EIOPA-14/036
2 June 2014

Consultation Paper on the proposal for Guidelines on Solvency II relating to Pillar 1 requirements

EIOPA | WesthafenTower | Westhafenplatz 1 | 60327 Frankfurt | Germany
Phone: +49 69 951119-20 | Fax: +49 69 951119-19 | info@eiopa.europa.eu | www.eiopa.europa.eu

Table of Contents

Responding to this paper 3
Consultation paper overview & next steps 4
I. Technical provisions 5
A. Contract boundaries 5
B. Valuation of technical provisions 18
II. Own funds 109
A. Ancillary own funds 109
B. Classification of own funds 116
C. Ring-fenced funds 144
D. Treatment of related undertakings, including participations 166
III. Solvency Capital Requirements: Standard Formula 200
A. Look-through approach 200
B. Basis Risk 207
C. Application of outwards reinsurance arrangements to the non-life underwriting risk sub-module 211
D. Treatment of market and counterparty risk exposures in the standard formula 252
E. Application of the life underwriting risk module 261
F. Health catastrophe risk sub-module 266
G. Loss-absorbing capacity of technical provisions and deferred taxes 278
H. Undertaking-specific parameters 302
IV. Groups 320
A. Group Solvency 320
Compliance and Reporting Rules 375
1. Compliance and Reporting Rules 375
2. Final Provision on Reviews 375

Responding to this paper

EIOPA welcomes comments on the Consultation Paper on the proposal for Guidelines on Solvency II relating to Pillar 1 requirements.

Comments are most helpful if they:

- contain a clear rationale; and
- describe any alternatives EIOPA should consider.

Please send your comments to EIOPA in the single Template for Comments provided for the Set 1 of the Solvency II Guidelines to the address Consultation_GLset1_SII@eiopa.europa.eu by 29 August 2014.

Contributions not provided in the template for comments, or sent to a different email address, or after the deadline will not be processed.

Publication of responses

All contributions received will be published following the close of the consultation, unless you request otherwise in the respective field in the template for comments. A standard confidentiality statement in an email message will not be treated as a request for non-disclosure.

Please note that a request to access confidential responses may be submitted in accordance with EIOPA's rules on public access to documents[1]. We may consult you if we receive such a request. Any decision we make not to disclose the response is reviewable by EIOPA's Board of Appeal and the European Ombudsman.

Data protection

Information on data protection can be found at www.eiopa.europa.eu under the heading 'Legal notice'.

[1] https://eiopa.europa.eu/fileadmin/tx_dam/files/aboutceiops/Public-Access-(EIOPA-MB-11-051).pdf

Consultation paper overview & next steps

EIOPA carries out consultations for Guidelines and Recommendations in accordance with Article 16 (2) of Regulation (EU) 1904/2010 of 24 November 2010 (hereafter: EIOPA Regulation).

This Consultation Paper is being issued on the following Solvency II topics related to Pillar 1 requirements:

- Technical provisions, including contract boundaries and the valuation of technical provisions;

- Own funds, including ancillary own funds, classification of own funds, ring-fenced funds, and related undertakings;

- Solvency capital requirements including catastrophe risk, life underwriting risk, market risk, basis risk, the look-through approach, undertaking-specific parameters, the loss absorbing capacity of technical provisions and deferred taxes and group solvency calculation.

This Consultation Paper presents the draft Guidelines, technical annexes, explanatory texts and appendices where relevant.

The analysis of the expected impact from the proposed policy is covered in the separate Consultation Paper on Impact Assessment which is available on EIOPA's website (CP-14/039).

Next steps

EIOPA will consider the feedback received and expects to publish a final report on the consultation. The final Guidelines are subject to adoption by the Board of Supervisors of EIOPA.

I. Technical provisions

A. Contract boundaries

1. Guidelines

Introduction

1.1. According to Article 16 of Regulation (EU) 1904/2010 of 24 November 2010 (hereafter, EIOPA Regulation) EIOPA is issuing Guidelines based on Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) and in particular Articles 76 (1) and 78 as well as [Articles 12TP1 and 13TP2 of the draft Implementing Measures].

1.2. The Guidelines on Contract Boundaries are formulated to increase consistency and convergence of professional practice for all types and sizes of undertakings across Member States and to support undertakings in calculating the best estimate and risk margin of technical provisions under Solvency II. The Guidelines will be ultimately applied both by actuaries and by other professionals who may be appointed to carry out the tasks of the actuarial function.

1.3. The Guidelines are addressed to supervisory authorities under Solvency II.

1.4. The Guidelines apply to insurance and reinsurance undertakings and promote a consistent application of an insurance or reinsurance contract boundary for the purpose of determining a boundary between existing and future businesses. The Guidelines provide guidance to determine which insurance or reinsurance obligations with regard to future premiums arise in relation to a contract in accordance with [Articles 12TP1 and 13TP2 of the draft Implementing Measures].

1.5. If not defined in these Guidelines, the terms have the meaning defined in the legal acts referred to in the introduction.

1.6. The Guidelines shall apply from 1 April 2015.

Guideline 1 – Unbundling

1.7. Insurance and reinsurance undertakings should ensure that if they unbundle an insurance or reinsurance contract, all provisions relating to such contract are applied to the different parts of the unbundled contract according to their nature.

Guideline 2 – Consistent application of the principles

1.8. Insurance and reinsurance undertakings should ensure that the principles for determining contract boundaries are consistently applied to all insurance and reinsurance contracts, in particular over time.

Guideline 3 – Unilateral right

1.9. Insurance and reinsurance undertakings should consider the right to terminate, reject, or amend premiums or benefits payable under an insurance or reinsurance contract as being unilateral when neither the policy holder nor any third party can restrict the exercise of that right. For the purpose of this guideline, third parties do not include supervisory authorities.

1.10. In particular:

a) Where, in order to put the amendment of premiums and benefits into effect, the insurance or reinsurance undertaking is required to obtain an external assessment in accordance with the law or the terms and conditions of another agreement outside the insurance or reinsurance contract, the existence of such a requirement should limit the unilateral right of the undertaking only if the assessment gives the policy holder or any third party the right to interfere with the use of that right.

b) Undertakings should not consider reputational risk or competitive pressures as limitations of the unilateral right.

c) Undertakings should consider that national laws limit their unilateral right only if these laws restrict or give the policyholder or any third party the right to restrict the exercise of that right.

d) Undertakings should disregard the right to unilaterally amend premiums or benefits payable under the contract if the premiums or benefits payable depend solely on the decisions of the policy holder or the beneficiary.

Guideline 4 – Ability to compel

1.11. Insurance or reinsurance undertakings should recognise their ability to compel a policy holder to pay a premium only if the policyholder’s payment is legally enforceable.

Guideline 5 – Full reflection of the risk

1.12. When determining whether premiums are fully reflecting the risks covered by a portfolio of insurance or reinsurance obligations, insurance and reinsurance undertakings should assess whether, at the moment at which either premiums or benefits can be amended, there is no circumstance under which the undertaking does not have the right to amend premiums or benefits such that the expected present value of the premiums exceeds the expected present value of the benefits and expenses payable under the portfolio.

1.13. For the purpose of assessing whether premiums are fully reflecting the risks covered by a portfolio of insurance or reinsurance obligations in accordance with [Article 13 TP2 (3)], insurance and reinsurance undertakings should ensure that this portfolio consists of obligations for which the insurance or reinsurance undertaking can amend premiums and benefits under similar circumstances and with similar consequences.

1.14. Insurance and reinsurance undertakings should take into account any individual assessment of relevant features of the insured person that allow the undertaking to gather sufficient information in order to form an appropriate understanding of the risks associated with the insured person. In the case of contracts covering mortality risks or health risks similar to life insurance techniques, the individual risk assessment can be a self-assessment by the insured person or can include a medical examination or survey.

Guideline 6 – Unbundling of the contract

1.15. Insurance and reinsurance undertakings should determine whether it is possible to unbundle a contract:

a) by assessing whether, on the day when the valuation is made or at a future date, two or more parts of the contract are clearly identifiable, and for which it is possible to define different sets of obligations and premiums attributable to each part; and

b) by assessing whether it would be possible to communicate obligations of each set separately to the policy holder.

1.16. Insurance and reinsurance undertakings should consider two sets of obligations as being capable of being communicated separately to the policy holder where one set of obligations can be understood without reference to the other set of obligations.

1.17. Insurance and reinsurance undertakings should, when an option or guarantee covers more than one part of the contract, determine whether it is possible to unbundle it or whether it should be attributed to the relevant part of the contract.

Guideline 7 – Identification of a discernible effect on the economics of a contract

1.18. When determining whether the insurance coverage of an event or a financial guarantee has no discernible effect on the economics of a contract, insurance and reinsurance undertakings should take into account all potential future cash-flows which may arise from the contract.

1.19. Insurance and reinsurance undertakings should consider a financial guarantee of benefits as having a discernible effect on the economics of a contract only if the financial guarantee is linked to the payment of the future premiums and provides the policyholder with a discernible financial advantage in at least one scenario with commercial substance.

Guideline 8 – Discernible effect of the coverage of an event

1.20. Insurance and reinsurance undertakings should consider the cover of a specified uncertain event that adversely affects the insured person as having a discernible effect on the economics of the contract when the cover provides a discernible financial advantage to the beneficiary.

Guideline 9 – Estimation of obligations

1.21. Insurance or reinsurance undertakings should, where details of a contract or the full extent of the obligations covered by a contract are not available to the undertaking at the time of recognition of the contract, estimate the boundaries of the contracts using all available information in a manner consistent with the principles set out in these Guidelines.

1.22. Undertakings should revise this estimated assessment as soon as more detailed information is available.

Guideline 10 – Reinsurance contracts

1.23. Insurance and reinsurance undertakings should, for their accepted reinsurance contracts, apply the provisions of [Article 13TP2 of the draft Implementing Measures] independently from the boundaries of the underlying insurance or reinsurance contracts to which they relate.

2. Explanatory text

Guideline 3 – Unilateral Right

Insurance and reinsurance undertakings should consider the right to terminate, reject premiums, or amend premiums or benefits payable under the contract, as being unilateral, when neither the policy holder nor any third party can restrict the exercise of that right. For the purpose of this Guideline, third parties do not include supervisory authorities.

In particular:

a) Where, in order to put the amendment of premiums and benefits into effect, the insurance or reinsurance undertaking is required to obtain an external assessment in accordance with the law or the terms and conditions of another agreement outside the insurance contract, the existence of such a requirement should limit the unilateral right of the undertaking only if the assessment gives the policy holder or any third party the right to interfere with the use of that right.

b) Undertakings should not consider reputational risk or competitive pressures as limitations of the unilateral right.

c) Undertakings should consider that national laws limit their unilateral right only if these laws restrict or give the policyholder or any third party the right to restrict the exercise of that right.

d) Undertakings should disregard the right to unilaterally amend premiums or the benefits payable under the contract if the premiums or benefits payable depend solely on the decisions of the policy holder or the beneficiary.

2.1. In some jurisdictions the undertakings may amend the premiums and benefits only if another body consisting e.g. of representatives of policyholders agrees on it. To determine whether such a body should be considered as third party, undertakings should assess the scope of its responsibilities and the extent to which such a body is integrated into the structure and management of the undertaking. If the result of the assessment is that the body forms part of the management of the undertaking, this type of body should not be considered as third party and its decisions or opinions are regarded as taken by the undertaking. Where the body is performing an oversight function independent of the undertaking, it is considered as third party for the purpose of Guideline 3.

2.2. Some premium or benefit changes agreed upon at inception of the contract may depend on factors beyond the control of the undertaking (e.g. inflation, increase of salary). Such a change is not to be considered an amendment in terms of contract boundaries provided that the same premium structure as

agreed at the inception of the policy is used. E.g. lapses of such policies are considered as being policy holder behaviour in accordance with [article 21 TP8 (2) of the draft Implementing Measures]. In the terms and conditions of the policy, a certain payment or benefit plan is often agreed upon. The mere existence of such an agreement does not imply in itself that the change would be regarded as an amendment in terms of contract boundaries.

Guideline 4 – Ability to compel

Insurance or reinsurance undertakings should recognise their ability to compel a policy holder to pay a premium only if the policyholder's payment is legally enforceable.

2.3. The undertaking does not have the ability to compel the policyholder to pay the premium where the payment of the premium is not legally effective and enforceable. For instance, the holding by the insurance undertaking of the Bank Identifier Code of policy holders is not a means for insurers to compel policy holders to pay the premiums in particular for contracts with scheduled future premiums.

Guideline 5 – Full reflection of the risk

When determining whether premiums are fully reflecting the risks covered by a portfolio of insurance or reinsurance obligations, insurance and reinsurance undertakings should assess whether at the moment at which either premiums or benefits can be amended there is no circumstance when the undertaking does not have the right to amend premiums or benefits such that the expected present value of the premiums exceeds the expected present value of benefits and expenses payable under the portfolio.

For the purpose of assessing whether premiums are fully reflecting the risks covered by a portfolio of insurance or reinsurance obligations, insurance and reinsurance undertakings should ensure that this portfolio consists of obligations for which the insurance or reinsurance undertaking can amend premiums and benefits under similar circumstances and with similar consequences.

Insurance and reinsurance undertakings should take into account any individual assessment of relevant features of the insured person that allows the undertaking to gather sufficient information in order to form an appropriate understanding of the risks associated with the insured person. In the case of contracts covering mortality risks or health risks similar to life insurance techniques, the individual risk assessment can be a self-assessment by the insured person or can include a medical examination or survey.

2.4. The payment of the future premiums that belong to a contract may be predicated on the occurrence of an event or be determined by the value of sets of financial or non-financial variables. Therefore, a premium does not need to be certain in its timing or amount to belong to the contract.

2.5. For example, when a future premium payment meets all the conditions to belong to the contract and where the receipt of the premium is conditional on the occurrence of a specified event, the premium belongs to the contract. Determining the probability of the specified event occurring is relevant for valuation purposes but not for the determination of the boundary of the contract.

2.6. Future management actions, such as granting discretionary benefits, do not affect the contract boundaries, but are taken into account when calculating best estimate in accordance with [Articles 19 TP6 and 20 TP7 of the draft Implementing Measures]. Also discounts preapproved by the undertaking may sometimes be considered to be part of the payment schedule.

2.7. There is no need to calculate policy by policy the present value of the premiums payable or benefits and expenses payable but an overall assessment on portfolio level is enough. For the purpose of the guidelines on contract boundaries, a 'portfolio of obligations' does not necessarily only refer to a collection of obligations with similar characteristics. The portfolio of obligations within these guidelines consists of those collections of obligations where the insurance or reinsurance undertaking can amend premiums and benefits under similar circumstances and with similar consequences.

Guideline 6 – Unbundling of the contract

Insurance and reinsurance undertakings should determine whether it is possible to unbundle a contract:

a) by assessing whether, on the day at which the valuation is made or at a future date, two or more parts of the contract are clearly identifiable, and for which it is possible to define, in an objective manner, different sets of obligations and premiums attributable to each part; and

b) by assessing whether it would be possible to communicate obligations of each set separately to the policy holder.

Insurance and reinsurance undertakings should consider two sets of obligations as being capable of being communicated separately to the policy holder where one set of obligations can be understood without reference to the other set of obligations.

Insurance and reinsurance undertakings should, when an option or guarantee covers more than one part of the contract, determine whether it is possible to unbundle it or whether it should be attributed to the relevant part of the contract.

2.8. The set of obligations attributed to a part of the contract can be constituted by obligations of various types, including obligations expressed as financial options or guarantees which can be automatically triggered or exercised at the discretion of the policy holder or of any other party.

2.9. When comparing a bundled product with its "unbundled parts", an undertaking needs to compare the real product that is actually sold with notional products that could be sold, i.e. products with the same (aggregated) premiums, obligations, and expenses. It should be possible at least in theory that the policyholder could pay the premium separately for each unbundled part, if required. The same applies also to riders of the policy.

Guideline 7 – Identification of a discernible effect on the economics of a contract

Insurance and reinsurance undertakings should, when determining whether the insurance coverage of an event or a financial guarantee has no discernible effect on the economics of a contract, take into account all potential future cash-flows which may arise from the contract.

Insurance and reinsurance undertakings should consider a financial guarantee of benefits as having a discernible effect on the economics of a contract only if the financial guarantee is linked to the payment of the future premiums and provides the policyholder with a discernible financial advantage in at least one scenario with commercial substance.

Guideline 8 – Discernible effect of the coverage of an event

Insurance and reinsurance undertakings should consider the cover of a specified uncertain event that adversely affects the insured person as having a discernible effect on the economics of the contract when the cover provides a discernible financial advantage to the beneficiary.

2.10. A guarantee where a policy-holder does not lose at least part of their savings will be considered as a financial guarantee, which may or may not have a discernible effect on the economics of the contract.

2.11. If the coverage of an event or a financial guarantee has a discernible effect on the economics of the contract, then the cash-flows arising from the event or financial guarantee need to be considered for the purposes of establishing the contract boundary.

2.12. In determining whether the insurance coverage of an event or a financial guarantee has a discernible effect on the economics of a contract, undertakings will consider whether it can reasonably be seen that the inclusion of the coverage or guarantee has improved the contract for the policyholder when compared with the same contract without such a coverage or guarantee. Also the addition of the coverage or guarantee has to represent a true advantage for the policyholder – not merely a theoretical advantage i.e. something of substance should have changed in the contract terms in order for it to be considered a discernible effect.

2.13. It should be possible to see this improvement by an objective comparison of the value of the contract with and without this guarantee.

2.14. This comparison will be made with reference to the characteristics or terms of the contract and should reflect whether the guarantee can be regarded as an actual compensation for the event.

2.15. In particular, for contracts where the inclusion of a coverage or guarantee seeks to ensure a particular treatment of the contract e.g. for any fiscal, regulatory or accounting purpose, it will only be considered as providing a discernible effect when such an inclusion satisfies the conditions stated above.

Guideline 9 – Estimation of obligations

Insurance or reinsurance undertakings should, where details of a contract or the full extent of the obligations covered by a contract are not available to the undertaking at the time of recognition of the contract, estimate the boundaries of the contracts using all available information in a manner consistent with the principles set out in these Guidelines.

The undertaking should revise this estimated assessment as soon as more detailed information is available.

2.16. A need to reassess the contract boundaries can arise, where a delegated underwriting authority or binder exists which can sign business on behalf of the undertaking. The undertaking requires information on the underlying insurance contracts written within the binder to assess the contracts which fall within the contract boundary at a given valuation date. If this information is not available, estimates will need to be made.

2.17. Estimates of contracts entered into can be based on historical experience of specific binders in terms of numbers of contracts likely to be entered into and their terms and conditions and hence the length of their contract boundaries and likely corresponding cash-flows.

2.18. The undertaking would aim to minimise any delay in receiving detailed information from the binder and would make a revised assessment of the contracts entered into and their corresponding contract boundaries as soon as reasonable after this information was received.

2.19. In the situation that updated exposure information becomes available after the signature of the contract (e.g. because the underlying exposure changes in the case of some liability contracts or underlying exposure is unknown at the time of signing for contracts covering voyages undertaken in a certain time period) one would not expect this to lead to a change in the contract boundary. If, however, this analysis leads to a change in contract boundary, the contract boundary would be updated.

Guideline 10 – Reinsurance contracts

Insurance and reinsurance undertakings should, for their accepted reinsurance contracts, apply the provisions of [Article 13TP2 of the draft Implementing Measures]independently from the boundaries of the underlying insurance or

reinsurance contracts to which they relate.

2.20. The boundary of a reinsurance contract may be different in the Solvency II balance sheet of the buyer of the reinsurance when compared to the Solvency II balance sheet of the seller of the reinsurance.

Appendix: Examples on the boundary of insurance contracts

Benefits	Premiums	Contract boundary
Whole life policy with a full medical assessment	Premiums on individual policies can be reviewed annually	All premiums and associated obligations beyond the next annual review date do not belong to the contract
	The policy document makes it clear that premiums will not be increased with age, but may be increased annually across the whole portfolio where claims experience over the portfolio is higher than anticipated	When the policyholder decides to renew the contract and the undertaking has the ability to choose the premium only for a portfolio of contracts (i.e. at *portfolio level*) but not independently for each individual contract , all future premiums belong to the contract since the individual risk assessment cannot be repeated before amending the premiums
Whole life policy with guaranteed acceptance; policyholders answer 5 health related questions on the application form and are charged a higher premium if they answer yes to any of the questions		The medical survey constitutes an individual risk assessment; all future premiums belong to the contract
Whole life policy with guaranteed acceptance; the application form asks the policyholder to state any pre-existing conditions, and doesn't use this information to vary premiums, but only to exclude the conditions listed		Even gathering and excluding pre-existing conditions constitutes an individual risk assessment; all future premiums belong to the contract

Portfolio / policy level assessment (first two rows)

Interpretation of 'individual risk assessment' (last two rows)

Whole life policy with guaranteed acceptance and no use of medical information to establish premiums or benefits		If the insurer has a unilateral right to amend premiums under the contract, then no premiums beyond the next renewal date belong to the contract.	Interpretation of 'individual risk assessment'
Term assurance policy with a full medical assessment	Fixed regular premiums for the full term; at maturity the policyholder may choose to renew the policy but the insurer is not restricted in the premium that may be charged on renewal	Only the premiums prior to renewal belong to the policy	Policy renewals
	Fixed regular premiums for the full term; at maturity the policy is automatically renewed, and the policyholder notified of the new premium payable; generally premiums remain level though the insurer is not restricted in the premium that may be charged at renewal	Only the premiums prior to renewal belong to the policy	
Group life policy - providing several benefits for all employees	The contract with the employer is annually reviewable	The boundary falls on the next review date	Group contracts
Automatically renewable general insurance policy	Premiums are annually reviewable on a portfolio level	The boundary falls on the next review date	Interpolation of 'portfolio'

<table>
<tr><td>General insurance policy with two parts:
- a 5 year household cover benefit
- a 1 year motor insurance benefit</td><td>Separate premiums for the individual benefits; premiums cannot be changed on individual policies, only at portfolio level; household cover premium reviewable in 5 years; motor premium reviewable in 1 year.</td><td>The 'portfolio' should be interpreted by considering the first date on which premiums may be amended. For this policy, the portfolio should therefore not be taken as the combination of both benefits; rather each benefit should be considered separately. The boundary is 5 years for the household benefit and 1 year for the motor benefit.</td><td>Interpretation of 'portfolio'</td></tr>
<tr><td>Whole life unit-linked policy providing a guarantee of benefits above the unit value on the death of the policyholder</td><td rowspan="3">Fixed regular premiums and charges</td><td>The guaranteed benefit above the unit value provides a discernible effect, if it can reasonably be seen that the inclusion of the guarantee has improved substance of the contract for the policyholder when compared with the same contract without such a guarantee.</td><td rowspan="3">Interpretation of 'financial guarantee' & 'unbundling'</td></tr>
<tr><td>Whole life unit-linked policy paying the higher of the unit value and the paid-in premiums on the death of the policyholder</td><td>A guaranteed return of premium will under a number of circumstances have an associated cost for the undertaking, and therefore a discernible effect on the economics of the contract; future premiums would therefore generally belong to the contract in such cases</td></tr>
<tr><td>Whole life unit-linked policy paying the maximum of a sum assured and the fund value</td><td>The unit-linked and assurance components of the contract should be unbundled where possible</td></tr>
<tr><td>Whole life unit-linked policy paying the unit value on the death of the policyholder; 4% annual investment return guarantee</td><td>Fixed regular premiums; annually reviewable charges</td><td>This policy includes a financial guarantee.

The ability to amend charges may not be sufficient to fully reflect risk - if investment markets fall substantially then it may not be possible to make up losses by increasing charges. All future premiums therefore belong to the contract in this case.</td><td>Reviewable charges</td></tr>
</table>

Automatically reviewable health insurance contract	Premiums are annually reviewable in accordance with a national health risk equalisation system	All future premiums belong to the contract since the undertaking does not have the unilateral right to terminate the contract, to amend the premiums or to refuse the premiums
5 year general insurance policy	Premiums are annually reviewable, subject to approval by an independent trustee who assesses whether the increases are fair	The ability of the trustee to veto a premium increase, even where this might reflect a fair view of the risk, suggests that the undertaking does not have a unilateral right to amend premiums; all future premiums belong to the contract
Automatically renewable general insurance policy	If there are no claims, premiums are guaranteed to remain level at renewal for a period of up to 3 years	The undertaking has a limited right to change premiums within the 3 year period; all premiums within the 3 year guaranteed period belong to contract

Interpretation of 'unilateral right'

B. Valuation of technical provisions

1. Guidelines

Introduction

1.1. According to Article 16 of Regulation (EU) 1904/2010 of 24 November 2010 (hereafter, EIOPA Regulation) and Articles 76 to 86 as well as Article 48 of Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) as further developed by the [draft Implementing Measures] and in particular by Articles 12 to 36 on the rules relating to technical provisions.] EIOPA is issuing Guidelines on the Valuation of Technical Provisions.

1.2. The Guidelines on valuation of technical provisions are formulated to increase consistency and convergence of professional practice for all types and sizes of undertakings across Member States and to support undertakings in calculating their technical provisions under Solvency II.

1.3. It is recognised that expert judgment is a key component of the calculation of technical provisions and it should be applied in setting assumptions to be used in the valuation of technical provisions for insurance and reinsurance undertakings.

1.4. These Guidelines are addressed to national competent authorities under Solvency II.

1.5. The Guidelines will be ultimately applied both by actuaries and by other professionals who may be appointed to carry out the tasks of the actuarial function.

1.6. The relevant steps to ensure a reliable calculation of technical provisions should be done by the responsible persons for the calculation. The actuarial function should carry out the coordinating and validating task. Undertakings should require the actuarial function – also when not explicitly mentioned - to carry out its tasks where appropriate taking into account the requirements defined in the Guidelines for the valuation of technical provisions and in accordance with the Guidelines on the system of governance and the requirements defined in article 262 of the draft Implementing Measures.

1.7. These Guidelines are divided in different sections. Section 1 on Data Quality explores the ways data quality issues should be taken into account in the process of calculating technical provisions and ensuring that deficiencies have been appropriately dealt with.

1.8. Section 2 on Segmentation and Unbundling explores the ways how to segment the insurance and reinsurance obligations. The purpose of segmentation is to achieve an accurate valuation of technical provisions.

1.9. Section 3 on Assumptions sets out requirements for the choice of methodologies to calculate technical provisions. This relates to the general proportionality assessment process which undertakings are expected to carry out when selecting a calculation method, as well as to specific methodological aspects of the calculation.

1.10. Section 4 on the Methodologies to calculate Technical Provisions, contains relevant guidelines when calculating technical provisions as a whole. It also provides a non-exhaustive list of potential approaches for simplifications, taking account of the fact that methodologies and techniques for the valuation of technical provisions are subject to continuous development. The proportionality assessment outlined in these guidelines is not only relevant for the selection of the methodologies for the calculation of technical provisions. Its resolutions should also be convenient to support other steps necessary for the calculation of technical provisions, such as data quality, segmentation, assumptions setting and validation.

1.11. Given that a closed list would not be in line with a principle-based approach to proportionality and might not provide proportionate calculation methods for all risk profiles, the simplified methods proposed in this paper are not to be interpreted as a closed list, but as possible methodologies to be applied.

1.12. Section 5 on Validation focuses on the types and selection of validation approaches and processes, timing, extent and documentation and also the assessment of controls which should be carried out by the undertakings to validate the technical provisions. The purpose of these guidelines is to ensure a consistent approach to the process of validating the technical provisions across Member States. The technical annexes present some standard validation approaches and processes and suggest when it may be appropriate to use them.

1.13. If not defined in these Guidelines the terms have the meaning defined in the legal acts referred to in the introduction.

1.14. The Guidelines shall apply from 1 April 2015.

Section 1: Data quality

Clarification of the concepts of completeness and appropriateness of data

Guideline 1 – Completeness of data

1.15. Insurance and reinsurance undertakings should ensure that data used in the calculation of technical provisions cover a sufficiently large period of observations that characterise the reality being measured.

1.16. To perform the calculation of premium provisions for non-life obligations, undertakings should ensure that sufficient historical information is available on the total cost of claims and their actual trends at a sufficiently granular level.

1.17. To perform the calculation of provisions for claims outstanding, undertakings should ensure that sufficient data are available to allow for the identification of relevant patterns on the claims development, and with sufficient granularity, in order to permit analysis of such patterns within homogeneous risk groups.

Guideline 2 – Appropriateness of data

1.18. Insurance and reinsurance undertakings should ensure that data relating to different time periods is used consistently.

1.19. Undertakings should apply adjustments to historical data, if necessary, to increase its credibility or enhance its quality as an input to determine more reliable estimates of technical provisions, and to better align it with the characteristics of the portfolio being valued and with future expected development of risks.

Review and validation of data quality

Guideline 3 – Data checks

1.20. Insurance and reinsurance undertakings should ensure that the actuarial function assesses the accuracy and completeness of data through a sufficiently comprehensive series of checks to meet the criteria set out in the previous Guidelines and to allow the detection of any relevant shortcomings.

1.21. Insurance and reinsurance undertakings should ensure that the actuarial function carries out this assessment at an appropriately granular level.

Guideline 4 – Consideration of other analysis conducted

1.22. Insurance and reinsurance undertakings should ensure that the actuarial function takes into account the conclusions of any relevant analysis performed in an external review, where data quality in the context of calculating technical provisions is reviewed.

Guideline 5 - Consideration of the methodologies to be applied

1.23. Insurance and reinsurance undertakings should ensure that the actuarial function takes into account the relation between the conclusions of the analysis

of the data quality and the selection of the methodologies to be applied to value the technical provisions.

1.24. Undertakings should ensure that the actuarial function analyses the extent to which data used is adequate to support the assumptions underlying the methodologies to be applied to value the technical provisions. If data does not adequately support the methodologies, then the undertaking should select an alternative methodology.

1.25. In the assessment of completeness of data, undertakings should ensure that the actuarial function considers whether the number of observations and granularity of available data is sufficient and adequate to meet the input requirement for the application of the methodology.

Guideline 6 - Source and use of data

1.26. Insurance and reinsurance undertakings should require the actuarial function to take into account the source and the intended use of data in the data validation process.

Guideline 7 – Application of expert judgment

1.27. Insurance and reinsurance undertakings should ensure that the use of expert judgment in assessing accurate, appropriate and complete data for use in the calculation of technical provisions does not replace the appropriate collection, processing and analysis of data but supplements these where required.

Guideline 8 - Validation and feedback process

1.28. Insurance and reinsurance undertakings should ensure that the actuarial function, within the remits of the coordination of technical provisions, also coordinates the assessment and validation of relevant data to be used in the valuation process.

1.29. The coordination task should include at least:

a) the selection of data to be used in the valuation, having regard to the criteria of accuracy, appropriateness and completeness of data considering the methodologies which are most appropriate to be applied in the calculation. For this purpose, relevant tools should be used to check any material differences that may be found in data from a single year and within other relevant analysis;

b) the reporting of any recommendations on the implementation of improvements in the internal procedures that are considered relevant to improve the compliance with the criteria as set out in point a);

c) the identification of cases where additional external data are needed;

d) an assessment of the quality of external data, as performed for internal data, focusing on whether market data are required or when they should be used to improve the quality of internal data and if and how enhancements to the available data should be applied;

e) an assessment of whether any adjustments need to be applied to available data, as part of actuarial best practice, to improve the goodness-of-fit and the reliability of the estimates derived from actuarial and statistical provisioning methodologies based on these data; and

f) the recording of any relevant insights that have been gained in the assessment and validation process that may become relevant to the other steps of calculation of technical provisions, and that relate to the understanding of the underlying risks and also to the knowledge of the quality and limitations of available data.

Material limitations of data

Guideline 9 – Identification of the source of material limitations

1.30. Insurance and reinsurance undertakings should ensure that the actuarial function assesses the data accuracy, completeness and appropriateness in order to identify any material limitations of the data. If material limitations are identified, the sources of those limitations should also be identified.

Guideline 10 - Impact of shortcomings

1.31. In order to identify and assess the impact of any possible shortcomings that could affect the compliance with the requirements of data quality, insurance and reinsurance undertakings should ensure that the actuarial function considers all relevant available documentation related to internal processes and procedures of collection, storage and validation of data used for the valuation of technical provisions and, where necessary, search for more specific information by contacting the personnel involved in these processes.

1.32. Additionally, undertakings should ensure that the actuarial function coordinates any relevant task that may be performed in order to assess the impact of the shortcomings identified on the available data to be used in the calculation of technical provisions to obtain findings on whether the available data should be used for the intended purpose or if alternative data should be sought.

Guideline 11 – Data adjustments

1.33. Where data deficiencies are identified, insurance and reinsurance undertakings should ensure that the actuarial function assesses whether the quality of data considering its purpose can be improved by adjusting or supplementing it.

1.34. Undertakings should not use approximations as an alternative to implement appropriate systems and processes for collecting material and relevant information and building historical databases.

1.35. When external data is used for such approximations, undertakings should ensure that data remain compliant with the standards set in these guidelines regarding the quality of data.

1.36. Undertakings should decide whether it is possible to adjust data to overcome the shortcomings which affect the quality of data and, if applicable, what specific adjustments should be introduced.

1.37. Undertakings should ensure that the adjustments are limited to the level strictly necessary to enhance compliance with the criteria set out in the previous guidelines and to not distort the identification of trends and any other characteristics regarding the underlying risks reflected in the data.

Guideline 12 – Recommendations of the actuarial function

1.38. Insurance and reinsurance undertakings should ensure that the actuarial function delivers recommendations to the management body on the procedures that could be performed in order to increase the quality and the quantity of available data. To accomplish this task, the actuarial function should identify the sources of material limitations and propose possible solutions to enhance the quality of available data.

1.39. If shortcomings are directly associated with internal processes, undertakings should ensure that the recommendations of the actuarial function focus on which particular processes are the source of the shortcomings, envisaging which specific procedures should be amended. Undertakings should ensure that the actuarial function is able to justify that those recommendations are expected to be effective.

1.40. Where data are considered incomplete, undertakings should ensure that the actuarial function delivers recommendations considering the time necessary to implement any actions to overcome the shortcomings.

1.41. Where data deficiencies arise from limitations regarding the exchange of information with business partners in a reliable and standardized way, undertakings should implement appropriate measures to improve data reliability.

Guideline 13 – Application of expert judgment upon material limitations

1.42. Where there are material limitations to the data that cannot be remedied without undue complexity, insurance and reinsurance undertakings should ensure that expert judgment is applied to overcome these limitations to ensure that technical provisions are appropriately calculated. The calculation of

technical provisions should not be impaired as a result of inaccurate or incomplete data.

Guideline 14 – Documentation of data limitations

1.43. Insurance and reinsurance undertakings should ensure that the actuarial function documents appropriately data limitations, including at least:

(a) A description of the shortcomings comprising its causes and any references to other documents where they were identified;

(b) A summary explanation on the impact of the shortcomings in the scope of the calculation of technical provisions regarding its materiality and how it affects this process;

(c) A description of the actions taken by the actuarial function to detect the shortcomings, complementarily or not with other sources and documents; and

(d) A description of how such situations can be remedied in a short term for the intended purpose and any relevant recommendations to be applied to enhance data quality in the future.

Market data

Guideline 15 – Use of market data

1.44. When valuing liabilities which depend directly on the behaviour of financial markets or in cases where the calculation of technical provisions requires the input of data from an external source, insurance and reinsurance undertakings should be able to demonstrate that external data are more suitable than internal data for the intended purpose. Undertakings should ensure that external data supplied by third parties or market data complement the internal data available.

1.45. Notwithstanding the level of dependencies of the liabilities on market conditions or the level of quality regarding the available internal data, undertakings should consider relevant external benchmarks where appropriate. External data should be part of the analysis to assess the general compliance with requirements on data quality.

Guideline 16 - Conditions on market data

1.46. To carry out the assessment of the level of accuracy, appropriateness and completeness of external data, insurance and reinsurance undertakings should ensure that the actuarial function knows and considers in its analysis the reliability of the sources of information and the consistency and stability of its process of collecting and publishing information over time.

1.47. Moreover, undertakings should ensure that the actuarial function considers all the realistic assumptions and relevant methodologies applied to derive data, including any adjustments or simplifications applied to raw data. The actuarial function should be aware of and take into consideration if any changes that have been applied over time to external data, whether those changes relate to assumptions or associated methodologies or any other procedures regarding the collection of external data.

1.48. Moreover, whenever it is accessible and adequate, undertakings should ensure that the actuarial function measures the quality of available data in the context of provisioning analysis in regard to available industry or market data which is deemed comparable, and in particular to the requirements set in Article 76(3) of Solvency II. Any material deviations should be identified and understood by the actuarial function. This analysis could refer to the specificities of the particular homogeneous risk group being valued.

Section 2: Segmentation and unbundling

Guideline 17 - Segmentation of insurance or reinsurance obligations stemming from health and other non-life insurance contracts

1.49. Insurance or reinsurance obligations stemming from health and other non-life insurance contracts should be segmented to life lines of business where such obligations are exposed to biometrical risks (i.e. mortality, longevity or disability/morbidity) and where the common techniques that are used to assess such obligations explicitly take into consideration the behaviour of the variables underlying these risks.

1.50. Where health insurance or reinsurance obligations are calculated according to the conditions set out in Article 206 of Solvency II they should be considered to be pursued on a similar technical basis to that of life insurance and therefore assigned to life lines of business.

Guideline 18 - Change in the segmentation of non-life insurance or reinsurance obligations

1.51. Insurance or reinsurance obligations that were originally segmented into non-life lines of business and, as a result of the occurrence of an insured event turn into life insurance or reinsurance obligations, should be assessed using life

techniques that explicitly take into consideration the behaviour of the variables underlying biometrical risks and assigned to the relevant life lines of business as soon as there is sufficient information to assess those obligations using life techniques.

Guideline 19 - Determining and assessing appropriateness of a homogeneous risk group

1.52. Insurance and reinsurance undertakings should calculate technical provisions using homogeneous risk groups in order to derive assumptions.

1.53. A homogeneous risk group encompasses a collection of policies with similar risk characteristics. In selecting a homogeneous risk group, undertakings should achieve an appropriate balance between the credibility of data available, to enable reliable statistical analyses to be performed, and the homogeneity of risk characteristics within the group. Undertakings should define homogeneous risk groups in such a manner that those are expected to be reasonably stable over time.

1.54. Where necessary, undertakings should for the derivation of risks inter alia take into account the following items:

a) underwriting policy;

b) claims settlement pattern;

c) risk profile of policyholders;

d) product features, in particular guarantees;

e) future management actions.

1.55. Undertakings should ensure consistency between the homogeneous risk groups it uses to assess its gross of reinsurance technical provisions and its reinsurance recoverables.

Guideline 20 - Calculations on level of grouped policies

1.56. In order to calculate the technical provisions and carry out cash-flow projections, insurance and reinsurance undertakings should apply the assumptions derived at the level of homogeneous risk groups to individual policies or grouped policies, where the groupings may be more granular than homogeneous risk groups.

Guideline 21 - Unbundling of insurance or reinsurance contracts covering multiple risks

1.57. Where an insurance or reinsurance contract covers risks across different lines of business, unbundling of the obligations is not required where only one of the risks covered by the contract is material. In this case, the obligations relating to the contract should be segmented according to the major risk driver.

Guideline 22 - Granularity of segmentation

1.58. Insurance and reinsurance undertakings should analyse whether the granularity of the segmentation of insurance or reinsurance obligations adequately reflects the nature of the risks. This segmentation should consider the policyholder's right to profit participation, options and guarantees embedded in the contracts and the relevant risk drivers of the obligations.

Guideline 23 – Segmentation in respect of premium provisions and claims provisions

1.59. Insurance and reinsurance undertakings should consider both the nature of the underlying risks being evaluated together and the quality of data in selecting the homogeneous risk groups for the calculations of the premium provisions and claims provisions.

Section 3: Assumptions

Guideline 24 - Consistency of assumptions

1.60. Insurance and reinsurance undertakings should ensure that assumptions used in the determination of technical provisions, own funds and solvency capital requirement are consistent.

Biometric risk factors

Guideline 25 – Modelling biometric risk factors

1.61. Insurance and reinsurance undertakings should consider whether a deterministic or a stochastic approach is proportionate to model the uncertainty of biometric risk factors.

1.62. Undertakings should take into account the duration of the liabilities when assessing whether a method that neglects expected future changes in biometrical risk factors is proportionate, in particular in assessing the error introduced in the result by the method.

1.63. Undertakings should ensure, when assessing whether a method that assumes that biometric risk factors are independent from any other variable is proportionate, and that the specificities of the risk factors are taken into account. For this purpose, the assessment of the level of correlation should be based on historical data and expert judgment, as set out in guidelines on expert judgment.

Guideline 26 – Expenses for hedging

1.64. For insurance and reinsurance undertakings using a hedging program to mitigate risks, the expenses of the hedging program should be taken into account in the valuation of technical provisions. The expected incurrence of such expenses should be reflected in the projected cash in-flows and cash out-flows required to settle the insurance and reinsurance obligations.

Guideline 27 – Availability of market data

1.65. Insurance and reinsurance undertakings should assess the availability of relevant market data on expenses by considering the representativeness of market data relative to the portfolio of insurance or reinsurance obligations, and the credibility and reliability of data.

Guideline 28 – Expenses taken into account on contractual terms

1.66. Insurance and reinsurance undertakings should ensure that expenses that are determined by contracts between the undertaking and third parties are taken into account based on the terms of the contract. In particular, commissions arising from insurance contracts are considered based on the terms of the contracts between the undertakings and the sales persons, and expenses in respect of reinsurance are taken into account based on the contracts between the undertaking and its reinsurers.

Expense allocation

Guideline 29 – Granularity of allocation of expenses

1.67. Insurance and reinsurance undertakings should allocate the expenses into homogeneous risk groups, as a minimum by line of business, according to the segmentation of their obligations used in the calculation of technical provisions.

Guideline 30 – Apportionment of overheads

1.68. Insurance and reinsurance undertakings should allocate overhead expenses in a realistic and objective manner, and should base the allocation on recent analyses of the operations of the business, on the identification of appropriate expense drivers and on relevant expense apportionment ratios. This approach should be used to apportion overhead expenses between existing and future new business.

1.69. Without prejudice to the proportionality assessment and the first paragraph of this guideline, insurance and reinsurance undertakings should consider using, in order to allocate overhead expenses, the simplification outlined in Technical Annex I, when the following conditions are met:

a) the undertaking pursues annually renewable business;

b) the renewals must be reputed to be new business according the boundaries of the insurance contract;

c) the claims occur uniformly during the coverage period.

Guideline 31 – Changing the approach to the split of overhead expenses

1.70. Insurance and reinsurance undertakings should allocate overhead expenses to existing and future business on a consistent basis over time, and should only change the basis of allocation if a new approach better reflects the current situation.

Projection of Expenses

Guideline 32 – Consistency of expenses with other cash-flows

1.71. Insurance and reinsurance undertakings should allocate expenses in the cash-flow projection so that the timing of expense cash-flows is consistent with the timing of other cash in-flows and cash out-flows required to settle the insurance and reinsurance obligations.

Guideline 33 – Changes in expenses

1.72. Insurance and reinsurance undertakings should ensure that assumptions with respect to the evolution of expenses over time, including future expenses arising from commitments made on or prior to the valuation date, are appropriate and consider the nature of the expenses involved. Undertakings should make an allowance for inflation that is consistent with the economic assumptions made.

Guideline 34 – Simplifications in respect of expenses

1.73. When assessing the nature, scale and complexity of risks underlying the expenses which are taken into account in the calculation of the technical provisions, insurance and reinsurance undertakings should take into account, *inter alia*, the uncertainty of future expense cash-flows, and any event that can change the amount, frequency and severity of expense cash-flows.

1.74. Undertakings should also take into account the type of expenses and the degree of correlation between different types of expenses.

1.75. When using a simplification for the projection of expenses based on a model which uses information on current and past expense loadings to project future expense loadings including inflation, undertakings should analyse current and historical expenses, giving consideration to, *inter alia,* where expenses occur and the factors that influence the expenses. Undertakings should include in the

proportionality assessment an analysis of how the expenses are related to the size and nature of insurance portfolios. Undertakings should not apply the simplification where expenses have substantially changed or are expected not to cover all but only part of the expenses required to service insurance and reinsurance obligations.

Guideline 35 – Charges for embedded options

1.76. Insurance and reinsurance undertakings should explicitly take into account amounts charged to policy holders relating to embedded options.

Guideline 36 - Allowance for financial guarantees and contractual options

1.77. Insurance and reinsurance undertakings should identify the risks underlying financial guarantees and contractual options in accordance with [Article 26(1) of the draft Implementing Measures] and take those into account in the proportionality assessment.

Guideline 37 - Appropriateness of assumptions

1.78. Insurance and reinsurance undertakings should ensure that the assumptions used in the valuation of contractual options and financial guarantees are consistent with current market data, current market practice, policyholder and management behaviour specific to the characteristics of the business and the undertaking. Undertakings should also consider the impact of adverse market conditions and trends and establish a regular process for updating and ensuring that those assumptions are still realistic taking into account all additional information since the last calculation of technical provisions.

Guideline 38 - Assumptions on policyholder behaviour

1.79. Insurance and reinsurance undertakings should ensure that the assumptions relating to policyholder behaviour are appropriately founded in statistical and empirical evidence. Undertakings should consider the extent to which policyholders exercise contractual options in a financially rational manner when deriving such assumptions. For this purpose, undertakings should give consideration to policyholders' awareness of the value of policy options and to policyholders' possible reactions to the changing financial position of the undertaking.

Future management actions

Guideline 39 – Allowance for future management actions

1.80. Insurance and reinsurance undertakings should be able to provide adequate justification where future management actions are ignored on the grounds of materiality.

Guideline 40 - Consistency of management actions with other assumptions

1.81. Insurance and reinsurance undertakings should take into account the impact of any assumed management actions on other assumptions within a certain valuation scenario. In particular, undertakings should take into account any effects of a certain management action on policyholder behaviour or on the related expenses. Undertakings should take account of any relevant legal or regulatory constraints on management action. Moreover, for a given scenario undertakings should ensure that the assumed future management actions reflect the balance, which is consistent with the corporate planning, between the degree of competitiveness and the risk of dynamic lapses.

Guideline 41 – Interrelation with cedant undertaking

1.82. Insurance and reinsurance undertakings should consider the future management actions of the cedant undertaking as policyholder behaviour, and estimate its technical provisions based on reasonable assumptions for the cedant's behaviour.

Future discretionary benefits

Guideline 42 – Allowance for future discretionary benefits

1.83. Insurance and reinsurance undertakings should take into account future discretionary benefits which are expected to be made, whether or not such payments are contractually guaranteed. Undertakings should ensure that the assessment of the value of future discretionary benefits considers all relevant legal and contractual restrictions, existing profit participation arrangements, the expected future performance of the assets as well as any plans for distribution of profits.

Guideline 43 - Assumptions on future discretionary benefits

1.84. Insurance and reinsurance undertakings should ensure that assumptions regarding the distribution of future discretionary benefits are derived in an objective, realistic and verifiable manner encompassing the principles and practices adopted by the undertaking to provide insurance contracts with profit participation. Where the distribution of future discretionary benefits is related to the financial position of the undertaking, the assumptions should reflect the interaction between the assets and liabilities of the undertaking.

Guideline 44 – Assumptions in respect of modelling distribution of future discretionary benefits

1.85. Insurance and reinsurance undertakings should consider a comprehensive analysis of past experience, practice and distribution mechanism when assessing the proportionality of a simplified method used for determining the future discretionary benefits.

Section 4: Methodologies to calculate technical provisions

Proportionality assessment

Guideline 45 – General principle of proportionality

1.86. Insurance and reinsurance undertakings should, in order to have an overall assessment of the risks underlying their insurance and reinsurance obligations, take into account the strong interrelation among the nature, scale and complexity of these risks.

1.87. Undertakings should ensure that the actuarial function is able to explain which methods are used to calculate the technical provisions and the reason why such methods have been selected.

Guideline 46 – Assessment of nature and complexity of the risks

1.88. When assessing the nature and complexity of the risks underlying the insurance contracts as referred to in [Article 47 TPS1 (2)(a) of the draft Implementing Measures], insurance and reinsurance undertakings should take into account, at least, the following characteristics, where applicable:

(a) the degree of homogeneity of the risks;

(b) the variety of different sub-risks or risk components of which the risk is comprised;

(c) the way in which these sub-risks are interrelated with one another;

(d) the level of uncertainty i.e. the extent to which future cash flows can be estimated;

(e) the nature of the occurrence or crystallisation of the risk in terms of frequency and severity;

(f) the type of the development of claims payments over time;

(g) the extent of potential loss, including the tail of the claims distribution;

(h) the type of business from which the risks originate, i.e. direct business or reinsurance business;

(i) the degree of dependency between different risk types, including the tail of the risk distribution; and

(j) the risk mitigation instruments applied, if any, and their impact on the underlying risk profile.

Guideline 47 – Identification of complex risk structures

1.89. Insurance and reinsurance undertakings should identify factors which indicate the presence of complex risks. This should be at least the case where:

(a) the cash-flows are highly path dependent;

(b) there are significant non-linear inter-dependencies between several drivers of uncertainty;

(c) the cash-flows are materially affected by the potential future management actions;

(d) risks have a significant asymmetric impact on the value of the cash-flows, in particular if contracts include material embedded options and guarantees or if there are complex reinsurance contracts in place;

(e) the value of options and guarantees is affected by the policyholder behaviour;

(f) the undertaking uses a complex risk mitigation instrument;

(g) a variety of covers of different nature are bundled in the contracts;

(h) the terms of the contracts are complex, inter alia, in terms of franchises, participations, inclusion and exclusion criteria of the cover.

Guideline 48 – Assessment of scale of the risks

1.90. Insurance and reinsurance undertakings should identify and use an interpretation of scale which is best suited to the specific circumstances of the undertaking and to the risk profile of its portfolio. Nevertheless, the assessment of "scale" should lead to an objective and reliable assessment.

1.91. To measure the scale of risks undertakings should establish an undertaking-specific benchmark or reference level which leads to a relative rather than an absolute assessment number. For this purpose, risks may be considered in a range from small to large relative to the established benchmark.

Guideline 49 – Granularity of materiality assessment

1.92. Insurance and reinsurance undertakings should determine the most appropriate level at which an assessment of materiality for the purposes of the calculation of the technical provisions is to be carried out, which could be the individual homogeneous risk groups, the individual lines of business or the business of the insurer as a whole.

1.93. Undertakings should consider when assessing the materiality that a risk which is immaterial with regard to the business of the insurer as a whole may still have a significant impact within a smaller segment.

1.94. In addition, undertakings should not analyse technical provisions in isolation but any effect on own funds and thus on the total solvency balance sheet as well as on the Solvency Capital Requirement should be taken into account in this assessment.

Guideline 50 – Consequences of material error identified in the proportionality assessment

1.95. Where it is unavoidable for the insurance and reinsurance undertaking to use a method which leads to material level of error, the undertaking should document this and consider the implications with regard to the reliability of the calculation of technical provisions and its overall solvency position. In particular the undertaking should assess whether the material level of error is adequately addressed in the determination of the Solvency Capital Requirement and hence in the setting of the risk margin in technical provisions.

Methods applied for calculations of technical provisions during the year

Guideline 51 – Simplified calculation of technical provisions during the year

1.96. Insurance and reinsurance undertakings may use simplifications, for example the simplification outlined in Technical Annex VI, subject to the proportionality assessment, in the quarterly calculations of technical provisions.

