garanzia per le vittime della strada	• **Non-life insurance:** Motor vehicle and craft liabilities
	Fondo di garanzia per le vittime della caccia	• **Non-life insurance:** General liability insurance for hunting victims
Latvia	Fund for the Protection of the Insured	• **Non-life insurance:** Accident, health (insurance against illnesses), motor transport (except railway transport), property insurance against damage by fire and natural disasters, property insurance against other damage, motor vehicle owner third party liability insurance, general third party liability insurance and assistance insurance

[455] An IGS for mandatory medical liabilities was introduced by the national law no. 24 of 2017, although its regulatory implementation has not yet been finalised.

		- **Life insurance:** Life, marriage and child birth, tontine, capital redemption transactions and annuity
Liechtenstein	N/A	
Lithuania	N/A	
Luxembourg	N/A	
Malta	Protection and Compensation Fund	- **Non-life insurance:** Medical expense, Workers' compensation, Motor vehicle liability, Other motor, Fire and other damage to property, General liability, Legal expenses, Assistance, Miscellaneous financial loss, General property, Casualty insurance - **Life insurance:** Life and annuity, marriage and birth, permanent health insurance, pension fund management, social insurance
Netherlands	Waarborgfonds Motorverkeer Zorginstituut Nederland Resolution Fund	- Motor vehicle liability - Compulsory health care - Both life and non-life insurance[456]
Norway	Garantiordningen for Skadeforsikring	- **Non-life insurance:** Medical expense, Income protection, Workers' compensation, Motor vehicle liability, Other motor, Fire and other damage to property, General liability, Legal expenses, Assistance, Miscellaneous financial loss, General property, Casualty insurance

[456] The resolution fund facilitates resolution of insurers. It is funded ex-post and it can be used 1) to compensate creditors, including policyholders, in case the NCWO safeguard has been violated; 2) to return to the bankrupt estate any pay-out of a failing insurer that has been deemed too high; and 3) to cover operational costs of resolution, such as the establishment of a bridge institution. It cannot be used to absorb losses or capitalize a failing insurer. In addition, the new resolution act and the insolvency act contain provisions, which allow the resolution authority and the trustee to (partly) continue payments to those policy holders that rely on these payments, after the insurer has failed.

		• **Life insurance:** Annuities stemming from non-life insurance contracts and relating to health insurance obligations and annuities stemming from non-life insurance contracts and relating to insurance obligations other than health insurance obligations
Poland	Ubezpieczeniowy Fundusz Gwarancyjny[457]	• **Non-life insurance:** Compulsory motor TPL and farmers TPL insurance, compulsory insurance of the farm buildings being the part of the agricultural farm, other compulsory insurance contracts • **Life insurance:** Life insurance contracts
Portugal	Fundo de Acidentes de Trabalho Fundo de Garantia Automóvel	• **Non-life insurance:** Workers' compensation • **Motor vehicle liability insurance**
Romania	Policyholder Guarantee Fund	• **Non-life insurance:** All contracts • **Life insurance:** All contracts • **Reinsurance:** All contracts
Slovakia	N/A	

[457] Ubezpieczeniowy Fundusz Gwarancyjny (UFG) is responsible for payment compensations and benefits to the injured parties in traffic accidents and collisions caused by uninsured motor vehicles' owners and uninsured farmers (each of these groups is obliged to have valid third party liability insurance (TPL)) and is also responsible for making payments to the injured parties in traffic accidents when the person liable has not been identified. Additionally only in case of the bankruptcy of insurance undertaking, UFG satisfies the claims of the entitled persons from:

- compulsory motor TPL and farmers TPL insurance,
- compulsory insurance of the farm buildings being the part of the agricultural farm,
- compulsory insurance resulting from separate acts or international agreements ratified by the Republic of Poland, imposing on certain entities (persons) the obligation to be insured and life insurance contracts in the amount of 50% of eligible receivables to an amount not exceeding in PLN equivalent of 30,000 EUR at the average exchange rate published by the National Bank of Poland (NBP) as valid on the date of declaration of bankruptcy, dismissal the motion of the bankruptcy declaration or discontinuance of bankruptcy proceedings or ordering of compulsive liquidation.