Guideline 52 - Computation of the best estimate for life and non-life quarterly technical provision

1.97. For the quarterly calculation of the best-estimate of technical provisions, insurance and reinsurance undertakings can perform a roll-forward calculation, taking into account the cash-flows that have occurred during the quarter and the new obligations arising during the quarter. The undertaking should update assumptions of the roll-forward calculation method when the actual versus expected analysis indicates that significant changes have occurred during the quarter.

Guideline 53 - Computation of the best estimate for life quarterly technical provision

1.98. For the quarterly calculation of the best-estimate of life technical provisions for index-linked, unit-linked, with-profit contracts or contracts with financial guaranties, insurance and reinsurance undertakings should make use of the sensitivity analysis as required in [Article 262(5) of the draft Implementing Measures] to assess the sensitivity of the best estimate to the relevant financial parameters. They should document the choice of the set of financial parameters and their on-going adequacy to their portfolio of assets, as well as the relevance and the accuracy of the sensitivity analysis.

Methodologies for the valuation of contractual options and financial guarantees

Guideline 54 - Decision on methodology

1.99. Insurance and reinsurance undertakings should ensure that the valuation of contractual options and financial guarantees is based on adequate, applicable and relevant actuarial and statistical methodologies taking into account the developments in this field.

1.100. Undertakings should ensure that at least the following aspects are considered when deciding on a methodology to determine the value of contractual options and financial guarantees:

(a) The nature, scale and complexity of the underlying risks and their interdependence during the lifetime of the contracts;

(b) Possible insights into the nature of options and guarantees and their main drivers;

(c) A thorough examination on the necessity to include additional and intricate computational complexity;

(d) Justification on the appropriateness of the method.

Guideline 55 – Methodologies for the valuation of contractual options and financial guarantees

1.101. Insurance and reinsurance undertakings should apply the proportionality assessment referred to in [Article 47 TPS1 of the draft Implementing Measures] when considering the use of a closed formula approach or a stochastic approach for the valuation of contractual options and financial guarantees included in the insurance contracts.

1.102. Whenever neither method is possible, undertakings may use as a last resort an approach consisting in the following steps:

(a) Analysis of the characteristics of the option or guarantee and of how it would affect the cash-flows;

(b) Analysis of the amount the option or guarantee is expected to be currently in-the-money or out-of-the-money;

(c) Determination of the cost of the option or guarantees is expected to vary with time;

(d) Estimation of the probability that the option or guarantee would become more or less costly in the future.

Economic Scenario Generators (ESG)

Guideline 56 - Documentation of the ESG

1.103. Insurance and reinsurance undertakings should properly document at least:

(a) the mathematical models on which the ESG is based and the reason for their choice;
(b) the assessment of quality of data;
(c) the calibration process; and
(d) the market parameters resulting from the calibration process (especially those corresponding to the volatility and correlation market risk drivers);

The documentation should be shared with supervisors on request.

Guideline 57 - General understanding of the ESG-calibration process

1.104 Where the calibration process of the ESG is outsourced, insurance and reinsurance undertakings should ensure that they have an appropriate understanding of the process, with a particular emphasis on the methods and assumptions used and its limitations and they should be informed of any material changes on an on-going basis.

Guideline 58 – Calibration process: market data and choice of the financial instruments

1.105 Insurance and reinsurance undertakings should ensure that the calibration process of an ESG used for a market consistent valuation is based on data from financial markets that are deep, liquid and transparent as defined in [Article 1bis of the draft Implementing Measures] and that reflect the current market conditions. Where this is not possible, undertakings should use other market prices paying attention to any distortions and ensuring that adjustments to overcome those distortions are made in a deliberate, objective and reliable manner.

1.106 Insurance and reinsurance undertakings should be able to demonstrate that the choice of financial instruments used in the calibration process is relevant given the characteristics of the insurance or reinsurance obligations (e.g. embedded options and financial guarantees).

Guideline 59 - Tests (accuracy, robustness and market-consistency)

1.107 When insurance or reinsurance undertakings use an ESG for the stochastic modelling of the technical provisions, they should be able to demonstrate to the relevant supervisory authorities the accuracy, robustness and market consistency properties of the ESG. A measure of the accuracy of the ESG (at least the Monte Carlo sampling error) should be assessed.

1.108 To demonstrate the robustness of the ESG, insurance and reinsurance undertakings should test the sensitivity of the valuation of some typical liabilities to the variation of some parameters in the calibration process.

1.109 To demonstrate the market consistency properties of the ESG, at least some of the following tests should be carried out on the set of scenarios generated by the ESG used for valuation:

(a) Calibration tests:
   i. Replication of the relevant risk-free interest rate term structure;
   ii. Verification that model prices for financial instruments that have not been used in the calibration do not deviate materially from market prices.

(b) Martingale tests: verify the Martingale test for the asset classes (equity, bonds, property, exchange rates, etc.) that have been used in the calibration process of the ESG, and for some simple portfolio investment strategies.

(c) Correlation tests: comparison of the simulated correlations with the historical correlations.

Guideline 60 - (Pseudo)random number generators

1.110. Insurance and reinsurance undertakings should ensure that the (pseudo)random used in an ESG produces sufficiently random numbers, which ensure a robust calculation of the technical provisions.

Guideline 61 - On-going appropriateness of an ESG

1.111. Insurance and reinsurance undertakings should have adequate procedures in place to ensure that an ESG remains appropriate for the calculation of the technical provisions on an ongoing basis.

Calculation of the risk margin

Guideline 62 – Methods to calculate the risk margin

1.112. Insurance and reinsurance undertakings should assess whether a full projection of all future Solvency Capital Requirements is necessary in order to reflect the nature, scale and complexity of the risks underlying the reference undertaking's insurance and reinsurance obligations in a proportionate manner. In such case, undertakings should carry out these calculations. Otherwise, alternative methods may be used to calculate the risk margin, ensuring that the method chosen is adequate to capture the risk profile of the undertaking.

1.113. Where simplified methodologies are used to calculate the best estimate, the undertakings should assess the consequent impact that the use of such

methodologies may have on the methods available to calculate the risk margin, including the use of any simplified methods for projecting the future SCRs.

Guideline 63– Hierarchy of methods for the calculation of the risk margin

1.114. When deciding which level of the hierarchy set out below is most appropriate, insurance and reinsurance undertakings should ensure that the complexity of the calculations does not go beyond what is necessary in order to reflect the nature, scale and complexity of the risks underlying the reference undertaking's insurance and reinsurance obligations in a proportionate manner.

1.115. Undertakings should apply the hierarchy of methods consistently with the framework set out when defining the proportionality principle and the necessity of assessing risks properly.

1.116. Insurance and reinsurance undertakings should use the following hierarchy as a decision making basis regarding the methods to be used for projecting future Solvency Capital Requirements:

1) To approximate the individual risks or sub-risks within some or all modules and sub-modules to be used for the calculation of future Solvency Capital Requirements as referred to in [Article 49(a) TPS3 of the draft Implementing Measures].

2) To approximate the whole Solvency Capital Requirement for each future year as referred in [Article 49(a) TPS3 of the draft Implementing Measures], inter alia by using the ratio of the best estimate at that future year to the best estimate at the valuation date.

   This method is not appropriate when negative best estimate values exist at valuation date or subsequent dates.

   This method takes into account the maturity and the run-off pattern of the obligations net of reinsurance. Consequently, some considerations should be given regarding the manner in which the best estimate of technical provisions net of reinsurance has been calculated. Further consideration should be given as well as to whether the assumptions regarding the risk profile of the undertaking can be considered unchanged over time. This includes:

   (a) For all underwriting risks, to consider if the composition of the sub-risks in underwriting risk is the same;
   (b) For counterparty default risk, to consider if the average credit standing of reinsurers and special purpose vehicles is the same;
   (c) For market risk, to consider if the material market risk in relation to the net best estimate is the same;

(d) For operational risk, to consider if the proportion of reinsurers' and special purpose vehicles share of the obligations is the same;

(e) For adjustment, to consider if the loss absorbing capacity of the technical provisions in relation to the net best estimate is the same.

If some or all of these assumptions do not hold, the undertaking should carry out at least a qualitative assessment of how material the deviation from the assumptions is. If the impact of the deviation is not material compared to the risk margin as a whole, then this method can be used. Otherwise the undertaking should either adjust the formula appropriately or be encouraged to use a more sophisticated method.

3) To approximate the discounted sum of all future Solvency Capital Requirements in a single step without approximating the Solvency Capital Requirements for each future year separately as referred in [Article 49(b) TPS3 of the draft Implementing Measures], inter alia by using the modified duration of the insurance liabilities as a proportionality factor.

When deciding on the application of a method based on the modified duration of the insurance liabilities, attention should be paid to the value of modified duration to avoid meaningless results for the Risk Margin.

This method takes into account the maturity and the run-off pattern of the obligations net of reinsurance. Consequently, some considerations should be given regarding the manner in which the best estimate of technical provisions net of reinsurance has been calculated. Further consideration should be given as to whether the assumptions regarding the risk profile of the undertaking can be considered unchanged over time. This includes:

(a) For basic SCR, to consider if the composition and the proportions of the risks and sub-risks do not change over the years;

(b) For counterparty default risk, to consider if the average credit standing of reinsurers and SPVs remains the same over the years;

(c) For operational risk and counterparty default risk, to consider if the modified duration is the same for obligations net and gross of reinsurance;

(d) To consider if the material market risk in relation to the net best estimate remains the same over the years;

(e) For adjustment, to consider if the loss absorbing capacity of the technical provisions in relation to the net best estimate remains the same over the years.

An undertaking that intends to use this method should consider to what extend these assumptions are fulfilled. If some or all of these assumptions do not hold, the undertaking should carry out at least a qualitative assessment of how material the deviation from the assumptions is. If the impact of the deviation is not material compared to the risk margin as a whole, then the simplification can be used.

Otherwise the undertaking should either adjust the formula appropriately or be encouraged to use a more sophisticated method.

4) To approximate the risk margin by calculating it as a percentage of the best estimate.

According to this method, the risk margin should be calculated as a percentage of the best estimate technical provisions net of reinsurance at valuation date. When deciding on the percentage to be used for a given line of business, the undertaking should take into account that this percentage is likely to increase if the modified duration of the insurance liabilities – or some other measure of the run-off pattern of these liabilities - increases.

Undertakings should give due consideration to the very simplistic nature of this approach; it should be used only where it has been demonstrated that none of the more sophisticated risk margin approaches in the above hierarchy can be applied.

When undertakings rely on this method for the calculation of the risk margin, they will need to justify and document the rationale for the percentages used by line of business. This justification and rationale should consider any specific characteristics of the portfolios being assessed. Undertakings should not use this method when negative best estimate values exist.

1.117. Without prejudice to the proportionality assessment and the provisions in Article 49 of the draft Implementing Measures, insurance and reinsurance undertakings may use the simplifications defined in Technical Annex IV when applying the hierarchy of methods.

Guideline 64 – Allocation of the overall risk margin

1.118. Where it is overly complex to calculate the contribution of the individual lines of business to the overall Solvency Capital Requirement during the lifetime of the whole portfolio in an accurate manner, insurance and reinsurance undertakings should be able to apply other methods which are proportionate to the nature, scale and complexity of the risks involved. The methods applied should be consistent over time.

1.119. Where it is overly complex to calculate the contribution of the individual lines of business to the overall SCR during the lifetime of the whole portfolio in an accurate manner, simplified methods may be applied when allocating the overall risk margin to the individual lines of business.

Guideline 65 - Non-interest rate material market risk

1.120. When calculating the risk margin, insurance and reinsurance undertakings should consider all material market risk other than interest rate risk and quantify all such non-hedgeable risk in the calculation of the risk margin.

Calculation of technical provisions as a whole

Guideline 66 – Capturing uncertainty

1.121. Insurance and reinsurance undertakings should understand by the consideration of the uncertainty in order to reliably replicate the future cash-flows associated with insurance or reinsurance obligations that the cash-flows of the financial instruments must not provide only the same expected amount as the cash-flows associated with insurance or reinsurance obligations, but also the same patterns of variability.

Guideline 67 – Reliable replication

1.122. Insurance and reinsurance undertakings should not consider future cash-flows associated with insurance or reinsurance obligations to be reliably replicated if:

(a) One or several features of the future cash-flow, inter alia its expected value, its volatility or any other feature, depend on risks whose specific pattern in the undertaking cannot be found in instruments actively traded in financial markets;

(b) Current trade and price information are not normally readily available to the public, due to the fact that one or several features of the future cash-flow depend to any extent on the development of factors specific to the undertakings, such as expenses or acquisition costs; or,

(c) One or more features of the future cash-flow depend on the development of factors external to the undertaking for which there are no financial instruments for which reliable market values are observable.

Guideline 68 – Short term disruptions

1.123. Where an active and transparent market does not temporarily satisfy one or more of the conditions of being deep and liquid and it is reasonably expected to meet again the conditions during the following three months, insurance and reinsurance undertakings should use prices that were observed during that period for the purposes of these Guidelines.

1.124. Undertakings should asses that the use of these prices does not result in a material error in the valuation of the technical provisions.

Guideline 69 – Unbundling of obligations valued as a whole

1.125. Where under the same contract a number of future cash-flows exist which meet all the conditions in order to calculate the technical provision as whole and other future cash-flows which do not meet some of those conditions, insurance and reinsurance undertakings should unbundle both sets of cash-flows. For the first set of cash-flows, no separate calculation of the best estimate and the risk margin should be required but undertakings should be required to carry on a separate calculation for the second set of cash-flows. If the proposed unbundling is not feasible, in particular when there is significant interdependency between the two sets of cash flows, undertakings should be required to carry on separate calculations of the best estimate and the risk margin for the whole contract.

Future premiums

Guideline 70 – future premium cash-flows versus premium receivable

1.126. Insurance and reinsurance undertakings should establish the future premium cash-flows contained within the contract boundaries at the valuation date and include within the calculation of its best estimate liabilities those future premium cash-flows which fall due after the valuation date.

1.127. Insurance and reinsurance undertakings should treat premiums which are due for payment by the valuation date as a premium receivable on its balance sheet until the cash is received.

Calculation of claims provisions

Guideline 71 – Methods to calculate provisions for outstanding reported claims

1.128. Insurance and reinsurance undertakings should not include the incurred but not reported provision (IBNR) and should not include unallocated loss adjustment expenses (ULAE) in the calculation of the outstanding reported claims provision, which represent the component of the claims provision where events giving rise to the claim have been notified to the insurer.

1.129. Two possible methods to estimate the provision for outstanding reported claims are:

- consideration of the number of claims reported and their average cost;

– case-by-case estimation.

Guideline 72 – Methods to calculate provisions for incurred but not reported claims

1.130. Where chain ladder techniques are used to estimate incurred but not reported provision (IBNR), insurance and reinsurance undertakings should pay a specific consideration to whether the assumptions behind the chain ladder technique hold, or whether adjustments to development patterns are required to appropriately reflect the likely future development.

Guideline 73– Methods for the valuation of claims settlement expenses – unallocated loss adjustment expenses (ULAE)

1.131. When insurance and reinsurance undertakings apply a simplified method for the provision for claims settlement expenses based on an estimate as a percentage of the claims provision, as outlined in Technical Annex II, this should only be considered when expenses can reasonably be assumed to be proportionate to provisions as a whole, where this proportion is stable in time and where the expenses distribute uniformly over the lifetime of the claims portfolio as a whole.

Calculation of premium provisions

Guideline 74 – Cover

1.132. Insurance and reinsurance undertakings should ensure that premium provisions at the valuation date include the valuation of all recognised obligations within the boundary of insurance or reinsurance contracts, for all exposure to future claims events, where:

(a) Cover has incepted prior to the valuation date;

(b) cover has not incepted prior to the valuation date, but the insurance or reinsurance undertaking has become party to the insurance or reinsurance contract providing the cover.

1.142. Without prejudice to the Proportionality Assessment and the provisions in [Article 30(2) of the draft Implementing Measures], undertakings may apply the simplification outlined in Technical Annex III.

Guideline 75 - Considerations for claims costs projections

1.143. Insurance and reinsurance undertakings should ensure that the assessment of the claims cash-flows included in the premium provisions give appropriate consideration to the expected incidence and cost of future claims, including consideration of the likelihood of infrequent, high severity claims and latent claims.

Guideline 76 - Uncertainty of policyholder behaviour

1.144. Insurance and reinsurance undertakings should ensure that the valuation of premium provisions includes an allowance for the possibility that policyholders will exercise options to extend or renew a contract or to cancel or lapse a contract prior to the end of the cover term provided.

Guideline 77- Cash-flow pattern

1.145. Insurance and reinsurance undertakings should ensure that the cash-flow pattern used for discounting premium provisions reflects the timing of expiry of contracts included in the valuation and the consequential impact on the overall duration of future cash-flows, unless they are immaterial to the valuation of premium provisions.

Guideline 78 – Negative premium provision

1.146. Insurance and reinsurance undertakings should ensure that, where the present value of future cash in-flows exceeds the present value of future cash outflows the premium provision, excluding risk margin, is negative.

Calculation of Expected Profits in Future Premiums (EPIFP)

Guideline 79 - Separation of insurance obligations

1.147. For the purpose of the calculation set out in [Article 252(2)SG4 of the draft Implementing Measures], insurance and reinsurance undertakings should split its insurance obligations into those attributable to already paid-in premiums and those attributable to premiums in respect of business in force which are receivable in the future. Undertakings should carry out the separation of insurance obligations using a method which meets the following conditions:

(a) The method is appropriate for the purposes of the calculation set out in [Article 252(2)SG4 of the draft Implementing Measures], and meets the requirements of the respective Guideline on Assumptions used to calculate EPIFP;

(b) The method should be consistently applied to all insurance contracts and over time;

(c) The method should only be amended if there is sufficiently objective evidence that the method is no longer fit-for-purpose. Undertakings should reflect such evidence in writing and ensure it is approved at an adequate level.

Guideline 80 - Assumptions used to calculate EPIFP

1.148. For the purpose of calculating the technical provisions without risk margin under the assumption that the premiums relating to existing insurance and

reinsurance contracts that are expected to be received in the future are not received, undertakings should apply the same actuarial method used to calculate the technical provisions without risk margin in accordance with Article 77 of Solvency II, with the following changed assumptions:

(a) policies should be treated as though they continue to be in force rather than being considered as surrendered;

(b) regardless of the legal or contractual terms applicable to the contract, the calculation should not include penalties, reductions or any other type of adjustment to the theoretical actuarial valuation of technical provisions without a risk margin calculated as though the policy continued to be in force;

(c) rhe other assumptions should be left unchanged.

Methodologies to calculate recoverables from reinsurance contracts and special purpose vehicles

Guideline 81 - Extent of allowance for future reinsurance purchase

1.149. Insurance and reinsurance undertakings should recognise future cash-flows relative to future reinsurance purchasing covering obligations already recognised in the balance-sheet - to the extent that it is replacing any expiring reinsurance arrangements and if it can be demonstrated that it meets the conditions stated below:

(a) the insurance or reinsurance undertaking has a written policy on the replacement of the reinsurance arrangement;

(b) the replacement of the reinsurance arrangement does not take place more regularly than every 3 months;

(c) the replacement of the reinsurance arrangement is not conditional on any future event which is outside of the control of the insurance or reinsurance undertaking. Where the replacement of the reinsurance arrangement is conditional on any future event, that is within the control of the insurance or reinsurance undertaking, then the conditions should be clearly documented in the written policy referred to in point (a);

(d) the replacement of the reinsurance arrangement shall be realistic and consistent with the insurance or reinsurance undertaking's current business practice and business strategy. The insurance or reinsurance undertaking shall be able to verify that the replacement is realistic through a comparison of the assumed replacement with replacements taken previously by the insurance or reinsurance undertaking;

(e) the risk that the reinsurance arrangement cannot be replaced due to capacity constraints is immaterial;

(f) an appropriate estimate of the future reinsurance premium to be charged is made which reflects the risk that the cost of replacing existing reinsurance arrangements may increase;

(g) the replacement of the reinsurance arrangement is not contrary to the requirements that apply to future management actions set out in DA Article 19 TP6.

Guideline 82 – Simplified calculation of recoverables from reinsurance contracts and special purpose vehicles – premium provisions

1.150. In order to estimate the amount of reinsurance recoverable from the gross of reinsurance premium provision amount where a simplified calculation is applied, insurance and reinsurance undertakings should apply a separate gross to net factor to the cash outflow and potentially undertakings should apply a different gross to net factor for the cash inflow. Undertakings should base the gross to net factor for the cash outflow on an examination of past claims events with consideration of the future reinsurance programme applicable. The gross to net factor for the cash inflow should be based on consideration of the relative gross and reinsurance premiums expected to be received and paid.

1.151. Without prejudice to the provisions in the first paragraph of this guideline and the proportionality Assessment undertakings may apply the simplifications outlined in Technical Annex V.

Guideline 83 – Simplified calculation of recoverables from reinsurance contracts and special purpose vehicles – provisions for claims outstanding

1.152. With respect to the provisions for claims outstanding for reinsurance recoverables, insurance and reinsurance undertakings should use separate gross-to-net techniques either for each accident year or for each underwriting year not finally developed for a given line of business or homogeneous risk group if appropriate.

Guideline 84 – Simplified calculation of the counterparty default adjustment

1.153. The simplified calculation of the adjustment for counterparty default given in [Article 50ter of the draft Implementing Measures] being based on the assumption that the probability of default of the counterparty remains constant over time, insurance and reinsurance undertakings proposing to use this simplification should consider whether this assumption is realistic, taking into account the credit quality step of the counterparty and the modified duration of the amounts recoverable from reinsurance contracts and special purpose vehicles.

General Principles in respect of methodologies to calculate technical provisions

Guideline 85 – The projection period

1.154. When assessing whether the projection period and the timing of cash-flows to the policyholders during the year is proportionate, insurance and reinsurance undertakings should at least take into account the following characteristics:
   (a) the degree of the homogeneity of the cash-flows;
   (b) the level of uncertainty i.e. the extent to which future cash flows can be estimated;
   (c) the nature of the cash-flows.

Section 5: Validation

Guideline 86 – Proportionality of technical provisions validation

1.155. Insurance and reinsurance undertakings should require the actuarial function to ensure that the validation process is proportionate, considering the significance of the impact, both in isolation and in combination, of assumptions, approximations and methodologies on the value of technical provisions.

Guideline 87 – Selection of validation approaches and processes

1.156. Insurance and reinsurance undertakings should require the actuarial function to consider which validation approaches and processes are most appropriate depending on the characteristics of the liability and intended use for the approach or process.

Guideline 88 – Qualitative and quantitative approaches

1.157. Insurance and reinsurance undertakings should require the actuarial function to ensure that the validation process covers both quantitative and qualitative aspects and goes beyond a comparison of estimates with outcomes. It should also include qualitative aspects such as assessment of controls, documentation interpretation and communication of results.

Guideline 89 - Regular and dynamic validation process

1.158. Insurance and reinsurance undertakings should require the actuarial function to perform a regular and dynamic process in which it periodically refines validation approaches to incorporate experience gained from carrying out the previous validations and in response to changing market and operating conditions.

Guideline 90 – Comparison against experience – deviations

1.159. Insurance and reinsurance undertakings should ensure that the actuarial function identifies the source of any significant deviations between expected and actual claims experience, splits the total deviation into its main sources and analyses the reasons behind the deviation, in particular whether the deviation appears to be a temporary aberration or whether it indicates a need to review the model or assumptions used.

1.160. Undertakings should ensure that relevant market data and trends are considered as a part of the comparison against experience.

Guideline 91 - Comparison against market for contracts with options and guarantees

1.161. Insurance and reinsurance undertakings should consider whether there is a range of market instruments that are available to approximately replicate the contracts with inherent options and guarantees. Where available, the price of such portfolios should then be compared against the value of the Technical Provisions, calculated as the sum of the best estimate (calculated using cash-flow projections) and risk margin.

Technical Annex I- Simplification for the attribution of the overhead expenses

The recurrent overhead expenses are defined in the following manner:

$$ROA_t = RO_{last} \cdot \left(\frac{RO_{next}}{RO_{last}} \right)^{t/12} \cdot \frac{s + 13 - t}{12(s + 12)}$$

where:

s = expected duration in months to fully settle any obligation arising from the insurance contract, since the start of insurance cover

$t = 1, \cdots, 12$ month of the projection period

RO_{last} = recurrent overhead expenses observed during last 12 months

RO_{next} = recurrent overhead expenses anticipated for next 12 months

ROA_t = recurrent overhead expenses attributable to month t

Technical Annex II- Simplification for claims settlement expenses

Simplification for the provision for claims settlement expenses based on an estimate as a percentage of the claims provision:

This simplification is based on the following formula, applied to each line of business:

$$Provision\ for\ ULAE = R \times [\ IBNR + a \times PCO_reported\ ]$$

where:

R = Simple or weighted average of R_i over a sufficient period of time R_i = Expenses / (gross claims + subrogations).
$IBNR$ = provision for IBNR
$PCO_reported$ = provision for reported claims outstanding
a = Percentage of claim provisions

Technical Annex III - Simplification for premium provisions

Simplification to derive the best estimate for premium provision based on an estimate of the combined ratio in the line of business in question:

The following input information is required:

(a) estimate of the combined ratio (CR) for the line of business during the run-off period of the premium provision;

(b) present value of future premiums for the underlying obligations (as to the extent to which future premiums fall within the contract boundaries);

(c) volume measure for unearned premiums; it relates to business that has incepted at the valuation date and represents the premiums for this incepted business less the premiums that have already been earned against these contracts (determined on a *pro rata temporis* basis).

The best estimate is derived from the input data as follows:

$$BE = CR \cdot VM + (CR-1) \cdot PVFP + AER \cdot PVFP$$

Where:

BE	=	best estimate of premium provision.
CR	=	estimate of combined ratio for line of business on a gross of acquisition cost basis i.e. CR = (claims + claim related expenses) / (earned premiums gross of acquisition expenses).
VM	=	volume measure for unearned premium. It relates to business that has incepted at the valuation date and represents the premiums for this incepted business less the premium that has already been earned against these contracts. This measure should be calculated gross of acquisition expenses.
PVFP	=	present value of future premiums (discounted using the prescribed term structure of risk-free interest rates) gross of commission.
AER	=	estimate of acquisition expenses ratio for line of business.

The combined ratio for an accident year (= occurrence year) is defined as the ratio of expenses and incurred claims in a given line of business or homogeneous group of risks over earned premiums. The earned premiums should exclude prior year adjustment. The expenses should be those attributable to the premiums earned other

than claims expenses. Incurred claims should exclude the run-off result, that is they should be the total for losses occurring in year *y* of the claims paid (including claims expenses) during the year and the provisions established at the end of the year.

Alternatively, if it is more practicable, the combined ratio for an accident year may be considered to be the sum of the expense ratio and the claims ratio. The expense ratio is the ratio of expenses (other than claims expenses) to written premiums, and the expenses are those attributable to the written premiums. The claims ratio for an accident year in a given line of business or homogeneous group of risks should be determined as the ratio of the ultimate loss of incurred claims over earned premiums.

Technical Annex IV - Hierarchy of simplifications for the risk margin

With respect to level (1) of the hierarchy:

Life Underwriting Risk
The simplifications allowed for the SCR-calculations in respect of mortality, longevity, disability risk, expense risk, revision risk and catastrophe risk carry over to the risk margin calculations.

Health Underwriting Risk[2]
The simplifications applied in the life underwriting module can in general be applied also in the sub-module for SLT health underwriting risk, i.e. for health insurance obligations pursued on a similar basis as life insurance. However, some adjustment should be made regarding revision risk (inflation risk should be included), while no simplifications are proposed for health catastrophe risk.

Non-life Underwriting Risk

The calculation of the future SCRs related to premium and reserve risk could be somewhat simplified if renewals and future business are not taken into account:

- If the premium volume in year t is small compared to the reserve volume, then the premium volume for the year t can be set to 0. An example may be business comprising no multiple-year contracts, where the premium volume can be set to 0 for all future years t where $t \geq 1$.
- If the premium volume is zero, then the capital charge for non-life underwriting can be approximated by the formula:

$$3 \cdot \sigma_{(res,mod)} \cdot PCO_{Net}(t),$$

where $\sigma_{(res,mod)}$ represents the aggregated standard deviation for reserve risk and $PCO_{Net}(t)$ the best estimate provision for claims outstanding net of reinsurance in year t.
The aggregated standard deviation for reserve risk $\sigma_{(res,mod)}$ could be calculated using the aggregation steps as described in Articles 83 NLUR4 of Level 2 consolidated text, assuming all the amounts relating to premium risk are equal to zero.

As a further simplification it can be assumed that the undertaking-specific estimate of the standard deviation for premium risk and reserve risk remains unchanged throughout the years.

[2] Pending on final draft Implementing Measures.

Also the underwriting risk charge for catastrophe risk is taken into account only with respect to the insurance contracts that exist at $t = 0$.

Counterparty Default Risk

The counterparty default risk charge with respect to reinsurance ceded can be calculated directly from the definition for each segment and each year. If the exposure to the default of the reinsurers does not vary considerably throughout the development years, the risk charge can be approximated by applying reinsurers' share of best estimates to the level of risk charge that is observed in year 0.

According to the standard formula counterparty default risk for reinsurance ceded is assessed for the whole portfolio instead of separate segments. If the risk of default in a segment is deemed to be similar to the total default risk or if the default risk in a segment is of negligible importance then the risk charge can be arrived at by applying reinsurers' share of best estimates to the level of the total capital charge for reinsurers' default risk in year 0.

With respect to level (2) of the hierarchy:

By using a representative example of a proportional method the reference undertaking's SCR for the year t could be fixed in the following manner:

$$SCR_{RU}(t) = SCR_{RU}(0) \cdot BE_{Net}(t) / BE_{Net}(0) \qquad t = 1,2,3,\cdots$$

Where

$SCR_{RU}(t)$ = SCR as calculated at time $t \geq 0$ for the reference undertaking's portfolio of (re)insurance obligations;

$BE_{Net}(t)$ = best estimate technical provisions net of reinsurance as assessed at time $t \geq 0$ for the undertaking's portfolio of (re)insurance obligations.

The simplification described above can be applied also at a more granular level, i.e. for individual modules and/or submodules. However, it is noted that the number of calculations to be carried out will in general be proportional with the number of modules and/or submodules for which this simplification is applied. Moreover, it needs to be considered whether a more granular calculation as indicated above will lead to a more accurate estimate of the future SCRs to be used in the calculation of the risk margin.

With respect to level (3) of the hierarchy:

With respect to life insurance the duration approach implies that the risk margin *CoCM* could be calculated according to the following formula:

$$CoCM = CoC \cdot Dur_{\text{mod}}(0) \cdot SCR_{RU}(0) / (1 + r_1)$$

where:

$SCR_{RU}(0)$ = the SCR as calculated at time t=0 for the reference undertaking's portfolio of (re)insurance obligations;

$Dur_{mod}(0)$ = the modified duration of reference undertaking's (re)-insurance obligations net of reinsurance at t=0; and

CoC = the Cost-of-Capital rate.

Where $SCR_{RU,}(0)$ includes material sub-risks that will not exist over the whole lifetime of the portfolio (for example non-life premium risk for unexpired contracts or material market risk), the calculation can often be improved by

- excluding these subrisks from $SCR_{RU,}(0)$ for the above calculation;
- calculating the contribution of these subrisks to the risk margin separately;
- aggregating the results (where practicable allowing for diversification).

With respect to level (4) of the hierarchy:

According to this simplification the risk margin *CoCM* is calculated as a percentage of the best estimate technical provisions net of reinsurance at t=0, that is

$$CoCM = \alpha_{lob} \cdot BE_{Net}(0)$$

where

$BE_{Net}(0)$ = the best estimate technical provisions net of reinsurance as assessed at time t=0 for the undertaking's portfolio of (re)insurance obligations within the given line of business;

α_{lob} = a fixed percentage for the given line of business.

Technical Annex V - Simplified calculation of recoverables from reinsurance contracts and special purpose vehicles

With respect to premium provisions:

The Gross-to-Net simplifications referred to below in respect of provisions for claims outstanding, 2), could also be used for the calculation of recoverables in respect of premium provisions, i.e. the provisions for (covered but not incurred) claims related to the current accident year (where $i=n+1$), by using the (anticipated) proportional part of the reinsurance cover for this year. This will be a conservative approach for the ceding (re)insurance undertaking, since the impact of the non-proportional reinsurance for the current accident (business) year is not taken into account.

With respect to provisions for claims outstanding:

1) Gross-to-Net simplification based on provisions for RBNS-claims ("case reserves")

This simplification uses a ratio of net over gross provisions of an available portfolio A in order to estimate the net provisions of another portfolio B (NPB) based on the observable gross provisions of portfolio B (GPB). In other words, the Gross-to-Net simplification (GN) is stipulated as:

$$GN = NPA/GPA$$

where NPA and GPA represents the net and gross provisions of portfolio A, respectively. Then this simplification is applied to calculate the net provisions for portfolio B as follows:

$$NPB = GN \times GPB$$

The following criteria need to be fulfilled in order to apply this simplification:

- The benchmark portfolio (A) is similar to the portfolio (B) for which the simplification is used, cf. the principle of substance over form.

- The ratio (GN) is established by means of credible and sustainable data. This requires a data set exceeding at least two years.

Ceded reinsurance varies with the size, the financial soundness and the risk aversion of a company, so that particular care is required when applying a ratio of net over gross from another benchmark portfolio. Such an approach can therefore only be used in cases where the benchmark portfolio is known to have a very similar nature as the own portfolio. Even if this is the case, however, the cession percentage for non-

proportional reinsurance will heavily depend on the actual occurrence of large losses, and therefore be very volatile.

2) Gross-to-Net simplification based on cumulated paid claims (cumulated cash-flows)

This simplification derives an estimate of net provisions for claims outstanding by using the gross provisions for claims outstanding in combination with an estimate of the impact of the reinsurance covers for the individual accident years.

With respect to the rationale for using this simplification, it is noticed that for past accident years the reinsurance structure for an individual year is known and will (likely) not change retroactively. Accordingly, a comparison of net over gross cumulated cash flows per line of business in the past – differentiated by accident year – may be used to derive an estimate of the impact of proportional and non-proportional reinsurance for the individual accident year (i.e. a Gross-to-Net simplification for the individual accident year).

For each line of business the Gross-to-Net simplifications for the accident years not finally developed (GNi) are stipulated as follows:

$$GN_i = A_{Net,i,n-i} / A_{Gross,i,n-i},$$

where $A_{Gross,i,n-i}$ and $A_{Net,i,n-i}$ represent the cumulated paid claims gross and net of reinsurance, respectively, and n is the latest accident year with observed values of these cash-flows.

These simplifications are then used to calculate the net provisions for claims outstanding for the individual accident years, that is

$$PCO_{Net,i} = GN_i \times PCO_{Gross,i}$$

where $PCO_{Gross,i}$ and $PCO_{Net,i}$ represent the gross and net provisions for claims outstanding for accident year i, respectively.

In order to apply this simplification both gross and net cumulated paid claims (gross and net cash flows) per accident year need to be available for each line of business.

For newer accident years and especially the last accident year (where $i=n$) the stipulated simplification might be a bit too high due to the fact that the IBNR claims are likely to constitute a large part of the provisions for claims outstanding. Accordingly, the stipulated simplification is likely to lead to an overestimation of the net provisions in these cases.

Technical Annex VI - Simplified calculation during the year for the risk margin

The Risk Margin at a given point in time during the forthcoming year (i.e. *CoCMlob(t)*) could be calculated as follows:

$$CoCM(t) = CoCM(0) \cdot BE_{Net}(t)/BE_{Net}(0),\ 0 < t < 1$$

where:

$CoCM(0)$ = risk margin as calculated at time $t=0$ for the reference undertaking's portfolio of (re)insurance obligations,

$BE_{Net},(t)$ = best estimate technical provisions net of reinsurance as assessed at time $t\geq=0$ for the reference undertaking's portfolio of (re)insurance obligations.

2. Explanatory text

Section 1: Data quality

Clarification of the concepts of completeness and appropriateness of data

Guideline 1 – Completeness of data

Insurance and reinsurance undertakings should ensure that data used in the calculation of technical provisions covers a sufficiently large period of observations that characterise the reality being measured.

To perform the calculation of premium provisions for non-life obligations, undertakings should ensure that sufficient historical information is available on the total cost of claims and their actual trends at a sufficiently granular level.

To perform the calculation of provisions for claims outstanding, undertakings should ensure that sufficient data is available to allow for the identification of relevant patterns on the claims development, and with sufficient granularity, in order to permit analysis of such patterns within homogeneous risk groups.

2.1. A sufficiently large period of observations is necessary to enable the identification of relevant trends or cycles in the data.

2.2. To project the cash-flows arising from life provisions, sufficient data needs to be available to allow for the projection of, namely:

- the behaviour of the biometric factors, such as mortality and morbidity rates;
- the probabilities associated to the policyholders' exercise of contractual options (lapses and surrenders);
- all types of expenses incurred in servicing insurance and reinsurance obligations.

2.3. For example, where only one run-off triangle of paid claims, containing 5 years of historical information is available to be used as input in the calculation of claims provision for Motor Third Party Liability Line of Business these data is not considered complete for, at least, the following reasons:

2.4. There are not sufficient years of information available that allow for the identification of the relevant trends in the development pattern of claims, independently of the methodology chosen to calculate technical provisions. There is not sufficient granularity in this data because it comprises observations associated to different homogeneous risk groups, which are not identified in this data set. For instance, there is a mix in this triangle of body injury liabilities (long term feature) with material damages (short term feature).

Guideline 2 – Appropriateness of data

Insurance and reinsurance undertakings should ensure that data relating to different time periods is used consistently.

Undertakings should apply adjustments to historical data, if necessary, to increase its credibility or enhance its quality as an input to determine more reliable estimates of technical provisions, and to better align it with the characteristics of the portfolio being valued and with future expected development of risks.

2.5. Inconsistencies could arise due to changes in contract design, changes in underwriting or administration procedures, changes in IT systems or changes in risk characteristics.

2.6. Another point that needs to be highlighted is the introduction of adjustments to historical data processed under Solvency I framework, in order to achieve the compliance with Solvency II requirements, when necessary. When converting data for this purpose, the impact that such transformations may have on the quality of data after the adjustments have been introduced needs to be considered.

2.7. The following is a non-exhaustive list of situations that are likely to require adjustments to the historical data:

(a) unusually heavy or light experience in a given period;
(b) reflection of claims cycles;
(c) reflection of future expected trends;
(d) reflection of changes in risk;
(e) reflection of changes in cover;
(f) reflection of changes in the reinsurance policies;
(g) occurrence of large or exceptional claims.

2.8 The analysis of the source and impact of unusual observations is necessary in order to decide which weights need to be assigned to these observations. There may be cases where these observations are treated as outliers or even removed if they are the result of any operational errors, in order to ensure the accuracy of the observations considered for the intended purpose. In other cases such observations are important to understand the nature of the underlying risks and, for this reason, are being considered and documented.

Review and validation of data quality

Guideline 3 – Data checks

Insurance and reinsurance undertakings should ensure that the actuarial function

assesses the accuracy and completeness of data through a sufficiently comprehensive series of checks to meet the criteria set out in the previous guidelines, and to allow detection of any relevant shortcomings.

Insurance and reinsurance undertakings should ensure that the actuarial function carries out the assessment at an appropriately granular level.

2.9. Examples of possible checks include:

- A comparison with data used for a previous calculation;
- Checking that data values lie within reasonable limits;
- Checking that the data are consistent with data from other sources;
- Spot checks (e.g. random samples compared with raw data).

Guideline 5 - Consideration of the methodologies to be applied

Insurance and reinsurance undertakings should ensure that the actuarial function takes into account the relation between the conclusions of the analysis of the data quality and the selection of the methodologies to be applied to value the technical provisions.

Undertakings should ensure that the actuarial function analyses the extent to which data used is adequate to support the assumptions underlying the methodologies to be applied to value the technical provisions. If data do not adequately support the methodologies, then the undertaking should select an alternative methodology.

In the assessment of completeness of data undertakings should ensure that the actuarial function considers whether the number of observations and granularity of available data is sufficient and adequate to meet the input requirement for the application of the methodology.

2.10. It is important to highlight the link associated to the criterion of completeness (captured by the third paragraph). What is meant by this link is the fact that the data can be considered as complete assuming that the actuarial function intends to apply a particular method to calculate technical provisions but if the selected method requires more information (e.g. a longer data series than available) data would not satisfy this criterion.

2.11. The link between data quality and methodologies also applies on reverse: depending on the characteristics of the data available, the actuarial function may base its decision of applying a relevant method instead of another that could also lead to an adequate reflection of the undertaking's risk profile, if the data available does not fulfil all the inputs required to implement the method. Also, depending on the result of the assessment of the data quality, the

actuarial function shall gain insights that will influence the selection of the most appropriate methodology to reproduce the underlying risks being measured.

Material limitations of data

Guideline 9 – Identification of the source of material limitations

Insurance and reinsurance undertakings should ensure that the actuarial function assesses the data accuracy, completeness and appropriateness in order to identify any material limitations of the data. If material limitations are identified, the sources of those limitations should also be identified.

2.12. Some generic examples of different sources of material limitations are given for instance in the Explanatory text of Guideline 11 on Data Adjustments.

Guideline 11 – Data adjustments

Where data deficiencies are identified, insurance and reinsurance undertakings should ensure that the actuarial function assesses whether the quality of data considering its purpose can be improved by adjusting or supplementing it.

Undertakings should not use approximations as an alternative to implement appropriate systems and processes for collecting material and relevant information and building historical databases.

When external data is used for such approximations, undertakings should ensure that data remains compliant with the standards set in these guidelines regarding the quality of data.

Undertakings should decide whether it is possible to adjust data to overcome the shortcomings which affect the quality of data and, if applicable, what specific adjustments should be introduced.

Undertakings should ensure that the adjustments are limited to the level strictly necessary to enhance compliance with the criteria set out in the previous guidelines and to not distort the identification of trends and any other characteristics regarding the underlying risks reflected in the data.

2.13. Where data is identified as deficient, a way in which data can be adjusted is the substitution of average values for invalid or missing entries.

2.14. The shortcomings covered by this guideline which are the result of lack of completeness may arise from the own nature and size of the portfolio, for instance, due to the low frequency of claims, the cases of a new insurance company or a new line of business, the small volume of the portfolio, the

introduction of legal or other changes in the operating environment that may affect the adequacy of the historical data for the purpose of valuation of technical provisions or due to the heterogeneity in the information that may distort the identification of claims patterns on the basis of which a reliable estimate could be derived.

2.15. Undertakings should ensure that, if needed, the actuarial function uses appropriate approximations, including case by case approaches, which could imply the use of assumptions relying on expert judgment to data in order to allow valuation of technical provisions.

2.16. Some examples of the shortcomings in the internal processes of collecting, storing or validating data quality are: the presence of deficiencies in the internal processes due to IT mistakes, the high cost of collecting or maintaining existent data or a misinterpretation of what is necessary in achieving an appropriate valuation.

2.17. The role of the actuarial function towards the correction of the shortcomings is limited to the identification of its source and to investigate how the deficiency can be solved or at least attenuated and convey the conclusions obtained by specifying any relevant actions that could be carried out envisaging this purpose. Therefore, it is not expected that the actuarial function is required to carry out such actions.

Guideline 13 – Application of expert judgment upon material limitations

Where there are material limitations to the data that cannot be remedied without undue complexity, insurance and reinsurance undertakings should ensure that expert judgment is applied to overcome these limitations to ensure that technical provisions are appropriately calculated. The calculation of technical provisions should not be impaired as a result of inaccurate or incomplete data.

2.18. Even if the portfolio of an undertaking is big enough to derive statistically valid evidence regarding lapse and biometrics, market and competitor's developments, trends, as well as information provided by national actuarial associations, trade bodies, etc. may be considered in the valuation of technical provisions. Expert judgment accompanies this process to decide if data has to be adjusted.

2.19. To overcome data limitations, expert judgment can be applied to modify data, exclude outliers as well as to supplement data. Careful attention shall be paid to data outliers with a view to deciding that they are not relevant to consideration of future models and assumptions, or ensuring that the models and assumptions for the future make adequate provision for the possibility of such events occurring again, or other rare events occurring, with appropriate regard to frequency and severity.

2.20. The application of expert judgment is always applied in conjunction with available internal and external information. Where expert judgment is used to overcome material data limitations, the data source that is available also needs to be analysed as a source of information.

Market Data

Guideline 15 – Use of market data

When valuing liabilities which depend directly on the behaviour of financial markets or in cases where the calculation of technical provisions requires the input of data from an external source, insurance and reinsurance undertakings should be able to demonstrate that external data is more suitable than internal data for the intended purpose. Undertakings should ensure that external data supplied by third parties or market data complement the internal data available.

Notwithstanding the level of dependencies of the liabilities on market conditions or the level of quality regarding the available internal data, undertakings should consider relevant external benchmarks where appropriate. External data should be part of the analysis to assess the general compliance with requirements on data quality.

2.21. This will be the case, for instance, for inflation indices and other information that effectively contributes to the understanding of the risks underlying the liability portfolio and to the setting of realistic and credible assumptions.

2.22. It is important to complement the reserving analysis and enhance the understanding of the risks that undertakings are subjected to and their position in the market, which is relevant information in the scope of the calculation of technical provisions.

Guideline 16 - Conditions on market data

To carry out the assessment of the level of accuracy, appropriateness and completeness of external data, insurance and reinsurance undertakings should ensure that the actuarial function knows and considers in its analysis the reliability of the sources of information and the consistency and stability of its process of collecting and publishing information over time.

Moreover, undertakings should ensure that the actuarial function considers all the realistic assumptions and relevant methodologies applied to derive data, including any adjustments or simplifications applied to raw data. The actuarial function should be aware of, and take into consideration, if any changes that have been applied over time to external data, whether those changes relate to assumptions or associated

methodologies or any other procedures regarding the collection of external data.

Moreover, whenever it is accessible and adequate, undertakings should ensure that the actuarial function measures the quality of available data in the context of provisioning analysis in regard to available industry or market data which is deemed comparable, and in particular to the requirements set in Article 76(3) of Directive 2009/138/EC. Any material deviations should be identified and understood by the actuarial function. This analysis could refer to the specificities of the particular homogeneous risk group being valued.

2.23. The actuarial function needs to consider any adjustments that may have been introduced in raw market data (data actually observed without any type of corrections or adjustments) and be aware of the materiality of the difference between the raw observations and the final data set collected in order to evaluate the potential impact that such differences would have in the result of technical provisions and if material, whether it improves how well the undertaking's risk profile is represented. Furthermore, the actuarial function has to know the main motivations for this introduction, meaning that the actuarial function is supposed to understand the information to be given as input in the calculation of technical provisions comprising the main relevant processes of data transformation that it may have been through in order to perform a realistic assessment of the level of quality of this information.

2.24. The adjustments may be the result of several motivations, e.g., the increase of consistency between different periods of time. Such adjustments may be the result of the application of assumptions in line with the methodologies to be applied or be introduced more or less independently of the methods to be used, and related to data themselves (which is the case of the example given above).

Section 2: Segmentation and unbundling

Guideline 19 - Determining and assessing appropriateness of a homogeneous risk group

Insurance and reinsurance undertakings should calculate technical provisions using homogeneous risk groups in order to derive assumptions.
A homogeneous risk group encompasses a collection of policies with similar risk characteristics. In selecting a homogeneous risk group, undertakings should achieve an appropriate balance between the credibility of data available, to enable reliable statistical analyses to be performed, and the homogeneity of risk characteristics within the group. Undertakings should define homogeneous risk groups in such a manner that those are expected to be reasonably stable over time.
Where necessary, undertakings should for the derivation of risks inter alia take into account the following items:
(a) underwriting policy;

(b) claims settlement pattern;
(c) risk profile of policyholders;
(d) product features, in particular guarantees;
(e) future management actions.

Undertakings should ensure consistency between the homogeneous risk groups they use to assess its gross of reinsurance technical provisions and its reinsurance recoverables.

2.25. Key factors in assessing credibility of data within a potential homogeneous risk group include availability of sufficient historical information to identify trends and assess the characteristics of the underlying risks.

2.26. Homogeneous risk groups may change in the long run as the portfolio composition changes and requires further granularity of treatment.

2.27. Some policies may have different coverage, e.g. a motor policy may cover own damage and liability which requires allocation into separate homogeneous risk groups.

2.28. Homogeneous risk groups for outwards reinsurance business are expected to be consistent with underlying business but this does not imply that the same homogeneous risk groups need to be used for both.

Guideline 20 - Calculations on level of grouped policies

In order to calculate the technical provisions and carry out cash-flow projections, insurance and reinsurance undertakings should apply the assumptions derived at the level of homogeneous risk groups to individual policies or grouped policies, where the groupings may be more granular than homogeneous risk groups.

2.29. For life insurance obligations, it is expected that undertakings need to estimate cash-flows using individual or grouped policies. For non-life insurance, the technical provisions would typically be estimated using the homogeneous risk group directly. For example, a homogeneous risk group in line of business 30 (Insurance with profit participation) could include all policies from line of business 30 with the same features: level of guaranteed rate, underlying biometrical table, profit sharing regime, product rules, and so on. In contrast, a grouping of policies for the purpose of the calculation could include all policies from this homogeneous risk group where the insured are of the same sex, within the same (5 year) age-bracket, have similar outstanding insurance terms, similar health conditions, similar insured sums, and so on.

Guideline 22 - Granularity of segmentation

Insurance and reinsurance undertakings should analyse whether the granularity of the segmentation of insurance or reinsurance obligations adequately reflects the nature of the risks. This segmentation should consider the policyholder's right to profit participation, options and guarantees embedded in the contracts and the relevant risk drivers of the obligations.

2.30. Contracts with different guarantee level might require further segmentation.

2.31. In order to ensure that appropriate assumptions are used, it is important that the assumptions are based on homogeneous data to avoid introducing distortions which might arise from combining dissimilar business. Therefore, business is usually managed in more granular homogeneous risk groups than the proposed minimum segmentation where it allows for a more accurate valuation of technical provisions.

2.32. Undertakings in different Member States and even undertakings in the same Member State offer insurance products covering different sets of risks. Therefore it is appropriate for each undertaking to define the homogeneous risk group and the level of granularity most appropriate for their business and in the manner needed to derive appropriate assumptions for the calculation of the best estimate.

2.33. For example, the grouping has to consider whether policies containing financial guarantees which are "significantly in the money" (i.e. where the intrinsic value is positive) need to be separated from policies which contain financial guarantees that are "significantly out of the money".

Guideline 23 – Segmentation in respect of premium provisions and claims provisions

Insurance and reinsurance undertakings should consider both the nature of the underlying risks being evaluated together and the quality of data in selecting the homogeneous risk groups for the calculations of the premium provisions and claims provisions.

2.34. Premium provisions need to be valued based on the most appropriate subsets of data available. Data used does not necessarily have to be segmented into the same homogeneous risk groups as that used in calculating the claims provisions. For example, if data is sparse for a particular risk group, it may be combined with another, similar, risk group in order to obtain a more meaningful data set for valuation purposes.

Section 3: Assumptions

Biometric risk factors

Guideline 25 – Modelling biometric risk factors

Insurance and reinsurance undertakings should consider whether a deterministic or a stochastic approach is proportionate to model the uncertainty of biometric risk factors.

Undertakings should take into account the duration of the liabilities when assessing whether a method that neglects expected future changes in biometrical risk factors is proportionate, in particular in assessing the error introduced in the result by the method.

Undertakings should ensure, when assessing whether a method that assumes that biometric risk factors are independent from any other variable is proportionate, and that the specificities of the risk factors are taken into account. For this purpose, the assessment of the level of correlation should be based on historical data and expert judgment, as set out in guidelines on expert judgment.

2.35. For large portfolios where it could be assumed that the law of large numbers causes the variation to be rather narrowly spread around the mean, except possibly for the trend forecast for which the error is not diversifiable within a line of business, a deterministic approach could be proportionate to model the uncertainty of biometric risk factors.

2.36. The consideration of expected future changes in biometrical risk factors is particularly relevant for contracts with long term or long tail liabilities. Therefore, the application of a simplification neglecting expected future changes in biometrical risk factors to insurance contracts with short/medium term or short/medium liabilities should, in principle, not give rise to any material error. However, if the undertaking has a large portfolio of long term contracts, e.g. annuities, or contracts with long tail liabilities, then simply neglecting expected future changes or, more specifically future trends, will not be appropriate. This does not mean however that the undertaking needs to follow a stochastic approach to model trends, as other simpler alternatives may be available.

2.37. The decision under which situation it will be appropriate to use a simplification assuming that biometric risk factors are independent from any other variable will depend on the specific risk factors it is referring to. If two risk factors are highly correlated then assuming independence will potentially give rise to a material error. But for risk factors which have a low impact on biometric risk factors, assuming independence can be considered appropriate.

2.38. Further examples of simplified methods for biometric risk factors are the use of group of cohorts or period data to analyse biometric risk factors or the application of current tables in use adjusted by suitable multiplier functions.

Guideline 26 – Expenses for hedging

For insurance and reinsurance undertakings using a hedging program to mitigate risks, the expenses of the hedging program should be taken into account in the valuation of technical provisions. The expected incurrence of such expenses should be reflected in the projected cash in-flows and cash out-flows required to settle the insurance and reinsurance obligations.

2.39. Regard must be had to the expenses of the hedging program, which include, *inter alia*, infrastructure expenses such as IT and quantitative analyst staff, transaction costs of hedging instruments, costs of service level agreements where trading is outsourced. Particular regard must also be had to the expense of the hedging program in turbulent or illiquid markets.

Guideline 27 – Availability of market data

Insurance and reinsurance undertakings should assess the availability of relevant market data on expenses by considering the representativeness of market data relative to the portfolio of insurance or reinsurance obligations and the credibility and reliability of data.

2.40. The assessment of the expenses that will be incurred in servicing insurance and reinsurance obligations consider data from external sources such as average industry or market data.

2.41. Where average market information is used, consideration needs to be given as to the representativeness of the data used to form that average. For example, market information is not deemed to be sufficiently representative where the market information has material dispersion in representativeness of the portfolios whose data have been used to calculate such market information.

2.42. The assessment of credibility considers the volume of data underlying the market information.

2.43. The actuarial guideline on data quality standards gives further guidance on the concepts of credibility and reliability.

Guideline 28 – Expenses taken into account on contractual terms

Insurance and reinsurance undertakings should ensure that expenses that are determined by contracts between the undertaking and third parties are taken into account based on the terms of the contract. In particular, commissions arising from insurance contracts are considered based on the terms of the contracts between the undertakings and the sales persons, and expenses in respect of reinsurance are taken into account based on the contracts between the undertaking and its reinsurers.

2.44. Expenses that will be incurred in servicing insurance and reinsurance obligations also include commissions that will have to be paid or commissions that are being returned in the case of cancellation (claw back) of the insurance contract. The assessment of these expenses should be carried out based on the agreement between the insurance undertaking and the sales persons.

2.45. Expenses that relate to the internal processes of the insurer for reinsurance and special purpose vehicles should be taken into account when calculating technical provisions.

Expense allocation

Guideline 29 – Granularity of allocation of expenses

Insurance and reinsurance undertakings should allocate the expenses into homogeneous risk groups, as a minimum by line of business according to the segmentation of their obligations used in the calculation of technical provisions.

2.46. Expenses that are pertinent to the valuation of technical provisions would usually include both allocated and overhead expenses. Allocated expenses are those expenses which could be directly assignable to the source of expense that will be incurred in servicing insurance and reinsurance obligations. Overhead expenses comprise all other expenses which the undertaking incurs in servicing insurance and reinsurance obligations.

2.47. [The first and second paragraph of Article 24 TP11 of the draft Implementing Measures] explicitly list expenses which relate to recognised insurance and reinsurance obligations.

2.48. Administrative expenses are expenses which are connected with policy administration including expenses in respect of reinsurance contracts and special purpose vehicles. Some administrative expenses relate directly to the insurance contract or the contract activity (e.g. maintenance cost) such as the cost of premium billing, the cost of sending regular information to policyholders and the cost of handling policy changes (e.g. conversions and reinstatements). Other administrative expenses relate directly to insurance contracts or contract

activities but are a result of activities that cover more than one policy such as salaries of staff responsible for policy administration.

2.49. Investment management expenses are usually not allocated on a policy by policy basis but at the level of a portfolio of insurance contracts. Investment management expenses could include expenses of recordkeeping of the investments' portfolio, salaries of staff responsible for investments, remunerations of external advisers, expenses connected with an investment trading activity (i.e. buying and selling of the portfolio securities) and in some cases also remuneration for custodial services.

2.50. Investment management expenses are considered as cash out-flow in the calculation of the best estimate since discounting is made with a yield curve gross of investment expenses.

2.51. Claims management expenses are expenses that will be incurred in processing and resolving claims, including legal and adjuster's fees and internal costs of processing claims payments. Some of these expenses could be assignable to individual claim (e.g. legal and adjuster's fees), others are a result of activities that cover more than one claim (e.g. salaries of staff of claims handling department).

2.52. Acquisition expenses include expenses which can be identified at the level of individual insurance contract and have been incurred because the undertaking has issued that particular contract. These are commission costs, costs of selling, underwriting and initiating an insurance contract that has been issued.

2.53. Overhead expenses include salaries to general managers, auditing costs and regular day-to-day costs i.e. electricity bills, rents for accommodations, IT costs. These overhead expenses also include expenses related to the development of new insurance and reinsurance business, advertising insurance products, improvement of the internal processes such as investment in system required to support insurance and reinsurance business (e.g. buying new IT system and developing new software).

2.54. Expenses connected with activities which are not linked with servicing insurance and reinsurance obligations are not taken into account when calculating technical provisions. Such expenses could be for example company pension scheme deficits, holding companies' operational expenses connected with expenses linked to entities which are not insurance or reinsurance undertakings.

Guideline 30 – Apportionment of overheads

Insurance and reinsurance undertakings should allocate overhead expenses in a

realistic and objective manner, and should base the allocation on recent analyses of the operations of the business, on the identification of appropriate expense drivers and on relevant expense apportionment ratios. This approach should be used to apportion overhead expenses between the existing and the future business.

Without prejudice to the proportionality assessment and the first paragraph of this guideline, insurance and reinsurance undertakings may use, in order to allocate overhead expenses, the simplification outlined in Technical Annex I, provided that the following conditions are met:

(a) the undertaking pursues annually renewable business;

(b) the renewals must be reputed to be new business according the boundaries of the insurance contract;

(c) the claims occur uniformly during the coverage period.

2.55. The process of apportionment of expenses between the existing and the future business should be done in realistic and objective manner. This can be achieved by analysing the operations of the business. Expenses are calculated on the assumption of an on-going business basis. The assumed new business may support an increasing share of the unallocated expenses in the future, with less of unallocated expenses allocated to the business existing at the valuation date. Based on these factors, the identification of appropriate expense drivers and relevant expense apportionment ratios can be determined.

Projection of expenses

Guideline 32 – Consistency of expenses with other cash-flows

Insurance and reinsurance undertakings should allocate expenses in the cash-flow projection so that the timing of expense cash-flows is consistent with the timing of other cash in-flows and cash out-flows required to settle the insurance and reinsurance obligations.

2.56. For example premium billing expenses should be aligned with the time when the premium payment is due or expenses connected with the conversion should be aligned in time with the conversion of the policy. Similarly expenses connected with the lapse of the policy or with claims should be aligned in time with the event of claim or with laps of the policyholder.

2.57. Also the surrender charge should be aligned in time with the event of surrender and offset the expenses connected with conversion of the policy.

Guideline 33 – Changes in expenses

Insurance and reinsurance undertakings should ensure that assumptions with respect to the evolution of expenses over time, including future expenses arising from commitments made on or prior to the valuation date, are appropriate and consider the nature of the expenses involved. Undertakings should make an allowance for inflation that is consistent with the economic assumptions made.

2.58. Future expense cash flows are usually assumed to vary with assumed rates of general level of expense inflation in a reasonable manner.

2.59. Relevant market data should be used to determine expense assumptions which include an allowance for future cost increases. The correlation between inflation rates and interest rates should be taken into account. An undertaking needs to ensure that the allowance for inflation is consistent with the economic assumptions made, which could be achieved if the probabilities for each inflation scenario are consistent with probabilities implied by market interest rates. Furthermore, expense inflation must be consistent with the types of expenses being considered (e.g. different levels of inflation might be expected regarding office space rents, salaries of different types of staff, IT systems, medical expenses, etc.).

Guideline 34 – Simplifications in respect of expenses

When assessing the nature, scale and complexity of risks underlying the expenses which are taken into account in the calculation of the technical provisions, insurance and reinsurance undertakings should take into account, *inter alia*, the uncertainty of future expense cash-flows, and any event that can change the amount, frequency and severity of expense cash-flows.

Undertakings should also take into account the type of expenses and the degree of correlation between different types of expenses.

When using a simplification for the projection of expenses based on a model which uses information on current and past expense loadings to project future expense loadings including inflation, undertakings should analyse current and historical expenses, giving consideration to, *inter alia,* where expenses occur and the factors that influence the expenses. Undertakings should include in the proportionality assessment an analysis of how the expenses are related to the size and nature of insurance portfolios. Undertakings should not apply the simplification where expenses have substantially changedor are expected not to cover all but only part of the expenses required to service insurance and reinsurance obligations.

2.60. The approach to value the expense liability relies on the existence of the model that projects the expenses into the future consistently with other cash-flows. This may require rather sophisticated modelling that might not be justified for all undertakings.

2.61. Under a stochastic simulation approach the expenses to be incurred should be explicitly included in the simulation and the future expense inflation needs to be consistent with what is assumed in the interest rate assumptions and other relevant factors influencing the expenses. In many cases, both the future expenses and the expense loadings may be sensitive to changes in inflation. However, one cannot assume these to be equal to each other unless there is proper evidence of such matching. The reference for expense inflation needs to be based on the published prediction of an appropriate inflation-index.

2.62. For the attribution of overhead expenses, a possible simplification is the method described in Technical Annex II.

Guideline 35 – Charges for embedded options

Insurance and reinsurance undertakings should explicitly take into account amounts charged to policy holders relating to embedded options.

2.63. Charges from embedded options are taken into account in the best estimate valuation of technical provisions and they are kept separately from expense loadings. For example a surrender charge could possibly be seen as a charge to offset the uncollected charges on average, but could also be seen as a way to force the policyholder to continue the contract and hence it would not directly be related to the cost of embedded options.

2.64. Some charging structures for embedded options are disclosed in the valuation basis for a product, whereas some charging structures are disclosed in an undertaking's principles and practices to run the business.

2.65. Possible simplifications for other charges are to assume that:

- other charges are a constant share of extra benefits; or
- a constant charge (in relative terms) from the policy fund.

Guideline 36 - Allowance for financial guarantees and contractual options

Insurance and reinsurance undertakings should identify the risks underlying financial guarantees and contractual options in accordance with [Article 26(1) of the draft Implementing Measures] and take those into account in the proportionality assessment.

2.66. Contractual options are present where there is the right to change the benefits, to be taken at the choice of its holder (generally the policyholder), on terms that are established in advance.

2.67. A financial guarantee is present when there is the possibility to pass losses to the undertaking or to receive additional benefits[3] as a result of the evolution of financial variables; solely or in conjunction with non-financial variables (e.g. investment return of the underlying asset portfolio, performance of indices, etc.).

2.68. In order to trigger an option, a deliberate decision of its holder is necessary. In the case of guarantees, the trigger is generally automatic (the mechanism would be set in the policy's terms and conditions) and thus not dependent on a deliberate decision of the policyholder.

2.69. Some non-exhaustive examples of contractual options which may be pre-determined in a contract and do not require again the consent of the parties to renew or modify the contract include the following:

(a) Surrender value option, where the policyholder has the right to fully or partially surrender the policy and receive a pre-defined lump sum amount;

(b) Paid-up policy option, where the policyholder has the right to stop paying premiums and change the policy to a paid-up status;

(c) Annuity conversion option, where the policyholder has the right to convert a lump survival benefit into an annuity at a pre-defined minimum rate of conversion;

(d) Policy conversion option, where the policyholder has the right to convert from one policy to another at pre-specific terms and conditions;

(e) Extended coverage option, where the policyholder has the right to extend the coverage period at the expiry of the original contract without producing further evidence of health.

2.70. The following is a non-exhaustive list of examples of common financial guarantees embedded in life insurance contracts:

- Guaranteed invested capital;
- Guaranteed minimum investment return;
- Minimum guaranteed benefits.

2.71. The assessment of proportionality should include the assessment of the nature, scale and complexity of the risks underlying insurance and reinsurance obligations. The assessment of which contractual options are proportional could

[3] This has to be interpreted as also including the potential for reduction of the level of premiums that would be charged in the future.

for instance be based on expected take-up rates of the option, whether they are out of the money and what is their impact. An example of a contractual option where there is a low take-up rate is when the possibility to surrender is very limited, e.g. where surrender is only possible if you emigrate abroad.

2.72. Furthermore it can be considered if policyholders' contractual options are counterbalanced by undertakings' options. The undertakings can assess the possibility to equal out policyholders contractual options by e.g. reducing benefits, sharing costs with policyholders or applying penalty costs. An example of this would be the undertaking's possibility to charge surrender penalties equal to the difference between the "gross" surrender value and the market value of the policyholder's contract. This implies that the surrender option will always have a value of 0.

Guideline 37 - Appropriateness of assumptions

Insurance and reinsurance undertakings should ensure that the assumptions used in the valuation of contractual options and financial guarantees are consistent with current market data, current market practice, policyholder and management behaviour specific to the characteristics of the business and the undertaking. Undertakings should also consider the impact of adverse market conditions and trends and establish a regular process for updating and ensuring that those assumptions are still realistic taking into account all additional information since the last calculation of technical provisions.

2.73. Assumptions on policyholder behaviour are based on an analysis of past and likely future policyholder behaviour, from a general market perspective and from the particular perspective of the undertaking. Assumptions are based on the experience of the undertaking in relation to the exercise of contractual options, where appropriate, but reflect the likely trends in experience as a result of any change in the circumstances of the company and its customers, changing market conditions and other external factors.

Guideline 38 - Assumptions on policyholder behaviour

Insurance and reinsurance undertakings should ensure that the assumptions relating to policyholder behaviour are appropriately founded in statistical and empirical evidence. Undertakings should consider the extent to which policyholders exercise contractual options in a financially rational manner when deriving such assumptions. For this purpose, undertakings should give consideration to policyholders' awareness of the value of policy options and to policyholders' possible reactions to the changing financial position of the undertaking.

2.74. In case of significantly rising interest rates in the capital market, impacts on the persistence of the business in force are analysed. It is examined if the impact varies by product type or target group (e.g. contracts where the policyholder does not bear the investment risk, contracts with profit-participation clauses).

2.75. The impact of negative developments at the financial markets on the exercising of the lump-sum option of deferred pension policies is also considered.

Future management actions

Guideline 39 – Allowance for future management actions

Insurance and reinsurance undertakings should be able to provide adequate justification where future management actions are ignored on the grounds of materiality.

2.76. To ensure an appropriate allowance of the future management actions, the calculation of technical provisions needs to consider all factors which may materially affect the likelihood and timing of applying such actions and how they may vary in different scenarios.

2.77. In accordance with Article 77(2) of the framework directive, technical provisions capture the uncertainty of cash-flows as reflected by the probability-weighted average calculation of the best estimate. The likelihood and severity of outcomes from multiple scenarios need to be considered and the relevant risk drivers combined appropriately.

2.78. Some non-exhaustive examples of future management actions include:

(a) Changes in asset allocation, as management of gains / losses for different classes in order to gain a target segregated fund return; management of cash balance and equity backing ratio with the aim of maintaining a defined target asset mix in the projection period; management of liquidity according to the asset mix and duration strategy; actions to maintain a stable allocation of the portfolio assets in terms of duration and product type; actions for the dynamic rebalancing of an asset portfolio according to movements in liabilities and changes in the market conditions;

(b) Changes in bonus rates or product changes, for example on profit sharing policies to mitigate market risks;

(c) Changes in expense charge, for example related to guarantee charge, or related to increased charging on unit-linked or index linked business.

Future discretionary benefits

Guideline 42– Allowance for future discretionary benefits
Insurance and reinsurance undertakings should take into account future discretionary benefits which are expected to be made, whether or not those payments are contractually guaranteed. Undertakings should ensure that the assessment of the value of future discretionary benefits considers all relevant legal and contractual restrictions, existing profit participation arrangements, the expected future performance of the assets as well as plans for distribution of profits.

2.79. Payments that relate to surplus funds which possess the characteristics of Tier 1 basic own funds need not to be taken into account. Surplus funds are accumulated profits which have not been made available for distribution to policyholders and beneficiaries (cf. Article 91 of Solvency II). Payments that relate to future profits attributable to shareholders in respect of profit participation arrangements do not form part of technical provisions.

2.80. When calculating technical provisions, the value of future discretionary benefits needs to be separately identifiable, as this amount is used as an input for the calculation of the minimum capital requirement and for the loss-absorbing capacity of technical provisions in the standard formula to capture the solvency capital requirement.

2.81. Some examples of assumptions for distributing discretionary benefits are the following. The actuarial function considers whether they are relevant and material for the valuation of future discretionary benefits and thus are taken into account, applying the principle of proportionality.

(a) How is a profit/loss divided between owners of the undertaking and the policyholders and furthermore between different policyholders? What are the planned reattributions of ownership of the surplus between policyholders and shareholders?

(b) Are there any restrictions to allocate the profits of certain assets?

(c) How will the mechanism for discretionary benefits be affected by a large profit or loss?

(d) How will policyholders be affected by profits and losses from other activities?

(e) What is the target return level set by the firm’s owners on their invested capital? What is an undertaking's investment strategy? What is the asset mix driving the investment return?

(f) What is an expected level (inclusive of any distribution of excess capital, unrealised gains etc.) of discretionary benefits? How will the experience from current and previous years affect the level of discretionary benefits?

(g) How are the discretionary benefits made available for policyholders and what are the key drivers affecting for example the split between reversionary and terminal discretionary benefits, conditionality, changes in smoothing practice, level of discretionary by the undertaking, etc.

(h) When is an undertaking's solvency position so weak that declaring discretionary benefits is considered by the undertaking to jeopardize a shareholder's or/and policyholders' interest?

(i) What is the smoothing mechanism if used and what is the interplay with a large profit or loss? What kind of restrictions are in place in smoothing extra benefits?

(j) Under what circumstances would one expect significant changes in the crediting mechanism for discretionary benefits? To what extent is the crediting mechanism for discretionary benefits sensitive to policyholders' actions?

Section 4: Methodologies to calculate technical provisions

Proportionality assessment

Guideline 45 – General principle of proportionality

Insurance and reinsurance undertakings should, in order to have an overall assessment of the risks underlying their insurance and reinsurance obligations,, take into account the strong interrelation among the nature, scale and complexity of these risks.

Undertakings should ensure that the actuarial function is able to explain which methods are used to calculate the technical provisions and the reason why such methods have been selected.

2.82. The principle of proportionality is intended to support the consistent application of the principles-based solvency requirements to all (re)insurance undertakings.

2.83. The actuarial function ensures that the undertakings determine the technical provisions by using appropriate a proportionate method taking into account the nature, scale and complexity of the risks, where the "risks" to be included in the assessment are defined in [Article TPS1.3 of the of the draft Implementing Measures] as all risks which affect the amount, timing or value of the cash in-

flows and cash out-flows required to settle the insurance and reinsurance obligations over their lifetime.

Guideline 46 – Assessment of nature and complexity of the risks

When assessing the nature and complexity of the risks underlying the insurance contracts as referred to in [Article 47 TPS1 (2)(a) of the draft Implementing Measures], insurance and reinsurance undertakings should, take into account, at least, the following characteristics where applicable:

(a) The degree of homogeneity of the risks;
(b) The variety of different sub-risks or risk components of which the risk is comprised;
(c) The way in which these sub-risks are interrelated with one another;
(d) The level of uncertainty i.e. the extent to which future cash flows can be estimated;
(e) The nature of the occurrence or crystallisation of the risk in terms of frequency and severity;
(f) The type of the development of claims payments over time;
(g) The extent of potential loss, including the tail of the claims distribution;
(h) The type of business from which the risks originate, i.e. direct business or reinsurance business;
(i) The degree of dependency between different risk types, including the tail of the risk distribution;
(j) The risk mitigation instruments applied, if any, and their impact on the underlying risk profile.

2.84. Generally, the proportionality of any given valuation technique will depend on the individual risk situation of the insurer. Therefore, the criteria laid out in this guideline are intended to give guidance to the actuarial function in their assessment of the appropriateness of a given technique. It cannot provide a definite decision whether the technique is admissible as this also depends on the undertaking's specificities.

2.85. During the process of determining a valuation of its technical provisions, the actuarial function will need to make multiple decisions to set assumptions based on available information and actuarial knowledge (using internal or external sources), having regard to the materiality, nature, scale and complexity of the insurance.

Guideline 47 – Identification of complex risk structures

Insurance and reinsurance undertakings should identify factors which indicate the presence of complex risks. This should be at least the case where:

(a) The cash-flows are highly path dependent;
(b) There are significant non-linear inter-dependencies between several drivers

of uncertainty;

(c) The cash-flows are materially affected by the potential future management actions;

(d) Risks have a significant asymmetric impact on the value of the cash-flows, in particular if contracts include material embedded options and guarantees or if there are complex reinsurance contracts in place;

(e) The value of options and guarantees is affected by the policyholder behaviour ;

(f) The undertaking uses a complex risk mitigation instrument;

(g) A variety of covers of different nature are bundled in the contracts;

(h) The terms of the contracts are complex, inter alia, in terms of franchises, participations, inclusion and exclusion criteria of the cover.

2.86. Nature and complexity of risks are closely related, and for the purposes of an assessment of proportionality could best be characterized together. Indeed, complexity could be seen as an integral part of the nature of risks, which is a broader concept.

2.87. The degree of complexity and/or uncertainty of the risks are associated with the level of calculation sophistication and/or level of expertise needed to carry out the valuation. In general, the more complex the risk, the more difficult it will be to model and predict the future cash flows required to settle the obligations arising from the insured portfolio.

2.88. Therefore, to appropriately analyse and quantify more complex and/or less predictable risks, more sophisticated and elaborated tools will generally be required as well as sufficient actuarial expertise.

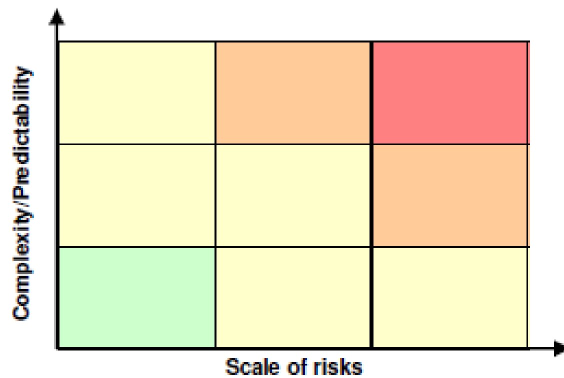
Guideline 48 – Assessment of scale of the risks

Insurance and reinsurance undertakings should identify and use an interpretation of scale which is best suited to the specific circumstances of the undertaking and to the risk profile of its portfolio. Nevertheless, the assessment of "scale" should lead to an objective and reliable assessment.

To measure the scale of risks undertakings should establish an undertaking-specific benchmark or reference level which leads to a relative rather than an absolute assessment number. For this purpose, risks may be considered in a range from small to large relative to the established benchmark.

2.89. In assessing what is proportionate, the focus must be on the combination of all three criteria - nature, scale and complexity - to arrive at a solution that is adequate to the risk an undertaking is exposed to. For instance, a business may be small-scale but could still include complex risk-profiles, or, on the contrary, it may be large-scale with a simple risk profile. In the first case, it cannot be allowed to use simplified methods while the possibility may be considered in the second case under very specific circumstances.

2.90. The three indicators are strongly interrelated, and for the purpose of assessing their combination, it may be helpful to broadly categorize the risks according to the two dimensions "scale" and "complexity/predictability":



Guideline 49 – Granularity of materiality assessment

Insurance and reinsurance undertakings should determine the most appropriate level at which an assessment of materiality for the purposes of the calculation of the technical provisions is to be carried out, which could be the individual homogeneous risk groups, the individual lines of business or the business of the insurer as a whole.

Undertakings should consider when assessing the materiality that a risk which is immaterial with regard to the business of the insurer as a whole may still have a significant impact within a smaller segment.

In addition, undertakings should not analyse technical provisions in isolation but include any effect on own funds and thus on the total solvency balance sheet as well as on the Solvency Capital Requirement should be taken into account in this assessment.

2.91. According to the two-step approach the actuarial function assesses in the second step as described in point (b), whether a specific valuation method can be regarded as proportionate to the nature, scale and complexity of the risks analysed in the first step described in point (a).

2.92. Due to the uncertainty of future events, any modelling of future cash flows (implicitly or explicitly contained in the valuation methodology) will necessarily be imperfect, leading to a certain degree of inaccuracy and imprecision in the measurement (or model error). Where simplified approaches are used to value technical provisions, this could potentially introduce additional uncertainty because they are generally based on some kind of simplifying assumptions regarding the risk which are modelled (e.g. independency of some risks, proportionality between different risk-factors, neglecting future development, etc.).

2.93. As prescribed in [Recital (16) of the of the draft Implementing Measures], undertakings are not required to specify the precise amount of the error, which

would be in practice not easy to achieve. Hence, the actuarial function is not required to re-calculate the value of its technical provisions using a more complex method in order to demonstrate that the difference between the result of the chosen method and the result of a more complex method is immaterial. However, in some circumstances it could be appropriate to carry out such a calculation.

2.94. Instead, it is sufficient to demonstrate that there is reasonable assurance that the error implied by the application of the chosen method (and hence the difference between those two amounts) is immaterial.

2.95. For example, if the method is based on a simplifying assumption to ignore one or more risk drivers, an assessment of their impact on the best estimate (e.g. in percentage terms) could be sufficient to justify the non-materiality of the error introduced by the simplified assumption.

2.96. An assessment of the model error may be carried out, by:

(a) Sensitivity analysis in the framework of the applied model: this means to vary the parameters and/or data thereby observing the range where a best estimate might be located;
(b) Comparison with the results of other methods: applying different methods gives insight in potential model errors. These methods would not necessarily need to be more complex;
(c) Descriptive statistics: in some cases the applied model allows the derivation of descriptive statistics on the estimation error contained in the estimation. Such information may assist in quantitatively describing the sources of uncertainty;
(d) Back-testing: comparing the results of the estimation against experience may help to identify systemic deviations which are due to deficiencies in the modelling;
(e) Stress test scenario as benchmark.

Guideline 50 – Consequences of material error identified in the proportionality assessment

Where it is unavoidable for the insurance and reinsurance undertaking to use a method which leads to a material level of error, the undertaking should document this and consider the implications with regard to the reliability of the calculation of technical provisions and its overall solvency position. In particular the undertaking should assess whether the material level of error is adequately addressed in the determination of the Solvency Capital Requirement and hence in the setting of the risk margin in technical provisions.

2.97. In some circumstances, it may be unavoidable for the undertaking to apply a valuation method which leads to an increased level of estimation uncertainty in the valuation. This could e.g. be the case where there is only insufficient pertinent past experience data available to derive or validate assumptions or in case of portfolios with high-severity-low-frequency claims.

Methods applied for calculations of technical provisions during the year

Guideline 51 – Simplified calculation of technical provisions during the year

Insurance and reinsurance undertakings may use simplifications, for example the simplification outlined in Technical Annex VI, subject to the proportionality assessment, in the quarterly calculations of technical provisions.

2.98. According to Article 129(4) of Solvency II, the MCR needs to be calculated quarterly. This necessitates a quarterly calculation of technical provisions to derive the input values for the calculation of the MCR and to derive the own funds.

2.99. The calculation of technical provisions between the annual reporting dates may give rise to additional practicability issues. For example, the data basis of the undertaking may not be adequate for this task. In non-life insurance, undertakings often collect data on an annual basis, i.e. ordered per accident year, underwriting year, run-off year etc. In order to make a full quarterly calculation of claims provisions, a data basis with a finer granularity, for example per accident quarter, underwriting quarter etc. is necessary.

2.100. Undertakings may not have organized their data in this way in the past and it may take some time to do so. Simplifications may be necessary in the meantime to produce the quarterly claims provisions.

2.101. Another example are calculations which are so resource intensive that – compared to a partial recalculation – their full repetition during the year may not be in proportion with the additional information the calculation provides. In these cases, it may be appropriate to update the key variables of the calculations (like interest rates) while other variables with little influence on the results may be approximated.

2.102. It can be appropriate to base the simplified calculations of the risk margin to be carried out during the year on the risk margin calculated at the beginning of the year. Since no full calculations of the SCR are carried out during the year, a possible simplifications may be to fix the risk margin at a given point in time (t) during the forthcoming year (i.e. CoCMlob(t)) basing on the assumption that the ratio of the risk margin to the best estimate technical provisions (net of reinsurance) will stay constant during the year.

2.103. The formula for the application of this simplification is described in Technical Annex, 5.10.

2.104. It may be inappropriate to apply this formula in cases where the best estimates are expected to decrease, in relative terms to the business, e.g. in cases of negative best estimates or best estimates close to zero. Furthermore, there may be situations, such as run-off undertakings, that may deserve specific analysis.

2.105. Another situation where this approach may not be appropriate is when an undertaking's business is expected to strongly increase in the short term,

leading to both a lower best estimate (due to allowance for profit at inception) and a higher duration of the obligations: in this case, in fact, this simplification leads to a lower risk margin, while an increased risk margin would be expected due to the increased duration of the liabilities.

2.106. Moreover, the assumption of stability of the SCR to the best estimate over time could not be met if the undertaking has commuted a reinsurance treaty or when a purchase of a book of business causes a change in the proportional split.

2.107. Accordingly, in cases where the above simplification is not appropriate, it may be a better approximation to let the risk margin stay unchanged during the year (i.e. CoCM(t) = CoCM(0)).

2.108. A combination of the two approaches described above is also possible, e.g. by fixing the risk margin at the beginning of the year as a floor for the risk margin to be used during the year, that is:

2.109. $CoCM(t) = \max\{(CoCM(0)/BE_{Net},(0)) \cdot BE_{Net},(t);\ CoCM(0)\}$.

2.110. In some circumstances, it may be unavoidable for the undertaking to apply a valuation method which leads to an increased level of estimation uncertainty in the valuation. This could e.g. be the case where there is only insufficient pertinent past experience data available to derive or validate assumptions or in case of portfolios with high-severity-low-frequency claims.

Calculation of the risk margin

Guideline 63 – Hierarchy of methods for the calculation of the risk margin

When deciding which level of the hierarchy set out below is most appropriate, insurance and reinsurance undertakings should ensure that the complexity of the calculations does not go beyond what is necessary in order to reflect the nature, scale and complexity of the risks underlying the reference undertaking's insurance and reinsurance obligations in a proportionate manner. Undertakings should apply the hierarchy of methods consistently with the framework set out when defining the proportionality principle and the necessity of assessing risks properly.
The following hierarchy should be seen as a decision making basis regarding the methods to be used for projecting future Solvency Capital Requirements:

1) approximate the individual risks or sub-risks within some or all modules and sub-modules to be used for the calculation of future Solvency Capital Requirements as referred to in [point (a) of Article 49 TPS3 of the draft Implementing Measures].

2) approximate the whole Solvency Capital Requirement for each future year, as referred in [point (a) of Article 49 TPS3 of the draft Implementing Measures], inter alia by using the ratio of the best estimate at that future year to the best estimate at the valuation date.

This method is not appropriate when negative best estimate values exist at valuation date or subsequent dates.

This method takes into account the maturity and the run-off pattern of the obligations net of reinsurance. Consequently, some considerations should be given regarding the manner in which the best estimate of technical provisions net of reinsurance has been calculated. Further consideration should be given as to whether the assumptions regarding the risk profile of the undertaking can be considered unchanged over time. This includes considerations on whether:

(a) All underwriting risks: the composition of the sub-risks in underwriting risk is the same;
(b) Counterparty default risk: the average credit standing of reinsurers and special purpose vehicles is the same;
(c) Market risk: the material market risk in relation to the net best estimate is the same;
(d) Operational risk: the proportion of reinsurers' and special purpose vehicles share of the obligations is the same;
(e) Adjustment: the loss absorbing capacity of the technical provisions in relation to the net best estimate is the same.

If some or all of these assumptions do not hold, the undertaking should carry out at least a qualitative assessment of how material the deviation from the assumptions is. If the impact of the deviation is not material compared to the risk margin as a whole, then this method can be used. Otherwise the undertaking should either adjust the formula appropriately or be encouraged to use a more sophisticated method.

3) approximate the discounted sum of all future Solvency Capital Requirements in a single step without approximating the Solvency Capital Requirements for each future year separately as referred in [point (b) of Article 49 TPS3 of the draft Implementing Measures], inter alia by using the modified duration of the insurance liabilities as a proportionality factor.

When deciding on the application of a method based on the modified duration of the insurance liabilities, attention should be paid to the value of modified duration to avoid meaningless results for the Risk Margin.

This method takes into account the maturity and the run-off pattern of the obligations net of reinsurance. Consequently, some considerations should be given regarding the manner in which the best estimate of technical provisions net of reinsurance has been calculated. Further consideration should be given as to whether the assumptions regarding the risk profile of the undertaking can be considered unchanged over time. This includes considerations on whether:

(a) basic SCR: the composition and the proportions of the risks and sub-risks do not change over the years;
(b) counterparty default risk: the average credit standing of reinsurers and SPVs remains the same over the years;
(c) operational risk, counterparty default risk: the modified duration is the same for obligations net and gross of reinsurance;
(d) the material market risk in relation to the net best estimate remains the same over the years;
(e) adjustment: the loss absorbing capacity of the technical provisions in relation to the net best estimate remains the same over the years.

An undertaking that intends to use this method should consider to what extend these assumptions are fulfilled. If some or all of these assumptions do not hold, the undertaking should carry out at least a qualitative assessment of how material the deviation from the assumptions is. If the impact of the deviation is not material compared to the risk margin as a whole, then the simplification can be used.
Otherwise the undertaking should either adjust the formula appropriately or be encouraged to use a more sophisticated method.

4) approximate the risk margin by calculating it as a percentage of the best estimate

According to this method, the risk margin should be calculated as a percentage of the best estimate technical provisions net of reinsurance at valuation date. When deciding on the percentage to be used for a given line of business, the undertaking should take into account that this percentage is likely to increase if the modified duration of the insurance liabilities – or some other measure of the run-off pattern of these liabilities - increases.
Undertakings should give due consideration to the very simplistic nature of this approach, it should be used only where it has been demonstrated that none of the more sophisticated risk margin approaches in the above hierarchy can be applied.

When undertakings rely on this method for the calculation of the risk margin, they will need to justify and document the rationale for the percentages used by line of business. This justification and rationale should consider any specific characteristics of the portfolios being assessed. Undertakings should not use this method when negative best estimate values exist.

Without prejudice to the proportionality assessment and the provisions in [Article 49 TPS3 of the draft Implementing Measures], insurance and reinsurance undertakings may use the simplifications defined in Technical Annex IV when applying the hierarchy of methods.

2.111. It is noted that the distinction between the levels in the hierarchy sketched in the respective Guideline is not always clear-cut. This is e.g. the case for the distinction between the simplifications on level (2) and level (3). An example may be a proportional method (based on the development of the best estimate technical provisions) applied for an individual module or sub-module relevant for the calculation of future SCRs for the reference undertaking. Such simplifications can be seen as belonging to either level (2) or level (3).

2.112. With respect to (1): This approach would require focusing on the individual modules or sub-modules in order to approximate the individual risks and/or sub-risks being relevant for the following modules:

(a) underwriting risk (life, health and non-life, respectively),
(b) counterparty default risk with respect to ceded reinsurance and special purpose vehicles (SPVs),
(c) material market risk,

(d) in order to investigate to what extent the calculations could be simplified or approximated.

2.113. With respect to (2): Simplifications classified as belonging to this level of the hierarchy are in general based on an assumption that the future SCRs for a given line of business are proportional to the best estimate technical provisions for this line of business and the relevant year – the proportionality factor being the ratio of the present SCR to the present best estimate technical provisions for the same line of business (as calculated by the reference undertaking).

2.114. This simplification is not considered proportionate for negative best estimate values at valuation date or at following dates, as it would lead to meaningless results for the Risk Margin (i.e. negative Risk Margin).

2.115. With respect to (3): A representative example of a simplification belonging to this level of the hierarchical structure is using information regarding the modified duration of the liabilities in order to calculate the present and all future SCRs in one single step.

2.116. This approach applies also to SLT and some non-life obligations (e.g. non-life annuities).

2.117. The simple example below has been put forward to show that even in case of reasonable in- and outgoing cash-flows the calculated value of the modified duration may be meaningless.

Year	**Premiums**	**Claims**	**Cash flows**	**Time * cash flows**	**BE begin. of year**		**Discount rate**	3%
1	20	0	-20	-20	19,06			

2	20	0	-20	-40	39,63			
3	20	0	-20	-60	60,82		**BE**	19,06
4	20	0	-20	-80	82,65		**Duration**	301,42
5	20	0	-20	-100	105,13			
6	20	0	-20	-120	128,28			
7	20	0	-20	-140	152,13			
8	20	0	-20	-160	176,69			
9	20	0	-20	-180	201,99			
10	20	0	-20	-200	228,05			
11	20	0	-20	-220	254,89			
12	20	0	-20	-240	282,54			
13	20	0	-20	-260	311,02			
14	20	0	-20	-280	340,35			
15	20	0	-20	-300	370,56			
16	20	0	-20	-320	401,67			
17	20	30	10	170	433,72			
18	20	30	10	180	436,74			
19	20	30	10	190	439,84			
20	20	30	10	200	443,03			
21	0	30	30	630	446,32			
22	0	30	30	660	429,71			
23	0	30	30	690	412,61			
24	0	30	30	720	394,98			
25	0	30	30	750	376,83			
26	0	30	30	780	358,14			
27	0	30	30	810	338,88			
28	0	30	30	840	319,05			
29	0	30	30	870	298,62			
30	0	30	30	900	277,58			
31	0	30	30	930	255,91			
32	0	30	30	960	233,58			
33	0	30	30	990	210,59			
34	0	30	30	1020	186,91			
35	0	30	30	1050	162,52			
36	0	30	30	1080	137,39			
37	0	30	30	1110	111,51			
38	0	30	30	1140	84,86			
39	0	30	30	1170	57,40			
40	0	30	30	1200	29,13			

2.118. With respect to (4): As the fixed percentage a_{lob} depends on the line of business, the method can only be applied if the undertaking's business is restricted to one line of business or if the business outside of one line of business is not material.

Guideline 64 – Allocation of the overall risk margin

Where it is overly complex to calculate the contribution of the individual lines of business to the overall Solvency Capital Requirement during the lifetime of the whole portfolio in an accurate manner, insurance and reinsurance undertakings should be able to apply other methods which are proportionate to the nature, scale and complexity of the risks involved. The methods applied should be consistent over time.

Where it is overly complex to calculate the contribution of the individual lines of business to the overall SCR during the lifetime of the whole portfolio in an accurate manner, simplified methods may be applied when allocating the overall risk margin to the individual lines of business.

2.119. As set out in [Article 33 TP20 of the draft Implementing Measures], the risk margin shall be calculated taking into account diversification effect between lines of business. Consequently, the sum of the risk margin per line of business has to be equal to the risk margin for the whole business.

2.120. A straightforward way to determine the margin per line of business is as follows: First, the risk margin is calculated for the whole business of the undertaking, allowing for diversification between lines of business. In a second step the margin is allocated to the lines of business.

2.121. The allocation of the risk margin to the lines of business can also be done according to the contribution of the lines of business to the overall SCR during the lifetime of the business.

2.122. The contribution of a line of business can be analysed by calculating the SCR under the assumption that the undertaking's other business does not exist. Where the relative sizes of the SCRs per line of business do not materially change over the lifetime of the business, undertakings may apply the following simplified approach for the allocation:

$$COCM_{lob} = \frac{SCR_{RU,lob}(0)}{\sum_{lob} SCR_{RU,lob}(0)} \cdot COCM ,$$

where

$COCM_{lob}$ = risk margin allocated to line of business (lob)

$SCR_{RU,lob}(0)$ = SCR of the reference undertaking for line of business (lob) at t=0

$COCM$ = risk margin for the whole business

2.123. If it is not possible to argue that the SCR-ratios are reasonably stable over time, it may be necessary to carry out some more detailed calculations. A possible approach may be to use the simplifications described to risk margin

calculations (see Guideline) for the individual lines of business as well. If this approach is chosen, it will in general be necessary to introduce an additional adjustment (i.e. find a scaling factor) in order to ensure that the sum of risk margins allocated to the individual lines of business equals the overall risk margin.

Guideline 65 - Non-interest rate material market risk

When calculating the risk margin, insurance and reinsurance undertakings should consider all material market risk other than interest rate risk and quantify all such non-hedgeable risk in the calculation of the risk margin.

2.124. In circumstances where undertakings hedge their financial guarantees, material market risk will often pertain. This could, for example, include tracking error or timing error. Also, if a hedging program has been devised based on assumed future policyholder behaviour, then changes from this expected future policyholder behaviour can be identified as an example of material market risk.

Calculation of Technical Provisions as a whole

Guideline 68 – Short term disruptions

Where an active and transparent market does not temporarily satisfy one or more of the conditions of being deep and liquid and it is reasonably expected to return to meeting the conditions during the next three months, insurance and reinsurance undertakings should use prices observed during that period for the purposes of these guidelines.
Undertakings should asses that the use of these prices does not result in a material error in the valuation of the technical provisions.

2.125. Today no reliable market exists for the replication of the characteristics of biometric-dependent cash-flows.

2.126. The following examples do not intend to be an exhaustive list. The treatment of non-listed cases need to be assessed in the light of the relevant legal provisions, the guidelines specific to the calculation of technical provisions as a whole and the criteria illustrated with the following examples, avoiding interpretations 'a *sensu contrario*'.

2.127. Considering the insurance contract, the following examples show different cases and the treatment to be applied:

Example	Have requirements in Article 77(4), second paragraph, of the Level 1 text been met?	Technical provisions shall be calculated:
The insurance undertaking shall pay the market value of an equity	Yes, but only under one condition: • a reliable market value for every asset within the portfolio is	• As a whole (if the condition is met). This also applies when the contract

portfolio or shall deliver an equity portfolio (matching an index or not) at the payment date.	observable. However there are, for example, fixed expense cash-flows associated with this contract which shall be excluded because they depend on the development of magnitudes internal to the undertaking.	pays the market value of the units at the earlier of maturity, death or surrender. • Best Estimate + Risk Margin (if not and for the expense cash-flows)
Term-assurance contracts and with-profits contracts.	No: In these cases the expected value, the volatility and other features of the future cash-flows associated with insurance obligations depend on the biometric development as well as on the behaviour of the policyholder.	Best Estimate + Risk Margin
Pure Unit-linked contract (without any additional guarantees)	YES: regarding to the number of units guaranteed, and No: expense cash-flows associated with the fact that the contract will be managed till it ends.	• For the calculation of the technical provisions, these two aspects of the contract must be unbundled: • As a whole; Best Estimate + Risk Margin (only for the expenses)[4]
The insurance undertaking shall pay the market value of an OTC derivative or portfolio or shall deliver an OTC derivative or	No: Per definition, it is not possible to find a reliable market value for an OTC derivative.	Best Estimate + Risk Margin.

[4] The annual expense loading is generally fixed in percentage of the value of technical provisions at a certain date. The amount guaranteed to the policyholder is the market value of a number of units reduced by the expense loading.

The loading is generally at such a level that it covers more than the expenses incurred, thus including future profits. The best estimate of such an obligation would be negative. However, in a stress situation, the market value of the unit can fall so low that the expense loading is no longer sufficient to cover the expenses incurred. Therefore, a capital requirement and a risk margin need to be calculated.

portfolio at the payment date.		

2.128.Considering the method for replication, the following examples present some cases and the corresponding treatment:

An insurance undertaking investing in assets replicating his future cash-flows provided by a third party (e.g. investment bank).	No: This case introduces counterparty and concentration risks with regard to the issuer of the replicating asset.	Best Estimate + Risk Margin
An insurance undertaking signs a contract with a reinsurer to replicate his future cash-flows.	No: a reinsurance contract is not a financial instrument.	Best Estimate + Risk Margin
An insurance undertaking investing in assets replicating his future cash-flows according to a dynamic hedging strategy.	No: the use of a dynamic hedging strategy implies that the cash-flows of the financial instruments do not always provide the same expected amount as the cash-flows associated with insurance or reinsurance obligations and the same patterns of variability.	Best Estimate + Risk Margin

Calculation of claims provisions

Guideline 71 – Methods to calculate provisions for outstanding reported claims

Insurance and reinsurance undertakings should not include the incurred but not reported provision (IBNR) and should not include unallocated loss adjustment expenses (ULAE) in the calculation of the outstanding reported claims provision, which represent the component of the claims provision where events giving rise to the claim have been notified to the insurer.

Two possible methods to estimate the provision for outstanding reported claims are:

- consideration of the number of claims reported and their average cost;
- case-by-case estimation.

2.129.The situations in which each of these may be appropriate are set out below:

(a) Analysis of the number of claims reported and their average cost

This method may be appropriate for claims which have a short time lag to settlement and where the ultimate claim severities are reasonably stable. The stability of the ultimate claim severity could be demonstrated by an analysis of the variance of the size of claims at final settlement. In order to obtain a reliable estimate of the average cost, a sufficient number of origin and development years will need to be available.

(b) Case-by-case estimation

Where a case-by-case approach is applied, this should include an estimation of each individual provision for a single claim based upon up-to-date and credible information and realistic assumptions. Furthermore the following aspects should be considered:

(a) These case estimates should take future inflation into account according to a reliable forecast of the payment pattern;
(b) The future inflation rates should be market consistent and suitable for each line of business and company;
(c) Individual valuations should be revised as information is updated;
(d) Where back testing evidences a systematic bias in the valuation, this should be offset with an appropriate adjustment according to the experience gained with claims settlement in previous years and the expected future deviations.

2.134. In assessing the degree of model error introduced by a case-by-case approach, undertakings should assess the reliability of the information to support these assumptions at the relevant cohort level.

2.135. Moreover, the undertaking should provide written documentation on at least:

(a) The procedures applicable to assess the initial valuation of a claim when hardly anything is known about its features. Valuation must be based on the experience on the average cost of claims with similar features;
(b) The method to include inflation, discounting and direct expenses;
(c) The frequency of the valuations review which must be at least quarterly;
(d) The procedure to take into account the changes in both entity specific, legal, social, or economic environmental factors;
(e) The requirements in order to consider the claim to be settled.

2.136. A case-by-case approach may be considered suitable where there are relatively low numbers of claims to estimate and where there is significant variability in claim sizes.

2.137. Obviously this method only applies where the incurred and reported claims provision has been valued without considering IBNR, for example it has been assessed using some of the aforementioned simplifications.

Concepts related to claims provisions, i.e. all claims occurring on or before the valuation date

- **Claims paid**

- Claims payments already made.

- **Reported But Not Settled (RBNS)**
  - Claims in respect of claim events that have happened and reported to the insurer, but have not yet been settled.
  - These could represent estimates from claims handlers, mechanical estimates, factor based approaches etc. The key is consistency in strength over time, it does not need to be on a best estimate basis and does not include IBNR

- **Pure IBNER**
  - 'Incurred but not enough reported', claim events have happened and reported to the insurer but the amount set up for these may need to be adjusted. Can be positive or negative.

- **Pure IBNR**
  - 'Incurred but not reported', claim events have happened but the insurer has not yet been informed of any claims.

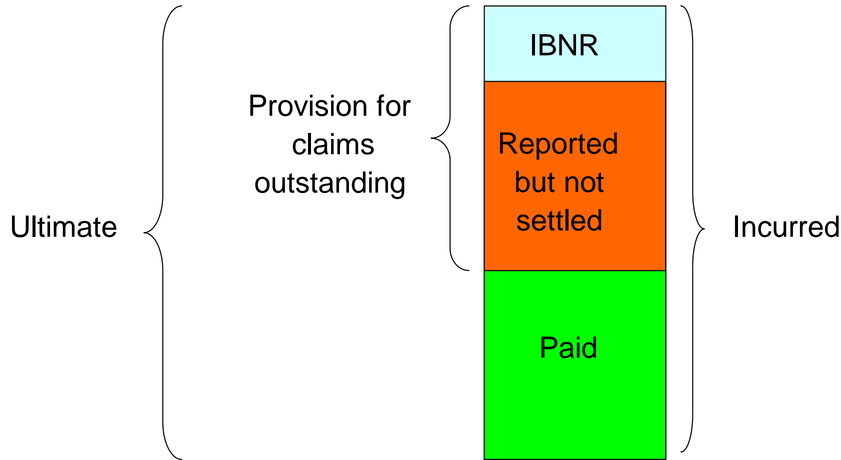
- **IBNR**
  - A term which is commonly used to describe the sum of the IBNER and IBNR components across a portfolio of claims; i.e. this number represents the difference between the total ultimate and incurred amount reported to the insurer for claims which have already occurred.

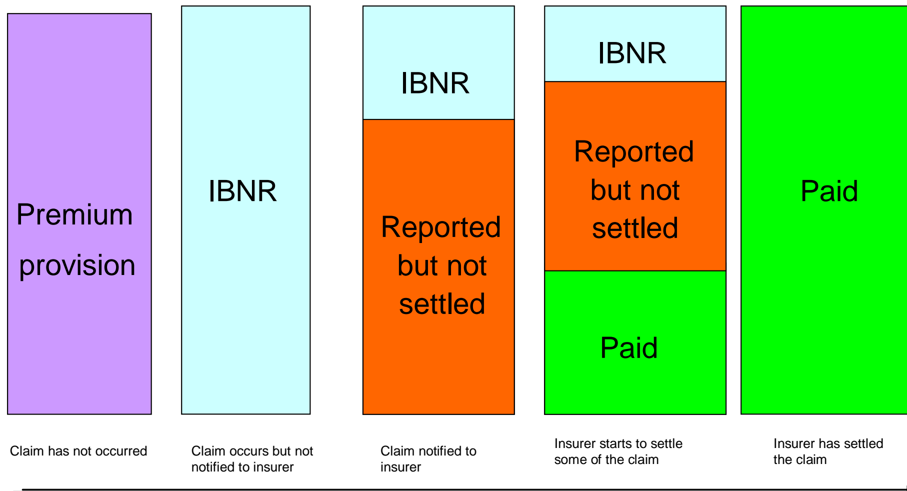
- **Provision for claims outstanding from Article 77 of Solvency II also referred to as claims provisions**
  - Relates to the amounts insurers are holding for claim events that have already occurred regardless of whether the claims arising from these events have been reported or not. Will include the direct expenses which can be assigned to individual claims.