Slovenia	N/A[458]	
Spain	Consorcio de Compensación de Seguros	• **Non-life insurance:** Medical expense, Income protection, Workers' compensation, Motor vehicle liability, Other motor, Marine, aviation and transport, Fire and other damage to property, General liability, Credit and suretyship, Legal expenses, Assistance, Miscellaneous financial loss, General property, Casualty insurance • **Life insurance:** Health, Insurance with profit participation, Index-linked and unit-linked, Annuities stemming from non-life insurance contracts and relating to health insurance obligations, Annuities stemming from non-life insurance contracts and relating to insurance obligations other than health insurance obligations
Sweden	N/A	

[458] It should be noted that the scheme established under the MID (Guarantee Fund of Slovenian Insurance Association) is intended for the payment of:

- damages caused to injured parties by drivers of uninsured and unknown motor vehicles and trailers,
- damages caused to injured parties by uninsured aircraft or other flying devices,
- damages caused to injured parties by drivers of uninsured boats,
- claims for passengers in public transport following an accident, if the owner of the means of transport does not have an insurance contract, *and*
- part of the compensation not paid from the bankruptcy estate of an insurance company bound to pay damages and against which bankruptcy proceedings have been instigated.

Annex 13.2 - Options for operationalisation of the home-country principle

Operationalisation of the Home country principle		Pros and Cons			
		Operational and legal complexity and responsibility of home supervisor	**Funding costs**	**Policyholder protection**	**Cross-border implications**
Option 1 ➢ **Home country pays** ➢ **Host country decides covered LoB** ➢ **Host country decides coverage**	**Pros**	• Places highest responsibility in home supervisor, favouring level playing field in supervisory action given that the Home IGS always intervenes in case of cross-border failures involving outward FoS / FoE in covered in business lines decided by the Host country.	• No funding costs for the Host IGS in relation to inward FoS/FoE.	• Ensures actual and equal coverage of all PHs in the host MS, particularly in cases where some LoB are not covered or do not exist in the home MS, but are covered by the host IGS. • PHs do not have to seek the information or do not have to be informed whether their policy is covered, as they can rely on the practice in their Member State of residence. • Discourages authorizations by Home Supervisor of cross-border operations conducted by fragile (or insufficiently seasoned) insurers. • As a result, it contributes to solve the negative implications to PH due to cross-border failures occurring in the EU	• As the home IGS has to intervene for all policies sold in host countries, Option 1 shall contribute to correct the passporting issues, and consequently increase confidence in Single Market and EU institutions.

	Cons	• Potentially high operational and legal complexity for the home MS, because the Home IGS has to consider all the business lines covered by the Host MSs where home insurers operate. • This implies the need to have a legal knowledge of the framework related to each of these Host business lines.	• Potentially high funding costs for Home IGSs. • Indeed, the home MS has to pay for the LoB lines and amounts decided by the Host MS. At first, this might generate more costs for Home IGSs than the other options, when the rules of the host MS cover line of business not covered in the home MS or provide for higher compensation than the Home MS. • However, the high responsibility placed on Home supervisors makes it likely that, if this option is retained, home authorities are too restrictive regarding the authorisation of insurers to operate cross-border.	• PH of the same insurer will be treated differently, depending on the country in which they are based. • Leads to the undesirable situation where PH of the same failed insurer would be treated differently purely depending on their place of residence, even if they hold an identical insurance policy.	• Needs to ensure that for each cross-border business undertaken, there is a corresponding IGS that will provide payment for the LoBs that are protected if needed. This issue also exists for Options 4 and 5. However, it should be noted that EC's proposal on motor liability insurance will result in having a "minimum" IGS in all EU MSs. • Potential problems if lack of compatibility between Compensation IGS and Continuity IGS (e.g. how should financing/system work when Home MS has chosen compensation and Host MS continuation of policy?) • Different levels of protection for EU citizens. • If mostly incoming insurers provide specific business lines in a host Member State, this Member State could define a very high coverage for such business lines.
Option 2 ➢ **Home country pays** ➢ **Home country decides covered LoB** ➢ **Home country decides coverage**	**Pros**	• Less operational and legal complexity than the other options. Home MS would not need to be familiarised with the rules in the host MSs. Therefore easier to handle for the home MS and less costs in terms of external legal advice.	• Fundamentally less funding costs for Home IGSs than the other options.	• Ensures actual and equal coverage of all PHs of one insurer. No different treatment between the PHs of one insurer depending on the place of residence of the PH.	• Allows to apply the home MS rules and takes into account the spirit of pass-porting in the Single Market.
	Cons	• Lesser responsibility, for home supervisors. They will not "foot the bill" when a cross-border insurer, operating in other LoB than those decided by the Home MS, will default.	• Potentially high funding costs for Host IGSs, whenever defaulting cross-border insurers predominantly operate in LoBs that	• Different treatment between the PHs in the Host MS depending on the location of the insurer.	• Does not ensure a fully equal treatment of all PHs, particularly when some LoBs are not covered or do not exist in the home MS