- **Incurred**
  - Paid + RBNS, i.e. claims that have been reported to the insurer.

- **Ultimate claims**
  - Paid + RBNS + IBNR, i.e. final amounts that the insurer will need to pay.

2.138. An overview about the interactions between the different "Concepts" can be found in the following chart:





Guideline 72 – Methods to calculate provisions for incurred but not reported claims

Where chain ladder techniques are used to estimate incurred but not reported provision (IBNR), insurance and reinsurance undertakings should pay a specific consideration to whether the assumptions behind the chain ladder technique hold, or whether adjustments to development patterns are required to appropriately reflect the likely future development.

2.139. The consideration of the variance of the size of claims incurred in a year and the number of claims incurred in a given year is helpful as to determine whether there is a stable and reliable basis to ensure that the average claim size is representative.

2.140. In non-life insurance, the actuarial methods used to determine best estimates and risk margins can be expected to range in complexity but will usually require granular company-specific internal data, particularly for lines of business with pay-out periods of several years (so-called "long-tailed" lines of business).

2.141. In cases where only few development years or occurrence years respectively are available, it is likely that the claims which are still open are the more complex ones with higher average of expected ultimate loss. Especially for reinsurance business, this simplification is not applicable, as necessary data are not available.

2.142. A simplified method for the calculation of outstanding reported claims provision based on a 'case-by-case approach' may be appropriate in case of:

a) high-severity-low-frequency claims, or
b) new (re)insurance company or new line of business, although only temporarily until achieving sufficient information to apply standard methods.

2.143. However, where the lack of information is expected to be permanent (e.g. the case of 'tail' risks with a very slow process of collecting claims information), the undertaking would be required to complement data available by making extra efforts to look for relevant external information to allow the understanding of the underlying risks and to use extensively adequate expert opinion and judgments.

2.144. Another two possible methods to estimate the provision for incurred but not reported (IBNR) claims are:

(a) analysis of the number of claims expected and their average cost
(b) ratios of IBNR to outstanding claims provisions.

2.145. The situations in which each of these may be appropriate are set out below:

(a) analysis of the number of claims expected and their average cost

This method may be appropriate for short tail business where there is no material observed change in claims frequency or where delay tables are available to determine the number of claims expected in future periods. An example of a practical implementation of such a method is given in the Technical Annex 5.5.

(b) ratios of IBNR to outstanding claims provisions.

This method will be appropriate where the ratio of IBNR to outstanding claims provision is expected to be stable for a given point in the claims development, the strength of case estimation is stable over time and reliable data are available to assess what a suitable ratio may be. This method may be used where robust data are not available to use other estimation methods.

Guideline 73 – Methods for the valuation of claims settlement expenses – unallocated loss adjustment expenses (ULAE) When insurance and reinsurance undertakings apply a simplified method for the provision for claims settlement expenses based on an estimate as a percentage of the claims provision, as outlined in Technical Annex III, this should only be considered when expenses can reasonably be assumed to be proportionate to provisions as a whole, where this proportion is stable in time and where the expenses distribute uniformly over the lifetime of the claims portfolio as a whole.

2.146. Obviously this method only applies where the incurred and reported claims provision has been valued without considering IBNR, for example it has been assessed using some of the aforementioned simplifications.

Calculation of premium provisions

Guideline 74 - Considerations for claims costs projections

Insurance and reinsurance undertakings should ensure that the assessment of the claims cash-flows included in the premium provisions give appropriate consideration to the expected incidence and cost of future claims, including consideration of the likelihood of infrequent, high severity claims and latent claims.

2.147. The assessment of premium provisions need to give due consideration to the expected incidence and cost of infrequent and high-severity claims as well as high volume and low-severity claims. For some class of business it will be appropriate to give separate consideration to the likelihood and cost of future claims falling within more than one of the following categories of claims:

- Attritional claims – high volume of low cost claims that are routinely expected to occur;
- Large claims – less frequent, higher cost claims that are routinely expected to occur but where the frequency of such claims can vary materially from period to period;
- Aggregation claims – a large frequency of claims arising from single event that occur less than annually;
- Binary events – very low frequency events giving rise to very large claims settlements; and
- Latent claims – claims that materialise many years after the original coverage period on risk-attaching policies.

Guideline 76 - Uncertainty of policyholder behaviour

Insurance and reinsurance undertakings should ensure that the valuation of premium provisions includes an allowance for the possibility that policyholders will

exercise options to extend or renew a contract or to cancel or lapse a contract prior to the end of the cover term provided.

2.148. Factors affecting policyholder behaviour include but are not limited to:

- Quality of sales advice;
- Quality of claims handling service;
- Scale and nature of policyholder contract from inception.

2.149. Policyholders' option to lapse non-life insurance may be dependent on the change of policyholders' status such as the ability to further pay the premium; however, it may also depend on an adjustment to their cover such as a change in vehicle or moving house. Similarly commercial covers may no longer fit the needs of the business due to restructuring, growth, redundancies or closure.

2.150. It is important to consider whether the presence of policyholder options could materially change the economic nature of the risk covered under the terms of the contract if exercised, i.e. where they have an option to exercise an extension or lapse anti-selection issues may arise. In such circumstances the cash-flow projection has to take into account of the proportion of policyholders that are expected to take up the options and the expected deterioration in net future cash-flows arising from anti-selection by policyholders.

Guideline 77 - Cash-flow pattern

Insurance and reinsurance undertakings should ensure that the cash-flow pattern used for discounting premium provisions reflects the timing of expiry of contracts included in the valuation and the consequential impact on the overall duration of future cash-flows, unless they are immaterial to the valuation of premium provisions.

2.151. In order to discount the future cash-flows it will be necessary to estimate expected future cash-flows directly or alternatively to estimate the expected future cash-flow pattern by line of business and use this to evaluate the present value of the expected future cash-flows.

2.152. Consider, for example, where insurance business is written uniformly across each calendar year. For prior years the total contractual exposure will be level across each year. For each year after the valuation date, i.e. those years whose cash-flows are included in the premium provisions, exposure is limited to contracts entered into prior to the valuation date and this contract exposure will reduce over the coverage period as individual policies expire. Consequently the cash-flow pattern for premium provisions by annual period is likely to be shorter than the full-cash flow pattern for expired annual exposure periods. In higher interest rate conditions the difference in the length and shape of the cash-flow pattern may have a material impact on the amount of the discount for some lines of business, particularly where a large proportion of claims are settled beyond 12 months of the loss date.

2.153. Cash-flow patterns can be derived from prior year data but it will be necessary to adjust for the fact that the premium provisions relate to a subset of the total exposure in an accident year period, unless all business renews on the valuation date. Further the timing of cash-flows over the exposure period may also skew the timing of cash-flows and hence the impact of discounting. For instance if all premiums were due to be received the day after the valuation date this may have a material impact, depending on the interest rate that applies, compared with if they are to be paid gradually over the exposure period.

2.154. Furthermore, the timing of cash-flows is impacted by future policyholder behaviour which needs to be taken into account in the valuation of premium provisions such as likelihood of contract lapse during the remaining period.

2.155. For simple short tail classes of business where the nature, scale and complexity of risk is proportionately less significant to the overall valuation it may be reasonable to use simplified approaches to discounting the premium provisions that do not require determining the full cash-flow pattern.

Guideline 78– Negative premium provision

Insurance and reinsurance undertakings should ensure that, where the present value of future cash inflows exceeds the present value of future cash outflows the premium provision, excluding risk margin, is negative.

2.156. Where premium provisions are negative, it is also possible that the technical provisions may be negative, particularly for classes of business with short settlement patterns. Where this is the case a negative value has to be recorded in the balance sheet for Solvency II.

2.157. However, this does not imply that the risk margin has to be also negative or zero. The risk margin measures the cost of capital across the entire run-off until the settlement of all claims and, for insurance business, the capital requirement will exceed the present value of future profits for some or all of this period, unless the contracts have been designed to avoid insurance risk transfer. Thus, the risk margin cannot be negative.

2.158. Where negative premium provisions are not immaterial, estimating the risk margin using the simplification based on taking a proportion of technical provisions is unlikely to be an appropriate method. Having established an appropriate valuation of the risk margin, using the proportion of technical provisions proxy to estimate the risk margin for interim reporting purposes, may be appropriate if consideration is given to any changes in the relative proportion of negative premium provision in the total valuation of technical provisions.

Calculation of Expected Profits in Future Premiums (EPIFP)

Methodologies to calculate recoverables from reinsurance contracts and special purpose vehicles

Guideline 81 - Extent of Allowance for future reinsurance purchase

Insurance and reinsurance undertakings should recognise future cash-flows relative to future reinsurance purchasing covering obligations already recognised in the balance-sheet - to the extent that it is replacing any expiring reinsurance arrangements and if it can be demonstrated that it meets the conditions stated below:

(a) the insurance or reinsurance undertaking has a written policy on the replacement of the reinsurance arrangement;

(b) the replacement of the reinsurance arrangement shall not take place more regularly than every 3 months;

(c) the replacement of the reinsurance arrangement is not conditional on any future event which is outside of the control of the insurance or reinsurance undertaking. Where the replacement of the reinsurance arrangement is conditional on any future event, that is within the control of the insurance or reinsurance undertaking, then the conditions should be clearly documented in the written policy referred to in point (a);

(d) the replacement of the reinsurance arrangement shall be realistic and consistent with the insurance or reinsurance undertaking's current business practice and business strategy. The insurance or reinsurance undertaking shall be able to verify that the replacement is realistic through a comparison of the assumed replacement with replacements taken previously by the insurance or reinsurance undertaking;

(e) the risk that the reinsurance arrangement cannot be replaced due to capacity constraints is immaterial;

(f) an appropriate estimate of the future reinsurance premium to be charged is made which reflects the risk that the cost of replacing existing reinsurance arrangements may increase;

(g) the replacement of the reinsurance arrangement is not contrary to the requirements that apply to future management actions set out in [Article 19 TP6 of the draft Implementing Measures].

2.159. In the calculation of the best estimate at the valuation date, undertakings can allow for future management actions to enter into reinsurance contracts protecting their in force business. The calculation of the benefits will require that undertakings identify in respect of the reinsurance contract to be entered into:

(a) the amount of premium to be charged

(b) the coverage to be provided

(c) the risk of counterparty default that results from the arrangement

2.162. We expect that the inclusion of future reinsurance would increase the net of reinsurance technical provisions, as we would expect that the reinsurance premium to be paid would be greater than the reinsurance recoveries obtained on a best estimate basis.

2.163. Where the premium to be charged for the reinsurance covers business written by the evaluation date and future business that has not yet been written, the full amount of the premium should be charged when it is payable. This is consistent with the cash-flow approach. Undertakings should not apportion the reinsurance premium payable between those underlying risks which are on the balance sheet currently and those risks which have yet to be written.

2.164. The approach for dealing with future reinsurance for the purposes of estimating the technical provisions needs to be consistent with the treatment of future reinsurance for the purposes of the SCR calculation.

Guideline 82 – Simplified calculation of recoverables from reinsurance contracts and special purpose vehicles – premium provisions

In order to estimate the amount of reinsurance recoverable from the gross of reinsurance premium provision amount where a simplified calculation is applied, insurance and reinsurance undertakings should apply a separate gross to net factor to the cash outflow and potentially undertakings should apply a different gross to net factor for the cash inflow. Undertakings should base the gross to net factor for the cash outflow on an examination of past claims events with consideration of the future reinsurance programme applicable. The gross to net factor for the cash inflow should be based on a consideration of the relative gross and reinsurance premiums expected to be received and paid.

Without prejudice to the provisions in the first paragraph of this guideline and the proportionality assessment undertakings may apply the simplifications outlined in the Technical Annex.

2.165. Estimates of premium provisions comprise terms relating to future claim events and terms relating to future premium receipts.

2.166. In estimating reinsurance recoverables in respect of premium provisions, it may be appropriate to estimate separate gross to net factors for each of these components. Therefore:

$$PP_{Gross,k} = Claims_{Gross,k} - Premiums_{Gross,k}$$

$$Claims_{Net,k} = GN_k(\mathbf{c}_{Claims,k}) \times Claims_{Gross,k}$$

$$Premiums_{Net,k} = GN_k(\mathbf{c}_{Premiums,k}) \times Premiums_{Gross,k}$$

$$PP_{Net,k} = Claims_{Net,k} - Premiums_{Net,k}$$

2.167. Where $PP_{Gross,k}$ and $PP_{Net,k}$ represent the premium provisions, on a gross and net of reinsurance basis respectively. The gross-to-net factor may be derived for the claims and premium components of the premium provision separately.

2.168. Where $\mathbf{c}_{Claims,k}$ is a parameter representing the relevant characteristics of the reinsurance programme covering future claims events falling within the contract boundaries related to line of business k at the balance sheet day and

2.169. $\mathbf{c}_{Premiums,k}$ is a parameter representing the relationship between the gross and net of reinsurance future premiums for the line of business k at the balance sheet day.

Guideline 83 – Simplified calculation of recoverables from reinsurance contracts and special purpose vehicles – provisions for claims outstanding

With respect to the provisions for claims outstanding for reinsurance recoverables, insurance and reinsurance undertakings should use separate gross-to-net techniques either for each accident year or for each underwriting year not finally developed for a given line of business or a homogeneous risk group if appropriate.

2.170. Accordingly, the relationship between the best estimate on a gross basis ($PCO_{Gross,k,i}$), the best estimate on a net basis ($PCO_{Net,k,i}$) and the gross-to-net factor ($GN_{k,i}(\mathbf{c}_{k,i})$) for line of business (or homogeneous risk group) k and accident year i can be represented in a somewhat simplified manner as follows:

2.171. $PCO_{Net,k,i} = GN_{k,i}(\mathbf{c}_{k,i}) \times PCO_{Gross,k,i,}$

2.172. where $\mathbf{c}_{k,i}$ is a parameter-vector representing the relevant characteristics of the reinsurance programme for this combination of line of business and accident year.

2.173. A rationale for introducing separate techniques for the individual development years or groups of development years may be that claims reported and settled at an early stage (after the end of the relevant accident year) in general have a claims distribution that differs from the distribution of claims reported and/or settled at a later stage. Accordingly, the impact of a given reinsurance programme (i.e. the ratio between expected claims payments on a net basis and expected claims payments on a gross basis) will differ between development years or groups of development years.

2.174. A rationale for introducing separate techniques for RBNS-claims and IBNR-claims may be that insurance undertakings in general will have more information regarding the RBNS-claims and have accordingly to be able to stipulate the gross-to-net technique to be applied on the gross best estimate for RBNS-provisions in a more accurate manner. On the other hand the gross-to-net technique to be applied on the gross best estimate for IBNR-provisions is then likely to be stipulated in a less precise manner, especially if more sophisticated techniques are not available.

2.175. Finally, a rationale for making a split between "large" claims and "small" claims may be that the uncertainties related to expected claim amounts on a net basis for claims classified as "large" may in some (important) cases be small or even negligible compared to the uncertainties related to the corresponding claim amounts on a gross basis. However, this supposition depends (at least

partially) on the thresholds for separation of "large" and "small" claims being fixed for the individual lines of business.

Guideline 84 – Simplified calculation of the counterparty default adjustment

The simplified calculation of the adjustment for counterparty default given in [Article 50ter of the draft Implementing Measures] being based on the assumption that the probability of default of the counterparty remains constant over time, insurance and reinsurance undertakings proposing to use this simplification should consider whether this assumption is realistic, taking into account the credit quality step of the counterparty and the modified duration of the amounts recoverable from reinsurance contracts and special purpose vehicles.

2.176. In many cases, in particular if the counterparty is of good credit quality, the adjustment for counterparty default will be rather small compared to the reinsurance recoverables. At the same time, a sophisticated calculation of the adjustment can be a very complex task. In order to reduce the burden of the calculation of the adjustment on the undertaking, [Article 50ter of the draft Implementing Measures] provides a simplification for the calculation of the adjustment, and guideline 11 sets out some criteria to be used in order to assess the appropriateness of such simplification.

General principles in respect of methodologies to calculate technical provisions

Guideline 85 – The projection period

When assessing whether the projection period and the timing of cash-flows to the policyholders during the year is proportionate, insurance and reinsurance undertakings should at least take into account the following characteristics:

(a) the degree of the homogeneity of the cash-flows;
(b) the level of uncertainty i.e. the extent to which future cash flows can be estimated;
(c) the nature of the cash-flows.

2.177. Where expert judgment is applied to derive assumptions or to decide on a method to be used to calculate technical provisions, the available data source needs to be taken into account in this respect. In particular, where expert judgment was used to overcome data limitations, expert judgment applied when deciding on a method ensures that technical provisions are calculated accurately in a realistic, verifiable and justifiable manner.

2.178. Expert judgment in respect of assumptions on segmentation may be based on deep knowledge of statutory and regulatory terms, contractual terms (including options and guarantees included in the contracts) and reasonable policyholder expectations.

2.179. Possible simplifications are to assume that:

- the projection period is one year or that
- cash-flows to the policyholders occur either at the end of the year or in the middle of the year.

2.180. The proposed simplification is considered proportionate if the cash in-flows and out-flows are equally distributed over the year.

Section 5: Validation

Guideline 87 – Selection of validation approaches and processes
Insurance and reinsurance undertakings should require the actuarial function to consider which validation approaches and processes are most appropriate depending on the characteristics of the liability and intended use for the approach or process.

2.181. A combination of validation techniques needs to be used to cross verify each other. Each validation test will tell the actuarial function something specific and will have strengths, weaknesses and limitations. It is important that the user of the tests understands the test being used. Different tests will be selected to avoid systematic failure in the validation approach and to ensure that material errors and identified.

2.182. Expert judgment also needs to be validated and more details are included in the overarching paper on expert judgment.

2.183. The following is a non-exhaustive list of possible approaches and processes:

1. **Examples of approaches which may support identifying emerging features, trends and distortions in the historical data:**

    (a) Percentiles and analysis of residuals to detect influential observations, outliers or clustering of claims;
    (b) Ratios to detect the drivers or causes for certain patterns. For example, average cost per claim ratios;
    (c) Analysis of settled vs. reported or paid over incurred claims ratios;
    (d) Graphs to validate the use of a pattern. For example, the accident year patterns may be plotted against the final selected patterns;
    (e) Identifying the existence of any biases or other distorting effects within data which are not representative of current expectations. For example, a company may have recently merged with another. As a result, a specific line of business may produce a distribution of reserves which is significantly skewed in comparison to the distribution prior to the merger. This may suggest the need to separate both portfolios, even if they are within the same line of business.

2. **Examples of approaches and processes that may help to understand the sensitivity of the technical provisions to the underlying assumptions:**

- Stress and scenario testing in order to:

(a) Understand any non-linearity between different assumptions;

(b) Ensure that the estimation is robust and weaknesses/uncertainty have been addressed;

(c) Get further insight into the tail of the loss distribution.

Sensitivity analysis can be used in order to assess the extent to which results are sensitive to the underlying assumptions and models. This can be performed by introducing small and large changes to parameters or additional data points.

The sensitivity to changes in assumptions has to be explored one change at a time in order to identify their importance.

3. **Examples of approaches that may help to test the quality of fit and/or appropriateness of the model for valuing technical provisions:**

   (a) Produce several sets of estimators (curves of distribution of the estimators) and assess how well they describe the data. There are several ways undertakings can do this before they calculate the best estimate of the provisions. For example, they can plot age to age factors against the estimators. From this they will be able to assess which curve fits best.

   (b) Test different curves and extrapolate a tail factor if necessary.

   (c) Statistical diagnostics techniques such as goodness of fit tests, including analysis of residuals, sum of squares, Akaike information criterion and non parametric smoothing, etc.

   (d) Where individual contracts have been grouped into model points, tests for the goodness of fit of the grouped model points compared with the individual policy data records should be carried out. This should also include considering the impact of grouping under different scenarios.

4. **Examples of approaches or processes that may be used in the validation of the outputs of models are:**

   - Analysis of movement – this is a comparison of actual surplus over the year with the expected surplus. The analysis can be grouped according to the drivers of surplus such as initial adjustments (impact of changes to model, methodology and data as well as any corrections made), new business effect (this will occur when the best estimate liability of the new business is not the same as the assets backing the new business), economic and insurance variances (impact of difference between best estimate assumption and experience), capital injections and any unexplained movements. The following process would be one way to undertake an analysis of movement:

i. Re-run the model used to calculate position at the beginning of this period.

ii. Re-run model allowing for any initial adjustments (the difference between two runs is the impact of opening adjustments)

iii. Re-run model updated for changes in non-economic assumption, the difference between subsequent runs is the impact of assumption change.

iv. Roll forward model allowing for actual non-economic parameters, the difference between the last two runs is insurance variance.

v. Roll forward model allowing for actual economic parameters, the difference between the last two runs is economic variance.

vi. Re-run model updated for new business volumes, the difference between the last two runs is the impact of new business.

vii. The difference between the results of the last run and the previous run is unexplained movements. The undertaking should be able to demonstrate the understanding of the causes of any deviation from expected experience and the underlying drivers of this deviation.

Note that this method only tests the assumptions being varied and not the design of the model. Note that changing the order will change the size of the impact of each individual step.

- Parallel testing – this involves using simple but independent calculations to check the reasonableness of an output. An example of this is using a closed form formula such as Black-Scholes to calculate the cost of guarantee and compare it to the cost of guarantee produced by the model. Another example is independently calculating the value of simple liabilities (such as asset shares) and comparing it with that calculated by the model.

- Cash-flow checks – this involves (re)insurance undertaking's checks on sample cash-flows for reasonableness.

- The assumptions used to estimate best estimate liabilities can be grouped into economic and non-economic (insurance) assumptions. Economic assumptions can be in the form of an Economic Scenario Generator (ESG) file or a set of deterministic scenarios.

Guideline 90 – Comparison against experience – deviations

Insurance and reinsurance undertakings should ensure that the actuarial function identifies the source of any significant deviations between expected and actual

claims experience, splits the total deviation into its main sources and analyses the reasons behind the deviation, in particular whether the deviation appears to be a temporary aberration or whether it indicates a need to review the model or assumptions used.

Undertakings should ensure that relevant market data and trends are considered as part of the comparison against experience.

2.184. Frequently used assumptions in the calculations of technical provisions are set based on an analysis of historical data on the presumption that past performance is a good indicator of future performance. Experience analysis and analysis of change may be used to assess the validity of this underlying assumption.

II. Own funds

A. Ancillary own funds

1. Guidelines

Introduction

1.1. These Guidelines are drafted according to Article 16 of Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (hereinafter "EIOPA Regulation").

1.2. The Guidelines relate to Articles 89, 90, 93 to 96, 226 and 235 of Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (hereinafter "Solvency II") and to [Articles 52 AOF2 to 57 AOF7, Article 62 COF5, Article 63 COF6, Article 66 COF9 and Article 67 COF10] of the draft Implementing Measures.

1.3. These Guidelines are addressed to supervisory authorities under Solvency II.

1.4. The nature of ancillary own funds is such that they are contingent assets, which are not recognised on the balance sheet. The need for supervisory approval of such items recognises this contingent nature. If, at some undetermined point in the future, the ancillary own funds are called up, then they cease to be contingent assets and become basic own-fund items represented by assets on the balance sheet.

1.5. Article 89 of Solvency II states that ancillary own funds may comprise any legally binding commitment received by undertakings. This might encompass many arrangements that do not fall within the categories referred to elsewhere in Solvency II as long as they can be called upon to absorb losses.

1.6. These Guidelines describe considerations relating to the supervisory authority approval process for potential ancillary own-fund items, classification of ancillary own-fund items and ongoing satisfaction of criteria for an individual undertaking.

1.7. The approach to ancillary own funds approval envisages ongoing communication between the supervisory authorities and undertakings, including before an undertaking submits a formal application for approval of the ancillary own-fund item. Where the ancillary own-fund item on call would become an item not on the lists, and therefore two supervisory approvals are needed, such early dialogue should cover the procedural approach to be followed regarding this need for two approvals. In order to convey the formal application process, early dialogue may also cover matters of economic substance, legal

effectiveness and enforceability but not the status of the counterparty, which always needs to be considered at the time of the formal application.

1.8. Article 226 of Solvency II permits a group to apply for ancillary own-fund item approval in respect of an intermediate insurance holding company or an intermediate mixed financial holding company. In such cases these Guidelines should apply as though the intermediate insurance holding company or the intermediate mixed financial holding company were an insurance or reinsurance undertaking. This also applies where a group is headed by an insurance holding company or a mixed financial holding company in accordance with Article 235 of Solvency II.

1.9. For the purpose of these Guidelines, the following definitions have been developed:

(a) 'capital instrument' means an instrument which if called up will generate an asset, often in the form of cash, while simultaneously creating corresponding interests in the insurance or reinsurance undertaking, in the case of shares, or corresponding subordinated liabilities of the undertaking;

(b) 'item not on the lists' means an item not included in the lists set out in [Article 58 COF1, Article 60 COF3 and Article 64 COF7 of the draft Implementing Measures].

1.10. If not defined in these Guidelines, the terms have the meaning defined in the legal acts referred to in the introduction.

1.11. The Guidelines shall apply from [1 April 2015].

Guideline 1 - Approval of ancillary own-fund items which, once called, take the form of an item not on the lists

1.12. If an ancillary own-fund item once called up would take the form of an item not on the lists, undertakings should seek approval of the classification of that item, as provided for in [Article 67 COF10 of the draft Implementing Measures] prior to, or at the same time, as it submits an application for approval of the ancillary own-fund item. The undertaking should confirm whether the supervisory authority would prefer to consider the 'item not on the lists' application first, since it is a pre-requisite for approval of the ancillary own-fund item in question, or consider the two applications concurrently.

Guideline 2 - Ancillary own-fund items with a homogeneous group of counterparties

1.13. Undertakings should regard the provision in [Article 53 AOF3 (10) of the draft Implementing Measures], which permits assessment of an ancillary own-fund item with a homogeneous group of individually non-material counterparties as if they were a single counterparty, so long as this does not misrepresent their ability to pay, as particularly relevant where a mutual or mutual-type undertaking has a large number of homogeneous non-corporate members, from whom it can make a call for supplementary contributions.

Guideline 3 - Classification of ancillary own-fund items

1.14. The supervisory authority should not determine the classification of an ancillary own-fund item based on the form in which the item is presented or described. The supervisory authority's assessment and the classification of the potential ancillary own-fund item should depend upon the item's economic substance and the extent to which it would satisfy the characteristics and features set out in Articles 93 to 96 of Solvency II and [Article 62 COF5, Article 63 COF6, and Article 66 COF9 of the draft Implementing Measures].

1.15. Where ancillary own-fund items become capital instruments on call, undertakings should classify the ancillary own-fund item by assessing the features of that capital instrument and determine to which tier the capital instrument would belong to if called up. Paid-in ordinary share capital which complies with the features described in [Article 59 COF2 of the draft Implementing Measures] is classified as Tier 1 so undertakings should classify the issued but uncalled form of such a capital instrument as Tier 2. Subordinated liabilities which are fully paid-in, but do not possess the features for Tier 1 classification may be classified as Tier 2, if they possess the features necessary for that tier, and therefore undertakings should classify their ancillary form as Tier 3.

1.16. Undertakings should ensure that where an ancillary own-fund item on being called results in the receipt of cash or other assets, that basic own-fund item is only treated as a contribution where it does not give rise to a corresponding capital instrument or liability, contingent or otherwise, of the undertaking.

1.17. Undertakings should treat such items as contributions:

(a) when they are in the form of an unconditional gift, or donation of own funds;

(b) whether they are from a parent undertaking, or any other party, or in the form of supplementary contributions from members of a mutual or mutual-type undertakings;

(c) regardless of the treatment of the item for accounting purposes, as contributing to profit or loss or contributing directly to reserves.

1.18. Since the balance sheet treatment of contributions which satisfy the necessary features and characteristics used to classify own funds into tiers, is an increase in undertakings' assets with a corresponding increase in the reconciliation reserve, and since the contribution does not give rise to any capital instrument or liability or any other basic own-fund item, undertakings should classify the item as Tier 2 ancillary own funds.

1.19. Undertakings should classify contractual arrangements which, when called up, meet the undertaking's liabilities by indemnifying third-parties in the same manner as contributions if they:

(a) generate an asset for a third-party creditor of an undertaking;

(b) do not create corresponding liabilities for the undertaking.

1.20. Undertakings should treat contracts of indemnity, which oblige a third-party indemnifier to pay sums to the undertaking's creditor without obliging the undertaking to repay such sums to the indemnifier, as ancillary own-fund items if those contracts fulfil the requirements of [Article 52 AOF2 to Article 56 AOF6 of the draft Implementing Measures].

1.21. Supervisory authorities should classify ancillary own-fund items which on call do not become capital instruments, contributions or arrangements which meet an undertaking's liabilities, by considering the features of whatever the ancillary own-fund item delivers on call.

Guideline 4 - Ongoing satisfaction of the criteria

1.22. Notwithstanding [Article 57 AOF7 (2) of the draft Implementing Measures], undertakings should discuss with the supervisory authority as early as possible, if they have reason to believe that a material change in the loss-absorbency of an ancillary own-fund item is imminent or likely.

Guideline 5 - Assessment of the ongoing satisfaction of the criteria

1.23. When considering whether the amount ascribed to an ancillary own-fund item continues to reflect its loss-absorbency, supervisory authorities should consider using information obtained from other sources in addition to the notifications received from undertakings in accordance with [Article 57 AOF7 of the draft Implementing Measures], including but not limited to:

(a) information obtained through on-site inspections;

(b) ad-hoc information received or obtained as part of the supervisory review process;

(c) information provided by other supervisory authorities within the college of supervisors, where applicable.

2. Explanatory text

Guideline 3 - Classification of ancillary own-fund items

The supervisory authority should not determine the classification of an ancillary own-fund item based on the form in which the item is presented or described. The supervisory authority's assessment and the classification of the potential ancillary own-fund item should depend upon the item's economic substance and the extent to which it would satisfy the characteristics and features set out in Articles 93 to 96 of Solvency II and [Article 62 COF5, Article 63 COF6 and Article 66 COF9 of the draft Implementing Measures].

Where ancillary own-fund items become capital instruments on call, undertakings should classify the ancillary own-fund item by assessing the features of that capital instrument and determine to which tier the capital instrument would belong to if called up. Paid-in ordinary share capital which complies with the features described in [Article 59 COF2 of the draft Implementing Measures] is classified as Tier 1 so undertakings should classify the issued but uncalled form of such a capital instrument as Tier 2. Subordinated liabilities which are fully paid-in but do not possess the features for Tier 1 classification may be classified as Tier 2, if they possess the features necessary for that tier, and therefore undertakings should classify their ancillary form as Tier 3.

Undertakings should ensure that where an ancillary own-fund item on being called results in the receipt of cash or other assets, that basic own-fund item is only treated as a contribution where it does not give rise to a corresponding capital instrument or liability, contingent or otherwise, of the undertaking.

Undertakings should treat such items as contributions:

(a) when they are in the form of an unconditional gift, or donation of own funds;

(b) whether they are from a parent undertaking, or any other party, or in the form of supplementary contributions from members of a mutual or mutual-type undertakings;

(c) regardless of the treatment of the item for accounting purposes, as contributing to profit or loss or contributing directly to reserves.

Since the balance sheet treatment of contributions which satisfy the necessary features and characteristics used to classify own funds into tiers, is an increase in

undertakings' assets with a corresponding increase in the reconciliation reserve, and since the contribution does not give rise to any capital instrument or liability or any other basic own-fund item, undertakings should classify the item as Tier 2 ancillary own funds.

Undertakings should classify contractual arrangements which, when called up, meet the undertaking's liabilities by indemnifying third-parties in the same manner as contributions if they:

(a) generate an asset for a third-party creditor of an undertaking;

(b) do not create corresponding liabilities for the undertaking.

Undertakings should treat contracts of indemnity, which oblige a third-party indemnifier to pay sums to the undertaking's creditor without obliging the undertaking to repay such sums to the indemnifier, as ancillary own-fund items if those contracts fulfil the requirements of [Article 52 AOF2 to Article 56 AOF6 of the draft Implementing Measures].

Supervisory authorities should classify ancillary own-fund items which on call do not become capital instruments, contributions or arrangements which meet an undertaking's liabilities, by considering the features of whatever the ancillary own-fund item delivers on call.

2.1. Arrangements which write off or convert an undertaking's liabilities, whether that conversion is on demand or not, only create an ancillary own-fund item if they:

(a) fulfil the criteria set out in [Article 52 AOF2 to Article 56 AOF6 of the draft Implementing Measures];

(b) are approved by the supervisory authority in accordance with Article 90 of Solvency II.

This is regardless of whether the counterparty (which may be a group company or third-party) has converted a liability in the past.

Guideline 4 - Ongoing satisfaction of the criteria

Notwithstanding [Article 57 AOF7 (2) of the draft Implementing Measures], undertakings should discuss with the supervisory authority as early as possible, if they have reason to believe that a material change in the loss-absorbency of an ancillary own-fund item is imminent or likely.

2.2. The assessment of ongoing satisfaction may be illustrated by the following example:

An undertaking applied for approval of a potential ancillary own-fund item which could provide funds of up to €500m. The supervisory authority approved €100m of the €500m as a prudent and realistic amount. The approved amount of €100m was treated as Tier 2 ancillary own funds.

Later the undertaking calls €20m of the ancillary own-fund item and the counterparty honours the call; the undertaking's Tier 1 own funds increase by €20m, i.e. the amount of the cash contribution it receives from the counterparty.

The supervisory authority will then review its assessment of the amount of the ancillary own-fund item, having regard to the impact of the call on the application of the criteria to the ongoing amount of the ancillary own-fund item. This impact will be case specific; the way a call affects compliance of the uncalled amount with the criteria might be totally different in one case from that in another.

Taking this example, after its review the supervisory authority may decide that the approved amount has to remain unchanged at €100m.

This might reflect the view that the counterparty's €20m cash contribution came from the €400m of potential ancillary own-funds not previously recognised by the supervisory authority. The supervisory authority might view the call's "success" (i.e. the undertaking's receipt of the funds called) as supporting the approved amount. In such circumstances, after the call, the undertaking would still have €100m of Tier 2 ancillary own funds.

Alternatively, the way the criteria are affected may be such that the supervisory authority may decide that the ancillary own-fund item's amount has to be reduced to €80m.

This might reflect the view that the counterparty's €20m cash contribution came from the €100m originally approved by the supervisory authority. In such circumstances, after the call, the undertaking would have €80m of Tier 2 ancillary own funds.

However, the supervisory authority is not limited to the above actions and may adjust the ancillary own-fund item in some other way based on the facts and circumstances of the case and how these affect the satisfaction of the criteria. A supervisory conclusion that a call affects criteria in one particular way in one situation creates no precedent or presumption that the call of a similar ancillary own-fund item will affect criteria in the same manner on a future occasion. Each situation must be considered on a case by case basis.

B. Classification of own funds

1. Guidelines

Introduction

1.1. These Guidelines are drafted according to Article 16 of Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (hereinafter "EIOPA Regulation").

1.2. These Guidelines relate to Article 93, 94 and 95 of Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking up and pursuit of the business of Insurance and Reinsurance (hereinafter "Solvency II") as well as to [Article 58 COF1, Article 58bis COF1bis, Article 59 COF2, Article 60 COF3, Article 61 COF4, Article 64 COF7, Article 65 COF8, Article 67 COF10 and Article 72 EOF1] of the draft Implementing Measures.

1.3. These Guidelines are addressed to supervisory authorities under Solvency II.

1.4. The purpose of these Guidelines is to provide guidance on how the lists of own funds items and the features determining classification for each tier should be applied. The Guidelines also set out procedures relating to the classification of own funds including the prior supervisory approval of items not on the lists of own-fund items.

1.5. Undertakings have different capital items in their financial statements. Most of these will correspond to the defined list of basic own-fund items in the draft implementing measures which do not require supervisory approval. Some, including retained earnings, will be taken into account within the reconciliation reserve, which is a single own-fund item. Other items not on the list will need to be approved as basic or ancillary own-funds items. All items should be assessed against the features for determining classification to judge whether they qualify as available own funds and their appropriate tier.

1.6. The terms of the contractual arrangement governing the own-fund item should comply with the substance as opposed to the form of Solvency II and be clear and unambiguous.

1.7. Paid-in ordinary share capital including its related share premium account, and paid-in initial funds, members' contributions or the equivalent basic own-fund item for mutual and mutual-type undertakings should form the highest quality own funds which can be relied on to absorb losses on a going concern basis. The quality of such own funds should not be undermined. While distributions on a going-concern are allowed, the Guidelines make it clear that undertakings should not be bound to pre-defined levels of distributions that are linked to the amount paid in at issuance.

1.8. The interpretation of share premium account should be based on the economic substance as there may be different terminology employed in national law. Share premium account should therefore be understood as a separate account or reserve to which share premiums, the amount between the value received and the nominal value of the share at issuance or the value received at issuance and the value recognised in share capital, are transferred in accordance with national law.

1.9. The Guidelines clarify that in order for undertakings always to retain full flexibility in raising new own-fund items, paid-in subordinated mutual member accounts, paid-in preference shares including the related share premium account, and paid-in subordinated liabilities should not, by their contractual arrangements, prevent or hinder new own funds being raised.

1.10. Own-fund items should have a sufficient maturity, depending on the tier in which they are classified. The Guidelines set out that this requirement should not be undermined by any call options prior to five years for items of all tiers as defined in Article 94 of Solvency II, irrespective of whether they relate to changes that lie within or outside the control of the undertaking. While the repurchase or buyback of any own-fund item is permitted at the option of the undertaking after the first possible call date, the undertaking should not create any expectation at issuance that the item will be bought back, redeemed or cancelled before the contractual maturity of the item. Since a repayment or redemption may have a substantial impact on the solvency position of the undertaking in the short and medium term, a repayment or redemption is always subject to supervisory approval.

1.11. In order to avoid deterioration in an undertaking's solvency position, Tier 1 and Tier 2 own-fund items provide that undertakings will be able to maintain own funds when there is non-compliance with the Solvency Capital Requirement (hereinafter "SCR") or if repayment or redemption would result in such non-compliance. The Guidelines set out that this should be independent of any contractual obligations or any notice of repayment and redemption given.

1.12. Since distributions cannot be made where they further weaken the solvency position of the undertaking, the Guidelines set out that alternative coupon satisfaction mechanisms should only be permissible in a restricted manner, whereby the cancellation of distributions is not undermined and there is no decrease in own funds of the undertaking.

1.13. Arrangements intended to stop or require payments on other items undermine full flexibility. The Guidelines make it clear that the use of dividend stoppers, capping or restricting the level or amount of distribution to be made on the item referred to in [Article 58 COF1 (1)(a) of the draft Implementing Measures], in any own-fund item, regardless of the tier, that would prevent payment on Tier 1 items is prohibited as they could discourage new providers of own funds and thus represent a hindrance to recapitalisation.

1.14. In order that any principal loss absorbency mechanism can achieve its purpose at the point of the trigger, the terms of the contractual arrangement should be clearly defined and legally certain, and capable of being applied without delay. The Guidelines explain that while a future write-up is generally permitted, this mechanism should not undermine the loss absorbency and should only be allowed on the basis of profits generated after restoring compliance with the SCR.

1.15. While called-up but not paid-in ordinary share capital may be classified as Tier 2 basic own funds, provided that the Tier 2 features are met, the Guidelines provide that this capital should only count as own funds for a limited time. This is to avoid the calling-up of capital solely for the purpose of satisfying the requirements of own funds classification without any intent that the item should become paid-in in due course.

1.16. These Guidelines also provide guidance in the event of non-compliance with the SCR. Non-compliance with the SCR arises when the value of own funds eligible to cover the SCR is less than the amount of the SCR. This should not be confused with a significant non-compliance with the SCR as defined in [Article 59 COF2 (6) of the draft Implementing Measures] specifically for the purposes of principal loss absorbency mechanisms. Non-compliance with the Minimum Capital Requirement (hereinafter "MCR") arises when the value of own funds eligible to cover the MCR is less than the amount of the MCR.

1.17. If not defined in these Guidelines, the terms have the meaning defined in the legal acts referred to in the introduction.

1.18. The Guidelines shall apply from [1 April 2015].

Section 1: Tier 1 items

Guideline 1 - Tier 1 paid-in ordinary share capital and preference shares

1.19. For the purposes of [Article 58 COF1 (1)(a) of the draft Implementing Measures], undertakings should identify paid-in ordinary share capital by the following properties:

a) the shares are issued directly by the undertaking with the prior approval of its shareholders or, where permitted under national law, its administrative, supervisory or management body (hereinafter "AMSB");

b) the shares entitle the owner to a claim on the residual assets of the undertaking in the event of winding-up proceedings, which is proportionate to the amount of the items issued, and is neither fixed nor subject to a cap.

1.20. Where an undertaking describes more than one class of shares as ordinary share capital:

a) it should assess the features for determining classification as ordinary share capital set out in [Article 59 COF2 of the draft Implementing Measures] in relation to each class of shares separately;

b) in accordance with [Article 59 COF2 (1)(a)(i) and (3)(a) of the draft Implementing Measures], it should identify the differences between classes which provide for one class to rank ahead of another or which create any preference as to distributions, and only consider as possible Tier 1 ordinary share capital the class which ranks after all other claims and has no preferential rights;

c) it should consider as possible Tier 1 preference shares, any share classes ranking ahead of the most subordinated class or which have other preferential features which prevent them from being classified as Tier 1 ordinary share capital in accordance with points (a) and (b).

Guideline 2 - Reconciliation Reserve

1.21. For the purposes of [Article 58bis COF1bis (1)(a) of the draft Implementing Measures], undertakings should include own shares held both directly and indirectly.

1.22. For the purposes of [Article 58bis COF1bis (1)(b) of the draft Implementing Measures]:

a) undertakings should consider a dividend or distribution to be foreseeable at the latest when it is declared or approved by the AMSB, or the other persons who effectively run the undertaking, regardless of any requirement for approval at the annual general meeting;

b) where a participating undertaking holds a participation in another undertaking, which has a foreseeable dividend, the participating undertaking should make no reduction to its reconciliation reserve for that foreseeable dividend;

c) undertakings should consider the amount of foreseeable charges to be taken into account as:

(i) the amount of taxes;

(ii) the amount of any obligations or circumstances arising during the related reporting period which are likely to reduce the profits of the undertaking and for which the supervisory authority is not satisfied that they have been appropriately captured by the valuation of assets and liabilities in accordance with the draft implementing measures.

Guideline 3 - Tier 1 features determining classification of items referred to in [Article 58 COF1 (1)(a), (b) and (d) of the draft Implementing Measures]

1.23. In the case of an item referred to in [Article 58 COF1 (1)(a), (b) and (d) of the draft Implementing Measures], undertakings should consider the features which may cause the insolvency or accelerate the process of the undertaking becoming insolvent as including:

a) the holder of the security relating to an own-fund item is in a position to petition for the insolvency of the issuer in the event of distributions not being made;

b) the item is treated as a liability where a determination that the liabilities of an undertaking exceed its assets constitutes a test of insolvency under the applicable national law;

c) the holder of the security relating to an own-fund item may, as a result of a distribution being cancelled, be granted the ability to cause full or partial payment of the amount invested, or to demand penalties or any other compensation that could result in a decrease of own funds.

Guideline 4 - Tier 1 features determining classification of items referred to in [Article 58 COF1 (1)(a) and (b) of the draft Implementing Measures**]**

1.24. In the case of an item referred to in [Article 58 COF1 (1)(a) and (b) of the draft Implementing Measures], for the purposes of displaying the features in [Article 59 COF2 (3)(a) of the draft Implementing Measures] (full flexibility), undertakings should:

a) consider distributable items as comprising retained earnings, including profit for the year ended prior to the year of distribution, and distributable reserves as defined under national law or by the statutes of the undertaking, reduced by the deduction of any interim net loss for the current financial year from retained earnings;

b) determine the amount of distributable items on the basis of the individual accounts of the undertaking and not on the basis of consolidated accounts;

c) reflect in the determination of the distributable items any restrictions imposed by national law with regard to consolidated accounts;

d) ensure that the terms of the contractual arrangements governing the own-fund item or any other own-fund item do not cap or restrict the level or amount of distribution to be made on the item referred to in [Article 58 COF1 (1)(a) of the draft Implementing Measures], including capping or restricting the distribution to zero;

e) ensure that the terms of the contractual arrangement governing the own-fund item do not require a distribution to be made in the event of a distribution being made on any other item issued by the undertaking.

1.25. The undertaking should identify the legal basis for the cancellation of distributions in accordance with [Article 59 COF2 (1)(h)(i) of the draft Implementing Measures] prior to classifying an item as Tier 1.

Guideline 5 - Tier 1 features determining classification of items referred to in [Article 58 COF1 (1)(c), (e) and (2) of the draft Implementing Measures]

1.26. In the case of an item referred to in [Article 58 COF1 (1)(c), (e) and 2 of the draft Implementing Measures], undertakings should consider features which may cause insolvency or accelerate the process of the undertaking becoming insolvent as including:

a) the holder of the security relating to an own-fund item is in a position to petition for the insolvency of the issuer in the event of distributions not being made;

b) the item is treated as a liability where a determination that the liabilities of an undertaking exceed its assets constitutes a test of insolvency under applicable national law;

c) the terms of the contractual arrangement governing the own-fund item specify circumstances or conditions which, if met, would require the initiation of insolvency or any other procedure which would prejudice the continuance of the undertaking or its business as a going concern;

d) the holder of the security relating to an own-fund item may, as a result of a distribution being cancelled, be granted the ability to cause full or partial payment of the amount invested, or to demand penalties or any other compensation that could result in a decrease of own funds.

1.27. For the purposes of displaying the features in [Article 59 COF2 (1)(d) of the draft Implementing Measures] (absorbing losses once there is non-compliance with capital requirements and not hindering recapitalisation) undertakings should ensure that the terms of the contractual arrangement governing the own-fund item:

a) do not include any terms which prevent or act as a disincentive to new own funds being raised;

b) do not require that the position of existing holders of an own-fund item is improved or maintained, when any own funds arise from a new or increased own-fund item;

c) do not include terms that prevent distributions on other own-fund items;

d) or the terms of any connected arrangement, do not provide that:

i. any new own-fund items raised by the undertaking are more deeply subordinated to that item in conditions of stress or other circumstances where additional own funds may be needed; or

ii. the item is subject to an automatic conversion into an item that ranks more highly in terms of subordination in conditions of stress or other circumstances where own funds may be needed, or as a result of structural changes including a merger or acquisition.

1.28. For the purposes of displaying the features in [Article 59 COF2 (1)(e)(ii) of the draft Implementing Measures] (repayment or redemption before 5 years) undertakings should ensure that the item does not include a contractual term providing for a call option prior to 5 years from the date of issuance, including call options predicated on unforeseen changes that are outside the control of the undertaking.

1.29. Subject to the satisfaction of all relevant features for determining classification and to prior supervisory approval, supervisory authorities should consider arrangements predicated on unforeseen changes, which are outside the control of the undertakings and that would give rise to transactions or arrangements which are not deemed to be repayment or redemption, to be permitted.

1.30. For the purposes of displaying the features in [Article 59 COF2 (1)(h)bis of the draft Implementing Measures] (waiver of cancellation of distributions) undertakings should ensure that:

a) any alternative coupon satisfaction mechanism is only included in the terms of the contractual arrangement governing the own-fund item where the mechanism substitutes any payment of the distribution in cash by providing for distributions to be settled through the issue of ordinary share capital;

b) any alternative coupon satisfaction mechanism achieves the same economic result as the cancellation of the distribution and there is no decrease in own funds;

c) any distributions under an alternative coupon satisfaction mechanism occur as soon as the supervisory authority has exceptionally waived the cancellation of distributions using unissued ordinary share capital which has already been approved or authorised under national law or under the statutes of the undertaking;

d) any alternative coupon satisfaction mechanism does not allow the undertaking to use own shares held as a result of repurchase;

e) the terms of the contractual arrangement governing the own-fund item:

(i) provide for the operation of any alternative coupon satisfaction mechanism to be subject to an exceptional waiver from the

supervisory authority under [Article 59 COF2 (1)(h)bis of the draft Implementing Measures] on each occasion that the cancellation of the distribution is required;

(ii) state that the waiver by the supervisory authority is intended to operate on an exceptional basis;

(iii) do not oblige the undertaking to operate any alternative coupon satisfaction mechanism.

1.31. For the purposes of displaying the features in [Article 59 COF2 (3)(b) of the draft Implementing Measures] (full flexibility over distributions)] undertakings should ensure that the terms of the contractual arrangement governing the own-fund item do not:

a) require distributions to be made on the item in the event of a distribution being made on any other security relating to own-fund items issued by the undertaking;

b) require the payment of distributions to be cancelled or prevented on any other item of the undertaking in the event that no distribution is made in respect of the item;

c) link the payment of distributions to any other event or transaction which has the same economic effect as points (a) or (b).

1.32. For the purposes of displaying the features in [Article 59 COF2 (1)(d)bis, (4), (4)bis and (6) of the draft Implementing Measures] (principal loss absorbency mechanisms) undertakings should ensure that:

a) the loss absorbency mechanism, including the trigger point, is clearly defined in the terms of the contractual arrangement governing the own-fund item and legally certain;

b) the loss absorbency mechanism can be effective at the point of the trigger, without delay and regardless of any requirement to notify holders of the item;

c) any write-down mechanism that does not allow for future write-up should provide that the amounts written down in accordance with [Article 59 COF2 (4)(a) of the draft Implementing Measures] cannot be restored;

d) any write-down mechanism that allows for a future write-up of the nominal or principal amount provides that:

(i) write-up is permitted only after the undertaking has achieved compliance with the SCR;

(ii) write-up is not activated by reference to own-fund items issued or increased in order to restore compliance with the SCR;

(iii) write-up only occurs on the basis of profits which contribute to distributable items made subsequent to the restoration of compliance with the SCR in a manner that does not undermine the loss absorbency intended by [Article 59 COF2 (4) of the draft Implementing Measures];

e) any conversion mechanism provides that:

(i) the basis on which the security relating to an own-fund item converts into ordinary share capital on significant non-compliance with the SCR is specified clearly in the terms of the contractual arrangement governing the security;

(ii) the conversion terms do not fully compensate the nominal amount of a holding by allowing an uncapped conversion rate in the event of falls in the share price;

(iii) in specifying a range within which the instruments will convert, the maximum number of shares the holder of the security may receive is certain at the time of issuance of the security;

(iv) the conversion will result in a situation where losses are absorbed on a going concern basis and the basic own-fund items that arise as a result of the conversion do not hinder recapitalisation;

(v) the choice of a conversion rate takes into account the impact on the scope for, and timing of, any future recapitalisation.

1.33. Where undertakings have own-fund items with conversion mechanisms, they should ensure that sufficient shares have already been authorised in accordance with national law or the statutes of the undertaking, so that shares are available for issuance when needed.

Guideline 6 - Tier 1 features determining classification of items referred to in [Article 58 COF1 (1)(a), (b), (c), (e) and (2) of the draft Implementing Measures] – immediate availability to absorb losses

1.34. In the case of an item referred to in [Article 58 COF1 (1)(a), (b), (c), (e) and 2 of the draft 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.

Guideline 7 - Tier 1 features determining classification of items referred to in [Article 58 COF1 (1)(a), (b), (c), (e) and (2) of the draft Implementing Measures] – repayment or redemption at the option of the undertaking

1.35. In the case of an item referred to in [Article 58 COF1 (1)(a), (b), (c), (e) and (2) of the draft Implementing Measures], for the purposes of displaying the

features in [Article 59 COF2 (1)(f) and (f)bis of the draft Implementing Measures] (repayment or redemption at the option of the undertaking), undertakings should:

a) ensure that the terms of the legal or contractual arrangement governing the item, or any associated arrangement, do not provide for any incentive to redeem as set out in Guideline 19;

b) not create any expectation at issuance that the item will be redeemed or cancelled, nor should the legal or contractual terms governing the own-fund item contain any term which might give rise to such an expectation.

1.36. Undertakings should treat the item as repaid or redeemed from the date of notice to holders of the item or, if no notice is required, the date of supervisory approval, and exclude the item from own funds from that date.

1.37. In the case of an item referred to in [Article 58 COF1 (1)(c), (e) and (2) of the draft Implementing Measures], for the purposes of displaying the features in [Article 59 COF2 (1)(g) of the draft Implementing Measures] (suspension of repayment or redemption)] undertakings should ensure that the terms of the contractual arrangement governing the own-fund item provide for the suspension of the repayment or redemption of the item at any point, including when notice of repayment or redemption has been given, in the event of non-compliance with the SCR or if the repayment or redemption would result in such non-compliance.

1.38. For undertakings that have suspended repayment or redemption in accordance with [Article 59 COF2 (1)(g) of the draft Implementing Measures], the undertakings' subsequent actions should form part of the recovery plan referred to in Article 138 of Solvency II.

Section 2: Tier 2 items

Guideline 8 – Tier 2 list of own-fund items

1.39. In the case of items referred to in [Article 60 COF3 (1)(a), (b) and (d)] of the draft Implementing Measures undertakings should ensure that:

a) the time period between calling on shareholders or members to pay, and the item becoming paid in, is not longer than 3 months. During this time, undertakings should consider the own funds to be called up but not paid in and should classify them as Tier 2 basic own funds provided that all other relevant criteria are met;

b) for items which are called up but not paid in, the shareholder or member that owns the item is still obliged to pay the outstanding amount in the event of

the undertaking becoming insolvent or entering into winding-up procedures, and that the amount is available to absorb losses.

Guideline 9 - Tier 2 features for determining classification

1.40. For undertakings determining classification in accordance with [Article 61 COF4 (1)(b) of the draft Implementing Measures], paragraph 1.26 of Guideline 5 applies *mutatis mutandis* to Tier 2 basic own-fund items.

1.41. For the purposes of displaying the features in [Article 61 COF4 (1)(c) of the draft Implementing Measures] (repayment or redemption before 5 years) undertakings should ensure that the contractual arrangement governing the own-fund item does not include a contractual term providing for a call option prior to 5 years from the date of issuance, including call options predicated on unforeseen changes that are outside the control of the undertaking.

1.42. Subject to the satisfaction of all relevant features for determining classification and to prior supervisory approval, supervisory authorities should consider arrangements predicated on unforeseen changes which are outside the control of the undertakings and that would give rise to transactions or arrangements which are not deemed to be repayment or redemption, to be permitted.

1.43. For the purposes of displaying the features in [Article 61 COF4 (1)(d)bis of the draft Implementing Measures] (repayment or redemption at the option of the undertaking), undertakings should only include in the contractual terms of the arrangement governing the own-fund item or any associated arrangement, limited incentives to redeem as set out in Guideline 19.

1.44. Undertakings should treat Tier 2 basic own-fund items as repaid or redeemed from the date of notice to holders of the item or, if no notice is required, the date of supervisory approval, and exclude the item from own funds from that date.

1.45. For the purposes of displaying the features in [Article 61 COF4 (1)(e) of the draft Implementing Measures] (suspension of repayment or redemption), undertakings should ensure that the terms of the contractual arrangement governing the own-fund item include provisions for the suspension of the repayment or redemption of the item at any point, including when notice of repayment or redemption has been given, in the event of non-compliance with the SCR or if the repayment or redemption would result in such non-compliance.

1.46. For undertakings that have suspended repayment or redemption in accordance with [Article 61 COF4 (1)(e) of the draft Implementing Measures], the undertakings' subsequent actions should form part of the recovery plan referred to in Article 138 of Solvency II.

1.47. For the purposes of displaying the features in [Article 61 COF4 (1)(f) of the draft Implementing Measures], undertakings should ensure that the terms of the contractual arrangement governing the own-fund item are such that the operation of the deferral overrides the requirement to redeem at contractual maturity.

Section 3: Tier 3 items

Guideline 10 - Tier 3 features for determining classification

1.48. For undertakings determining classification in accordance with [Article 65 COF8 (1)(b) of the draft Implementing Measures], paragraph 1.26 of Guideline 5 applies *mutatis mutandis* to Tier 3 basic own-fund items.

1.49. For the purposes of displaying the features in [Article 65 COF8 (1)(c) of the draft Implementing Measures] (repayment or redemption before 5 years), undertakings should ensure that the contractual arrangement governing the item does not include a term providing for a call option prior to the intended maturity date, including call options predicated on unforeseen changes that are outside the control of the undertaking.

1.50. Subject to the satisfaction of all relevant features for determining classification and to prior supervisory approval, supervisory authorities should consider arrangements predicated on unforeseen changes which are outside the control of the undertaking and that would give rise to transactions or arrangements which are not deemed to be repayment or redemption to be permitted.

1.51. For the purposes of displaying the features in [Article 65 COF8 (1)(d)bis of the draft Implementing Measures] undertakings should only include in the contractual terms of the arrangement governing the own-fund item or any associated arrangement limited incentives to redeem as set out in Guideline 19.

1.52. Undertakings should treat Tier 3 basic own-fund items as repaid or redeemed from the date of notice to holders of the item or if no notice is required the date of supervisory approval, and exclude the item from own funds from that date.

1.53. For the purposes of displaying the features in [Article 65 COF8 (1)(e) of the draft Implementing Measures], undertakings should ensure that the terms of the contractual arrangement governing the own-fund item include provisions for the suspension of the repayment or redemption of the item at any point, including when notice of repayment or redemption has been given, in the event of non-compliance with the SCR or if the repayment or redemption would result in such non-compliance.

1.54. For the purposes of displaying the features in [Article 65 COF8 (1)(f) of the draft Implementing Measures] undertakings should ensure that the terms of the contractual arrangement governing the own-fund item are such that the

operation of the deferral overrides the requirement to redeem at contractual maturity.

Section 4: All basic own-fund items

Guideline 11 - Repayment or redemption

1.55. For the purposes of displaying the features in [Article 59 COF2, Article 61 COF4 and Article 65 COF8 of the draft Implementing Measures] undertakings should consider repayment or redemption to include the repayment, redemption, repurchase or buyback of any own-fund item or any other arrangement that has the same economic effect. This includes share buybacks, tender operations, repurchase plans and repayment of the principal at maturity for dated items as well as repayment or redemption following the exercise of an issuer call option.

Guideline 12 - Encumbrances

1.56. For the purposes of displaying the features in [Article 59 COF2 (1)(j), Article 61 COF4 (1)(g) and Article 65 COF8 (1)(g) of the draft Implementing Measures] (encumbrances) undertakings should:

a) assess whether an own-fund item is encumbered on the basis of the economic effect of the encumbrance and the nature of the item, applying the principle of substance over form;

b) consider encumbrances as including, but not being limited to:

(i) rights of set off;

(ii) restrictions;

(iii) charges or guarantees;

(iv) holding of own-fund items of the undertaking;

(v) the effect of a transaction or a group of connected transactions which have the same effect as any of (i) to (iv);

(vi) the effect of a transaction or a group of connected transactions which otherwise undermine an item's ability to meet the features determining classification as an own-fund item;

c) consider an encumbrance arising from a transaction or group of transactions which is equivalent to the holding of own shares as including the case where the undertaking holds its own Tier 1, Tier 2 or Tier 3 items.

1.57. Where the encumbrance is equivalent to the holding of own shares, undertakings should reduce the reconciliation reserve by the amount of the encumbered item.

1.58. When determining the treatment of an item which is encumbered according to [Article 59 COF2 (1)(j), Article 61 COF4 (1)(g) or Article 65 COF8 (1)(g) of the draft Implementing Measures], but the item together with the encumbrance displays the features required for a lower tier, undertakings should:

a) identify whether the encumbered item is included in the lists of own-fund items for the lower tier [Article 60 COF3 and Article 64 COF7 of the draft Implementing Measures];

b) classify an item included in the lists according to the appropriate features for determining classification [Article 61 COF4 and Article 65 COF8 of the draft Implementing Measures];

c) seek approval from the supervisory authority to classify any items not included in the lists in accordance with [Article 67 COF10].

1.59. If an item is encumbered to the extent that it no longer displays the features determining classification, undertakings should not classify the item as own funds.

Guideline 13 - Call options predicated on unforeseen changes

1.60. Undertakings should consider unforeseen changes that are outside their control as including:

a) a change in law or regulation relevant to the undertaking's own-fund item in any jurisdiction or the interpretation of such law or regulation by any court or authority entitled to do so;

b) a change in the applicable tax treatment, regulatory classification or treatment by rating agencies of the item concerned.

Guideline 14 - Exceptional waiver of suspension of redemption

1.61. When applying for an exceptional waiver of the suspension of repayment or redemption according to [Article 59 COF2 (1)(g)bis(i), Article 61 COF4 (1)(e)bis(i) and Article 65 COF8 (1)(e)bis(i) of the draft Implementing Measures] undertakings should:

a) demonstrate how the proposed exchange or conversion would contribute to restoring compliance with the SCR and not just provide for the repayment of existing holders of the item. The exchange should be considered from the point of view of the holders of the item; the issuer should not issue a new instrument to new investors in order to repay existing holders of the item. The

suspension of repayment or redemption and the undertaking's subsequent actions should form part of its recovery plan;

b) consider that Guideline 18 applies with regard to the prior supervisory approval of the transaction.

1.62. In assessing an undertaking's application for an exceptional waiver for the suspension of repayment or redemption the supervisory authority should take into account information submitted by the undertaking and any additional analysis or projections it considers necessary for the undertaking to provide. Where the supervisory authority is not satisfied with the justification of the exceptional nature of a waiver and the analysis provided, it should not grant approval.

Guideline 15 - Contractual opportunities to redeem and appropriate margin

1.63. In the case of a request for supervisory approval of a repayment or redemption between 5 and 10 years after the date of issuance in accordance with [Article 59 COF2 (2) of the draft Implementing Measures], undertakings should demonstrate how the SCR would be exceeded by an appropriate margin following the repayment or redemption for the period of its medium-term capital management plan or, if longer, for the period between the date of redemption or repayment and 10 years after the date of issuance.

1.64. In assessing whether a margin is appropriate the supervisory authority should take into account:

a) the current and projected solvency position of the undertaking, taking into account the proposed repayment and any other proposed redemptions and repayments or issuances;

b) the undertaking's medium term capital management plan and Own Risk and Solvency Assessment (hereinafter "ORSA");

c) the volatility of the undertaking's own funds and SCR having regard to the nature, scale and complexity of the risks inherent in the business of the undertaking;

d) the extent to which the undertaking has access to external sources of own funds and the impact of market conditions on the ability of undertakings to raise own funds.

Guideline 16 - Exceptional waiver of cancellation or deferral of distributions

1.65. When applying for an exceptional waiver of the cancellation or deferral of distributions according to [Article 59 COF2 (1)(h)bis, Article 61 COF4 (1)(f)bis of the draft Implementing Measures], undertakings should demonstrate how

the distribution could be made without weakening their solvency position and how the MCR would be met.

1.66. An undertaking seeking an exceptional waiver in respect of settlement via an alternative coupon satisfaction mechanism should take into account the amount of ordinary share capital that would need to be issued, the extent to which restoring compliance with the SCR would require the raising of new own funds, and the likely impact of the share issuance for the purposes of the alternative coupon satisfaction mechanism on the undertaking's ability to raise those own funds, and should provide such information and analysis to the supervisory authority.

1.67. In assessing an application for an exceptional waiver of cancellation or deferral of distributions, the supervisory authority should take into account information submitted by the undertaking and any additional analysis or projections it considers necessary for the undertaking to provide. Where the supervisory authority is not satisfied with the justification of the exceptional nature of a waiver and the analysis provided, it should not grant approval.

Guideline 17 - Principal loss absorbency: conversion

1.68. In the application of a principal loss absorbency mechanism in the form of a conversion feature according to [Article 59 COF2 (1)(d)bis(ii) of the draft Implementing Measures], the AMSB of the undertaking and other persons who effectively run the undertaking should be aware of the impact that a potential conversion of an instrument could have on the capital structure and ownership of the undertaking and should monitor this impact as part of the undertaking's system of governance.

Guideline 18 - Supervisory approval of repayment and redemption

1.69. Where an undertaking seeks supervisory approval of repayment or redemption according to [Article 59 COF2 (1)(f), Article 61 COF4 (1)(d) and Article 65 COF8 (1)(d) of the draft Implementing Measures] or a transaction not deemed to be a repayment or redemption according to [Article 59 COF2 (2), Article 61 COF4 (2) and Article 65 COF8 (2) of the draft Implementing Measures] it should provide the supervisory authority with an assessment of the repayment or redemption taking into account:

a) both the current and short-to-medium term impact on the undertaking's overall solvency position and how the action is consistent with the undertaking's medium-term capital management plan and its ORSA;

b) the undertaking's capacity to raise additional own funds if needed, having regard to the wider economic conditions and its access to capital markets and other sources of additional own funds.

1.70. Where an undertaking is proposing a series of repayments or redemptions over a short period of time, it should inform the supervisory authority, which may consider the series of repayment transactions as a whole rather than on an individual basis.

1.71. An undertaking should submit the request for supervisory approval 3 months prior to the earlier of:

a) the required contractual notice to holders of the item of repayment or redemption;

b) the proposed repayment or redemption date.

1.72. The supervisory authority should take into account the information submitted by undertakings and any additional analysis or projections it considers necessary for the undertaking to provide. Where the supervisory authority is not satisfied with the justification and the analysis provided, it should not grant approval.

1.73. After receiving supervisory approval of the repayment or redemption the undertaking should:

a) consider that it is allowed, but not obliged, to exercise any call or other optional repayment under the terms of the contractual arrangement governing the own-fund item;

b) when excluding an item treated as repaid with effect from the date of notice to holders of the item or if no notice is required the date of supervisory approval, reduce the relevant category of own funds and make no adjustment to or re-calculation of the reconciliation reserve;

c) continue to monitor its solvency position for any non-compliance or potential non-compliance with the SCR, which would trigger the suspension of repayment or redemption during the period leading up to the date of repayment or redemption;

d) not proceed with the repayment or redemption if it would lead to non-compliance with the SCR even if notice of repayment or redemption has been given to the holders of the items. Where repayment or redemption is suspended in these circumstances the undertaking may reinstate the item as available own funds and the supervisory approval for repayment or redemption is withdrawn.

Guideline 19 - Incentives to redeem

1.74. For the purposes of displaying the features in [Article 59 COF1 (1)(f)bis, Article 61 COF4 (1)(d)bis and Article 65 COF8 (1)(d)bis of the draft Implementing

Measures], undertakings should consider incentives to redeem that are not limited as not permitted in any tier.

1.75. Undertakings should consider incentives to redeem that are not limited as including:

a) principal stock settlement combined with a call option, where principal stock settlement is a term in the contractual arrangements governing an own-fund item that requires the holder of the own-fund item to receive ordinary shares in the event that a call is not exercised;

b) mandatory conversion combined with a call option;

c) a change in the distribution structure from a fixed to a floating rate combined with a call option;

d) an increase in the principal amount which is applicable subsequent to the call date, combined with a call option;

e) any other provision or arrangement which might reasonably be regarded as providing an economic basis for the likely redemption of the item.

1.76. In the case of items referred to in [Article 60 COF3 of the draft Implementing Measures], undertakings should be able to include limited incentives to redeem if they do not occur before 10 years after the issue date of the item.

1.77. In the case of items referred to in [Article 64 COF7 of the draft Implementing Measures], undertakings should be able to include limited incentives if they do not occur before 5 years after the issue date of the item.

1.78. Undertakings should consider incentives to redeem in the form of an interest rate step-up associated with a call option as limited if the step-up takes the form of a single increase in the coupon rate and results in an increase over the initial rate that is no greater than the higher of the following two amounts:

a) 100 basis points, less the swap spread between the initial index basis and the stepped-up index basis; or

b) 50% of the initial credit spread, less the swap spread between the initial index basis and the stepped-up index basis.

Guideline 20 - Eligibility and limits applicable to Tiers 1, 2 and 3

1.79. For the purposes of calculating eligible own funds in accordance with [Article 72 EOF1 of the draft Implementing Measures] for the SCR, undertakings should:

a) consider all Tier 1 items set out in [Article 58 COF1 (1)(a),(b,)(d) and (f) of the draft Implementing Measures] as eligible to cover the SCR;

b) consider those restricted Tier 1 items in excess of the 20% limit in [Article 72 EOF1 (3) of the draft Implementing Measures] as available as Tier 2 basic own funds.

1.80. For the purposes of calculating eligible own funds in accordance with [Article 72 EOF1] for the MCR, undertakings should:

a) consider all Tier 1 items set out in [Article 58 COF1 (1)(a),(b,)(d) and (f) of the draft Implementing Measures] as eligible to cover the MCR;

b) consider those restricted Tier 1 items in excess of the 20% limit in [Article 72 EOF1 (3)] as available as Tier 2 basic own funds;

c) consider that the effect of [Article 72 EOF1 (2) of the draft Implementing Measures] is that Tier 2 basic own-funds items are eligible as long as they are less than 20% of the MCR.

Section 5: Approval of the assessment and classification of own-fund items not on the list of own-fund items

Guideline 21 - General features of the application

1.81. When submitting a request for approval in accordance with [Article 67 COF10 of the draft Implementing Measures] the undertaking should:

a) submit a written application for approval of each own-fund item;

b) seek approval of a specified monetary amount, where applicable, the legal form of the own-fund item and the proposed classification of the own-fund item;

c) submit the application in one of the official languages of the Member State in which the undertaking has its head office, or in a language that has been agreed with the supervisory authority;

d) approve the application at the AMSB of the undertaking, and submit documentary evidence of that approval;

e) provide a cover letter and supporting evidence:

(i) the cover letter to the application should be signed by persons authorised to sign on behalf of the AMSB of the undertaking;

(ii) the supporting evidence should contain sufficient information to allow the supervisory authority to assess whether the application complies with the criteria in Articles 93 and 94 of Solvency II and the features determining classification set out in the [Article 59 COF

2, Article 61 COF 4 and Article 65 COF 8 of the draft Implementing Measures].

Guideline 22 - Contents of the cover letter

1.82. The undertaking should submit a cover letter confirming that:

a) the undertaking believes any legal or contractual terms governing the own-fund item or any affiliated arrangement are unambiguous and clearly defined;

b) the undertaking's own assessment of a potential basic own-fund item's amount is prudent and realistic;

c) taking into account likely future developments as well as circumstances applying as at the date of the application, the undertaking considers that the potential basic own-fund item will comply, in terms of both legal form and economic substance, with the criteria in Articles 93 and 94 of Solvency II and the features determining classification set out in the [Article 59 COF 2, Article 61 COF 4 and Article 65 COF 8 of the draft Implementing Measures];

d) no material facts have been omitted.

1.83. The undertaking should also include in the cover letter information of other applications submitted by the undertaking or currently foreseen within the next six months for approval of any items listed in Article 308a(1) of Solvency II together with corresponding application dates.

Guideline 23 - Supporting evidence

1.84. The undertaking should provide a description of how the features determining classification set out in [Article 59 COF 2, Article 61 COF 4 and Article 65 COF 8 of the draft Implementing Measures] have been satisfied including:

a) assessments of the specific areas of risk, compliance and legal enforceability in all relevant jurisdictions carried out by relevant experts within the undertaking or on its behalf;

b) how the item will contribute to the undertaking's existing capital structure, including how the item may enable the undertaking to meet its existing or future capital requirements.

1.85. The undertaking should provide a description of the basic own-fund item, sufficient to allow the supervisory authority to conclude on the loss absorbing capacity of the item including the contractual terms of the arrangement governing the own-fund item and the terms of any affiliated arrangement together with evidence that any counterparty, where relevant, has entered into the contract and any affiliated arrangement and evidence that the contract and

any affiliated arrangements are legally binding and enforceable in all relevant jurisdictions.

1.86. The undertaking should provide the names and a description of all counterparties concerned, including the nature of any relationship between the undertaking and any counterparty, except where the individual counterparties are individually non-material or sufficiently homogenous to be described collectively.

1.87. The application should include an explanation for and justification of the valuation of the own-fund item.

Guideline 24 - Procedures for supervisory authorities

1.88. Supervisory authorities should establish procedures for the receipt and consideration of the applications and information provided by undertakings in accordance with Guidelines 21 to 23.

1.89. Supervisory authorities should confirm receipt of the application to the undertakings.

1.90. An application should be considered complete by the supervisory authority if the application covers all the matters set out in Guidelines 21 to 23.

1.91. Supervisory authorities should confirm if the application is considered complete or not on a timely basis, and at least within 30 days of receipt of the application.

1.92. Supervisory authorities should ensure that the period of time within which it decides on an application:

a) is reasonable;

b) does not exceed 3 months from the receipt of a complete application, unless there are exceptional circumstances which are communicated in writing to the undertakings on a timely basis.

1.93. Where there are exceptional circumstances, supervisory authorities should not take longer than six months from the receipt of a complete application to decide on an application.

1.94. If necessary to its assessment of the proposed own-fund item, supervisory authorities should request further information from the undertakings.

1.95. The days between the date the supervisory authority requests any further information and the date the supervisory authority receives such information should not be included within the periods of time stated in paragraphs 1.92 and 1.93.

1.96. If, due to a request from the supervisory authority for further information, an undertaking makes a change to the details of its application this should not be considered as a new application.

1.97. Where an undertaking advises the supervisory authority of a change to its application (other than as detailed in paragraph 1.96) this should be treated as a new application unless the supervisory authority is satisfied that the change does not significantly affect its assessment of the application.

1.98. An undertaking may withdraw an application by notification in writing at any stage prior to the decision of the supervisory authority. Any updated or resubmitted application should be treated as a new application.

Guideline 25 – Communication of the supervisory authorities' decision

1.99. Supervisory authorities should communicate their decision on an application, in writing, to the undertakings, on a timely basis.

1.100. Undertakings should not consider the own-fund item available until their application has been assessed and approved by the supervisory authority.

Section 6: Transitional arrangements

Guideline 26 - Transitional arrangements

1.101. Undertakings should assess all basic own-fund items issued prior to [1 January 2016 or the date of entry into force of the draft implementing measures referred to in Article 97 of Solvency II, whichever is earliest] to determine whether they display the features determining classification under [Article 59 COF2 and Article 61 COF4 of the draft Implementing Measures]. Where such items display the features determining classification as Tier 1 or Tier 2, undertakings should classify the item in that tier, even if the item cannot be used to meet the available solvency margin according to the laws, regulations and administrative provisions which are adopted pursuant to Directive 2002/83/EC, Directive 73/239/EEC and Directive 2005/68/EC.

1.102. Undertakings should regard basic own-fund items included in Tier 1 by virtue of the transitional measures, when added to other items listed in [Article 72 EOF1 (3) of the draft Implementing Measures], as limited to 20% of total Tier 1.

1.103. Undertakings should regard basic own-fund items included in Tier 2 by virtue of the transitional measures, as added to other Tier 2 own-fund items for the purposes of applying the limits as set out in [Article 72 EOF1 of the draft Implementing Measures].

1.104. Where items that are available as basic own funds in accordance with Article 308b (9) or (10) of Solvency II are exchanged or converted into another basic

own-fund item [after 1 January 2016 or the date of entry into force of the draft implementing measures referred to in Article 97, whichever is earliest], undertakings should consider the item into which it is converted, or for which it is exchanged, as a new item which does not satisfy Article 308b (9)(a) or (10)(a) of Solvency II.

1.105. Supervisory authority should consider items which are only ineligible according to the laws, regulations and administrative provisions adopted pursuant to Directive 2002/83/EC, Directive 73/239/EEC and Directive 2005/68/EC due to the application of limits in those provisions, as satisfying the requirements in Article 308b (9)(b) and (10)(b) of Solvency II.

2. Explanatory text

Guideline 12 - Encumbrances

For the purposes of displaying the features in [Article 59 COF2 (1)(j), Article 61 COF4 (1)(g) and Article 65 COF8 (1)(g) of the draft Implementing Measures] (encumbrances) undertakings should:

(a) assess whether an own-fund item is encumbered on the basis of the economic effect of the encumbrance and the nature of the item, applying the principle of substance over form;

(b) consider encumbrances as including, but not being limited to:

(i) rights of set off;

(ii) restrictions;

(iii) charges or guarantees;

(iv) holding of own-fund items of the undertaking;

(v) the effect of a transaction or a group of connected transactions which have the same effect as any of (i) to (iv);

(vi) the effect of a transaction or a group of connected transactions which otherwise undermine an item's ability to meet the features determining classification as an own-fund item.

(c) consider an encumbrance arising from a transaction or group of transactions which is equivalent to the holding of own shares as including the case where the undertaking holds its own Tier 1, Tier 2 or Tier 3 items.

Where the encumbrance is equivalent to the holding of own shares, undertakings should reduce the reconciliation reserve by the amount of the encumbered item.

When determining the treatment of an item which is encumbered according to [Article 59 COF2 (1)(j), Article 61 COF4 (1)(g) or Article 65 COF8 (1)(g) of the draft Implementing Measures], but the item together with the encumbrance displays the features required for a lower tier, undertakings should:

(a) identify whether the encumbered item is included in the lists of own-fund items for the lower tier [Article 60 COF3 and Article 64 COF7 of the draft Implementing Measures];

(b) classify an item included in the lists according to the appropriate features for determining classification [Article 61 COF4 and Article 65 COF8 of the draft Implementing Measures];

(c) seek approval from the supervisory authority to classify any items not included in the lists in accordance with [Article 67 COF10 of the draft Implementing

Measures].

If an item is encumbered to the extent that it no longer displays the features determining classification, undertakings should not classify the item as own funds.

2.1. The examples on encumbrances below are illustrative and not exhaustive. [Article 59 COF2 (1)(j), Article 61 COF4 (1)(g) and Article 65 COF8 (1)(f) of the draft Implementing Measures] provide that any transaction which undermines a basic own-fund item's ability to meet the criteria set out in Article 94(1) of Solvency II shall be considered an encumbrance.

Example 1

If a parent undertaking A subscribes for share capital of €100,000 in its insurance subsidiary B and subsequently B invests €100,000 in shares or any other own-fund items of A, then this is the equivalent of B holding its own shares.

An adjustment of €100,000 should be made to the reconciliation reserve of B.

Example 2

If insurer A subscribes for share capital of €100,000 in unrelated undertaking B and subsequently B invests €100,000 in shares or any other own-fund items of A then this is the equivalent of A holding its own shares.

An adjustment of €100,000 should be made to the reconciliation reserve of A.

Example 3

If insurer A subscribes for share capital of €100,000 in unrelated undertaking B and subsequently B invests €80,000 in shares or any other own-fund items of A then this is the equivalent of A holding its own shares.

An adjustment of €80,000 should be made to the reconciliation reserve of A.

Example 4

Bank A provides a subordinated loan of €200,000 to a life subsidiary L and one of €100,000 to a non-life subsidiary N of insurance undertaking B. At the same time, C, the insurance holding company of B provides a subordinated loan of €300,000 to Bank A.

These transactions are connected but they do not encumber the own funds of L and N. The provision of own funds has moved through third party A rather than down the group from C to B for L and N. This does not affect the solo treatment in L and N provided the subordinated loans meet the relevant criteria.

From a group perspective the connected transactions need to be considered together and eliminated to avoid the artificial creation of group own funds.

Example 5

Bank A receives a subordinated loan of €200,000 from a life subsidiary L and one of €100,000 from a non-life subsidiary N of insurance undertaking B. At the same time, C, the insurance holding company of B receives a subordinated loan of €300,000 from Bank A.

These transactions involve a third party but they are connected. In substance, the transactions are equivalent to the holding of own shares by L and N.

An adjustment of €200,000 and €100,000 should be made to the reconciliation reserves of L and N respectively.

Example 6

Parent A issues €100,000 subordinated debt (Tier 2 compliant) to the market, which is guaranteed on a subordinated basis by its insurance subsidiary B. A then invests the €100,000 proceeds into ordinary shares of B.

The share capital issued to A is encumbered by the guarantee of the debt issue used by A to fund the investment in the share capital of B.

The share capital that was in effect funded by A's issuance of Tier 2 subordinated debt to the market should be classified as Tier 2.

Example 7

An insurer A owns a finance subsidiary B. B issues €100,000 of Tier 2 bonds to the market and provides an intercompany loan to A for €100,000 on the same terms. A guarantees B's payment obligations under the terms of the bonds on a subordinated basis.

A's own funds are not encumbered, because both the intercompany loan and the guarantee are provided on the basis that they meet the Tier 2 criteria, particularly with regard to subordination.

From a group perspective, the own funds will only meet the criteria for group own funds if both the bonds and guarantee are subordinated to the claims of all policy holders and beneficiaries, and non-subordinated creditors.

Guideline 18 - Supervisory approval of repayment and redemption

Where an undertaking seeks supervisory approval of repayment or redemption according to [Article 59 COF2 (1)(f), Article 61 COF4 (1)(d) and Article 65 COF8 (1)(d) of the draft Implementing Measures] or a transaction not deemed to be a

repayment or redemption according to [Article 59 COF2 (2), Article 61 COF4 (2) and Article 65 COF8 (2) of the draft Implementing Measures] it should provide to the supervisory authority an assessment of the repayment or redemption taking into account:

(a) both the current and short-to-medium term impact on the undertaking's overall solvency position and how the action is consistent with the undertaking's medium-term capital management plan and its ORSA;

(b) the undertaking's capacity to raise additional own funds if needed, having regard to the wider economic conditions and their access to capital markets and other sources of additional own funds.

Where an undertaking is proposing a series of repayments or redemptions over a short period of time, it should inform the supervisory authority, which may consider the series of repayment transactions as a whole rather than on an individual basis.

An undertaking should submit the request for supervisory approval 3 months prior to the earlier of:

(a) the required contractual notice to holders of the item of repayment or redemption;

(b) the proposed repayment or redemption date.

The supervisory authority should take into account the information submitted by undertakings and any additional analysis or projections it considers necessary for the undertaking to provide. Where the supervisory authority is not satisfied with the justification and the analysis provided, it should not grant approval.

After receiving supervisory approval of the repayment or redemption the undertaking should:

(a) consider that it is allowed, but not obliged, to exercise any call or other optional repayment under the terms of the contractual arrangement governing the own-fund item;

(b) when excluding an item treated as repaid with effect from the date of notice to holders of the item or if no notice is required the date of supervisory approval, reduce the relevant category of own funds and make no adjustment to or re-calculation of the reconciliation reserve;

(c) continue to monitor its solvency position for any non-compliance or potential non-compliance with the SCR, which would trigger the suspension of repayment or redemption during the period leading up to the date of repayment or redemption;

(d) not proceed with the repayment or redemption if it would lead to non-compliance with the SCR even if notice of repayment or redemption has been given to the holders of the items. Where repayment or redemption is suspended in these circumstances the undertaking may reinstate the item as available own funds and the supervisory approval for repayment or redemption is withdrawn.

2.2. Undertakings may enter into arrangements that do not constitute a repayment or redemption of a basic own-fund item at any date following the date of issuance, subject to all relevant criteria being met and to prior supervisory approval as set out in Guideline 18.

C. Ring-fenced funds

1. Guidelines

Introduction

1.1. These Guidelines are drafted according to Article 16 of Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (hereinafter "EIOPA Regulation").

1.2. The Guidelines relate to Article 99 (b) and 111 (1)(h) of Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking up and pursuit of the business of Insurance and Reinsurance (hereinafter "Solvency II") as well as to [Article 69 RFFOF1, Article 70 RFFOF2, Article 194 RFFSCR1 and Article 195 RFFSCR2] of the draft Implementing Measures.

1.3. These Guidelines are addressed to supervisory authorities under Solvency II.

1.4. These Guidelines are intended to promote a consistent approach by assisting undertakings and supervisory authorities in:

(a) the identification of whether any own fund items have a reduced capacity fully to absorb losses on a going concern basis due to their lack of transferability within the undertaking, having regard to the different national, legal and product frameworks in Member States which might give rise to ring-fenced funds and having regard to how these own funds items are calculated;

(b) the determination of what constitutes assets and liabilities of the ring-fenced fund through identification of the assets and liabilities associated with any restricted own funds items;

(c) the calculation of the notional Solvency Capital Requirement (hereinafter "SCR") for each ring-fenced fund where the SCR is calculated using the standard formula or using an internal model;

(d) the comparison of the amount of the restricted own-fund items within the ring-fenced fund with the notional SCR of the ring-fenced fund;

(e) the calculation by undertakings of SCRs where one or more ring-fenced funds exist;

(f) in the case where the SCR is calculated using an internal model, the nature of evidence undertakings should provide to supervisory authorities in order to assess the system for measuring diversification effects, taking account of any material restrictions on diversification which arise from the existence of ring-fenced funds.

1.5. 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. However, where the amount of own funds within a ring-fenced fund is less than the notional SCR, the undertaking will not be in compliance with its SCR unless the total of the own funds within the ring-fenced fund and within the remaining parts of the undertaking combined are sufficient to cover that SCR, after application of the limits set out in [Article 72 EOF1 of the draft Implementing Measures].

1.6. These Guidelines, except for Guidelines 1 to 5, are relevant to the treatment of portfolios of assets and obligations to which a matching adjustment is applied following prior supervisory approval.

1.7. If not defined in these Guidelines the terms have the meaning defined in the legal acts referred to in the introduction.

1.8. The Guidelines shall apply from [1 April 2015].

Guideline 1 - Characteristics and scope of ring-fenced funds

1.9. Undertakings should identify ring-fenced funds by reference to the following characteristics and criteria:

(a) the existence of a restriction on assets in relation to certain liabilities which would lead to restricted own funds within the business of an undertaking is the defining characteristic of a ring-fenced fund;

(b) ring-fenced funds may arise where profit participation forms part of the arrangement and also in the absence of profit participation;

(c) while the ring-fenced assets and liabilities should form an identifiable unit, in the same manner as though the ring-fenced fund were a separate undertaking, it is not necessary that these items are managed together as a separate unit or form a separate sub-fund for a ring-fenced fund to arise;

(d) where proceeds of, or returns on, the assets in the ring-fenced fund are also subject to the ring-fenced fund arrangement, undertakings are able to trace them at any given time, i.e. undertakings are able to identify items as covered by, or subject to, the arrangement giving rise to the ring-fenced fund;

(e) restrictions on assets giving rise to a ring-fenced fund may require arrangements for separate management to be put in place, but this is not the defining characteristic.

Guideline 2 - Arrangements and products that are generally outside the scope of ring-fenced funds

1.10. In the process of identifying ring-fenced funds, undertakings should consider the following arrangements and products as generally outside the scope of ring-fenced funds:

(a) conventional unit-linked products, as referred to in Article 132(3) of Solvency II;

(b) conventional index-linked products, as referred to in Article 132(3) of Solvency II;

(c) provisions, including technical provisions and equalisation provisions and reserves set up in accounts or financial statements prepared under the requirements applying in a particular jurisdiction are not ring-fenced funds solely by virtue of being set up in such financial statements;

(d) conventional reinsurance business provided that individual contracts do not give rise to restrictions on the assets of the undertakings;

(e) coverage assets and similar arrangements that are established for the protection of policyholders in the case of winding-up proceedings, either for the policyholders of the undertaking as a whole or for separate sections or groups of policyholders of the undertaking, including assets identified in the register in accordance with Articles 275(a) and 276 of Solvency II (the special register);

(f) separation of life and non-life business in composite undertakings which carry out simultaneously life and non-life or health insurance activities set out in Articles 73 and 74 of Solvency II, but not disregarding the fact that a ring-fenced fund may still arise within either or both of the component parts of composite undertakings;

(g) surplus funds are not ring-fenced solely by virtue of being surplus funds, but could be if they are generated within a ring-fenced fund;

(h) transfer of a portfolio into an undertaking during a reorganisation of a business, where the separation of assets in respect of the existing business of the receiving undertaking from the assets of the transferred portfolio does not constitute a ring-fenced fund, if this separation has been put in place under national law to protect the existing business from the fund that is being transferred-in only on a temporary basis;

(i) experience funds, where policyholders are entitled to a share of the experience of the fund in a manner, typically a minimum predefined percentage, set out in the policy documentation, and have no rights to any amounts not allocated in accordance with that specified profit-sharing

mechanism. Amounts allocated to policyholders are included in technical provisions. Amounts not allocated to policyholders are fully transferable, can be returned to the shareholders or other providers of capital, can be used to absorb losses as and when they occur or can be, but are not required to be, used to increase benefits to policyholders and can therefore form part of own funds not subject to restriction.

Guideline 3 - Restrictions giving rise to ring-fenced funds

1.11. Undertakings should identify the nature of any restrictions affecting assets and own funds within their business and the associated liabilities in respect of the contracts, policyholders or risks for which such assets and own funds can be used.

1.12. In order to identify any such restrictions which give rise to a ring-fenced fund undertakings should consider at least:

(a) the contractual terms;

(b) any separate legal arrangement that applies in addition to the terms of a policy;

(c) provisions in the articles, statutes or other document giving rise to the undertaking's formation or organisation;

(d) national legislation or regulations in respect of product design or the conduct of the relationship between undertakings and their policyholders: ring-fenced funds would arise where, as a result of legal provisions protecting the general good in a Member State, an undertaking must apply particular assets only for the purposes of a particular part of its business;

(e) provisions of European Union law, whether transposed or directly applicable;

(f) arrangements specified by order of a court or other competent authority which require separation of or restrictions on assets or own funds in order to protect one or more groups of policyholders.

1.13. Undertakings should take into account all restrictions affecting assets and own funds in place at the time that the SCR is calculated, including those restrictions which are specified for a limited period of time or which no longer apply on termination of the business.

Guideline 4 - Scope of ring-fenced funds treatment

1.14. Undertakings identifying characteristics and restrictions giving rise to ring-fenced funds treatment should at a minimum compare arrangements within their business with the following types of ring-fenced funds:

(a) a fund of assets and liabilities in respect of profit participation ("with profits") business that is only available to cover losses arising in respect of particular policyholders or in relation to particular risks and where the following key features exist:

   (i) policyholders within the ring-fenced fund have distinct rights relative to other business written by the undertaking;

   (ii) there are restrictions on the use of assets, and the return on such assets, within this fund to meet liabilities or losses arising outside the fund;

   (iii) an excess of assets over liabilities is generally maintained within the fund and this excess is restricted own funds, since its use is subject to the restrictions referred to in (ii);

   (iv) there is generally profit participation within the ring-fenced fund whereby policyholders receive a minimum proportion of the profits generated in the fund which are distributed through additional benefits or lower premium, and, if relevant, shareholders may then receive the balance of such profits;

(b) a legally binding arrangement or trust created for the benefit of policyholders, where, within or separate to the policy documentation, an agreement calls for certain proceeds or assets to be placed in trust or subject to a legally binding arrangement or charge for the benefit of the specified policyholders;

(c) the ring-fenced funds, which reflect the restrictions on particular assets or own funds as specified in the articles, statutes or other document giving rise to the undertaking's formation or organisation;

(d) ring-fenced funds that arise to reflect the effect of restrictions or arrangements specified in national law;

(e) arrangements falling within the scope of European Union law, including Solvency II and the draft implementing measures;

(f) Article 304 of Solvency II, which introduces a requirement for ring-fencing regarding occupational retirement provision business and retirement benefits. As a result this type of ring-fenced funds needs to be considered for a potential adjustment to own funds according to [Article 69 RFFOF1 and Article 70 RFFOF2 of the draft Implementing Measures]. However, the requirement in [Article 195 RFFSCR2 of the draft Implementing Measures] to calculate the SCR as the sum of notional SCRs for the ring-fenced funds and the remaining part does not apply, for Article 304 of Solvency II permits diversification effects to be recognised provided that the interests of policyholders and beneficiaries in other Member States are safeguarded.

(g) Article 4 of Directive 2003/41/EC, which provides an option for Member States to apply certain provisions of that Directive to the occupational retirement provision business of insurance undertakings, subject to a ring-fencing requirement applying to the assets and liabilities of that business. This provision may be relevant in respect of business dealt with in this manner for undertakings which have not received authorisation under Article 304 of Solvency II. In this case the requirements of [Article 70 RFF0F2 and Article 195 RFFSCR2 of the draft Implementing Measures] apply. Until 31 December 2019, Article 308b(15) of Solvency II provides a transitional measure for this business permitting the use of the laws, regulations and administrative provisions adopted by Member States concerning the relevant articles of Directive 2002/83/EC.

1.15. Undertakings should recognise that the reduced transferability of assets and scope for diversification between the assigned portfolio of the matching adjustment and the remainder of the undertaking means that the assessments, assumptions and calculations set out in [Articles 70 RFFOF2, 194 RFFSCR1, 195 RFFSCR2 and Article 223 TSIM13 of the draft Implementing Measures] apply to such portfolios of the matching adjustment. Undertakings should apply Guidelines 6 to 14 where they have matching adjustment portfolios.

Guideline 5 - Materiality

1.16. Where a ring-fenced fund is not material, [Article 70 RFFOF2 of the draft Implementing Measures] permits undertakings to exclude the total amount of restricted own-fund items from the amount eligible to cover the SCR and the Minimum Capital Requirement (hereinafter "MCR"). In this case, in accordance with [Article 194 RFFSCR1 of the draft Implementing Measures], undertakings are not required to calculate a notional SCR for the ring-fenced fund. However, undertakings should include the assets and liabilities of the non-material ring-fenced fund within the remaining part of the undertaking. These assets and liabilities will form part of the undertakings' overall SCR calculation.

1.17. Undertakings should consider the materiality of a ring-fenced fund by assessing:

(a) the nature of the risks arising from or covered by the ring-fenced fund;

(b) the nature of the assets and liabilities within the ring-fenced fund;

(c) the amount of restricted own funds within the ring-fenced fund, the volatility of those amounts over time and the proportion of total own funds represented by restricted own funds;

(d) the proportion of the undertaking's total assets and capital requirements that the ring-fenced fund represents, individually or combined with other ring-fenced funds;

(e) the likely impact of the ring-fenced fund on the calculation of the SCR due to the reduced scope for risk diversification.

Guideline 6 - Assets and liabilities in a ring-fenced fund

1.18. Undertakings should identify the assets and liabilities in a ring-fenced fund in accordance with the following:

(a) where based on cash flows relating to a policy or group of policies, the assets in a ring-fenced fund are those arising from the investment of premiums received by the undertaking in relation to the policies which comprise the ring-fenced fund along with any other payments into or assets provided to the fund;

(b) where the ring-fenced fund is based on contractual or legal arrangements, the assets in a ring-fenced fund should comprise specific assets or a pool of assets and any related cash flows as identified in those arrangements;

(c) the liabilities in a ring-fenced fund should comprise those liabilities attributable to the policies or risks covered by the ring-fenced fund or those for which the assets subject to restriction can be used;

(d) for profit participation business, undertakings should include as liabilities of the ring-fenced fund the best estimate liabilities, including any future discretionary benefits which the undertaking expects to pay;

(e) undertakings should only attribute liabilities to a ring-fenced fund where honouring such liabilities would entail an appropriate and permitted use of the restricted assets or own funds;

(f) in determining best estimate liabilities, undertakings should not perform any separate calculation of best estimate liabilities for the purposes of ring-fenced fund calculations. Best estimate liabilities including, in respect of profit participation business future discretionary benefits, for the purposes of the ring-fenced fund calculations should be the same as those in respect of the same obligations determined in the calculation of best estimate liabilities overall;

(g) undertakings should determine whether or not the liabilities in a ring-fenced fund are defined on the basis of technical provisions calculated under Solvency II by referring to the restrictions committing particular assets or own funds for use in respect of particular policyholders, contracts or risks, and furthermore where undertakings identify that restrictions arise from sources other than Solvency II, they should establish whether or not the description of liabilities includes a risk margin;

(h) where the scope of the liabilities in the ring-fenced fund includes technical provisions rather than best estimate, undertakings should perform an additional calculation to determine the risk margin in respect of the best estimate liabilities within the ring-fenced fund, applying the allocation methodology specified in [Article 33 TP20 (3) of the draft Implementing Measures].

1.19. For profit participation business, undertakings calculating restricted own-fund items within a ring-fenced fund should regard the value of future transfers attributable to shareholders as:

(a) unrestricted where it corresponds to distributions to policyholders or beneficiaries accounted for in best estimate liabilities. This should include distributions for which the policyholder and beneficiary share is recognised as future discretionary benefits as well as distributions already declared where the transfer of the amount attributable to shareholders has not yet occurred;

(b) arising in a profit participation context, and coming into existence when corresponding future discretionary benefits are recognised in the best estimate liabilities. Once a policyholder and beneficiary distribution is declared, some future discretionary benefits become guaranteed benefits, and a corresponding amount of future shareholder transfers become an actual shareholder transfer;

(c) not a liability of a ring-fenced fund, since they are a part of a ring-fenced fund's excess of assets over liabilities and may count without restriction towards an undertaking's SCR.

Guideline 7 - Calculating the notional SCR of a ring-fenced fund: standard formula

1.20. Undertakings should perform the following steps in applying the methodology set out in [Article 195 RFFSCR 2 of the draft Implementing Measures]:

(a) in applying the SCR calculation methodology to the assets and liabilities within a ring-fenced fund as if the ring-fenced fund were a separate undertaking, undertakings should include a capital requirement for operational risk as well as any relevant adjustments for the loss-absorbing capacity of technical provisions and deferred taxes;

(b) in aggregating the capital requirements under the worst case scenario for the undertaking as a whole for each sub-module and risk module using the procedure for aggregation of the standard formula prescribed by Article 104 of Solvency II, undertakings may recognise diversification of risks within the ring-fenced fund;

(c) the capital requirement at the level of each ring-fenced fund should be calculated net of the mitigating effect of future discretionary benefits. Where profit participation exists, assumptions regarding the variation of future bonus rates should be realistic and have due regard to the impact of the shock at the level of the ring-fenced fund, including the impact on the value of future transfers attributable to shareholders, and to any contractual, legal or statutory requirements governing the profit participation mechanism;

(d) if, as a result of bidirectional scenarios, the risk charge for the worst case scenario is negative, even after taking into account any potential increase of liabilities due to profit participation mechanisms, and would therefore result in an increase in basic own funds within the ring-fenced fund, then the charge should be set to zero.

Guideline 8 - Calculation of the notional SCR of a ring-fenced fund: internal model

1.21. In order to calculate the notional SCR for a ring-fenced fund in accordance with [Article 70 RFFOF2 (1)(a) of the draft Implementing Measures], undertakings should ensure that:

(a) the internal model is capable of performing the calculation of the notional SCR for each ring-fenced fund as if each ring-fenced fund were a separate undertaking pursuing only the business included in that ring-fenced fund;

(b) the calculation of each notional SCR is consistent with the calculation of the SCR for the undertaking as a whole;

(c) the risk mitigation techniques and future management actions taken into account to calculate the notional SCR of each ring-fenced fund are consistent with the risk mitigation techniques and future management actions taken into account for the ring-fenced business in the calculation of the SCR for the undertaking as a whole, and with Guideline 7;

(d) the methodology and assumptions applied in calculating the notional SCR for the purposes of each ring-fenced fund should be consistent with those used in respect of the same types of assets, liabilities and risks in the calculation of the SCR for the undertaking as a whole;

(e) it only uses risk mitigation techniques, future management actions, methodologies or assumptions to calculate a notional SCR that differ from those used in the calculation of the SCR for the undertaking as a whole when necessary to produce a compliant notional SCR, and the justification for any differences is documented.

Guideline 9 - Determining whether restricted own funds within a ring-fenced fund exceed the notional SCR: standard formula and internal model

1.22. Undertakings should compare the amount of the restricted own-fund items within the ring-fenced fund derived as set out in Guideline 6 with the notional SCR of the ring-fenced fund calculated as set out in Guidelines 7 or 8.

1.23. The effect of the adjustment required by [Article 70 RFFOF2 (2) of the draft Implementing Measures] is to allow only an amount of own funds equal to the notional SCR to contribute to the coverage of the SCR of the undertaking as a whole and to the coverage of the MCR.

1.24. If the amount of own funds within a ring-fenced fund is equal to or less than the notional SCR of the ring-fenced fund, undertakings should not make any adjustment to own funds as there are no restricted own-fund items in excess of the notional SCR. In this case, all of the own funds within the ring-fenced fund are available to meet the SCR and the MCR.

Guideline 10 - Calculation of the SCR of the undertaking as a whole in the presence of ring-fenced funds: standard formula

1.25. In calculating a separate notional SCR for the remaining part of the undertaking, undertakings should treat the assets and liabilities of that remaining part of the undertaking as though they were a separate undertaking and apply Guideline 7.

1.26. In calculating the SCR as the sum of the notional SCRs for each ring-fenced fund and for the remaining part of the undertaking, undertakings should not reflect any diversification benefits among ring-fenced funds or between ring-fenced funds and the remaining part of the undertaking.

1.27. Undertakings should set any negative notional SCRs to zero before aggregating such amounts with any positive notional SCRs of ring-fenced funds and the remaining part of the undertaking.

Guideline 11 - Calculation of the SCR of the undertaking as a whole in the presence of ring-fenced funds: internal model

1.28. In accordance with [Article 223 TSIM13 (b)(ii) of the draft Implementing Measures] undertakings using an internal model should ensure that:

(a) they consider the manner in which the notional SCR for each ring-fenced fund is calculated;

(b) they consider how the system for measuring diversification effects takes into account any restrictions on diversification which arise from the existence of ring-fenced funds; and

(c) they provide evidence and information to supervisory authorities in relation to the following matters:

(i) the nature of the insurance business within each relevant ring-fenced fund and how this is the same as, or different to, the business carried on in other ring-fenced funds and the remaining part of the undertaking;

(ii) the degree of correlation of the risks attaching to those lines of business;

(iii) historical data demonstrating the incidence of losses affecting different parts of the business;

(iv) the rationale for and the nature of the restrictions affecting each relevant ring-fenced fund;

(v) an explanation of the source of diversification having regard to such restrictions and identification of key variables driving dependencies;

(vi) an analysis of any non-linear dependence and any material lack of diversification under extreme scenarios;

(vii) the extent to which the data provided in (i) to (vi) support the observation of diversification effects among ring-fenced funds or between ring-fenced funds and the remaining part of the undertaking.

1.29. In accordance with [Article 223 TSMIM13 (b) (ii) of the draft Implementing Measures] supervisory authorities should assess:

(a) the manner in which the notional SCR is calculated, and diversification benefits are taken into account in the internal model;

(b) whether the assumptions underlying the system used for measuring diversification effects are justified on an empirical basis with regard to the items listed in paragraph 1.28(c).