			are not covered by the Home IGS.		• Will not solve negative implications due to cross-border failures occurring in the EU. • Could not solve the problem to attract aggressive pass-porting insurers which eventually can default, in LoBs not covered by Home IGS. • Based on evidence of past cross-border failures occurred in one EU country, this option could result, in practice, in a host-country system. This could occur if the lines of business in which the failed cross-border insurer engages in the host country are not covered by the home country. • Does not resolve the issue of different levels of protection for EU citizens which is one of the objectives of this proposal.
Option 3 ➢ **Home country pays minimum EU harmonised coverage level for all LoB agreed**	**Pros**	• Ensures a balance, compared to other options, in terms of less operational and legal complexity. • It places a proportion of the responsibility on the home supervisor (but only for the passported LoBs agreed at EU level). These LoBs might not be, in practice, those where fragile insurers will passport.	• Puts a cap on the funding costs of the Home IGS, by using as an anchor the EU harmonised coverage level for the agreed business lines. The funding costs could be higher than for Option 2.	• Same as option 2. • In addition, all PHs of the defaulting insurer are treated in the same way (apart from those that benefit from top-up by the Host IGS).	• It may partially correct the pass-porting issue, because the Home IGS has to intervene for all the LoB agreed at EU level.

at the EU level ➢ **Host country to top up if needed to ensure consistency at the national level**	**Cons**	• Limited enhancement of the responsibility of the home supervisor in relation to the IGS intervention. The Home IGS would intervene in case of cross-border failures of the home insurers only for the business lines agreed at EU level.	• Potentially high funding costs for host MS, whenever defaulting cross-border insurers predominantly operate in LoB not agreed at EU level.	• Different treatment between the PHs in the Host MS depending on the location of the insurer, when defaulting insurers are active in LoBs that are not covered at EU level (similar to Option 2).	• Depending on the business lines affected, this option may not allow solving some negative outcomes, such as the several cross-border failure cases which already occurred in the EU. • It can result in attracting aggressive pass-porting insurers, which eventually can default, in LoB which will not be agreed at EU level. • Based on evidence of past cross-border failures occurred in one EU country, it could result, in practice, in a host-country system in cases of cross-border failures (see above). • Does not ensure an equal coverage of PHs, particularly in LoB not agreed at EU level with regard to which fragile insurers incur the risk of being authorised to operate cross-border.
Option 4 ➢ **Home country pays minimum EU harmonised coverage level for all LoB covered by the host** ➢ **Host country to top up if needed**	**Pros**	• Places high responsibility in home supervisor, favouring level playing field in supervisory action.	• Lower funding costs for host IGSs.	• Ensures actual and equal coverage of all PHs in host MS, if the host IGS tops up when the covered amount is lower. • May allow solving some negative implications to PH due to the cross-border failure cases occurring in the EU. • Discourages authorizations by Home Supervisor of cross-border operations conducted by fragile, insufficiently seasoned insurers.	• The Home IGS has to intervene for all the policies sold in the host countries and not only for the LoB that should be covered at EU level and this may correct the pass-porting issues, and consequently increase confidence in Single Market and EU institutions.