Guideline 12 - Application of calculation methodology to similar ring-fenced funds

1.30. Where an undertaking seeks to apply the same calculation methodology to multiple ring-fenced funds that exhibit similar characteristics, it should demonstrate to the satisfaction of the supervisory authority that the methodology produces sufficiently accurate results for all of the similar ring-fenced funds.

Guideline 13 - Ongoing assessment: actions by the undertaking using an internal model

1.31. In the event of changes to circumstances, which affect the accuracy of the evidence or information provided in accordance with Guideline 11, and which

may affect the supervisory authority's assessment as to whether the reduction of diversification is appropriately reflected in the outputs of the undertaking's internal model, undertakings should determine whether a change to the internal model is needed following the policy for changing the internal model. Undertakings should report to supervisory authorities any subsequent minor change as part of the quarterly reporting of minor changes. Undertakings should submit to supervisory authorities an application for approval of changes classified as major following the policy for changing the internal model.

Guideline 14 - Ongoing assessments: actions by supervisory authority for internal models

1.32. Supervisory authorities should establish procedures to review information received from undertakings regarding any changes to the ongoing ability of an internal model to provide results which properly reflect the diversification between or among the relevant ring-fenced funds and remaining part of the undertaking to which it is applied.

Guideline 15 - Reporting of the SCR split by risk modules for undertakings with ring-fenced funds or matching adjustment portfolios

1.33. When calculating the amount of the SCR split by risk modules for the purposes of reporting in accordance with [Article 300 SRS7 (2)(a) of the draft Implementing Measures] and public disclosure in accordance with [Article 288 PDS7 (2)(b) of the draft Implementing Measures], undertakings using the standard formula should identify the effects of non-diversification. For this purpose, undertakings should allocate by risk modules the difference between the sum of notional SCRs calculated in accordance with [Article 195 RFFSCR2 of the draft Implementing Measures] and the SCR of the undertaking as if there was no loss of diversification. When calculating this difference, undertakings may use one of the simplifications set out in Technical Annex 1. The approach used should be consistently applied over time.

Technical Annex 1 - Simplifications for the calculation of the SCR as if there was no loss of diversification (Guideline 15)

Simplification 1 (direct summation at sub-module level)

1.34. The SCR as if there was no loss of diversification is calculated as follows:

(a) for each sub-module of Life underwriting, Non-Life underwriting, Health underwriting, market and counterparty default risk modules, the (gross) capital charge of the entity is calculated as the sum of the (gross) capital charges across all ring-fenced funds and the remaining part;

(b) the capital charges of the entity for Life underwriting, Non-Life underwriting, Health underwriting, market and counterparty default risk

modules are calculated by aggregating the sub-module results determined above, using the relevant correlation matrices;

(c) the capital charge of the entity for operational risk and intangibles is calculated as the sum of the capital charges across all ring-fenced funds and the remaining part;

(d) the adjustment for loss absorbing capacity of technical provisions and deferred taxes is calculated as the sum of those adjustments across all ring-fenced funds and the remaining part;

(e) the SCR as if there was no loss of diversification is obtained by using the usual SCR formula (as defined by Article 103 of Solvency II), taking as inputs all the numbers calculated above.

Simplification 2 (direct summation at module level)

1.35. The SCR as if there was no loss of diversification is calculated as follows:

(a) for each risk module (Life underwriting, Non-Life underwriting, Health underwriting, market and counterparty default), the (gross) capital charge of the entity is calculated as the sum of the (gross) capital charges across all ring-fenced funds and the remaining part;

(b) the capital charge of the entity for operational risk and intangibles is calculated as the sum of the capital charges across all ring-fenced funds and the remaining part;

(c) the adjustment for loss absorbing capacity of technical provisions and deferred taxes is calculated as the sum of those adjustments across all ring-fenced funds and the remaining part;

(d) the SCR as if there was no loss of diversification is obtained by using the usual SCR formula (as defined by Article 103 of Solvency II) taking as inputs all the numbers calculated above.

2. Explanatory text

Guideline 2 - Arrangements and products that are generally outside the scope of ring-fenced funds

In the process of identifying ring-fenced funds, undertakings should consider the following arrangements and products as generally outside the scope of ring-fenced funds:

(a) conventional unit-linked products, as referred to in Article 132(3) of Solvency II;

(b) conventional index-linked products, as referred to in Article 132(3) of Solvency II;

(c) provisions, including technical provisions and equalisation provisions, and reserves set up in accounts or financial statements prepared under the requirements applying in a particular jurisdiction are not ring-fenced funds solely by virtue of being set up in such financial statements;

(d) conventional reinsurance business provided that individual contracts do not give rise to restrictions on the assets of the undertakings;

(e) coverage assets and similar arrangements that are established for the protection of policyholders in the case of winding-up proceedings, either for the policyholders of the undertakings as a whole or for separate sections or groups of policyholders of the undertakings, including assets identified in the register in accordance with Articles 275(a) and 276 of Solvency II (the special register);

(f) separation of life and non-life business in composite undertakings which carry out simultaneously life and non-life and/or health insurance activities set out in Articles 73 and 74 of Solvency II, but not disregarding the fact that a ring-fenced fund may still arise within either or both of the component parts of composite undertakings;

(g) surplus funds are not ring-fenced solely by virtue of being surplus funds, but could be if they are generated within a ring-fenced fund;

(h) transfer of a portfolio into an undertaking during a re-organisation of a business, where the separation of assets in respect of the existing business of the receiving undertaking from the assets of the transferred portfolio does not constitute a ring-fenced fund, if this separation has been put in place under national law to protect the existing business from the fund that is being transferred-in only on a temporary basis;

(i) experience funds, where policyholders are entitled to a share of the experience of the fund in a manner, typically a minimum predefined percentage, set out in the policy documentation, and have no rights to any

amounts not allocated in accordance with that specified profit-sharing mechanism. Amounts allocated to policyholders are included in technical provisions. Amounts not allocated to policyholders are fully transferable, can be returned to the shareholders or other providers of capital, can be used to absorb losses as and when they occur or can be, but are not required to be, used to increase benefits to policyholders and can therefore form part of own funds not subject to restriction.

2.1. Conventional unit-linked products, as referred to in point (a) of the Guideline describe the situation where all of the benefits provided by a contract are directly linked to the value of units in an Undertaking for Collective Investments in Transferable Securities (UCITS) or to the value of assets contained in an internal fund held by the insurance undertakings, usually divided into units. The cash value of a policy varies according to the net asset value of the underlying investment assets and the technical provisions in respect of the benefits provided by the contract are represented as closely as possible by those units (or in the case where units are not established, by those assets).

2.2. Conventional index-linked products, as referred to in point (b) of the Guideline mean that all of the benefits provided by a contract are based on a share index or some other reference value. The technical provisions in respect of the benefits are represented as closely as possible either by the units deemed to represent the reference value, or in the case where units are not established, by assets of appropriate security and marketability which correspond as closely as possible with those on which the particular reference value is based.

Guideline 3 - Restrictions giving rise to ring-fenced funds

Undertakings should identify the nature of any restrictions affecting assets and own funds within their business and the associated liabilities in respect of the contracts, policyholders or risks for which such assets and own funds can be used.

In order to identify any such restrictions which give rise to a ring-fenced fund undertakings should consider at least:

(a) the contractual terms;

(b) any separate legal arrangement that applies in addition to the terms of a policy;

(c) provisions in the articles, statutes or other document giving rise to the undertaking's formation or organisation;

(d) national legislation or regulations in respect of product design or the conduct of the relationship between undertakings and their policyholders: ring-fenced funds would arise where, as a result of legal provisions protecting the general good in a Member State, an

undertaking must apply particular assets only for the purposes of a particular part of its business;

(e) provisions of European Union law, whether transposed or directly applicable;

(f) arrangements specified by order of a court or other competent authority which require separation of or restrictions on assets or own funds in order to protect one or more groups of policyholders.

Undertakings should take into account all restrictions affecting assets and own funds in place at the time that the SCR is calculated, including those restrictions which are specified for a limited period of time or which no longer apply on termination of the business.

2.3. Referring to point (d) of the Guideline, criteria laid down in one Member State in respect of certain business arrangements are that:

(a) assets are separately identified within the coverage assets (for the case of insolvency);

(b) it has been contractually agreed between the undertaking and the policyholders of the fund (in most cases employees of a particular company) that only the profit of particular assets results in a profit for these policyholders; and

(c) this profit may not be reduced because of a loss occurring outside the ring-fenced fund.

2.4. It should be noted that it is the effect of (b) and (c) of the preceding paragraph which gives rise to a ring-fenced fund because they are relevant in a going-concern while (a) is not.

2.5. Referring to point (d) of the Guideline, legislation in some Member States creates companies which comprise individual cells (protected cell companies). Although together they comprise a single legal entity, the cells operate as distinct units on both a going and gone concern basis. One cell cannot be called upon to support the liabilities of another, or of the undertaking as a whole. The assets of the general account or core are not normally available to meet liabilities of individual cells. However, the general account may in some cases be relied on to support an individual cell provided that the assets attributable to the relevant cell have been exhausted.

Guideline 7 - Calculating the notional SCR of a ring-fenced fund – Standard formula

Undertakings should perform the following steps in applying the methodology set out in [Article 195 RFFSCR 2 of the draft Implementing Measures]:

(a) in applying the SCR calculation methodology to the assets and liabilities within a ring-fenced fund as if the ring-fenced fund were a separate undertaking, undertakings should include a capital requirement for operational risk as well as any relevant adjustments for the loss-absorbing capacity of technical provisions and deferred taxes;

(b) in aggregating the capital requirements under the worst case scenario for the undertaking as a whole for each sub-module and risk module using the procedure for aggregation of the standard formula prescribed by Article 104 of Solvency II, undertakings may recognise diversification of risks within the ring-fenced fund;

(c) the capital requirement at the level of each ring-fenced fund should be calculated net of the mitigating effect of future discretionary benefits. Where profit participation exists, assumptions regarding the variation of future bonus rates should be realistic and have due regard to the impact of the shock at the level of the ring-fenced fund, including the impact on the value of future transfers attributable to shareholders, and to any contractual, legal or statutory requirements governing the profit participation mechanism;

(d) if, as a result of bidirectional scenarios, the risk charge for the worst case scenario is negative, even after taking into account any potential increase of liabilities due to profit participation mechanisms, and would therefore result in an increase in basic own funds within the ring-fenced fund, then the charge should be set to zero.

2.6. In accordance with [Article 75 BSCRx (5) of the draft Implementing Measures], in the case of bidirectional scenarios, as referred to in point (d) of the Guideline, the worst case scenario may produce a negative result for a particular capital charge.

Appendix - Technical illustration of the calculation of the SCR in the presence of ring-fenced funds using the standard formula

2.7. Assume an undertaking has two profit participation mechanisms that benefit different groups of policyholders (A) and (B). Those mechanisms are such that, by contractual laws, 80% of any future emerging profit (irrespective of the source, i.e., underwriting or financial) has to be allocated to the respective group of policyholders and technical provisions increase by the value of the 80% emerging profit. Only the remaining 20% can be released to shareholders.

2.8. The blocks of business (A) and (B) constitute two ring-fenced funds. Within each ring-fenced fund, the expected value of future profit participation form part of the value of technical provisions (following Solvency II valuation rules).

The amount of future discretionary benefits for groups (A) and (B) is 100 and 300 respectively.

2.9. Additionally the undertaking writes a block of non-participating business (C). This business does not constitute a ring-fenced fund.

2.10. The undertaking should calculate the SCR on the basis of the methodology set out in these Guidelines and summarised in the next paragraph.

2.11. General procedure to calculate the SCR:

(a) When performing the calculation of each individual capital charge, the corresponding impact at the level of sub-modules of assets and liabilities (those relevant to capture the effect of each ring-fenced fund) would need to be computed;

(b) Where positive effects are observed at the level of a ring-fenced fund, the gross capital charge at such level would need to take into account any potential increase of liabilities (e.g. additional distribution of profits to policyholders) even though the overall impact of the shock on the undertaking is negative. In practice, this can only happen in those cases of bidirectional scenarios (interest rate risk, currency risk, lapse risk) where positive effects calculated at the level of a ring-fenced fund can be observed;

(c) In parallel the capital charges at the level of each ring-fenced fund would need to be calculated net of the mitigating effect of future discretionary benefits. Where the ring-fenced fund relates to the existence of profit sharing mechanisms, the assumptions on the variation of future bonus rates would need to be realistic, with due regard to the impact of the shock at the level of the ring-fenced fund and to any contractual, legal or statutory clauses of the profit sharing mechanism. The relevant (downward) adjustment for the loss absorbing capacity of technical provisions cannot exceed, in relation to a particular ring-fenced fund, the amount of future discretionary benefits within the ring-fenced fund;

(d) For each of gross/net, the total capital charge for the individual risk is given by the sum of the capital charges calculated at the level of each ring-fenced fund and at the level of the remaining sub-portfolio of business;

(e) For each of gross/net, the total capital charges for each individual risk are then aggregated using the usual procedure of the standard formula to derive the total SCR.

2.12. For example, the calculation of the interest rate risk charge (Step (a) of the preceding paragraph – see Guideline 7) would require the computation of the

impact of both the upward and downward scenarios at the level of each ring-fenced fund (A) and (B) and at the level of the remaining business (C).

	Ring-fenced fund (A)	Ring-fenced fund (B)	Remainder (C)
ΔNAV before any adjustment (per relevant segment)			
Upward shock	250	-100	-400
Downward shock	-80	200	500

2.13. Step (b) of paragraph 2.11 requires the reduction of positive ΔNAV partial results due to profit participation at the level of the ring-fenced fund. In the current example, where positive, the ΔNAV results are reduced by 80% (such amount is retained in the ring-fenced fund and used to increase the benefits of the corresponding groups of policyholders).

	Ring-fenced fund (A)	Ring-fenced fund (B)	Remainder (C)
After increase of liabilities within the ring-fenced fund			
Upward shock	50	-100	-400
Downward shock	-80	40	500

2.14. Step (c) of paragraph 2.11 (see Guideline 7) is concerned with the calculation of the net capital charges, and the assessment of the extent to which the management is able to reduce future discretionary bonuses at the level of each ring-fenced fund. In this example, it is assumed that the 1/3 of the negative ΔNAV results is mitigated by the reduction in future discretionary bonuses (note that on block of business (C) this is not applicable because it is non-participating business).

	Ring-fenced fund (A)	Ring-fenced fund (B)	Remainder (C)
Net charges - after adjustment for loss absorbency of TP			
Upward shock	50	-67	-400
Downward shock	-53	40	500

2.15. Based on these results, the upward shock scenario is chosen to compute the notional SCR, as it corresponds to the worst case scenario at the level of the undertaking.

2.16. Within each ring-fenced fund, the risk modules and sub-modules are aggregated to reflect diversification that exists within the ring-fenced fund. The example below assumes that the interest rate risk is the only risk in the market module and there is one further individual risk, mortality risk. A correlation of 50% between interest rate risk and mortality risk is assumed, for the purposes of this example.

2.17. The notional SCRs for each of the ring-fenced funds and the remaining part of the undertaking are then summed to give an overall SCR. The table below shows the breakdown of the SCR into the different components.

	Ring-fenced fund (A)	Ring-fenced fund (B)	Remainder (C)	Entity
Interest Rate Risk Shock	-50 (set to 0)	67	400	467
Mortality risk shock	10	125	200	335
Calculation of SCR	10	169	529	708

2.18. The above example shows the effects of diversification within each ring-fenced fund and diversification within the remaining part of the undertaking. There is no diversification between the ring-fenced funds and between the remaining part of the undertaking.

Calculation of total eligible own funds in the presence of ring-fenced funds

Case 1: Ring-fenced fund in surplus after deducting the notional SCR

2.19. Where there are sufficient own funds within each ring-fenced fund to cover the respective notional SCR, the own funds in excess of the notional SCR must be excluded from the own funds of the undertaking as a whole.

2.20. If this is the case any amount representing the value of future shareholder transfers is not restricted and therefore forms part of the own funds available to meet the SCR for the undertaking as a whole – see ring-fenced fund (B) in the table below.

	Ring-fenced fund (A)	Ring-fenced fund (B)	Remainder (C)	Entity
Own Funds	200	400	1400	2000
SCR	10	169	529	708
Shareholder Value in ring-fenced fund	0	30	0	30
OF available to cover SCR of the undertaking as a whole	10	199	1400	1609
Own Funds unavailable to cover SCR of the undertaking as a whole	190	201	0	391

Case 2: Ring-fenced fund in deficit after deducting the notional SCR

2.21. Where there are insufficient own funds within a ring-fenced fund to cover the notional SCR for that ring-fenced fund (ring-fenced fund (A) in this example):

(a) there is no restriction on the amount of own funds in that ring-fenced fund;

(b) the deficit in that ring-fenced fund is met by own funds outside the ring-fencing arrangements i.e. arising in non-participating business (C) in this example.

	Ring-fenced fund (A)	Ring-fenced fund (B)	Remainder (C)	Entity
Own Funds	5	400	1400	1805
SCR	10	169	529	708
Shareholder Value in ring-fenced fund	0	30	0	30
OF available to cover SCR	5	199	1400	1604
Own Funds unavailable to cover SCR	0	201	0	201

Case 3: Ring-fenced fund adjustment when a non-material ring-fenced fund is present

2.22. Where the entity contains a ring-fenced fund that is non-material, undertakings may exclude the total amount of restricted own-fund items from the amount eligible to cover the SCR and the MCR (in the case of ring-fenced fund D below, 8 is excluded). Where a ring-fenced fund is non-material, it is treated as part of the remaining part of the undertaking.

Before non-material treatment

	Ring-fenced fund (A)	Ring-fenced fund (B)	Remainder (C)	Ring-fenced fund (D) non-material	Entity
Own Funds	50	400	1400	8	1858
SCR	100	169	529	5	803
Shareholder Value in ring-fenced fund	0	30	0	0	30
Own Funds available to cover SCR	50	199	1400	5	1654
Own Funds unavailable to cover SCR	0	201	0	3	204

After non-material treatment

	Ring-fenced fund (A)	Ring-fenced fund (B)	Remainder (C)	Ring-fenced fund (D) non-material	Entity
Own Funds	50	400	1408	8	1858
SCR	100	169	532[5]	0	801
Shareholder Value in ring-fenced fund	0	30	0	0	30
Own Funds available to cover SCR	50	199	1408	0	1657
Own Funds unavailable to cover SCR	0	201	0	8	209

[5] Less than 5 of D's SCR is added to C. This takes account of diversification between D and the rest of C.

D. Treatment of related undertakings, including participations

1. Guidelines

Introduction

1.1. These Guidelines are drafted according to Article 16 of Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (hereinafter "EIOPA Regulation").

1.2. The Guidelines relate to Article 92(1)(b) and Article 111(1)(m) of Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (hereinafter "Solvency II") as well as to [Article 71 POF1, Article 150 ER3 and Article 152 ER4, without prejudice to Article 144 MR3 (4)] of the draft Implementing Measures.

1.3. These Guidelines are addressed to supervisory authorities under Solvency II.

1.4. The purpose of these Guidelines is to provide guidance on the identification and the treatment of related undertakings and participations to ensure a consistent approach across Member States.

1.5. For the purpose of these Guidelines the participating undertaking is the undertaking which is calculating its solvency position. The term related undertaking refers to any related undertaking of that participating undertaking. The term participation is used to denote one type of related undertaking. Appendix A provides an overview of the different terms used in Solvency II when speaking about the relationship between two or more undertakings.

1.6. These Guidelines cover the treatment of all related undertakings in the calculation of the Solvency Capital Requirement (hereinafter "SCR") and include guidance on the determination of own funds in the case of participations in financial and credit institutions. The meaning of financial and credit institutions is explained in Appendix B.

1.7. The Guidelines follow a holistic approach. They describe first the identification of different types of related undertakings, including participations. They then cover the treatment of the different types of related undertakings, specifically participations in financial and credit institutions and strategic participations. Finally, they include guidance on the treatment of related undertakings in the standard formula and in internal models to calculate the SCR.

1.8. Where these Guidelines refer to the valuation or value of a related undertaking, reference should be made to [Article 9bis V5bis (2) to (5)] of the draft implementing measures.

1.9. The Guidelines concern the treatment of related undertakings including participations on a solo basis. In most cases the identification of a related undertaking will be the same both from the perspective of the participating undertaking as solo entity and for group purposes. However, in certain situations there will be differences: the business of the related undertaking may be such that the participating undertaking and related undertaking are not subject to group supervision according to Article 213 of Solvency II. In addition, there may be the case where a number of entities within a group hold voting rights or capital in an undertaking that when combined together, amount to 20% or more of the undertaking's voting rights or capital. Consequently, such an undertaking would be identified as a related undertaking at group level. However, if the holding of each individual entity within the group is lower than 20%, the undertaking would not be identified as a related undertaking by any of those entities within the group at solo level.

1.10. In certain circumstances the solo provisions for related undertakings are used to calculate the contribution of those undertakings to the group SCR. These circumstances are set out in the draft implementing measures and Guidelines on Group solvency calculation.

1.11. Appendix C provides in the form of a decision tree a methodology for the treatment of all types of related undertakings. In some cases, the treatment of holdings is identical to the treatment that would result from applying the standard formula where no participation exists.

1.12. If not defined in these Guidelines the terms have the meaning defined in the legal acts referred to in the introduction.

1.13. The Guidelines shall apply from [1 April 2015].

Guideline 1 - Identification

1.14. Participating undertakings should identify their related undertakings and participations based on an assessment from their perspective as a solo undertaking.

1.15. When identifying a related undertaking based on share ownership, directly or by way of control, participating undertakings should determine:

(a) their holding of voting rights as a percentage of an undertaking's voting rights;

(b) their holding of all classes of share capital issued by an undertaking as a percentage of that undertaking's issued share capital, regardless of voting rights.

Where (a) or (b) are 20% or higher, participating undertakings should treat their investment in the undertaking as a participation.

Where the participation is in an insurance or reinsurance undertaking subject to Solvency II, the assessments under (a) will generally relate to paid-in ordinary share capital referred to in [Article 58 COF1 (1)(a) of the draft Implementing Measures] and under (b), to paid-in ordinary share capital and paid-in preference shares referred to in [Article 58 COF1 (1)(e) of the draft Implementing Measures].

1.16. Participating undertakings should ensure that they are able to identify the effect of changes in the share capital of related undertakings on the assessment described in the preceding paragraph each time the participating undertaking calculates its SCR in accordance with Article 102 of Solvency II.

1.17. When identifying a related undertaking pursuant to Article 212(2) of Solvency II on the basis that the participating undertaking can exert a dominant or significant influence over another undertaking, supervisory authorities should consider:

(a) current shareholdings of the participating undertaking in the undertaking and potential increases due to the holding of options, warrants or similar instruments;

(b) membership rights of the participating undertaking in a mutual or mutual-type undertaking and potential increases in such rights;

(c) representation from the participating undertaking on the administrative, management or supervisory body of the undertaking;

(d) involvement of the participating undertaking in policy-making processes of the undertaking, including decision-making about dividends or other distributions;

(e) material transactions between the participating undertaking and the undertaking;

(f) interchange of persons effectively running the participating undertaking and the undertaking;

(g) provision of essential technical information to the undertaking;

(h) management of the participating undertaking and undertaking on a unified basis.

Supervisory authorities should consider any initial assessment by the participating undertaking in accordance with points (a) to (h) of this paragraph.

Guideline 2 - Identification of participations in financial and credit institutions

1.18. Participating undertakings should treat a related undertaking as a financial or credit institution, where it is an institution listed or described in accordance with Article 4(1) and (5) of Directive 2013/36/EU or with Article 4(1) of Directive 2004/39/EC. These descriptions cover any institution which performs the functions or carries out the business described pursuant to those Articles, notwithstanding that the institution may not be subject to those Directives.

1.19. Participating undertakings should ensure that any participation in a financial or credit institution where voting rights or capital are held indirectly is treated in the same way as a participation in a financial or credit institution where voting rights or capital are held directly.

Guideline 3 - Identification of a strategic participation

1.20. Participating undertakings should identify strategic participations in accordance with [Article 152 ER4 of the draft Implementing Measures] as follows:

(a) participating undertakings using the standard formula to calculate their SCR should identify strategic participations regardless of whether their participation is in an insurance or reinsurance undertaking, in a financial or credit institution or in any other related undertaking;

(b) participating undertakings using an internal model to calculate their SCR need to identify strategic participations in financial and credit institutions for the purpose of assessing whether [Article 71 POF1 (3) of the draft Implementing Measures] applies. There are no other provisions that require participating undertakings using an internal model to apply [Article 152 ER4 of the draft Implementing Measures] for any other purpose.

1.21. For the purpose of demonstrating their compliance with the requirements of [Article 152 ER4 of the draft Implementing Measures], participating undertakings should not divide a participation into different parts, treating some parts as strategic and others not. Where a particular participation has been identified as strategic:

(a) in the case of a participation in a financial or credit institution, all investments in its own funds are strategic;

(b) in the case of any other related undertaking, all equity investments in the participation are strategic.

1.22. In demonstrating that the value of the equity investment is likely to be materially less volatile, in accordance with [Article 152 ER4 (a) of the draft Implementing Measures], participating undertakings should ensure that:

(a) consistent and appropriate valuations are applied over time, in accordance with Article 75(1) of Solvency II, both to the participation and to the other equities selected as a basis of comparison, recognising that different approaches may be required under Solvency II valuation principles depending upon the type of the investment;

(b) they assess the impact of its influence:

(i) on the factors affecting the excess of assets over liabilities of the undertaking, where the participation is valued using the adjusted equity method in accordance with [Article 9bis V5bis of the draft Implementing Measures]; or

(ii) on the quoted market price of the participation's shares or on other factors affecting that price.

1.23. In demonstrating that the nature of the investment is strategic, in accordance with [Article 152 ER4 (b)(i) to (iii) of the draft Implementing Measures], participating undertakings should:

(a) provide evidence that they have adopted a strategy of holding the participation, including the period for which the strategy is intended to apply; such evidence should consist of the participating undertaking's internal documentation, which should be consistent with externally communicated or relevant publically available information;

(b) explain how this strategy is consistent with the main policies guiding or limiting the actions of the participating undertaking and the impact of market conditions on the main policies;

(c) identify any significant factors affecting, or constraints on, the participating undertaking's ability to maintain its strategy and how these could or would be mitigated.

1.24. In demonstrating the existence of a durable link, in accordance with [Article 152 ER4 (b)(iv)], participating undertakings should consider the following criteria both together and separately:

(a) whether a stable relationship between the two undertakings exists over time;

(b) whether that stable relationship results in a close economic bond or the sharing of risks and benefits between the undertakings;

(c) whether the nature of this relationship between the two undertakings is such that it needs to be considered in order to understand the risks of the two undertakings;

(d) the form of the relationship between the two undertakings, which may include ownership, joint products or distribution lines, cross-selling, the creation of joint ventures or other long term operational or financial links.

1.25. In accordance with [Article 152 ER4 (b)(v) of the draft Implementing Measures], a participating undertaking that is part of a group should provide evidence that its strategy to continue holding the participation for a long period is consistent with the main policies guiding or limiting the actions of the group as defined by the ultimate parent undertaking or, if different, the undertaking which sets the main policies for the group as a whole.

1.26. Participating undertakings should document their consideration of the matters set out in [Article 152 ER4 of the draft Implementing Measures] and paragraphs 1.21 to 1.25, including any other relevant factors, together with relevant supporting material and evidence.

Guideline 4 - Treatment of related undertakings and participations

1.27. Once related undertakings have been identified in accordance with Guideline 1, the participating undertaking should treat equity investments in that related undertaking, valued in accordance with [Article 9 V5 of the draft Implementing Measures], and any other own-fund items held in that related undertaking by the participating undertaking as set out in [Article 71 POF1 of the draft Implementing Measures]. However, additional analysis and calculations will be necessary for financial and credit participations held indirectly as set out in Guideline 5 and Guideline 8.

Guideline 5 - Scope of calculations for [Article 71 POF1 of the draft Implementing Measures]

1.28. When determining the value of participations in financial and credit institutions for the purposes of [Article 71 POF1 of the draft Implementing Measures], participating undertakings should include holdings of equity and any other own-fund items, whether held directly or indirectly.

1.29. Participating undertakings should apply the following approaches:

(a) for direct holdings, the value of participations in financial and credit institutions, as determined by the participating undertaking in accordance with Solvency II-valuation principles, should be used for the purposes of [Article 71 POF1 of the draft Implementing Measures] as set out in Guideline 6;

(b) participations in financial and credit institutions, held indirectly via another participation in a financial or credit institution should not be considered under [Article 71 POF1 of the draft Implementing Measures], as their value should already have been included in the value of the directly-held participation in a financial or credit institution in accordance with (a);

(c) a deduction for a participation in a financial or credit institution held indirectly should only arise where related undertakings between the participating undertaking and the financial and credit participation are other than financial and credit participations;

(d) for other indirect holdings in a financial or credit institution the value of the participation as determined by the related undertaking in accordance with [Article 9 V5 of the draft Implementing Measures] should be used for the purposes of [Article 71 POF1 of the draft Implementing Measures];

(e) the values used for [Article 71 POF1 of the draft Implementing Measures] purposes should represent the participating undertaking's proportional ownership, held directly and indirectly, of the participation in the financial or credit institution.

Guideline 6 - Calculations for the purpose of [Article 71 POF1 of the draft Implementing Measures]

1.30. In calculating 10% of the items included in [Article 58 COF1 (1)(a), (b), (d) and (f)] for the purposes of [Article 71 POF1 of the draft Implementing Measures], participating undertakings should use the amount of basic own-fund items before any deduction pursuant to [Article 71 POF1 of the draft Implementing Measures] in respect of participations in financial and credit institutions.

1.31. Where the value of all participations in financial and credit institutions, other than participations referred to in [Article 71 POF1 (1) of the draft Implementing Measures], does not exceed 10% of items included in [Article 58 COF1 (1)(a), (b), (d) and (f)] for the purposes of [Article 71 POF1 (2) of the draft Implementing Measures], then no deduction takes place and Guideline 9 or 10 should apply.

1.32. Participating undertakings should only apply [Article 71 POF1 (3) of the draft Implementing Measures] in the cases where:

(a) they have demonstrated in accordance with Guideline 3 that the participation meets the criteria for a strategic participation;

(b) the participating undertaking and the participation are included in calculations on the basis of method 1 in accordance with Directive

2002/87/EC for the financial conglomerate to which they belong or on the basis of method 1 under Solvency II.

Guideline 7 - Deductions in respect of participations in financial and credit institutions

1.33. Where deductions in accordance with [Article 71 POF1(1) and (2) of the draft Implementing Measures] cannot be made from the corresponding tier as set out in [Article 71 POF1(5) of the draft Implementing Measures], undertakings should adopt the following approaches:

(a) where the items to be deducted are not classified into the tiers set out in [Article 71 POF1 (5) of the draft Implementing Measures], all deductions should be made from the amount of items included in [Article 58 COF1 (1)(a), (b), (d) and (f) of the draft Implementing Measures];

(b) where the amount of the deduction exceeds the amount from which it is required to be deducted in accordance with [Article 71 POF1 (5) of the draft Implementing Measures], the excess should be deducted as follows:

(i) holdings of Additional Tier 1 instruments in excess of items included in [Article 58 COF1 (1)(c), (e) and (2) of the draft Implementing Measures] are deducted from items included in [Article 58 COF1 (1)(a), (b), (d) and (f) of the draft Implementing Measures];

(ii) holdings of Tier 2 instruments in excess of basic own funds included in [Article 60 COF3 of the draft Implementing Measures] are deducted first from items included in [Article 58 COF1 (1) (c), (e) and (2) of the draft Implementing Measures] and then from items included in [Article 58 COF1 (1) (a), (b), (d) and (f) of the draft Implementing Measures] until the deduction is made in full.

Guideline 8 - Adjustments due to deductions of indirectly-held participations in financial and credit institutions

1.34. Where a deduction of the value of a participation in a financial or credit institution held indirectly is required, in full or in part, in accordance with [Article 71 POF1 of the draft Implementing Measures], participating undertakings should, only for the purposes of calculating the SCR:

(a) reduce, by the amount of that deduction, the value of the directly-held related undertaking, which is an asset of the participating undertaking, through which the participation in the financial or credit institution is held indirectly;

(b) for the adjustment described in point (a), follow the approach set out in [Article 71 POF1 (5) of the draft Implementing Measures] and in Guideline 7.

Guideline 9 -Application of the standard formula to related undertakings

1.35. This Guideline applies to participating undertakings using the standard formula to calculate the SCR in respect of the risks arising from related undertakings held directly by the participating undertaking.

1.36. Where a participating undertaking holds as assets own fund items of a related undertaking and their value is not deducted in full, or at all, from the participating undertaking's own funds as a result of applying [Article 71 POF1 of the draft Implementing Measures], risk charges for the remaining value of those holdings should be calculated in accordance with the standard formula.

1.37. The participating undertaking should apply the standard formula as follows:

(a) holdings in ordinary or preference share capital of the related undertaking should be treated as equities applying the equity risk sub-module as appropriate;

(b) holdings in subordinated liabilities issued by the related undertaking should be treated as financial instruments taking account of contractual terms and applying market stresses as appropriate, including the interest rate, spread, currency, concentration and other risk sub-modules as appropriate;

(c) any holdings of the above which exhibit both equity and bond features should be dealt with in accordance with Guideline 18 of the Guidelines on the Treatment of market and counterparty risk exposures in the standard formula.

Guideline 10 - Application of internal models to related undertakings

1.38. This Guideline applies to participating undertakings using a full or partial internal model to calculate the SCR in respect of the risks arising from related undertakings.

1.39. Where a participating undertaking holds as assets own-fund items of a related undertaking and their value is not deducted in full, or at all, from the participating undertaking's own funds as a result of applying [Article 71 POF1 of the draft Implementing Measures], the risks arising from the remaining value of those holdings should be captured as part of the internal model.

1.40. The participating undertaking should cover in the internal model all material quantifiable risks arising from its related undertakings, taking account of exposures to the related undertakings including holdings of equity and

subordinated liabilities. Relevant measures of these risks should be reflected in the model.

1.41. Where a participating undertaking performs the SCR calculation at solo level for a participation or related undertaking in a manner which takes account of risks to the value of the underlying assets and liabilities of that related undertaking, it should ensure this is an appropriate calculation at solo level, and should not replace that calculation by a consolidated calculation as though the participating undertaking and its related undertaking were a Solvency II group.

2. Explanatory text

Guideline 2 - Identification of participations in financial and credit institutions

Participating undertakings should treat a related undertaking as a financial or credit institution, where it is an institution listed or described in accordance with Article 4(1) and (5) of Directive 2013/36/EU or with Article 4(1) of Directive 2004/39/EC. These descriptions cover any institution which performs the functions or carries out the business described pursuant to those Articles, notwithstanding that the institution may not be subject to those Directives.

Participating undertakings should ensure that any participation in a financial or credit institution where voting rights or capital are held indirectly is treated in the same way as a participation in a financial or credit institution where voting rights or capital are held directly.

2.1. The institution may not be subject to Directive 2006/48/EC or Directive 2004/39/EC, because it is a third country undertaking and thus out of scope of those Directives.

2.2. The following examples are intended to illustrate the identification of participations in financial and credit institutions for the purposes of [Article 71 of the draft Implementing Measures]:

Example 1: Participating undertaking A holds 100% of the shares in a bank B in Bermuda.

- ➔ Bank B meets the definition of a credit institution based on its activity, regardless of its location and whether it is subject to Directive 2013/36/EU.
- ➔ Bank B is a financial and credit participation of participating undertaking A.

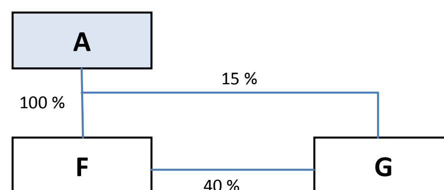
Example 2: Participating undertaking A holds 75% of the shares in an asset manager C.

- ➔ C is a financial institution.
- ➔ C is a financial and credit participation of participating undertaking A.

Example 3: Participating undertaking A holds 60% of the shares in an insurer D. Insurer D holds 80% of the shares in a bank E.

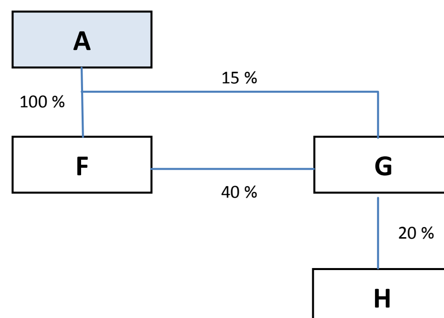
- ➔ E is a credit institution.
- ➔ E is a financial and credit participation of D.
- ➔ A controls D; D controls E.
- ➔ E is a financial and credit participation of A.

Example 4: Participating undertaking A holds 100% of the shares in a bank F. Bank F holds 40% of the shares in a financial institution G. Participating undertaking A also holds 15% of the shares in financial institution G.



- ➔ F is a financial and credit participation of A.
- ➔ G is a financial and credit participation of F.
- ➔ G is a financial and credit participation of A, because A controls F as well as holding 15% of the shares in G directly. Therefore A controls G (40% indirectly through F and 15% directly).

Example 5: Following from Example 4, participating undertaking A holds 100% of the shares in a bank F. Bank F holds 40% of the shares in a financial institution G. Participating undertaking A also holds 15% of the shares in financial institution G. G holds 20% of the shares in a bank H.



- ➔ H is a financial and credit participation of G.
- ➔ A controls G, because A controls 55% of G via its indirect and direct holdings in G.
- ➔ A's holdings in H can be calculated as: (40% + 15%) x 20%, which is less than 20%.

- ➔ A can exert significant influence on H, and therefore H is a financial and credit participation of A.

Example 6: Participating undertaking A holds 100% of the shares in a service company I. Service company I has a subsidiary J. Subsidiary J carries out financial leasing business.

- ➔ J is a financial institution.
- ➔ J is a financial and credit participation of A.

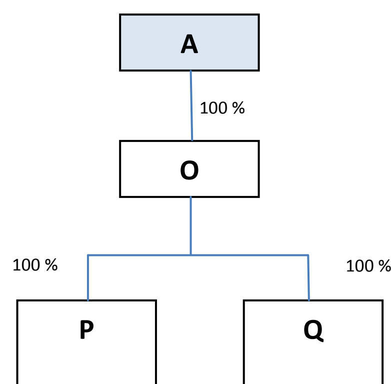
Example 7: Participating undertaking A holds 100% of the shares in undertaking L. L's only activity is the holding of investment in its subsidiaries M and N. M and N are insurers.

- ➔ L is an insurance holding company, because it holds at least one insurance subsidiary.
- ➔ L is not a financial institution.
- ➔ L is not a financial and credit participation of A.

Example 8: Participating undertaking A holds 100% of the shares in undertaking K. K has no related undertakings, but holds small percentages in a range of investments. K's investments include banks, industrials and insurance companies.

- ➔ K is a financial institution, because its main purpose is to acquire holdings.
- ➔ K is a financial and credit participation of A.

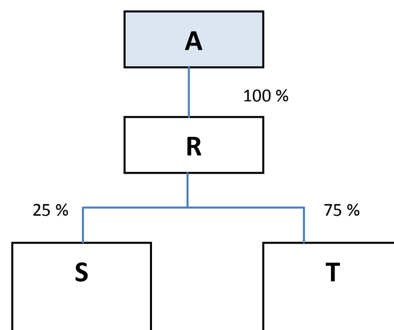
Example 9: Participating undertaking A holds 100% of the shares in undertaking O. O's only activity is the holding of investments in its subsidiaries P and Q. P is an insurer. Q is a bank.



- ➔ Q is a financial and credit participation of A.
- ➔ An assessment of O would need to be done to determine whether it is an insurance holding company or a mixed-activity insurance holding company.
- ➔ If O is either of these two, it is not a financial institution.

- ➔ If O is not an insurance holding company or a mixed-activity insurance holding company, an assessment would need to be done to determine whether O is a mixed financial holding company.
- ➔ If O is a mixed financial holding company, it is a financial institution. In this case, O would be a financial and credit participation of A.

Example 10: Participating undertaking A holds 100 % of the shares in undertaking R. R's only activity is the holding of investments in insurer S and bank T. R holds 25 % of S and 75 % of T.



- ➔ T is a financial and credit participation of A.
- ➔ R is not an insurance holding company or a mixed-activity insurance holding company because it does not have at least one insurance subsidiary.
- ➔ An assessment of R would need to be done to determine whether it is a financial holding company or mixed financial holding company
- ➔ If R is a financial holding company or mixed financial holding company it is a financial institution. In this case R would be a financial and credit participation of A.

Guideline 3 - Identification of a strategic participation

Participating undertakings should identify strategic participations in accordance with [Article 152 ER4 of the draft Implementing Measures] as follows:

(a) participating undertakings using the standard formula to calculate their SCR should identify strategic participations regardless of whether their participation is in an insurance or reinsurance undertaking, in a financial or credit institution or in any other related undertaking;

(b) participating undertakings using an internal model to calculate their SCR need to identify strategic participations in financial and credit institutions for the purpose of assessing whether [Article 71 POF1 (3) of the draft Implementing Measures] applies. There are no other provisions that require participating undertakings using an internal model to apply [Article 152 ER4 of the draft Implementing Measures] for any other purpose.

For the purpose of demonstrating their compliance with the requirements of [Article 152 ER4 of the draft Implementing Measures], participating undertakings should not divide a participation into different parts, treating some parts as strategic and others not. Where a particular participation has been identified as strategic:

(a) in the case of a participation in a financial or credit institution, all investments in its own funds are strategic;

(b) in the case of any other related undertaking, all equity investments in the participation are strategic.

In demonstrating that the value of the equity investment is likely to be materially less volatile, in accordance with [Article 152 ER4 (a) of the draft Implementing Measures], participating undertakings should ensure that:

(a) consistent and appropriate valuations are applied over time, in accordance with Article 75(1) of Solvency II, both to the participation and to the other equities selected as a basis of comparison, recognising that different approaches may be required under Solvency II valuation principles depending upon the type of the investment;

(b) they assess the impact of its influence:

(i) on the factors affecting the excess of assets over liabilities of the undertaking where the participation is valued using the adjusted equity method in accordance with [Article 9bis V5bis of the draft Implementing Measures]; or

(ii) on the quoted market price of the participation's shares or on other factors affecting that price.

In demonstrating that the nature of the investment is strategic, in accordance with [Article 152 ER4 (b)(i) to (iii) of the draft Implementing Measures], the participating undertaking should:

(a) provide evidence that they have adopted a strategy of holding the participation, including the period for which the strategy is intended to apply; such evidence should consist of the participating undertaking's internal documentation, which should be consistent with externally communicated or relevant publically available information;

(b) explain how this strategy is consistent with the main policies guiding or limiting the actions of the participating undertaking and the impact of market conditions on the main policies;

(c) identify any significant factors affecting, or constraints on, the participating undertaking's ability to maintain its strategy and how these

could or would be mitigated.

In demonstrating the existence of a durable link, in accordance with [Article 152 ER4 (b)(iv) of the draft Implementing Measures], participating undertakings should consider the following criteria both together and separately:

(a) whether a stable relationship between the two undertakings exists over time;

(b) whether that stable relationship results in a close economic bond or the sharing of risks and benefits between the undertakings;

(c) whether the nature of this relationship between the two undertakings is such that it needs to be considered in order to understand the risks of the two undertakings;

(d) the form of the relationship between the two undertakings, which may include ownership, joint products or distribution lines, cross-selling, the creation of joint ventures or other long term operational or financial links.

In accordance with [Article 152 ER4 (b)(v) of the draft Implementing Measures], a participating undertaking that is part of a group should provide evidence that its strategy to continue holding the participation for a long period is consistent with the main policies guiding or limiting the actions of the group as defined by the ultimate parent undertaking or, if different, the undertaking which sets the main policies for the group as a whole. Participating undertakings should document their consideration of the matters set out in [Article 152 ER4 of the draft Implementing Measures] and paragraphs 1.21 to 1.25, including any other relevant factors, together with relevant supporting material and evidence.

2.3. Internal model users which include strategic participations in the scope of the internal model, may elect to identify strategic participations in accordance with [Article 152 ER4 of the draft Implementing Measures] without prejudice to the provisions of the internal model regime.

2.4. In demonstrating that the value of the equity investment is likely to be materially less volatile in respect of paragraph (a) of the Guideline, the participating undertaking may consider share indices and other benchmarking tools to help support their assessment.

2.5. In demonstrating that the value of the equity investment is likely to be materially less volatile paragraph (b) (i) and (ii) of the Guideline differentiates between when a related undertaking is valued using the adjusted equity method and the case in which it is valued using the default valuation method i.e. quoted market price. This does not interfere with valuation principles.

2.6. In demonstrating that the nature of the investment is strategic, the explanation referred to in paragraph (b) of the Guideline may be drawn from different sources including business plans, existing business models, contingency plans, management actions, including those identified for the purposes of Solvency II, and other relevant material.

2.7. In order that a durable link can be demonstrated, requires making a holistic assessment. In cases where investment assets, for which the equity charge applies, are put into the participation solely for benefiting from the treatment as a strategic participation, a durable link may not be assumed.

2.8. In demonstrating that its strategy to continue holding the participation for a long period is consistent with the main policies guiding or limiting the actions of the group, the evidence may be drawn from different sources including business plans, existing business models, contingency plans, management actions, including those identified for the purposes of Solvency II, and other relevant material.

2.9. Referring to management actions where the participating undertaking is part of a group, its strategy to continue holding a participation for a long period may not be consistent with contingency plans or actions proposed by the group in respect of Solvency II, if the group has identified the sale or closure of that participation as a contingent action, or the potential sale of the participation has been used as a means of demonstrating availability of group own funds in accordance with [Article 323 SCG3 1(c) of the draft Implementing Measures]. The facts would need to be assessed on a case by case basis as to the level of consistency or inconsistency.

2.10. Referring to management actions where the participating undertaking is a member of more than one group, the ultimate parent undertaking that exerts the most influence over the participating undertaking is the undertaking that can revise the policies of the participating undertaking and particularly its strategy to continue holding a participation for a long period.

2.11. Investment funds or other investment vehicles that qualify as related undertakings should not be classified as a strategic participation and eligible for the strategic risk charge just because an undertaking owns a large share in it.

Guideline 5 - Scope of calculations for [Article 71 POF1 of the draft Implementing Measures]

When determining the value of participations in financial and credit institutions for the purposes of [Article 71 POF1 of the draft Implementing Measures], participating undertakings should include holdings of equity and any other own-fund items, whether held directly or indirectly.

Participating undertakings should apply the following approaches:

(a) for direct holdings, the value of participations in financial and credit institutions,

as determined by the participating undertaking in accordance with Solvency II-valuation principles, should be used for the purposes of [Article 71 POF1 of the draft Implementing Measures] as set out in Guideline 6;

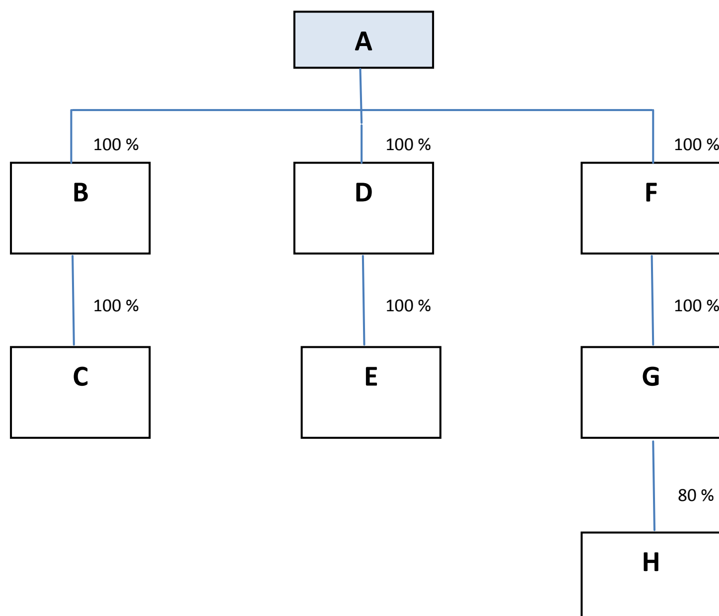
(b) participations in financial and credit institutions, held indirectly via another participation in a financial or credit institution should not be considered under [Article 71 POF1 of the draft Implementing Measures], as their value should already have been included in the value of the directly-held participation in a financial or credit institution in accordance with (a);

(c) a deduction for a participation in a financial or credit institution held indirectly should only arise where related undertakings between the participating undertaking and the financial and credit participation are other than financial and credit participations;

(d) for other indirect holdings in a financial or credit institution the value of the participation as determined by the related undertaking in accordance with [Article 9 V5 of the draft Implementing Measures] should be used for the purposes of [Article 71 POF1 of the draft Implementing Measures];

(e) the values used for [Article 71 POF1 of the draft Implementing Measures] purposes should represent the participating undertaking's proportional ownership, held directly and indirectly, of the participation in the financial or credit institution.

Example: Participating insurance undertaking A has a number of related undertakings as depicted below, for simplicity it is assumed that all holdings are of ordinary shares:



The values of holdings are as follows:

Name of Participating undertaking	Name of related undertaking	Value of the related undertaking on a Solvency II basis
A	B	500
	D	5000
	F	6000
B	C	300
D	E	700
F	G	3000
G	H (G's proportional share)	80% x 2500 = 2000

From the perspective of A:
B, C, E and H are financial and credit participations. The following values are within the scope of [Article 71 POF1 of the draft Implementing Measures]:

- B, 500
- E, 700
- H, 2000

The value of C is not an input to [Article 71 POF1 of the draft Implementing Measures], because it is included in the value of B.

Guideline 6 - Calculations for the purpose of [Article 71 POF1 of the draft Implementing Measures**]**

In calculating 10% of the items included in [Article 58 COF1 (1)(a), (b), (d) and (f)] for the purposes of [Article 71 POF1 of the draft Implementing Measures], participating undertakings should use the amount of basic own-fund items before any deduction pursuant to [Article 71 POF1 of the draft Implementing Measures] in respect of participations in financial and credit institutions.

Where the value of all participations in financial and credit institutions, other than participations referred to in [Article 71 POF1 (1) of the draft Implementing Measures], does not exceed 10% of items included in [Article 58 COF1 (1)(a), (b), (d) and (f)] for the purposes of [Article 71 POF1 (2) of the draft Implementing Measures], then no deduction takes place and Guideline 9 or 10 should apply.

Participating undertakings should only apply [Article 71 POF1 (3) of the draft Implementing Measures] in the case where:

(a) they have demonstrated in accordance with Guideline 3 that the participation meets the criteria for a strategic participation; and

(b) the participating undertaking and the participation are included in calculations on the basis of method 1 in accordance with Directive 2002/87/EC for the financial conglomerate to which they belong or on the basis of method 1 under Solvency II.

2.12. The following examples are intended to illustrate the application of the deduction approach required by [Article 71 POF1 of the draft Implementing Measures] and are not intended to reflect the application of Solvency II limits or of the minimum capital ratios for financial and credit institutions.

2.13. [Article 71 POF1 of the draft Implementing Measures] envisages deductions in two cases:

(a) Participations with a value exceeding the 10% threshold on a solo basis – [Article 71 POF1 (1) of the draft Implementing Measures].