	Cons	- Potentially high operational and legal complexity for the home country, given that the Home MS IGS has to consider all the business lines covered by the Host country, where home insurers sell policies across the MS. - This implies the need to have a legal knowledge of the framework related to each of these Host business lines.	- Potentially high funding costs for Home IGSs and unclear funding rules. The home IGS has to pay the EU-agreed amount for the LoBs decided by the Host. At first, this might generate more costs for IGS of home MS than the other options, when the rules of the host MSs cover LoB not covered in the home MS or provide for a higher compensation than in the Home MS. - However, the high responsibility placed on Home supervisors makes it likely that, if this option is retained, home authorities are too restrictive regarding the authorisation of insurers to operate cross-border.	- PH of the same insurer will be treated differently, depending on the country in which they are based. - Leads to the undesirable situation where PH of the same failed insurer would be treated differently purely depending on their place of residence, even if they hold an identical insurance policy.	- Problems due to potential lack of compatibility between Compensation IGS and Continuity IGS. - It is not clear how the funding would work when Home MS has chosen compensation and Host MS continuation of policy.
Option 5 ➢ **Home country pays minimum EU harmonised coverage level for all LoB agreed at EU level, including any compulsory insurance by the host paid at level of the host** ➢ **Host IGS to top up the non-compulsory business lines agreed at EU level if**	**Pros**	- Places substantial responsibility in home supervisor, favouring level playing field in supervisory action, given that Home IGS is likely to intervene in cross-border failures involving outward FoS / FoE in mandatory LoBs in the Host country.	- With the exception of the compulsory insurance, this option puts a cap on the funding costs of the Home IGS, by using as an anchor the EU harmonised coverage level for the agreed business lines.	- Ensures coverage of the compulsory insurances of the host. However, there is less coverage than in Option 1 & 4, which are covering all business lines covered by the host. - May address negative implications for PH due to the several cross-border failure cases which had already occurred in the EU. - Discourages authorizations by Home Supervisor of cross-border operations by fragile (or insufficiently seasoned) insurers in LoBs that are mandatory in Host.	- It may likely correct the pass-porting issue, because the Home IGS has to intervene for all the compulsory insurances sold in the host countries and not only for the LoB with reference to which it should be achieved an agreement at EU level.
	Cons	- Same cons and remarks, as under Option 1. Potentially high operational and legal complexity, given that the Home MS has to establish an IGS	- Potentially high funding costs for the Home country,	- Different treatment of PHs across countries depending on where they are located, but at least a minimum	- Does not completely resolve the issue of different levels of protection for PHs.

needed to ensure consistency at the national level		mechanism for all the compulsory insurances covered by the Host country where home insurers sell policies across the MSs. • This implies the need to have a legal knowledge of the framework related to each of these compulsory insurances.	but less elevated than in Option 1 & 4.	harmonisation is ensured across the EU. • Leads to the undesirable situation where PH of the same failed insurer would be treated differently purely depending on their place of residence, However, many compulsory insurances can be specific to a given Member State and are thus unlikely to be held across more than one Member State.	

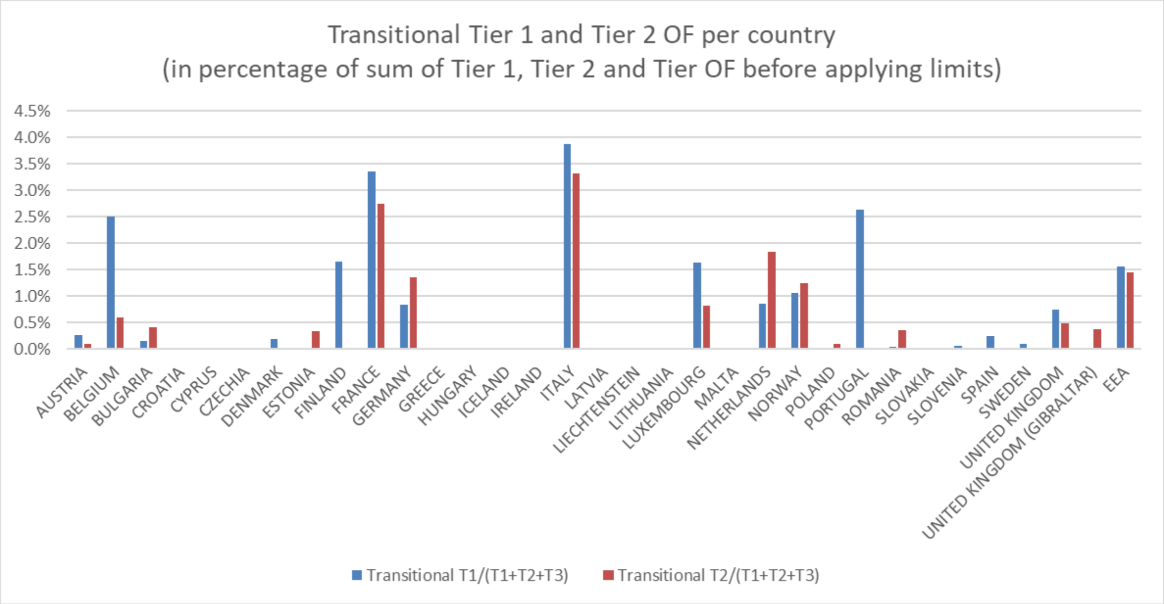
Annex 14.1 - Application of the transitional on own funds