(b) Participations where the individual value does not exceed the threshold but the aggregate of all such participations does – [Article 71 POF1 (2) of the draft Implementing Measures].

Case 1 – [Article 71 POF1 (1) of the draft Implementing Measures]

Insurance undertaking A owns a participation in financial and credit institution B. The value of A's holdings in B is 47.

A's own funds position is as follows:

Tier 1 ([Article 58 COF1 (1)(a), (b), (d) and (f)] items):	400
Tier 1 ([Article 58 COF1 (1)(c), (e) and (2)] items):	40
Tier 2:	50

Base figure for threshold = 400
Threshold = 10% x 400 = 40
Value of B = 47 which is > 40

This means that the value of B must be deducted in full.

Case 2 – [Article 71 POF1 (2) of the draft Implementing Measures]

Insurance undertaking A holds participations in two financial and credit institutions E and F. A's holding in E is valued at 25 and in F at 32 giving a total of 57.

Base figure for threshold = 400
Threshold = 10% x 400 = 40
Value of E = 25 which is < 40
Value of F = 32 which is < 40

No deduction of E or F under [Article 71 POF1 (1) of the draft Implementing Measures].

Value of E + F = 57 which is > 40
Excess over threshold = 57-40 = 17

Deduction of 17 required under [Article 71 POF1 (2) of the draft Implementing Measures].

How is this deduction apportioned over the holdings in E and F?

A's holdings comprise:	E	F
Common Equity Tier 1	20	23
Additional Tier 1	5	7
Tier 2		2
Total	25	32

Before proceeding with the deduction, undertaking A needs to apply a pro-rata basis (17/57 = 0.2982) to each of the items of E and F:

Participation	Common equity Tier 1	Additional Tier 1	Tier 2	Total
E	20	5		25
Pro-rated deduction at 17/57	5.96	1.49		7.45
F	23	7	2	32
Pro-rated deduction at 17/57	6.86	2.09	0.60	9.55
Total deduction				17

Guideline 7 - Deductions in respect of participations in financial and credit institutions

Where deductions in accordance with [Article 71 POF1 (1) and (2) of the draft Implementing Measures] cannot be made from the corresponding tier as set out in [Article 71 POF1(5) of the draft Implementing Measures], undertakings should adopt the following approaches:

(a) where the items to be deducted are not classified into the tiers set out in [Article 71 POF1 (5) of the draft Implementing Measures], all deductions should be made from the amount of items included in [Article 58 COF1 (1)(a), (b), (d) and (f) of the draft Implementing Measures];

(b) where the amount of the deduction exceeds the amount from which it is required to be deducted in accordance with [Article 71 POF1 (5) of the draft

Implementing Measures], the excess should be deducted as follows:

(i) holdings of Additional Tier 1 instruments in excess of items included in [Article 58 COF1 (1)(c), (e) and (2) of the draft Implementing Measures] are deducted from items included in [Article 58 COF1 (1)(a), (b), (d) and (f) of the draft Implementing Measures];

(ii) holdings of Tier 2 instruments in excess of basic own funds included in [Article 60 COF3 of the draft Implementing Measures] are deducted first from items included in [Article 58 COF1 (1)(c), (e) and (2) of the draft Implementing Measures] and then from items included in [Article 58 COF1 (1)(a), (b), (d) and (f) of the draft Implementing Measures] until the deduction is made in full.

2.14. Deductions are made on the basis of the Solvency II valuation of investments in financial and credit institutions and are not based on other sectoral rules. However, the sectoral classification of each investment needs to be identified for the corresponding deduction approach. For example, if participating undertaking A owns a subordinated liability instrument issued by Bank B which is a participation, any deduction is based on A's valuation of the instrument on a Solvency II basis. A needs to know whether the instrument is additional Tier 1 or Tier 2 according to the banking sector to determine the tier from which it should be deducted under [Article 71 POF1 (5) of the draft Implementing Measures].

2.15. The following examples illustrate the corresponding deduction approach:

Returning to the example in Case 1 above; insurance undertaking A owns a participation in financial or credit institution B which is required to be deducted in full. A's holdings in B comprise:

Common Equity Tier 1:	40
Additional Tier 1:	5
Tier 2:	2

A's own funds position is as follows:

Tier 1 ([Article 58 COF1 (1) (a), (b), (d) and (f)] items):	400
Tier 1 ([Article 58 COF1 (1) (c), (e) and (2)] items):	40
Tier 2:	50

The corresponding deduction approach is applied as follows:

	Tier 1 ([Article 58 COF1	Tier 1 ([Article 58	Tier 2

	(1) (a), (b), (d) and (f) of the draft Implementing Measures] items)	COF1 (1) (c), (e) and (2) of the draft Implementing Measures] items)	
A	400	40	50
Deduction in respect of B	(40)	(5)	(2)
Available own funds for A	360	35	48

Suppose A owns a participation in financial or credit institution C comprising:

Ordinary shares: 38
Subordinated liabilities: 7

This also requires a full deduction but C's own funds are not classified into tiers.

The corresponding deduction should be applied as follows:

	Tier 1 ([Article 58 COF1 (1) (a), (b), (d) and (f) of the draft Implementing Measures] items)	Tier 1 ([Article 58 COF1 (1)(c), (e) and (2) of the draft Implementing Measures] items)	Tier 2
A	400	40	50
Deduction in respect of C	(45)		
Available own funds for A	355	40	50

Suppose A's participation is in financial or credit institution D, its investment comprises:

Common Equity Tier 1: 80
Additional Tier 1: 50

This also gives rise to a full deduction and the corresponding deduction approach should be applied as follows:

	Tier 1 ([Article 58 COF1 (1) (a), (b), (d) and (f) of the draft Implementing Measures] items)	Tier 1 ([Article 58 COF1 (1)(c), (e) and (2) of the draft Implementing Measures] items)	Tier 2

A	400	40	50
Deduction in respect of D	80	50	
Stage 1	(80)	(40)	
	320	Tier 1 ([Article 58 COF1 (1)(c), (e) and (2) of the draft Implementing Measures] items) is exhausted	
Stage 2			
The remainder of the deduction is made from Tier 1 ([Article 58 COF1 (1) (a), (b), (d) and (f) of the draft Implementing Measures] items)	(10)		
Available own funds for A	310		50

Returning to the example covered in Case 2 above: The deductions calculated on a pro-rated basis are applied as follows.

	Tier 1 ([Article 58 COF1 (1) (a), (b), (d) and (f) of the draft Implementing Measures] items)	Tier 1 ([Article 58 COF1 (1) (c), (e) and (2) of the draft Implementing Measures] items)	Tier 2
A	400	40	50
Deduction in respect of E	(5.96)	(1.49)	
Deduction in respect of F	(6.86)	(2.09)	0.60
Available own funds for A	387.18	36.42	49.40

Guideline 8 - Adjustments due to deductions of indirectly-held participations in financial and credit institutions

Where a deduction of the value of a participation in a financial or credit institution held indirectly is required, in full or in part, in accordance with [Article 71 POF1 of the draft Implementing Measures], participating undertakings should, only for the purposes of calculating the SCR:

(a) reduce, by the amount of that deduction, the value of the directly-held

related undertaking, which is an asset of the participating undertaking, through which the participation in the financial or credit institution is held indirectly;

(b) for the adjustment described in point (a) follow the approach set out in [Article 71 POF1 (5) of the draft Implementing Measures] and in Guideline 7.

2.16. The value of the participating undertaking's investment in the directly-held related undertaking is not adjusted for the purposes of determining the participating undertaking's excess of assets over liabilities, i.e. the adjustment is exclusively for the purposes of calculating the SCR. Furthermore, it is not an adjustment to the own funds of the intermediate related undertaking.

2.17. The below example uses the same participating undertaking A as in the explanatory text to Guideline 5 above and continues with the next steps in the calculation.

A needs to calculate its deductions under [Article 71 POF1 of the draft Implementing Measures] and its inputs to the Standard Formula SCR:

The value of items included in [Article 58 COF1 (1)(a), (b), (d), and (f) of the draft Implementing Measures] is 10,000, meaning that the threshold is 1000.

Considering the inputs for the [Article 71 POF1 of the draft Implementing Measures] calculation:

- The value of H at 2000 is above the threshold of 1000, so H is deducted in full.
- B and E are less than the threshold on an individual basis.
- The value of B at 500 and E at 700 are in aggregate above the threshold of 1000, giving a deduction of the excess of 200.
- The deduction of 200 is pro-rated between B at 83 and E at 117.

Effect of deductions on inputs to SCR calculations of A:

Name of A's related undertaking	Value of the related undertaking on a Solvency II basis	Adjustment in respect of deductions direct and indirect	Inputs to SCR calculations of A
B	500	83 (direct)	417
D	5000	117 (indirect re E)	4883
F	6000	2000 (indirect re H)	4000

D, F and G would all have to perform their own calculations for the purposes of [Article 71 POF1 of the draft Implementing Measures] and the SCR following the same approach.

Guideline 9 - Application of the standard formula to related undertakings

This Guideline applies to participating undertakings using the standard formula to calculate the SCR in respect of the risks arising from related undertakings held directly by the participating undertaking.

Where a participating undertaking holds as assets own fund items of a related undertaking and their value is not deducted in full, or at all, from the participating undertaking's own funds as a result of applying [Article 71 POF1 of the draft Implementing Measures], risk charges for the remaining value of those holdings should be calculated in accordance with the standard formula.

The participating undertaking should apply the standard formula as follows:

(a) holdings in ordinary or preference share capital of the related undertaking should be treated as equities applying the equity risk sub-module as appropriate;

(b) holdings in subordinated liabilities issued by the related undertaking should be treated as financial instruments taking account of contractual terms and applying market stresses as appropriate, including the interest rate, spread, currency, concentration and other risk sub-modules as appropriate;

(c) any holdings of the above which exhibit both equity and bond features should be dealt with in accordance with Guidelines on the treatment of market and counterparty risk exposures in the standard formula .

2.18. [Article 71 POF 1 of the draft Implementing Measures] defines deductions that participating undertakings have to apply if they hold participations in financial and credit institutions.

2.19. Guideline 9 clarifies that when calculating the SCR using the standard formula, investments in related undertakings which are not deducted (i.e. related undertakings other than financial and credit institutions or strategic participations in financial and credit institutions) are subject to standard formula charges as they apply to all other equity investments.

2.20. These examples are intended to illustrate the application of the standard formula in cases in which deductions are not applied:

Case 1

Suppose that insurance undertaking A owns a participation in two related undertakings B and C, both of them are other than financial and credit institutions. C is a strategic participation but B is not strategic.

B ordinary shares in A's balance sheet are valued at 40. B issued subordinated liabilities, valued at 10, which are owned by A (the total value of B in A's balance sheet therefore is 50).

C ordinary shares in A's balance sheet are valued at 60.

The value of the related undertakings B and C are not relevant for deductions under [Article 71 POF1 of the draft Implementing Measures], because they are not financial and credit institutions.

When calculating the SCR with the standard formula, A has to apply to B's ordinary shares the equity risk charge 39% or 49% depending on the type of equity (cf. [Article 149 ER1 of the draft Implementing Measures]).

Subordinated liabilities issued by B, and owned by A, are charged according to rules for bonds. Equity risk charge to be applied to C as a strategic participation is 22%.

Case 2

Suppose that insurance undertaking A owns a participation in a related undertaking D, which is a bank that is strategic for A and it is included in the calculation of the group solvency on the basis of method 1 as set out in Annex I to Directive 2002/87/EC.

Total own funds of A are equal to 400 (Tier 1 only).

D ordinary shares in A's balance sheet are valued at 90.
D issued subordinated liabilities, valued at 10, which are owned by A.

The value of the participation D in A's balance sheet (100) is higher than the threshold of 10% set out in [Article 71 POF1 (1) of the draft Implementing Measures], (equal to 40). However, it is not deducted, because [Article 71 POF1 (3) of the draft Implementing Measures] applies.

When calculating the SCR with the standard formula, A has to apply the equity risk charge of 22% to the value of its holding of D's ordinary shares.

Subordinated liabilities issued by D and owned by A, are charged according to rules for bonds.

Case 3

The undertaking A owns two participations E and F, which are financial and credit institutions.
Total own funds of A are equal to 400 (Tier 1 only).
The value of the participation E in A's balance sheet is 20 (ordinary shares only).
The value of the participation F in A's balance sheet is 30 (ordinary shares only).
Neither E nor F have issued any subordinated liabilities.
The sum of E and F is 50, higher than the threshold of 40 (10% of 400). Therefore, [Article 71 POF1 (2) of the draft Implementing Measures] applies.

Deductions are equal to 10 (50 – 40).
In particular applying the pro-rata basis (10/50 = 0.20) deducted values are:

	Total value	Deduction	Non Deducted Value
E	20	4	16
F	30	6	24
Total	50	10	40

In calculating the SCR with the standard formula, A has to apply to E's and F's non-deducted values the equity risk charge of 39% or 49% depending on the type of equity. No risk charges will be applied to the deducted amounts.

Case 4
Suppose that A owns only one participation G which is a bank.
Total own funds of A are equal to 400 (Tier 1 only). G ordinary shares in A's balance sheet are valued at 35. G did not issue subordinated liabilities.
The value of the participation D (35) is lower than the threshold of 10 % set out in paragraph 1 of [Article 71 POF1 of the draft Implementing Measures], (equal to 40). Therefore, it is not deducted.
When calculating the SCR with the standard formula, A has to apply to its holding of G's ordinary shares (valued at 35) the equity risk charge of 39% or 49% depending on the type of equity.

Appendix A - Terms used in Solvency II concerning the relationship between two or more undertakings

2.21. In Solvency II, different terms are used when speaking about the relationship between two or more undertakings.

2.22. This appendix only looks at the perspective of undertakings that are held by a participating undertaking. It does not analyse the perspective of the participating undertaking and the terms used for those.

The starting point

2.23. Article 92 (1)(b) of Solvency II requires the Commission to adopt implementing measures specifying the treatment of participations, within the meaning of the third subparagraph of Article 212(2), in financial and credit institutions with respect to the determination of own funds.

2.24. Article 111 (1)(m) of Solvency II requires the Commission to adopt implementing measures providing for the approach to be used with respect to related undertakings within the meaning of Article 212 in the calculation of the SCR using the Standard Formula.

2.25. The Guidelines thus cover the treatment of both participations and related undertakings in regard to own funds and the SCR.

Terms used and defined in Solvency II

2.26. In Solvency II, different terms are used for undertakings that are held by a participating undertaking:

- The broadest term is "related undertaking". According to Article 212(1)(b), related undertaking means either a subsidiary undertaking or other undertaking in which a participation is held, or an undertaking linked with another undertaking by a relationship as set out in Article 12(1) of Directive 83/349/EEC.

- The definition of related undertaking employs the term "subsidiary". According to Article 13(16), subsidiary undertaking means any subsidiary undertaking within the meaning of Article 1 of Directive 83/349/EEC including subsidiaries thereof.

  According to Article 212(2) second subparagraph, supervisory authorities shall also consider as a subsidiary undertaking any undertaking over which, in the opinion of the supervisory authorities, a parent undertaking effectively exercises a dominant influence.

- The term "participation" means the ownership, direct or by way of control, of 20% or more of the voting rights or capital of an undertaking, according to Article 13(20).

  According to Article 212(2) third subparagraph, supervisory authorities shall also consider as participation the holding, directly or indirectly, of voting rights or capital in an undertaking over which, in the opinion of the supervisory authorities, a significant influence is effectively exercised.

- "Undertaking linked with another undertaking by a relationship as set out in Article 12(1) of Directive 83/349/EEC" is another sub-term of "related undertaking".

Article 12 of Directive 83/349/EEC reads as follows:

"1. Without prejudice to Articles 1 to 10, a Member State may require any undertaking governed by its national law to draw up consolidated accounts and a consolidated annual report if:

(a) that undertaking and one or more other undertakings with which it is not connected, as described in Article 1(1) or (2), are managed on a unified basis pursuant to a contract concluded with that undertaking or provisions in the memorandum or articles of association of those undertakings; or

(b) the administrative, management or supervisory bodies of that undertaking and of one or more other undertakings with which it is not connected, as described in Article 1(1) or (2), consist for the major part of the same persons in office during the financial year and until the consolidated accounts are drawn up."

Appendix B - The meaning of the term financial and credit institutions

2.27. The provision of [Article 71 POF1 of the draft Implementing Measures] that specifically deals with the treatment of participations in the determination of basic own funds only refers to participations, as referred to in Article 92(2) of Solvency II, in a financial or credit institution. Article 92(2)(a) of Solvency II rules that participations in financial and credit institutions shall comprise credit institutions and financial institutions within the meaning of Article 4(1) and (5) of Directive 2006/48/EC and investment firms within the meaning of point 1 of Article 4 (1) of Directive 2004/39/EC.

2.28. According to Article 163 of Directive 2013/36/EU (hereinafter "CRD IV"), Directive 2006/48/EC is repealed with effect from 1 January 2014. References to the repealed Directive shall be construed as references to the CRD IV and to Regulation (EU) No 575/2013 and shall be read in accordance with the correlation table set out in Annex II to the CRD IV and in Annex IV to Regulation (EU) No 575/2013 (hereinafter "CRR"). According to the correlation table, Article 4 of Directive 2006/48/EC becomes Article 3 of CRD IV.

Credit institution

2.29. Article 3(1) of CRD IV reads that credit institution means credit institution as defined in point (1) of Article 4(1) of CRR.

2.30. Article 4(1)(1) of CRR defines credit institution as follows:

"Credit institution means an undertaking the business of which is to take deposits or other repayable funds from the public and to grant credits for its own account".

Financial institution

2.31. Article 3(22) of CRD IV reads that financial institution means financial institution as defined in point (26) of Article 4(1) of CRR.

2.32. Article 4(1)(26) of CRR defines financial institution as follows:

"financial institution means an undertaking other than an institution, the principal activity of which is to acquire holdings or to pursue one or more of the activities listed in points 2 to 12 and point 15 of Annex I to Directive 2013/36/EU, including a financial holding company, a mixed financial holding company, a payment institution within the meaning of Directive 2007/64/EC of the European Parliament and of the Council of 13 November 2007 on payment services in the internal market (1), and an asset management company, but excluding insurance holding companies and mixed-activity insurance holding companies as defined in point (g) of Article 212(1) of Directive 2009/138/EC."

2.33. According to Article 4(1)(20) of CRR, financial holding company means 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.

2.34. The term institution is defined in Article 4(1)(3) of CRR and shall mean a credit institution or an investment firm.

2.35. According to Article 4(1)(21) of CRR a mixed financial holding company means a mixed financial holding company as defined in point (15) of Article 2 of Directive 2002/87/EC, where is stated: "mixed financial holding company means a parent undertaking, other than a regulated entity, which, together with its subsidiaries – at least one of which is a regulated entity which has its registered office in the Union – and other entities, constitutes a financial conglomerate".

2.36. The term asset management company means, according to Article 4(1)(19) of CRR, an asset management company as defined in point (5) of Article 2 of Directive 2002/87/EC and an AIFM as defined in Article 4(1)(b) of Directive 2011/61/EU, including, unless otherwise provided, third country entities, that carry out similar activities, that are subject to the laws of a third country which applies supervisory and regulatory requirements at least equivalent to those applied in the Union.

2.37. According to point (f) of Article 212(1) of Solvency II, insurance holding company means a parent undertaking which is not a mixed financial holding company within the meaning of Directive 2002/87/EC and the main business of which is to acquire and hold participations in subsidiary undertakings, where those subsidiary undertakings are exclusively or mainly insurance or reinsurance undertakings, or third-country insurance or reinsurance

undertakings, at least one of such subsidiary undertakings being an insurance or reinsurance undertaking.

2.38. According to point (g) of Article 212(1) of Solvency II, mixed-activity insurance holding company means a parent undertaking, other than an insurance undertaking, a third-country insurance undertaking, a reinsurance undertaking, a third-country reinsurance undertaking, an insurance holding company or a mixed financial holding company within the meaning of Directive 2002/87/EC, which includes at least one insurance or reinsurance undertaking among its subsidiary undertakings.

2.39. Points 2 to 12 and point 15 of Annex I to CRD IV read as follows:

"2. Lending including, inter alia: consumer credit, credit agreements relating to immovable property, factoring, with or without recourse, financing of commercial transactions (including forfeiting).

3. Financial leasing.

4. Payment services as defined in Article 4(3) of Directive 2007/64/EC.

5. Issuing and administering other means of payment (e.g. travellers' cheques and bankers' drafts) insofar as such activity is not covered by point 4.

6. Guarantees and commitments.

7. Trading for own account or for account of customers in any of the following:

(a) money market instruments (cheques, bills, certificates of deposit, etc.);

(b) foreign exchange;

(c) financial futures and options;

(d) exchange and interest-rate instruments;

(e) transferable securities.

8. Participation in securities issues and the provision of services relating to such issues.

9. Advice to undertakings on capital structure, industrial strategy and related questions and advice as well as services relating to mergers and the purchase of undertakings.

10. Money broking.

11. Portfolio management and advice.

12. Safekeeping and administration of securities.

15. Issuing electronic money."

Investment firms

2.40. Investment firm within the meaning of point 1 of Article 4(1) of Directive 2004/39/EC means any legal person whose regular occupation or business is

the provision of one or more investment services to third parties and/or the performance of one or more investment activities on a professional basis. According to point 1 of Article 4(1) of Directive 2004/39/EG, "Member States may include in the definition of investment firms undertakings which are not legal persons, provided that:

(a) their legal status ensures a level of protection for third parties' interests equivalent to that afforded by legal persons, and

(b) they are subject to equivalent prudential supervision appropriate to their legal form.

However, where a natural person provides services involving the holding of third parties' funds or transferable securities, he may be considered as an investment firm for the purposes of this Directive only if, without prejudice to the other requirements imposed in this Directive and in Directive 93/6/EEC, he complies with the following conditions:

(a) the ownership rights of third parties in instruments and funds must be safeguarded, especially in the event of the insolvency of the firm or of its proprietors, seizure, set-off or any other action by creditors of the firm or of its proprietors;

(b) the firm must be subject to rules designed to monitor the firm's solvency and that of its proprietors;

(c) the firm's annual accounts must be audited by one or more persons empowered, under national law, to audit accounts;

(d) where the firm has only one proprietor, he must make provision for the protection of investors in the event of the firm's cessation of business following his death, his incapacity or any other such event."

Appendix C - Summary of the treatment of all types of related undertakings

2.41. The charts 1 and 2 below reflect the treatment of related undertakings using the standard formula and an internal model respectively. They reflect direct ownership only; additional analysis and calculations will be necessary for participations in financial and credit institutions held indirectly.

Chart 1: Treatment when using the standard formula

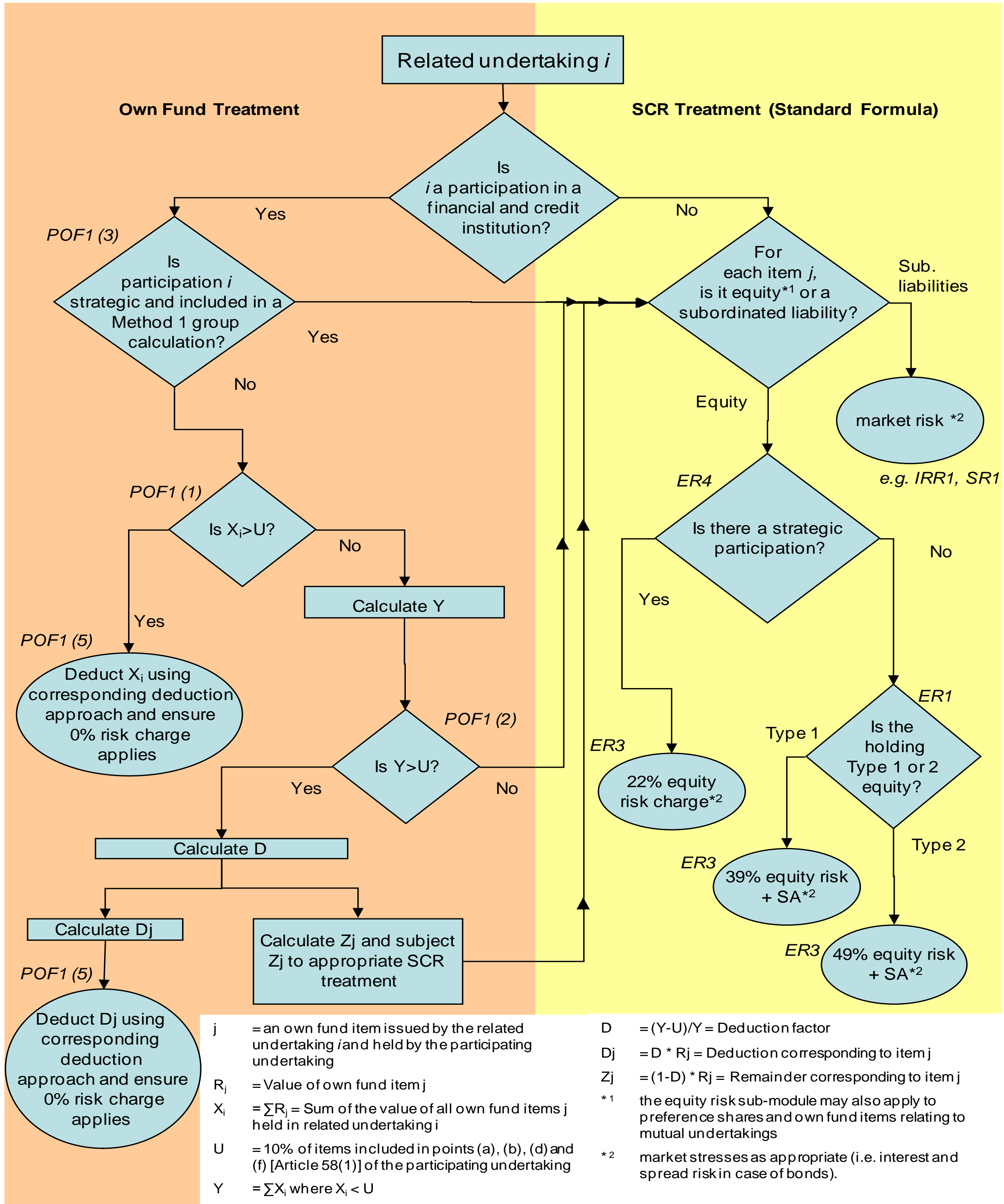
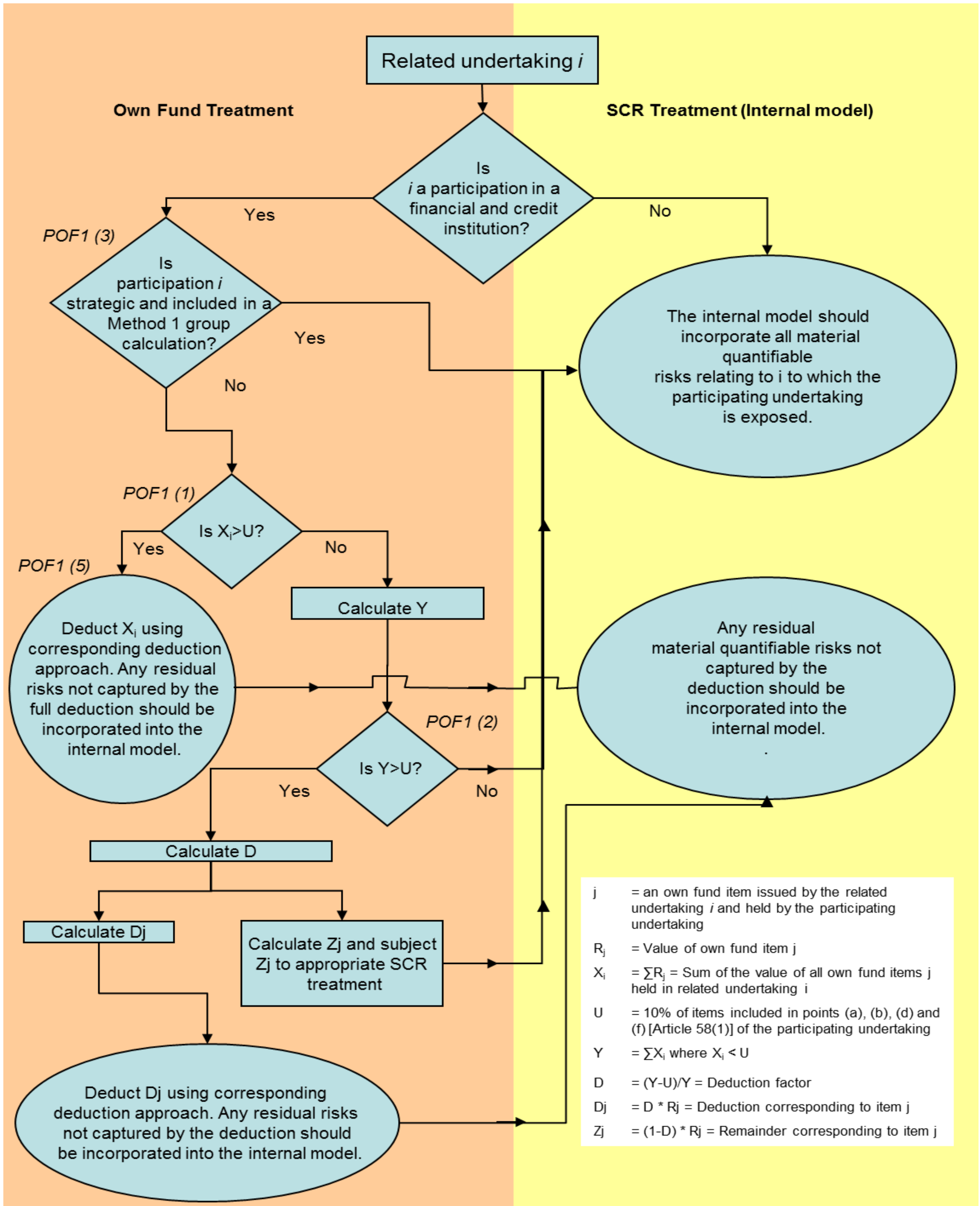


Chart 2: Treatment when using an internal model



III. Solvency Capital Requirements: Standard Formula

A. Look-through approach

1. Guidelines

Introduction

1.1 These Guidelines are drafted according to Article 16 of Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (hereinafter "EIOPA Regulation").

1.2 The Guidelines relate to Article 104 and 105 of Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (hereinafter "Solvency II").

1.3 These Guidelines are addressed to supervisory authorities under Solvency II.

1.4 These Guidelines aim at increasing consistency and convergence of professional practice in the application of the look-through approach for all types and sizes of solo undertakings using the standard formula across Member States.

1.5 These Guidelines aim at supporting undertakings in calculating their market risk related Solvency Capital Requirements under Solvency II.

1.6 Only cases that do not already qualify as risk-mitigation techniques are considered for potential application of the look-through approach. Where insurance or reinsurance undertakings use risk-mitigation techniques the assumption is that the underlying risks are understood and have already been looked-through.

1.7 If not defined in these Guidelines the terms have the meaning defined in the legal acts referred to in the introduction.

1.8 The Guidelines shall apply from [1 April 2015].

Guideline 1 - Money market funds

1.9 Undertakings should apply the look-through approach to money market funds.

Guideline 2 - Number of iterations

1.10 Undertakings should perform a sufficient number of iterations of the look-through approach, where appropriate (e.g. where a fund is invested in other funds) to capture all material risk.

Guideline 3 - Fund composition

1.11 Where [Article 144MR3 (3) of the draft Implementing Measures] is applicable and external asset management firms may delay publicising the fund composition, undertakings should ensure that they are able to access the necessary information to identify the nature of all underlying assets for the calculation of the Solvency Capital Requirement.

Guideline 4 - Investments in real estate

1.12 Undertakings should cover the following investments in the property risk sub-module:

(a) land, buildings and immovable property rights;

(b) property investment held for the own use of the undertaking.

1.13 For equity investments in a company exclusively engaged in facility management, real estate administration, real estate project development or similar activities, undertakings should apply the equity risk sub-module.

1.14 Where undertakings invest in real estate through collective investment undertakings or other investments packaged as funds, they should apply the look-through approach.

Guideline 5 - Data groupings

1.15 With reference to the groupings referred to in [Article 144 MR3 (3) of the draft Implementing Measures], where assets covered in the spread and interest rate risk sub-modules are grouped according to duration bands, undertakings should ensure that the durations assigned to the bands are demonstrably prudent.

1.16 Undertakings should not apply grouping across different credit quality steps for the purpose of calculating the spread risk charge.

Guideline 6 - Data groupings and concentration risk

1.17 Where in accordance with [Article 144 MR3 (3) of the draft Implementing Measures], any grouping is applied to the single name exposures of the underlying assets of collective funds to be used for calculating the market risk concentration charge, undertakings should assume that all assets for which the actual single name exposure is not identified belong to the same single name exposure.

1.18 The above paragraph is not applicable where it can be demonstrated that the groups into which the fund is split do not contain any of the same single name exposures.

1.19 Undertakings should aggregate exposures to such groups across all collective funds in which they are invested and reconcile the net exposures to each group with the net exposures of the known single names in their asset portfolio.

Guideline 7 – Indirect exposure to catastrophe risk

1.20 When calculating the Solvency Capital Requirement in respect of indirect exposures to catastrophe risks, such as bonds for which repayment is contingent on the non-occurrence of a given catastrophe event, undertakings should take into account any credit and catastrophe exposures.

1.21 Catastrophe exposures should be treated in the relevant catastrophe sub-modules as though the underlying catastrophe exposure is directly held by the undertaking.

Guideline 8 – Catastrophe bonds issued by the undertaking

1.22 Where an undertaking issues catastrophe bonds which do not meet the requirements for risk-mitigation techniques set out in [Chapter V Section of the draft Implementing Measures], their treatment in the standard formula should not result in a capital relief in respect of the catastrophe features of these bonds.

1.23 Undertakings should treat these catastrophe bonds in the calculation of the Solvency Capital Requirement as though the repayment schedule was fixed and not contingent on the non-occurrence of a catastrophe event.

Guideline 9 – Indirect longevity exposures

1.24 Where undertakings buy indirect longevity exposures which do not meet the requirements for risk-mitigation techniques set out in [Chapter V Section 11 of the draft Implementing Measures], they should calculate the capital charge in respect of mortality and spread risk as set out in paragraphs 2 to 4.

1.25 The capital charge of the standard formula mortality sub-module should be based on a notional portfolio of term assurance contracts:

(a) paying out the given sum on death;

(b) based on a representative sample of the reference population underlying the longevity index;

(c) where the term of each term assurance contract is equal to the term of the coupon payment.

1.26 The notional portfolio should be constructed by undertakings in such a way that under best estimate assumptions the total benefit payments sum to the coupon payable.

1.27 The capital charge of the spread risk sub-module should be based on a bond or a loan with the same market value, duration and credit quality step as the longevity instrument.

1.28 Where undertakings sell indirect longevity exposures they should calculate the capital charge in respect of the longevity sub-module as though the notional portfolio consists of endowment contracts, paying out the required sum at survival to a given age, which collectively produce cash-flows equivalent to those of the bond.

1.29 Undertakings should not consider longevity bonds which do not meet the requirements for risk-mitigation techniques set out in [Chapter V Section of the draft Implementing Measures] to increase in value when the stresses in the life underwriting risk module are applied.

2. Explanatory text

Guideline 6 - Data groupings and concentration risk

Where in accordance with [Article 144 MR3 (3) of the draft Implementing Measures], any grouping is applied to the single name exposures of the underlying assets of collective funds to be used for calculating the market risk concentration charge, undertakings should assume that all assets for which the actual single name exposure is not identified belong to the same single name exposure.

The above paragraph is not applicable where it can be demonstrated that the groups into which the fund is split do not contain any of the same single name exposures.

Undertakings should aggregate exposures to such groups across all collective funds in which they are invested and reconcile the net exposures to each group with the net exposures of the known single names in their asset portfolio.

2.1. Consider for instance an undertaking which holds 40% of its total assets in 5 separate collective funds with different fund managers. The undertaking has arranged with each of the fund managers to provide the details on the *ni* largest single names within each fund, where *ni* is selected for each fund *i* in such a way that on aggregate half of the total funds are effectively looked-through. This leaves only 20% of total assets to which the fund applies grouping – thereby fulfilling the restriction given in [Article 144 MR3 of the draft Implementing Measures].

2.2. For the 20% which is grouped, fund managers provide the breakdown of the remaining assets by rating class (7 categories) and industry sector (3 categories) of the underlying single name exposures. This leads to a division of these fund assets into 21 groups, none of which contain any of the same single name exposures.

2.3. The undertaking then needs to reconcile these groups with the single name exposures associated with the assets for which it has definite single names – both for the 20% of fund assets for which single names are provided by fund managers, and any relevant assets in the remaining 60% of the total assets of the undertaking which are not held in collective funds. This can be done by dividing all the assets with definite single name exposures into the 21 groups and adding the total grouped net exposure to the largest net exposure in that group with a definite single name.

2.4. For example, if Bank X is identified as the largest known single name exposure in a group (e.g. financials with the same rating as Bank X), then the total net exposure of the group should be added to this single name exposure when determining the concentration risk charge. Where there are no definite single name exposures in a group, the total net exposure will consist of the grouped net exposure only.

2.5. The undertaking can then determine its excess exposures for the market concentration risk module according to these net exposures, which will in all cases be prudent estimates, since concentrations can only be overstated and not understated.

Guideline 7 – Indirect exposure to catastrophe risk

When calculating the Solvency Capital Requirement in respect of indirect exposures to catastrophe risks, such as bonds for which repayment is contingent on the non-occurrence of a given catastrophe event, undertakings should take into account any credit and catastrophe exposures.

Catastrophe exposures should be treated in the relevant catastrophe sub-modules as though the underlying catastrophe exposure is directly held by the undertaking.

2.6. Catastrophe bonds are risk-linked securities which are generally used by (re)insurance undertakings to transfer some of their underwriting exposure to capital markets. If no catastrophe occurs, they pay a coupon to investors; in case of a catastrophe, the principal is forgiven and insurers are free to use these funds to cover the claims they incur.

2.7. The trigger may be indemnity (based on insurer's actual losses), based on a modelled loss, indexed to industry losses, parametric (based on a specified event such as ground speeds of winds reaching a certain threshold) or based on a parametric index (models give an approximation of loss based on the specified events to more closely match actual insurer loss).

2.8. Cat bonds are usually rated by an external rating agency. But where a typical corporate bond is rated based on the probability of default due to issuer bankruptcy, a catastrophe bond is rated based on the probability of default due to a qualifying catastrophe triggering the loss of principal.

Guideline 9 – Indirect longevity exposures

Where undertakings buy indirect longevity exposures which do not meet the requirements for risk-mitigation techniques set out in [Chapter V Section 11 of the draft Implementing Measures], they should calculate the capital charge in respect of mortality and spread risk as set out in paragraphs 2 to 4.

The capital charge of the standard formula mortality sub-module should be based on a notional portfolio of term assurance contracts:

(a) paying out the given sum on death;

(b) based on a representative sample of the reference population underlying the longevity index;

(c) where the term of each term assurance contract is equal to the term of the coupon payment.

The notional portfolio should be constructed by undertakings in such a way that under best estimate assumptions the total benefit payments sum to the coupon payable.

The capital charge of the spread risk sub-module should be based on a bond or a loan with the same market value, duration and credit quality step as the longevity instrument.

Where undertakings sell indirect longevity exposures they should calculate the capital charge in respect of the longevity sub-module as though the notional portfolio consists of endowment contracts, paying out the required sum at survival to a given age, which collectively produce cash-flows equivalent to those of the bond.

Undertakings should not consider longevity bonds which do not meet the requirements for risk-mitigation techniques set out in [Chapter V Section 11 of the draft Implementing Measures] to increase in value when the stresses in the life underwriting risk module are applied.

2.9. Undertakings are not required to calculate technical provisions for notional portfolios, as they are only used for the purpose of calculating the capital requirements.

2.10. Longevity bonds pay a coupon that is proportional to the number of survivors in a selected birth cohort. The greater the number of survivors under such arrangements, the greater the coupon that is payable. These assets can therefore present a good risk-mitigation tool for insurers with significant longevity exposure (subject to the basis risk that may be present between the actual incurred losses and the payouts under the bond). The ratings of longevity bonds are based on the credit quality of the issuer and do not incorporate possible losses attributable to the longevity exposure.

2.11. Consider as an example a two-year bond which pays a coupon of 5% of the face value at the end of years 1 and 2 and is redeemed at face value at the end of the two years. Each payment is proportional to the number of survivors in a cohort that starts with 1000 well-diversified lives living within the EU.

2.12. The undertaking holding such a bond should take a representative sample of the lives and assume that they hold term assurances maturing in one year with a cumulative value of 5% of the face value and in two years with a cumulative value of the face value plus the 5% coupon. The mortality stress under the standard formula for this instrument can then be calculated based on this notional portfolio.

B. Basis Risk

1. Guidelines

Introduction

1.1. These Guidelines are drafted according to Article 16 of Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (hereinafter "EIOPA Regulation").

1.2. The Guidelines relate to Article 104 and 105 of Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (hereinafter "Solvency II").

1.3. These Guidelines are addressed to supervisory authorities under Solvency II.

1.4. These Guidelines are aimed at facilitating convergence of practice across Member States and at supporting undertakings in calculating their capital requirement for market risk under Solvency II.

1.5. These Guidelines concern undertakings and professionals responsible for the treatment of the risk mitigation techniques in the calculation of the Solvency Capital Requirement with the standard formula.

1.6. The aim is to increase consistency and convergence of professional practice relating to the treatment of risk mitigation techniques in the calculation of the Solvency Capital Requirement for all types and sizes of undertakings.

1.7. If not defined in these Guidelines the terms have the meaning defined in the legal acts referred to in the introduction.

1.8. These Guidelines shall apply from [1 April 2015].

Guideline 1 – Risk-mitigation techniques with no material basis risk

1.9. Undertakings should consider that a risk-mitigation technique does not result in material basis risk where, inter alia, the following conditions are met:

(a) the exposure covered by the risk-mitigation technique is sufficiently similar in nature to the risk exposure of the undertaking;

(b) the changes in value of the exposure covered by the risk-mitigation technique closely mirror the changes in value of the risk exposure of the undertaking under a comprehensive set of risk scenarios.

Guideline 2 - Financial risk-mitigation techniques: assessment criteria of material basis risk

1.10. Before allowing for financial risk-mitigation techniques in the calculation of the Solvency Capital Requirement with the standard formula, undertakings should assess inter alia:

(a) the materiality of the basis risk with reference to the exposure covered by the risk-mitigation technique and the risk exposure of the undertaking without considering other balance sheet items, unless there is a continuous and consistent connection between other balance sheet items and the risk exposure of the undertaking;

(b) the similarity of the nature of the exposures referred to in Guideline 1 by taking into account at least the type and terms and conditions of the instruments or arrangements involved and the rules governing the markets where their prices are quoted or which provide the data for their valuation;

(c) the changes in the value of the exposures under a comprehensive set of risk scenarios referred to in Guideline 1 including all scenarios considered in the relevant modules or sub-modules of the standard formula by at least taking into account:

(i) the degree of symmetry among both exposures;

(ii) any non-linear dependencies under the scenario;

(iii) any relevant asymmetry of the behaviours in case of risk sub-modules where both upward and downward stresses are applied;

(iv) the levels of diversification of each respective exposure;

(v) any relevant risks not captured explicitly in the standard formula;

(vi) the whole distribution of pay-outs applying to the risk-mitigation technique.

1.11. The risk-mitigation technique should be considered to result in material basis risk where the above assessment does not provide sufficient evidence that the changes in value of the exposure covered by the risk-mitigation technique mirrors all material changes in value of the risk exposure of the undertaking.

1.12. Where a risk-mitigation technique covers spread risk and its terms and conditions specify a cap on the maximum loss protection as a proportion of the principal amount, undertakings should apply the assessment only to the proportion covered by the risk-mitigation technique when determining whether the basis risk is material.

Guideline 3 - Insurance risk-mitigation techniques with no material basis risk

1.13. Before allowing for an insurance risk-mitigation technique in the calculation of the Solvency Capital Requirement with the standard formula, undertakings should identify whether reinsurance or special purpose vehicle arrangements behave differently than the insurance policies of the undertaking under a comprehensive set of risk scenarios due to differences in terms and conditions.

1.14. Undertakings should consider basis risk to be material where the exposure covered by the insurance risk-mitigation technique is denominated in a different currency than the risk exposure of the undertaking, unless the currencies involved are pegged within a sufficiently narrow corridor.

1.15. If the basis risk is material, undertakings should not allow for the risk-mitigation technique in the calculation of the Solvency Capital Requirement unless the provisions of [Article 144ter of the draft Implementing Measures] apply.

2. Explanatory text

Guideline 1 – Risk-mitigation techniques with no material basis risk

Undertakings should consider that a risk-mitigation technique does not result in material basis risk where, inter alia, the following conditions are met:

(a) the exposure covered by the risk-mitigation technique is sufficiently similar in nature to the risk exposure of the undertaking;

(b) the changes in value of the exposure covered by the risk-mitigation technique closely mirror the changes in value of the risk exposure of the undertaking under a comprehensive set of risk scenarios.

2.1. A possible case of a risk-mitigation technique with no material basis risk is the situation where the change in value of the exposure covered by the risk-mitigation technique would mirror at least 90 per cent of the change in value of the risk exposure of the insurance or reinsurance undertaking and the resulting deviation of 10% would not lead to a misstatement of the risk-mitigating effect on the overall Solvency Capital Requirement.

C. Application of outwards reinsurance arrangements to the non-life underwriting risk sub-module

1. Guidelines

Introduction

1.1. According to Article 16 of Regulation (EU) 1904/2010 of 24 November 2010 (hereafter, EIOPA Regulation), Article 105(2) of Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II), [Article 86 NULR1 to Article 103 NLUR23, Article 184 SCRRM1 and Article 190 SCRRM7 of the draft Implementing Measures], EIOPA is issuing these Guidelines on the application of outwards reinsurance arrangements to the non-life catastrophe risk sub-module.

1.2. In particular, these Guidelines are intended to ensure a common, uniform and consistent application of the undertaking's outwards reinsurance arrangements in relation to the non-life catastrophe risk sub-module.

1.3. These Guidelines are addressed to supervisory authorities under Solvency II.

1.4. The present Guidelines make reference to the "flowchart for the non-life underwriting risk" which represents the different sub-modules that compose the non-life catastrophe risk sub-module of the Solvency Capital Requirement standard formula, according to the draft Implementing Measures.[6]

1.5. For the purpose of these Guidelines, the following definitions have been developed:

(a) 'Gross loss' means a loss of reinsurance capital charge as specified for each catastrophe sub-module in the draft Implementing Measures.

(b) 'Aggregating catastrophe event' means a catastrophe event which accumulates and affects a group of policies together. Separate policy impacts cannot be readily identified.

(c) 'Risk catastrophe event' means an event which affects policies which can be identified specifically.

[6] Please bear in mind that, for the purpose of the Public Consultation, the flowchart is included in the Explanatory Text and once the final Guidelines have been adopted and published, the Flowchart will be available in the corresponding section of EIOPA's website.

(d) Gross event: specification of the event with the resolution required to be able to apply the outwards reinsurance programme. This is the term applied to the gross loss after disaggregation.

(e) Catastrophe sub-module branches: branches of one of the four main non-life catastrophe risk sub-modules described in [Article 86 NLUR6 of the draft Implementing Measures]

(f) Outwards reinsurance/outwards reinsurance protections: reinsurance arrangements where an undertaking cedes risk to a reinsurer.

(g) Inwards reinstatement premium: any reinstatement premium which may be payable to an undertaking.

(h) Clash cover: a reinsurance liability excess of loss contract relating to two or more coverages or policies, issued by the undertaking to be involved in a loss for coverage to apply. The attachment point of the reinsurance contract is usually above the limits of any one policy.

(i) 1 in 200 year catastrophe event: a catastrophe event corresponding to a Value-at-Risk measure with a 99,5 % confidence level as defined in Article 104 (4) of Solvency II.

(j) Component: a self-contained calculation unit of the non-life catastrophe sub-module for which a Solvency Capital Requirement (SCR) can be determined. This may be at sub-module level or lower granularity e.g. region or EEA / non-EEA regions for the natural catastrophe perils.

1.6. If not defined in these Guidelines the terms have the meaning defined in the legal acts referred to in the introduction.

1.7. The Guideline shall apply from [1 April 2015].

Section I: Order of operation of the Guidelines

Guideline 1 – Order of operation of Guidelines

1.8. Undertakings should apply the sections of these Guidelines sequentially to assess their outwards reinsurance in respect of catastrophe risk.

Section II: Specification of events

Guideline 2 – Level of detail required to specify the catastrophic event

1.9. Undertakings should specify appropriate 1 in 200 year catastrophe events in enough detail to be able to apply the risk mitigation techniques.

Guideline 3 – Specification of catastrophes as aggregating catastrophe events or risk catastrophe events

1.10. Undertakings should specify the losses defined in the various catastrophe risk

sub-modules as either "aggregating catastrophe events" or "risk catastrophe events" in which case undertakings should also specify whether these events are affecting specific known policies or not.

1.11. For each non-life catastrophe risk sub-module, undertakings should specify the type of event as follows:

(a) Earthquake, windstorm, hail, flood and subsidence sub-modules specified as aggregating catastrophe event.
(b) Motor liability sub-module specified as risk catastrophe event affecting unspecified policies.
(c) Liability, Aviation, Marine and Fire sub-modules specified as risk catastrophe event affecting known policies
(d) Credit and suretyship sub-module was specified by Guidelines 13 and 14.
(e) Non-proportional property reinsurance sub-module as specified by Guideline 11.

Guideline 4 – Specification of number of events for natural catastrophe sub-modules in respect of EEA regions

1.12. Undertakings should consider the number of events for EEA regions gross losses as single or double events affecting one or more regions, and not assume that multiple events occur in each region.

Guideline 5 – Specification of number of events for natural catastrophe sub-modules in respect of non-EEA regions

1.13. For non-EEA regions where the number of aggregating catastrophe events that generate the gross loss has not been defined, undertakings should follow a similar approach for each specific sub-module as that for the EEA regions.

Guideline 6 – Catastrophe event selection

1.14. Where a number of 1 in 200 year catastrophe events can be defined, undertakings should derive events which are consistent with their risk profile and select the event which results in the highest catastrophe charge after the application of the risk mitigation techniques.

Guideline 7– Size of liability losses

1.15. To determine the size of the individual claims on which the calculation of the loss in basic own funds according to [Article Article 101 NLUR21 of the draft Implementing Measures] is based, undertakings should follow the process below:

(a) The n_i risks in the risk group with the largest limits should be identified where a risk consists of all policies written as part of a programme with the same or closely affiliated coverage and the same insured policy-holder (where the insured policy-holder is the policy-holder of the insurance contract) that are in force at the same time.

(b) The resulting n_i limits should each be multiplied by 1.15.

(c) The sum of these n_i values should be calculated and deducted from $L_{(liability, i)}$ and any difference should be allocated proportionally using the actual limits of the n_i values.

(d) The final resulting n_i values should be considered as individual claims from a single event, each associated with the risk from which they have been derived.

1.16. Undertakings should then be able to identify for each of the n_i claims which reinsurance covers apply, given the nature of the associated risk.

1.17. Undertakings should be prepared to demonstrate to the supervisory authority that their purchasing of outwards reinsurances has not been materially influenced by whether the risk would be one identified under this process.