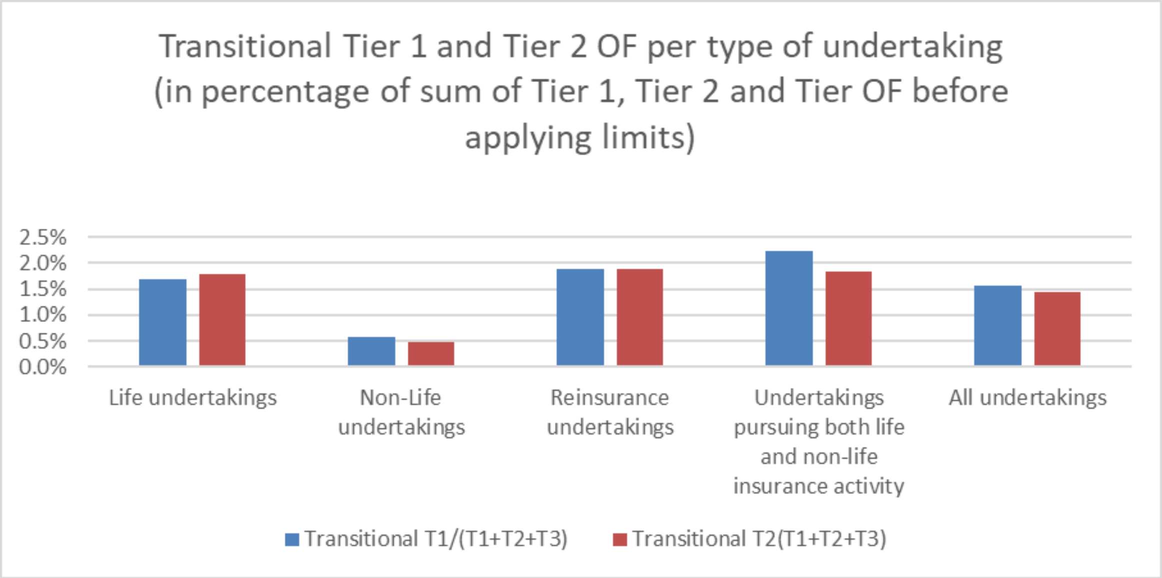
A.646 The tables and diagrams of this annex provide information on the application of the transitional of own funds (Article 308b(9) and (10) of the Solvency II Directive).

Total amount of transitional own funds for all undertakings and comparison with all own funds				
	Tier 1	**Tier 2**	**Tier 3**	**All Tiers** (before applying limits)
All own funds [EUR bn]	1,510	104	11	1,625
Transitional own funds [EUR bn]	25	23	-	49
Share of transitional own funds	1.7%	22.4%	0%	3.0%

Relevance of transitional own funds for individual undertakings	
Share of transitional own funds In percentage of all own funds before applying limits	**Number of undertakings**
]0%, 5%]	32
]5%, 10%]	43
]10%, 15%]	19
]15%, 20%]	17
]20%, 25%]	6
]25%, 30%]	6
]30%, 35%]	8
]35%, 40%]	-
]40%, 45%]	-
]45%, 50%]	1
]50%, 55%]	2

]55%, 60%]	1
]0%, 100%]	**135**





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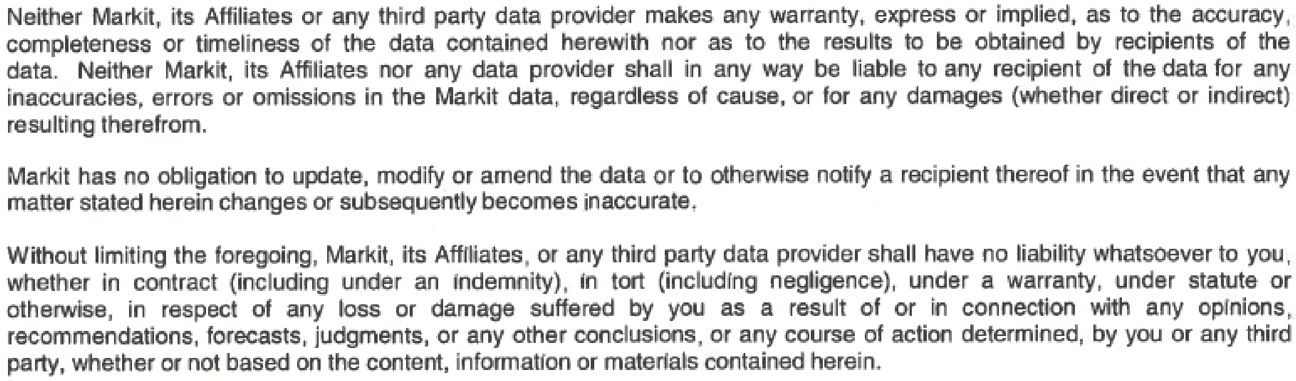

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