Section III: Disaggregating the gross loss

Guideline 8 – Disaggregating the gross loss to individual countries or other components

1.18. Undertakings should use one of the methods specified below to disaggregate the gross loss to individual components where the gross impact on individual policies has not been identified so that outwards reinsurance protections can be applied:

(a) Max method: The gross loss is allocated to the component which is the largest contributor of the gross loss pre-diversification.

(b) Spread method: The gross loss is spread across relevant components in proportion to their contribution to the gross loss pre diversification; alternatively an approach using correlation matrices to share the loss may be adopted similar to that proposed for allocating the SCR to Lines of Business.

(c) Blend method: This method selects the maximum of the Max and the Spread methods above.

Guideline 9 – Disaggregating the gross loss for Natural catastrophe sub-modules in relation to EEA scenarios

1.19. Undertakings should use the methods defined below to disaggregate the gross loss for natural catastrophe sub-modules, in relation to EEA scenarios.

1.20. When disaggregating the gross loss to regions, undertakings should use the Blend method for the windstorm and flood risk sub-modules and the Max method to disaggregate the earthquake and hail risk sub-modules.

1.21. When disaggregating the gross loss to business units, companies and lines of business, undertakings should use the Spread method.

1.22. If the undertaking has a risk profile such that the method specified above is not appropriate, the undertaking should select a more suitable approach and justify it to the supervisor.

Guideline 10 – Disaggregating the gross loss for Natural Catastrophes for non-EEA regions

1.23. Undertakings should apply to the non EEA regions, methods which are consistent with the methods applied for EEA perils in Guideline 9 to allocate the gross loss.

1.24. If the undertaking has a risk profile such that this approach is not appropriate, the undertaking should select a more suitable approach and justify it to the supervisor.

Guideline 11 – Disaggregating the gross loss for Natural Catastrophes for Non-Proportional Property

1.25. Undertakings should apply the Max method for the non-proportional property reinsurance sub-module to allocate the loss to each region. For this sub-module undertakings should estimate the exposure to the highest peril and the number of events specified as in the relevant aggregating catastrophe event(s) that applies to the underlying contracts. Where two aggregate catastrophe events are defined, this should imply that both events occur within the same region.

1.26. If the undertaking has a risk profile such that this approach is not appropriate, the undertaking should select a more suitable approach. This approach should be justified to the supervisor.

Guideline 12 – Specifying the gross loss for man-made sub- modules: motor vehicle, marine, aviation, fire and liability risks

1.27. Undertakings should identify the particular policies impacted by the gross liability risk event by applying Guidelines 34 to 39. For the marine, aviation and fire scenarios the undertaking should identify the gross risks affected and hence which reinsurances apply (including per risk excess of loss protections) to the claims.

1.28. For motor vehicle liability risk, the undertaking should assume that the risk catastrophe event specified in the [draft implementing measure] arises from a single loss event. The undertaking should assume that the loss occurs in the region or business unit which generates the highest contribution to the gross loss pre diversification.

1.29. When applying of the risk specific protections the undertaking should be able to satisfy to their national supervisor that the purchase of outwards reinsurances has not been materially influenced by whether the risk is one identified as the gross event or a contribution to this gross event.

Guideline 13 – Disaggregating the gross loss for Credit and suretyship- Large Buyer Scenario

1.30. In determining the largest credit exposures, undertakings should take account of exposure accumulations to entities within a group.

Guideline 14 – Disaggregating the gross loss for Credit and suretyship recession scenario

1.31. Where undertakings need to allocate the recession gross loss to different territories, industries, product types, or more generally to the respective scope of applicability of the reinsurance arrangement in order to apply their reinsurance protections, they should allocate the gross loss pro-rata based on gross premium volumes.

Section IV: Application of outwards reinsurance

Guideline 15 – Outwards reinsurance applicability

1.32. Undertakings should apply each outwards reinsurance protection to one of the levels specified below:

(a) different zones within a single country single sub-module branch;
(b) different regions within a single sub-module branch;
(c) EEA/non-EEA grouping within a single sub-module; different catastrophe sub-modules branches within a catastrophe sub-module;
(d) different catastrophe sub-modules e.g. as could be the case for stop-loss and aggregate covers across man-made and natural catastrophe sub-

modules.

1.33. Undertakings can also apply line of business and business unit specific coverages.

1.34. Undertakings may also be able to apply reinsurance protections across premium risk and catastrophe modules in some cases.

1.35. Undertakings should apply outwards reinsurance consistently with [Articles 184 to 190 of the draft Implementing Measures]. Undertakings should ensure there is no double- counting of reinsurance recoveries [Article 184 paragraph 1(e) of the draft Implementing Measures]. Undertakings should ensure that the total recovery from risk mitigation methods that is allowed for in their calculation of net losses does not exceed the total amount possible under the terms of their risk transfer programme.

Guideline 16 – Inwards reinstatement premiums

1.36. Undertakings may allow for the receipt of inwards reinstatement premiums where it can be demonstrated to the supervisor that these will be triggered by the gross event specified in the catastrophe sub-module.

1.37. Undertakings should allow within their calculations of the gross loss for the additional exposures that result from this inwards reinstatement premium.

Guideline17 – Other impacts on basic own funds as a result of the trigger of the outwards reinsurance contract

1.38. Undertakings should allow for reinstatement premiums or other additional cash-flows which may result from the trigger of the outwards reinsurance protection.

Guideline 18 – Order of operation of reinsurance protections

1.39. Undertakings should apply reinsurance protections in the order specified in their contractual agreements as they apply to the underlying risk

Guideline 19 – Proportional reinsurance

1.40. For quota shares, surplus reinsurance and proportional facultative contracts, undertakings should do a pro rata allocation of the gross event across these reinsurance contracts.

1.41. Where the undertaking's proportional reinsurance contract is subject to an "event limit" or similar, the gross loss allocated to that contract cannot exceed such limit and any excess should be added back to the "net retained" share of loss.

Guideline 20 – Non-proportional reinsurance per risk

1.42. For risk excess of loss and non-proportional facultative contracts, undertakings should only use this non-proportional reinsurance under the standard formula if the gross event allows appropriate specification of the underlying policies exposed.

Guideline 21 – Non-proportional reinsurance per event

1.43. Undertakings should only apply non-proportional reinsurance to defined gross events if the loss can be split appropriately.

1.44. The undertaking should take due care to allow for less common contract features such as franchises and for part placements or coinsurance.

Guideline 22 – Non-indemnity contracts and Basis Risk

1.45. Undertakings should not apply non-indemnity contracts under the standard formula unless it can be demonstrated that the level of basis risk is not material by virtue of the definition of the scenario.

Guideline 23 – Application of aggregate contracts and clash covers

1.46. Undertakings should consider at which level to apply the aggregate reinsurance contracts within the calculation of the non-life catastrophe SCR. The choice should be driven by the substance of the risk mitigation mechanism and where reinsurance recoveries are expected if the gross event were to occur.

1.47. Where undertakings are estimating reinsurance recoveries from clash contracts they should demonstrate to the supervisor that the contracts would respond to the catastrophe events defined in the standard formula.

1.48. Undertakings should ensure that no double counting of reinsurance recoveries occurs and must be able to explain and demonstrate the logic of application to their supervisor.

Guideline 24 – Treatment of shared reinsurance covers

1.49. Where shared reinsurance covers exist, the undertaking should follow the principles in Guideline 32.

Guideline 25 – Treatment of outputs from lower levels of the hierarchy.

1.50. Undertakings should differentiate between reinstatement costs and reinsurance recoveries when aggregating SCRs across the non-life catastrophe sub-modules.

Guideline 26 – Treatment of other contracts not specified here

1.51. Undertakings should apply the principles incorporated in the Guidelines above to other reinsurance contracts or features not explicitly captured here.

Section V: Re-aggregating the net losses

Guideline 27 – Re-aggregating the net losses to derive the SCR for catastrophe risk for the undertaking

1.52. Where undertakings have allocated a diversified gross loss to a more granular level (i.e "the gross event") in order to estimate their reinsurance recoveries, undertakings should add up the net components to derive the SCR.

1.53. Where undertakings have SCR output from different levels of the calculation, undertakings should combine the net components to derive the non-life catastrophe SCR.

1.54. The technical annex describes how to apply this Guideline.

Section VI: Documentation and Validation

Guideline 28 – Documentation and validation of catastrophe events selected

1.55. Undertakings should explain the catastrophe events selected to their supervisor within regular supervisory report according to [Article 298 SRS5 (4) point (a) of draft delegated acts Solvency II]. The explanation should contain details of key decision points, discussion of alternatives which could be selected for these key decision points and rationale for the final selections.

1.56. Undertakings should also include details of any challenge that has occurred internally to devise suitable catastrophe events within their documentation.

Guideline 29 – Documentation of disaggregation methodology

1.57. Undertakings should document the disaggregation mechanism used in order to apply the reinsurance programme by sub-module. This should include the rationale for the selected approach, discussion of possible alternatives where there are multiple reasonable methods available and the calculations performed in order to achieve the disaggregation.

Guideline 30 – Documentation of netting down and re-aggregation procedures

1.58. Undertakings should document the process used to net down the gross event. This includes a description of the undertaking's reinsurance programme, the netting down calculations, details of the allocation where relevant of the recoveries due from the risk mitigation technique to the relevant insurance sub-modules and details of how the re-aggregation to derive the SCR_{nlCAT} was performed.

1.59. Undertakings should also demonstrate in their documentation that there is no double counting of reinsurance recoveries assumed.

1.60. Where undertakings have assumed adjustable premium features (e.g. inwards and outwards reinstatement premiums), the documentation should justify the methodology and assumptions used to derive these.

Section VII: Particular considerations for solo undertakings which are part of groups

Guideline 31 – Treatment of internal reinsurance arrangements

1.61. For solo undertakings, the undertaking should treat outwards reinsurance arrangements which may exist with other group undertakings ("internal reinsurance") in the same way as they would treat arrangements with external third parties.

Guideline 32 – Estimating the reinsurance recovery that would be due to a solo undertaking in respect of a group reinsurance contract for aggregating catastrophe events

1.62. When estimating the reinsurance recovery due on an aggregate reinsurance contract, (i.e. a contract which protects against accumulated aggregate losses from several group undertakings) solo undertakings should follow the steps below:

(a) Determine the gross 1 in 200 year catastrophe loss for the solo undertaking;
(b) Determine the gross 1 in 200 year catastrophe loss for the group;
(c) Estimate reinsurance recoveries on the group reinsurance contract;
(d) Allocate reinsurance recoveries according to contractual agreements where these exist, otherwise estimate the reinsurance recoveries due to the solo as the ratio of gross losses (a)/(b) multiplied by the amount estimated in (c).

Guideline 33 – Estimating the reinsurance recovery that would be due to a solo undertaking in respect of a group reinsurance contract for risk catastrophe events

1.63. When estimating the reinsurance recovery due on an risk specific contract (i.e. a contract which protects against specific risk(s)) solo undertakings should follow the steps below:

(a) Determine whether the specific risk(s) triggering the 1 in 200 year loss for the solo is the same as the specific risk(s) triggering the 1 in 200 year loss at the group level;
(b) If there is some overlap, estimate reinsurance recoveries due to the solo on the group reinsurance contract.

Section VIII: Allocation of Insurance Policies to Liability Risk Groups for the Man-Made Liability Catastrophe Risk Sub-Module

Guideline 34 – Liability Risk Group 1

1.64. Undertakings should, for the liability risk group 1 referred to in [Annex NLUR10 of the draft Implementing Measures] include the policies for professional malpractice liability insurance which provide coverage to professional practitioners against potential liability claims.

1.65. Undertakings should include in this risk group a range of liability products including:

(a) Medical malpractice liability insurance including specialist or general practitioners, hospitals and other healthcare providers when they bear medical malpractice liability;
(b) Errors and omissions or professional indemnity insurance;
(c) Coverage for failure to perform and associated financial loss arising from the services provided by a company;
(d) Coverage for breach of warranty or intellectual property;
(e) Coverage for all bodily injury liability or property damage (whether material or financial) and the associated damages and defence costs insurance resulting from errors or negligence of a professional in the course of its activity.

Guideline 35 - Liability Risk Group 2

1.66. Undertakings should, for the liability risk group 2 referred to in [Annex NLUR10 of the draft Implementing Measures] include the policies for employers' liability

which provide coverage for any liability that might be imposed on an employer if an employee is injured in the course of his or her employment.

1.67. Undertakings should include in this risk group obligations which cover:

(a) The provision of preventive or curative medical treatment or care relating to accident at work, industrial injury or occupational diseases;

(b) Financial compensation for such treatment;

(c) Financial compensation for accident at work, industrial injury or occupational diseases.

Guideline - 36 Liability Risk Group 3

1.68. Undertakings should, for the liability risk group 3 referred to in [Annex NLUR10 of the draft Implementing Measures] include the policies for directors and officers liability insurance which provide coverage for liability and defence costs to the directors and officers of a company, or to the organization(s) itself, in the event they suffer losses as a result of a lawsuit for alleged wrongful acts while acting in their capacity as directors and officers for the organization, including the coverage of defence costs arising out of criminal and regulatory investigations and/or trials.

1.69. Undertakings should include in this risk group the policies for management liability and employment practice liability.

Guideline 37 - Liability Risk Group 4

1.70. Undertakings should, for the liability risk group 4 referred to in [Annex NLUR10 of the draft Implementing Measures] include the policies which cover all liabilities arising from negligent acts and/or omissions resulting in bodily injury and/or property damage to third parties other than:

(a) Those included in motor vehicle liability and marine, aviation and transport
(b) Those included in liability risk groups 1,2,3 and 5 [of Annex NLUR10 of the draft Implementing Measures];
(c) Third party liability coverage provided to individual householders, individuals in a private capacity (including when hunting) and self-employed crafts persons or 'artisans';
(d) Third party liability coverage provided in respect of damage or injury caused by domestic pets.

Guideline 38 - Liability Risk Group 5

1.71. Undertakings should, for the liability risk group 5 referred to in [Annex NLUR10 of the draft Implementing Measures] include non-proportional reinsurance policies for all liability risk groups defined in that Annex.

Guideline 39 - Allocation and Unbundling

1.72. Where liability insurance and proportional reinsurance are sold on a packaged basis, including covers that fall into more than one of the above risk groups, undertakings should unbundle and allocate the premiums for each cover to the most appropriate risk group for that cover.

1.73. In the event that this is not possible, undertakings should consider the nature of the claims made against such policies taking into account an appropriate period of claims history, where this is available, that captures similar coverage features of premiums that were written over the last 12 months. Undertakings should allocate the premiums for this type of policy to the risk group into which the majority of such claims, by value, appear to fall.

1.74. Undertakings should be able to provide supporting evidence and rationale for such allocations.

1.75. Undertakings should apply proportionality considerations when applying the unbundling guidance above.

Section IX – Particular considerations for the group calculation

Guideline 40 – Deeming of reinsurance

1.76. Where the intra-group reinsurance inures to the benefit of any of an undertaking's external reinsurance, the participating undertaking should 'deem' the internal reinsurance in place for the purpose of calculating the impact of the external reinsurance.

Technical Annex: working of the disaggregation/re-aggregation approaches

This annex describes how to apply Guideline 26 and more generally how the disaggregation/re-aggregation approaches are working in order to apply a relevant and consistent approach for the different reinsurance covers within the non-life catastrophe sub-module. 2 methods are shown and the undertaking will need to establish which of these are most suitable

Principle behind method 0

When estimating reinsurance recoveries from aggregate covers using Method 0, the undertaking applies the joint cover to the output from each sub-module separately and ensures the reinsurance recoveries assumed are within the policy limits

Principle behind method 1:

When estimating reinsurance recoveries from aggregate covers using method 1, undertakings should identify the most granular component (or earliest common ancestor) within the flowchart for non-life underwriting risk which spans the relevant sub-modules.

(a) For an aggregate cover protecting against wind and hail losses, this component would be NatCat;

(b) For an aggregate cover protecting against wind and motor losses, this component would be NL Cat.

The next step is to work out the gross diversified loss for this component or common ancestor and then allocate back to more granular components in order to apply the aggregate cover. The resulting components are then combined to calculate the $SCR_{NL\ cat}$

1) Windstorm – **reinsurance at country(/region) level** - EEA
   (a) Calculate gross diversified loss at EEA level taking into account diversification effects between countries/regions
   (b) Allocate back (disaggregation according to GL 7) to country level within EEA (gross country but EEA diversified)
   (c) Apply country-level reinsurance cover to gross diversified EEA country loss
   (d) Add up net diversified country components to get SCR_{wind} net of country level reinsurance cover

2) Windstorm (EEA and non EEA) - **reinsurance at country/region level for EEA and non EEA and reinsurance aggregate cover** (all territories)
   (a) Steps in (1) for country level reinsurance cover within EEA
   (b) Steps in (1) for country level reinsurance cover within non EEA (substituting non EEA for EEA and substituting GL8 for GL7)
   (c) Calculate gross diversified loss at peril windstorm level (net of country level reinsurance covers and taking into account diversification effects between EEA and non EEA)

(d) Apply EEA and non EEA aggregate reinsurance cover to obtain net SCR_{wind} (net of both country level and EEA/nonEEA reinsurance covers)

3) Windstorm – **reinsurance at country level followed by aggregate reinsurance of Windstorm and Hail**. It would typically be expected that the method below to be used for the joint wind hail cover.

Method 1

(a) Do steps in (2) (steps in (1) sufficient if no EEA/non-EEA aggregate cover) for windstorm and hail separately to get net SCR_{wind} and net SCR_{hail} (net of country level reinsurance covers)
(b) Calculate diversified loss at natCAT level (net of country level cover taking into account diversification effects between all nat cat sub-modules but of aggregate reinsurance cover
(c) Allocate back to wind and hail sub-modules (probably spread) to obtain SCR_{wind*} and SCR_{hail*} (net of country level reinsurance covers but natCAT diversified)
(d) Apply aggregate reinsurance cover across net SCR_{wind*} and net SCR_{hail*} to obtain net $SCR_{windhail}$ (net of both country level and aggregate Windstorm and hail reinsurance covers)
(e) Add net $SCR_{windhail}$ +net $SCR_{earthquake}$ +net SCR_{flood} +net $SCR_{subsidence}$ to get net SCR_{natcat} (net of both country level and aggregate Windstorm and hail reinsurance covers)

Method 0 – (not expected to be used, but a description of the method is shown below:

(a) Do steps in (2) for windstorm and hail separately to get net SCR_{wind} and net SCR_{hail}
(b) Apply the joint cover separately to wind and hail sub-modules
(c) Diversify all the natural catastrophe sub-modules to generate net SCR_{natcat}
(d) Check that net SCR_{natcat} does not generate recoveries on the joint reinsurance cover that are greater than the maximum permissible.
(e) If this is the case, method 1 has to be used.

4) **Reinsurance at country level for windstorm and risk specific for motor, followed by Aggregate Cover windstorm and motor TPL**. As above, we would expect method 1 to be used.

Method 1

(a) Windstorm steps in (2) (steps in (1) sufficient if no EEA/non EEA aggregate cover) to get SCR_{wind} (net of country level reinsurance covers)
(b) Apply Motor TPL specific reinsurance cover to get SCR_{motor} (net of risk specific reinsurance cover)
(c) Calculate diversified loss at $SCR_{natcat\ and}$ $SCR_{man\text{-}made}$ level (net of country level reinsurance cover within Windstorm and net of motor TPL risk specific

reinsurance cover) using outputs from other sub-modules of SCR_{natcat} and $SCR_{man\text{-}made}$

(d) Calculate diversified loss at SCR_{cat} level taking into account diversification effects between SCR_{natcat} and $SCR_{man\text{-}made}$ (net of country level reinsurance covers and motor risk specific reinsurance cover but gross of aggregate windstorm and motor reinsurance cover) and allocate back (disaggregation with spread method) to $SCR_{natcat*}$ and $SCR_{man\text{-}made*}$ and back again to SCR_{wind*} and SCR_{motor*} (net of country level Windstorm and motor TPL specific reinsurance but SCR $_{cat}$ diversified)

(e) Apply aggregate windstorm and motor TPL reinsurance cover to get net $SCR_{windmotor}$

(f) $SCR_{cat\ (after\ aggregate\ cover)} = SCR_{cat\ (before\ aggregate\ cover)} - SCR_{wind} - SCR_{motor} +$ net $SCR_{windmotor(after\ aggregate\ cover)}$

Questions for consultation

In addition to providing comments against each Guideline, EIOPA would like to understand:

Q1: Are the examples for performing the re-aggregation sufficiently clear?

Q2: Are there any further topics not covered by the Guidelines where undertakings would like guidance?

Q3: Are the Guidelines themselves sufficiently clear and if not where would the undertakings like more clarity?

2. Explanatory text

Section I: Order of operation of guidelines

Guideline 1 – Order of operation of guidelines
Undertakings should apply the sections of these Guidelines sequentially to assess their outwards reinsurance in respect of catastrophe risk.

2.1. Undertakings should apply sections 1 and 2 of these Guidelines in order to determine the specifics of the gross event which gave rise to gross catastrophe loss for each catastrophe sub-module specified in [Articles 86-103 of the draft Implementing Measures].

2.2. Undertakings should then apply section 3 of these Guidelines in order to calculate the net losses.

2.3. Finally undertakings should apply section 4 of the Guidelines to re-aggregate the net losses developed in section 3 to calculate the overall impact on the undertaking's basic own funds of the non-life catastrophe sub-module.

2.4. If we consider a specific example where allocation to regions is required for a particular natural catastrophe peril in order to estimate recoveries on a proportional reinsurance contract, undertakings should perform the allocation to region first based on Guideline 7, and then estimate the proportional reinsurance recoveries based on Guideline 15.

Section II: Specification of events

Guideline 2 – Level of detail required to specify the catastrophic event
Undertakings should specify appropriate 1 in 200 year catastrophe events in enough detail to be able to apply the risk mitigation techniques.

2.5. It is recognised that the generation of catastrophe events will rely on a significant element of expert judgement and it is expected the generation and suitable challenge of events will include involvement of the relevant experts within the undertaking, e.g. experts that understand:

(a) the underlying exposures;
(b) potential for claims;
(c) context of the current market environment, and;
(d) the details of the risk mitigation techniques available.

Guideline 3 – Specification of catastrophes as aggregating catastrophe events or risk catastrophe events

Undertakings should specify the losses defined in the various catastrophe risk sub-modules as either "aggregating catastrophe events" or "risk catastrophe events" in which case undertakings should also specify whether these events are affecting specific known policies or not.

For each non-life catastrophe risk sub-module, undertakings should specify the type of event as follows:

(a) Earthquake, windstorm, hail, flood and subsidence sub-modules specified as aggregating catastrophe event.
(b) Motor liability sub-module specified as risk catastrophe event affecting unspecified policies.
(c) Liability, Aviation, Marine and Fire sub-modules specified as risk catastrophe event affecting known policies
(d) Credit and suretyship sub-module specified by Guidelines 13 and 14.
(e) Non-proportional property reinsurance sub-module specified by Guideline 11.
(f)

2.6. An example of an aggregating catastrophe event is an earthquake which simultaneously affects a large number of properties. An example of a risk catastrophe event is the aviation scenario which applies to the largest risk in the insurance / reinsurance portfolio

Guideline 4 – Specification of number of events for natural catastrophe sub-modules in respect of EEA regions

Undertakings should consider the number of events for EEA regions gross losses as single or double events affecting one or more regions, and not assuming that multiple events occur in each region.

2.7. Therefore the windstorm gross loss at EEA level consists of 2 events where the regions impacted are to be determined using the methods in Guideline 7.

Guideline 5 – Specification of number of events for natural catastrophe sub-modules in respect of non-EEA regions

For non EEA regions where the number of aggregating catastrophe events that generate the gross loss has not been defined, undertakings should follow a similar approach for each specific sub-module as that for the EEA regions.

– **Windstorm, Hail, Flood**: therefore the gross loss $L_{i,other}$ is split into two events using the same proportions as the EEA events – both the medium/medium and high/low scenarios should be considered[7].

– **Earthquake:** Therefore the gross loss $L_{i, other}$ arises from a single event.

[7] E.g for windstorm these are 80/40 and 100/20 scenarios. But note that the loss is already 100% so this should be split into 80/120 * L and 40/120 * L etc.

Guideline 6– Catastrophe event selection

Where a number of 1 in 200 year catastrophe events can be defined, undertakings should derive events which are consistent with their risk profile and select the event which results in a highest catastrophe charge after the application of the risk mitigation techniques.

2.8. This is relevant for the catastrophe sub-modules where the gross loss is based on a factor-based approach and the event needs to be specified in more detail in order to apply a reinsurance programme.

2.9. When the outcome is dependent on the timing of loss during the year, the timing that generates the highest net of reinsurance losses should be assumed unless an alternative assumption can be justified e.g. losses arising from an event which can be shown to be seasonal.

Guideline 7 – Size of liability losses

To determine the size of the individual claims which the calculation of the loss in basic own funds is based on, undertakings should follow the process below:

(a) The n_i risks in the risk group with the largest limits should be identified where a risk consists of all policies written as part of a programme with the same or closely affiliated coverage and the same insured policy-holder (where the insured policy-holder is the policy-holder of the insurance contract) that are in force at the same time.

(b) The resulting ni limits should each be multiplied by 1.15.

(c) The sum of these ni values should be calculated and deducted from L(liability, i) and any difference should be allocated proportionally using the actual limits of the ni values.

(d) The final resulting ni values should be considered as individual claims from a single event, each associated with the risk from which they have been derived.

Undertakings should then be able to identify for each of the n_i claims which reinsurances apply, given the nature of the associated risk.

Undertakings should be prepared to demonstrate to the supervisory authority that their purchasing of outwards reinsurances has not been materially influenced by whether the risk would be one identified under this process; i.e. all other things being equal, one would not expect a risk identified by this process to have a materially different net retention to one which is not picked up in the n_i claims.

2.10. For example for commercial policies issued to cover several subsidiaries of the same company, the primary policy issued to the subsidiary and excess policy

covering that (and other) subsidiaries should be aggregated for the purposes of determining the largest limits.

2.11. A demonstration to the supervisory authority that the undertaking's purchasing of outwards reinsurances has not been materially influenced by whether the risk would be one identified under this process would be that all other things being equal, a risk identified by this process does not have a materially different net retention to the ones which are not picked in the n_i claims.

Section III: Disaggregating the gross loss

2.12. So far the gross loss for each catastrophe sub-module has been split into events. In some cases this will be sufficient to enable the reinsurance programme to be applied. Where this is insufficient, the undertaking will need to further disaggregate the gross loss to derive the gross event.

Guideline 8 – Disaggregating the gross loss to individual countries or other components

Undertakings should use one of the methods specified below to disaggregate the gross loss to individual components where the gross impact on individual policies has not been identified so that outwards reinsurance protections can be applied:

(a) Max method: the gross loss is allocated to the component which is the largest contributor of the gross loss pre-diversification.

(b) Spread method: spread the gross loss across relevant components in proportion to their contribution to the gross loss pre diversification; alternatively an approach using correlation matrices to share the loss may be adopted similar to that proposed for allocating the SCR to Lines of Business.

(c) Blend method: this method selects the maximum of the Max and the Spread methods above.

2.13. The catastrophe sub-modules specify a 1 in 200 year gross loss for each sub-module after diversification.

2.14. It is this 1 in 200 year post diversification gross loss which may need to be allocated to a more granular level to apply the reinsurance programme and correctly identify the 1 in 200 year capital requirement. For the max and spread methods of allocation, this allocation is achieved by allocating to the component which is the largest contributor of the gross loss pre diversification and spread across the components in proportion to their contribution to the gross loss pre diversification respectively.

2.15. Some non-life catastrophe sub-modules require undertakings to find a particular set of policies that would lead to the maximum loss in a given general risk catastrophe event (the "policies known" cases described in Guideline 2 above). In this case a unique set of policy losses will be known to the

undertaking and they can explicitly apply their reinsurance programme as they would in a real scenario affecting those policies.

2.16. The blend method may be more suitable for peak risks (e.g. windstorm) where although exposure could occur across several countries, one country is likely to be worst affected.

Other non-life Catastrophe Risk Example

2.17. If an undertaking has written more than one of lines of business 1-5 as defined in Annex NLUR11, the undertaking will need to determine which line of business is most likely to generate a 1 in 200 year loss. This will be based on a relative consideration of the exposure at risk, and the likelihood of a 1 in 200 year claim event occurring across all the classes.

2.18. So if it has written 20 million euros of transport other than marine and aviation e.g. brown water marine compromised of barges and riverboats and 100 million euros of payment protection insurance (PPI), and 50 million euros of non-proportional casualty, lines of business 1, 3 and 4 respectively then the capital charge may be calculated as:

	LOB in Annex NLUR11	**C**	**Premiums**	**c × P**	**$(c \times P)^2$**
Transport other than marine and aviation	1	100%	20	20	400
PPI	3	40%	100	40	1,600
Non proportional casualty	4	250%	50	125	15,625
Total			**170**	**185**	**17,625**
Capital charge					**133**

2.19. From the calculation it is apparent that the non-proportional casualty line of business is the single largest contributor to the capital charge, with the contributions being immaterial and hence the instantaneous 1 in 200 year loss should be assigned to this line of business. (In the situation, the contributions from other classes were more material a spread or blend method described in Guideline 6 could be used to allocate the loss). Within the non-proportional casualty line an undertaking may be covering many different industries and territories e.g. France, Germany and the UK. The risk mitigation which the undertaking has in place may be specific to a region (but not to an industry), in this situation, the undertaking will need to divide up the instantaneous loss between the different territories in order to apply the risk mitigation.

2.20. Here the undertaking has a choice as to whether it assigns the whole of the loss to a specific territory or it spreads the loss across different territories. The key decision which will drive this will depend on whether an instantaneous loss scenario could be the aggregate of linked events occurring in different territories simultaneously. This could happen as a result of an industrial disease or a link established between mobile phones and brain tumours. In this situation the loss can be assigned across the different territories pro rata using the premiums written in the different regions.

2.21. If it is determined that the undertaking's underlying exposure and risk profile (i.e the types of policies written) does not expose them to an event of this nature, then the loss will need to be assigned to a single region which will probably be the region where the largest premium volume is written. The example is provided below.

NP Casualty	**Premium split**	**Loss Spread**	**Single Loss**
France	20	53	133
Germany	15	40	
UK	15	40	
Total	**50**	**133**	**133**

The risk mitigation can now be applied.

Guideline 9– Disaggregating the gross loss for Natural catastrophe sub-modules in relation to EEA scenarios

Undertakings should use the methods defined below to disaggregate the gross loss for natural catastrophe sub-modules according to [Article. 87 NLUR7 of the draft Implementing Measures], in relation to EEA scenarios.

When disaggregating the gross loss to regions, undertakings should use the Blend method for the windstorm and flood risk sub-modules and the Max method to disaggregate the earthquake and hail risk sub-modules.

When disaggregating the gross loss to business units, companies and lines of business, undertakings should use the Spread method.
If the undertaking has a risk profile such that the method specified above is not appropriate, the undertaking should select a more suitable approach and justify it to the supervisor.

2.22. The natural catastrophe sub-modules specify a 1 in 200 year gross loss for each peril and country combination. The total gross loss to the undertaking at a 1 in

200 year level is the loss event after diversification of the individual components. This approach ensures that the correct level of 1 in 200 year gross loss calculated for an undertaking writing only in one country/region as well as an undertaking writing across multiple countries / regions.

2.23. It is the 1 in 200 year post diversification gross loss which needs to be allocated to a specific country/region in order to apply the reinsurance programme and correctly identify the 1 in 200 year capital requirement.

2.24. Where multiple allocations need to be performed in order to apply the reinsurance programme and an allocation to regions is included then the undertaking should allocate to regions first.

Guideline 10 – Disaggregating the gross loss for Natural Catastrophes for non-EEA regions

Undertakings should apply to the non EEA regions, methods which are consistent with the methods applied for EEA perils in Guideline 9 to allocate the gross loss.

If the undertaking has a risk profile such that this approach is not appropriate, the undertaking should select a more suitable approach and justify it to the supervisor.

2.25. Consider an undertaking which writes US, Japanese, Australian and EEA windstorm risks. For non-EEA risks assume that the company writes more premium in the south east US than any other region – then, according to the above proposal, the company should allocate both windstorm events to the south east US.

2.26. Counter-example: An undertaking may have a large portfolio (measured by premium) in, for example, Russia but spread across the region; conversely it may have a strong concentration in, for example, Florida although smaller when measured by premium. In this case it would be more likely the windstorm loss would occur in Florida. This is an example where the risk profile of the undertaking means that the default method is not appropriate.

Guideline 11 – Disaggregating the gross loss for Natural Catastrophes for Non-Proportional Property

Undertakings should apply the max method for the non-proportional property reinsurance sub-module to allocate the loss to each region. For this sub-module undertakings should estimate the exposure to the highest peril and the number of events specified as in the relevant aggregating catastrophe event(s) that applies to the underlying contracts. Where two aggregate catastrophe events are defined, this should imply that both events occur within the same region.

If the undertaking has a risk profile such that this approach is not appropriate, the undertaking should select a more suitable approach. This approach should be justified

to the supervisor.

2.27. If most of the Non-Proportional Property Reinsurance exposures are exposed to windstorm losses, then the number of events is as specified for the underlying contracts i.e. in [Article 88 of the draft Implementing Measures]. A similar argument applies to the other perils.

Guideline 12 – Specifying the gross loss for man-made sub-modules: motor vehicle, marine, aviation, fire and liability risks

Undertakings should identify the particular policies impacted by the gross liability risk event by applying guidelines 34 to 39. For the marine, aviation and fire scenarios the undertaking should identify the gross risks affected and hence which reinsurances apply (including per risk excess of loss protections) to the claims.

For motor vehicle liability risk, the undertaking should assume that the risk catastrophe event specified in the draft Implementing Measure arises from a single loss event. The undertaking should assume that the loss occurs in the region or business unit which generates the highest contribution to the gross loss pre diversification.

In applying of the risk specific protections the undertaking should be able to satisfy to their national supervisor that the purchase of outwards reinsurances has not been materially influenced by whether the risk is one identified as the gross event or a contribution to this gross event.

2.28. There are circumstances (e.g fronting where the undertaking cedes 100% of the risk to a reinsurance undertaking) where the reinsurance on the largest risks is such that the net position will be unrealistically low for an estimate of the loss at the 99.5% percentile. In such situations, the undertaking should be able to demonstrate that the net position used is not inconsistent with that calculated using the largest risks that are covered by reinsurance more typical to the overall portfolio.

Guideline 13 – Disaggregating the gross loss for Credit and suretyship- Large Buyer Scenario

In determining the largest credit exposures, undertakings should take account of exposure accumulations to entities within a group.

2.29. We have assumed that the intention of [Article 102 in the draft Implementing Measures] is that all credit exposure (included that from Surety-ship) in the lines of business 9 and 21 needs to be included in determining the two largest exposures.

2.30. The largest credit exposures for Credit and Surety typically arise from the accumulation of credit exposure on a group of legal entities (for example a

group with a holding company at its head with multiple legal entities daughter firms it controls). The undertaking needs to have adequate systems and controls in place to correctly identify these group structures.

Guideline 14 – Disaggregating the gross loss for Credit and suretyship recession scenario

Where undertakings need to allocate the recession gross loss to different territories, industries, product types, or more generally to the respective scope of applicability of the reinsurance arrangement in order to apply their reinsurance protections, they should allocate the gross loss pro-rata based on gross premium volumes.

2.31. The recession scenario is a frequency scenario and should be considered as an aggregating catastrophe event.

Section IV: Application of outwards reinsurance

Guideline 15 – Outwards reinsurance applicability

Undertakings should apply each outwards reinsurance protection to one of the levels specified below:

(a) different zones within a single country single sub-module branch;
(b) different regions within a single sub-module branch;
(c) EEA /non EEA grouping within a single sub-module; different catastrophe sub-modules branches within a catastrophe sub-module;
(d) different catastrophe sub-modules e.g. as could be the case for stop-loss and aggregate covers across man-made and natural catastrophe sub-modules.

Undertakings can also apply line of business and business unit specific coverages.

Undertakings may also be able to apply reinsurance protections across premium risk and catastrophe modules in some cases.

Undertakings should apply outwards reinsurance consistently with [Articles 184- 190 of the draft Implementing Measures]. Undertakings should ensure there is no double-counting of reinsurance recoveries[(draft Implementing Measures, article 184 paragraph 1e)]. Undertakings should ensure that the total recovery from risk mitigation methods that is allowed for in their calculation of net losses does not exceed the total amount possible under the terms of their risk transfer programme.

2.38. The explanatory text describes the hierarchies and structure within the flowchart for the non-life underwriting risk, which is important to refer to in the context of this Guideline and Guideline 27 on re-aggregation. Hierarchy: The different levels of sub-module and regions that apply in the non-life underwriting risk module.

(a) Aggregation hierarchy: The hierarchical structure which is used in these guidelines to describe 4 aggregation levels of the calculation of the capital requirement for the non-life catastrophe underwriting risk as defined in the [Articles 86 to 103 of the draft Implementing Measures].

(b) Aggregation level x: A level x in the aggregation hierarchy which can have values from 0 to 5.

(c) Aggregation level 5: Aggregation of the non-life catastrophe, premium and reserve risk sub-modules to form non-life underwriting risk

(d) Aggregation level 4: Aggregation of the underlying sub-modules to form the non-life catastrophe underwriting risk capital requirement according to article 86 (2).

(e) Aggregation level 3: Aggregation of the underlying sub-modules to form the natural catastrophe risk capital requirement according to article 87 (2) and aggregation of the underlying sub-modules to form the Man-made catastrophe risk according to article 95 (2)

(f) Aggregation level 2: Aggregation to form the separate underlying natural catastrophe sub-modules and separate underlying man-made catastrophe sub-modules: i.e. windstorm, earthquake, flood, hail and subsidence and motor, marine, aviation, fire, liability and credit and surety-ship sub-modules

(g) Aggregation level 1: Aggregation at the EEA and non-EEA regions of the windstorm, earthquake, flood, hail and subsidence risk capital requirement according to articles 88 to 92 respectively.

(h) Aggregation level 0: Aggregation at the level of individual regions of the windstorm, earthquake, flood, hail and subsidence risk capital requirement according to articles 88 to 92 respectively.

(i) Node: The point at which Catastrophe sub-module branches come off from a higher to the next lower aggregation level in the aggregation hierarchy.

(j) Catastrophe sub-module branches: Branches of one of the four main non-life catastrophe risk sub-modules described in [Article 86 NLUR6 of the draft implementing measures]

(k) Parent: The immediate node that gives rise to the branch.

(l) Grandparent: The node that gives rise to the parent of a branch.

Guideline 16 – Inwards reinstatement premiums

Undertakings may allow for the receipt of inwards reinstatement premiums where it can be demonstrated to the supervisor that these will be triggered by the gross event specified in the catastrophe sub-module.

Undertakings should allow within their calculations of the gross loss for the additional exposures that result from this inwards reinstatement premium.

Guideline 17 – Other impacts on basic own funds as a result of the trigger of the outwards reinsurance contract
Undertakings should allow for reinstatement premiums or other additional cash-flows which may result from the trigger of the outwards reinsurance protection.

Guideline 18– Order of operation of reinsurance protections
Undertakings should apply reinsurance protections in the order specified in their contractual agreements as they apply to the underlying risk.

Guideline 19 – Proportional reinsurance
For quota shares, surplus reinsurance and proportional facultative contracts, undertakings should do a pro rata allocation of the gross event across these reinsurance contracts.

Where the undertaking's proportional reinsurance contract is subject to an "event limit" or similar, the gross loss allocated to that contract cannot exceed such limit and any excess should be added back to the "net retained" share of loss.

2.39. The pro rata method will generally involve splitting the gross sums insured that were input to the basic gross loss calculation across the various proportional treaties and the undertaking's net retention.

2.40. Note that with proportional reinsurance generally being placed on a "Risks Attaching During" basis, it may be necessary in the "spread" calculation to consider two underwriting years' sets of proportional reinsurance contracts. In doing so, an assumption will need to be made on the timing of the loss during the year.

Guideline 20 – Non-proportional reinsurance per risk
For risk excess of loss and non-proportional facultative contracts, undertakings should only use this non-proportional reinsurance under the standard formula if the gross event allows appropriate specification of the underlying policies exposed.

Guideline 21 – Non-proportional reinsurance per event
Undertakings should only apply non-proportional reinsurance to defined gross events if the loss can be split appropriately.

The undertaking should take due care to allow for less common contract features (such as franchises) and for part placements or coinsurance.

Guideline 22 – Non-indemnity contracts and Basis Risk
Undertakings should not apply non-indemnity contracts under the standard formula unless it can be demonstrated that the level of basis risk is not material by virtue of the definition of the scenario.

2.41. Most reinsurance contracts are on an indemnity basis. This means that the recovery is a function of the reinsured's own loss. Under a non-indemnity contract the payout will also depend on other values (e.g an actual industry loss, a modelled industry loss, physical parameters of an event.) This results in basis risk. The draft [Article 185(2) of the draft Implementing Measures] requires consideration of the materiality of any basis risk before permitting benefit being taken for such covers. Typically the non-materiality or otherwise of basis risk cannot be demonstrated within the constraints of the standard formula unless it is deemed to be zero or minimal by virtue of the scenario definition.

2.42. Some reinsurance contracts bought by insurers of aviation business contain an "original loss warranty" (OLW). This provides that the contract will only pay out to the reinsured if the original gross event to the insurance market as a whole exceeds a certain size. From the definition of the aviation risk catastrophe event, a total loss to the risk is assumed. Hence, provided that the OLW is less than the total limit on the original policies, it clearly will have triggered and can therefore be allowed for by the undertaking.

Guideline 23 – Application of aggregate contracts and clash covers
Undertakings should consider at which level to apply the aggregate reinsurance contracts within the calculation of the non-life catastrophe SCR. The choice should be driven by the substance of the risk mitigation mechanism and where reinsurance recoveries are expected if the gross event were to occur in real life.

Where undertakings are estimating reinsurance recoveries from clash contracts they should demonstrate to the supervisor that the contracts would respond to the catastrophe events defined in the standard formula.

Undertakings should ensure that no double counting of reinsurance recoveries occurs and must be able to explain and demonstrate the logic of application to their supervisor.

2.43. Certain types of reinsurance (Stop loss and aggregate covers) are bought to protect the undertaking from adverse frequency of events. In such cases they may be applied to the individual scenarios. However, it could also instead be appropriate to apply them at a higher level of the calculation.

2.44. In addition, there are some covers where, to properly reflect their risk

mitigation effect, it will be appropriate to allow for non-catastrophe losses. This might include needing to allow for losses that occur on average in the normal course of events. For example, where a stop loss cover attaches at a 120% loss ratio, it would be necessary to allow for the normal or average level of loss in addition to any losses coming from the premium or catastrophe risk modules. Such normal level of loss should be based on the figures used in the premium risk calculation.

Guideline 24 – Treatment of shared reinsurance covers
Where shared reinsurance covers exist, the undertaking should follow the principles in Guideline 32.

2.45. An undertaking may have a reinsurance cover it shares with other undertakings where no other relationship exists between them.

Guideline 25 – Treatment of outputs from lower levels of the hierarchy.
Undertakings should differentiate between reinstatement costs and reinsurance recoveries when aggregating SCRs across the non-life catastrophe sub-modules.

2.46. It is important to note that when aggregating SCRs from lower sub-modules, the amounts carried forward from lower levels are a mixture of net losses and reinstatement costs (see the flowchart for the non-life underwriting risk). If reinsurance at a given level does not apply to this combined amount then it will be necessary to split the costs as appropriate. In this case it is suggested to use of the spread method.

2.47. Example 1: A typical aggregate cover may not provide recoveries in respect of the reinstatement premium from a lower level

2.48. Example 2: A reinstatement premium protection would provide a recovery only in respect of the reinstatement premium (and not the remaining portion of the insurance loss)

Section V: Re-aggregating the net losses

Guideline 27 – Re-aggregating the net losses to derive the SCR for catastrophe risk for the undertaking
Where undertakings have allocated a diversified gross loss to a more granular level (i.e “the gross event”) in order to estimate their reinsurance recoveries, undertakings should add up the net components to derive the SCR.
Where undertakings have SCR output from different levels of the calculation, undertakings should combine the net components to derive the non-life catastrophe SCR.

The Technical annex describes how to apply this guideline.

2.49. Undertakings applying section III of the guidelines will have calculated their net losses. The output after application of section III may be at various levels dependent on the specifics of their reinsurance programme. Indeed some of the reinsurance arrangements may be specific to the sub-module and level such that the reinsurance recoveries arising can be estimated independently of other sub-modules and levels on the direct gross loss (pre diversification).

2.50. This will require some method of re-aggregation to derive the undertaking's SCR for catastrophe risk. Undertakings should start at the lowest level of granularity and work upwards as described in this guideline.

2.51. Where undertakings have allocated a diversified gross loss to a more granular level (i.e "the gross event") in order to estimate their reinsurance recoveries, undertakings should add up the net components to derive the SCR.

2.52. Where undertakings have SCR output from different levels of the calculation, they should combine the net components to derive the non-life catastrophe SCR. This combination would work as follows. The component SCRs may be for a given sub-module in the case of the man-made modules: i.e. SCR sub-module x, level 2 or at the level of EEA and non EEA for a given natural catastrophe sub-module: i.e. SCR sub-module y, EEA, level 1, SCR sub-module y, non EEA, level 1 etc. using the hierarchy specified in the flowchart for the non-life underwriting risk document.

2.53. Once the component SCR level x has been derived, undertakings should combine with other component SCRs level x in order to calculate the SCR level x+1. Where reinsurance arrangements apply across different components across level x+1, undertakings should take this input SCR level x+1 and apply the relevant reinsurance arrangements in order to estimate the output SCR level x+1. In cases where there is no aggregate reinsurance at this level, the input and output SCRs will be the same.

2.54. The undertaking should repeat the process in order to arrive at the SCR non-life catastrophe calculation. Examples of doing the re-aggregation are provided in the Technical Annex. These examples should be examined together with the flowchart for non-life catastrophe risk.

2.55. Undertakings should take care to ensure that the method used to estimate reinsurance recoveries due from any joint or multiple reinsurance covers (i.e. reinsurance covers which span more than one sub-module) does not assume more recoveries will be received by the undertaking than the maximum allowed under the limits of the treaty. Also if a reinsurance contract has been applied at

a node (and other sub-modules at this level), then it is deemed to have already been applied to the parent and may not be applied to the grandparent or other ancestors.

2.56. The SCR nlCAT which is the output of this guideline represents the change in the undertaking's basic own funds as a result of the non-life catastrophe module.

Section VI: Documentation and Validation

Guideline 28 – Documentation and validation of catastrophe events selected

Undertakings should explain the catastrophe events selected to their supervisor within regular supervisory report according to [Article 298 SRS5 (4) point (a) of draft delegated acts Solvency II]. The explanation should contain details of key decision points, discussion of alternatives which could be selected for these key decision points and rationale for the final selections.

Undertakings should also include details of any challenge that has occurred internally to devise suitable catastrophe events within their documentation.

Guideline 29 – Documentation of disaggregation methodology

Undertakings should document the disaggregation mechanism used in order to apply the reinsurance programme by sub-module. This should include the rationale for the selected approach, discussion of possible alternatives where there are multiple reasonable methods available and the calculations performed in order to achieve the disaggregation.

Guideline 30 – Documentation of netting down and re-aggregation procedures

Undertakings should document the process used to net down the gross event. This includes a description of the undertaking's reinsurance programme, the netting down calculations, details of the allocation where relevant of the recoveries due from the risk mitigation technique to the relevant insurance sub-modules and details of how the re-aggregation to derive the SCR_{nlCAT} was performed.

Undertakings should also demonstrate in their documentation that there is no double counting of reinsurance recoveries assumed.

Where undertakings have assumed adjustable premium features (e.g. inwards and outwards reinstatement premiums), the documentation should justify the methodology and assumptions used to derive these.

Section VII: Particular considerations for solo undertakings which are part of groups

Guideline 31 – Treatment of internal reinsurance arrangements

For solo undertakings, the undertaking should treat outwards reinsurance arrangements which may exist with other group undertakings ("internal reinsurance") in the same way as they would treat arrangements with external third parties.

Guideline 32 – Estimating the reinsurance recovery that would be due to a solo undertaking in respect of a group reinsurance contract for aggregating catastrophe events

When estimating the reinsurance recovery due on an aggregate reinsurance contract, (i.e. a contract which protects against accumulated aggregate losses from several group undertakings) solo undertakings should follow the steps below:

(a) Determine the gross 1 in 200 year catastrophe loss for the solo undertaking.
(b) Determine the gross 1 in 200 year catastrophe loss for the group.
(c) Estimate reinsurance recoveries on the group reinsurance contract.
(d) Allocate reinsurance recoveries according to contractual agreements where these exist, otherwise estimate the reinsurance recoveries due to the solo as the ratio of gross losses (1)/(2) multiplied by the amount estimated in (3).

2.57. This guideline only applies to reinsurance covers protecting the group entities against aggregate catastrophe situations i.e. where a high frequency of losses accumulate together to form the event.

2.58. When estimating the capital requirements for the solo firm of interest, in the absence of any contractual arrangements which may exist to allocate the reinsurance recoveries to legal entities, there are 2 steps required. Firstly, the 1 in 200 year loss for the solo needs to be developed. Then consistent with this scenario, the loss which would apply for other group entities when the group experiences a 1 in 200 year loss, given the solo has experienced a 1 in 200 year loss, needs to be assessed. In this guideline, the assumption is made that the 1 in 200 year group loss given that the 1 in 200 year loss to the solo has occurred is identical to the unconditional 1 in 200 year group loss. Once this has been done, the amount of any reinsurance recovery that the solo undertaking would receive in respect of the group reinsurance programme can be assessed.

2.59. Numerical example: 2 solo undertakings A and B form a group. We are interested in the reinsurance recovery to solo A.

	Gross 1 in 200 year loss
A	10m
Group	15m

2.60. Here the reinsurance recovery to A should be estimated as the share of total Group reinsurance recovery based on a share of 10 / 15 i.e. 0.6667.

2.61. Situations where shared reinsurance cover has been bought outside of a group, may be considered similarly. Where the data is not available to perform the calculation above, undertakings should base their expected reinsurance recoveries on the share of the premium they pay in respect of the reinsurance contract relative to the total premium payable. This approach still requires knowledge of the total 1 in 200 year loss and hence total anticipated reinsurance recovery experienced by the parties participating in the shared reinsurance cover.

2.62. If contractual arrangements are present which determine how the reinsurance recoveries to Group should be allocated to the solo legal entities these should be used and will override the estimation methodology set out above.

Guideline 33 – Estimating the reinsurance recovery that would be due to a solo undertaking in respect of a group reinsurance contract for risk catastrophe events

When estimating the reinsurance recovery due on an risk specific contract (i.e. a contract which protects against specific risk(s)) solo undertakings should follow the steps below:

(a) Determine whether the specific risk(s) triggering the 1 in 200 year loss for the solo is the same as the specific risk(s) triggering the 1 in 200 year loss at the group level.
(b) If there is some overlap, estimate reinsurance recoveries due to the solo on the group reinsurance contract.

2.63. Certain sub-modules of the catastrophe sub-module represent risk specific events. The 1 in 200 year risk event at the solo level could be different to the 1 in 200 year risk event at the group level. The group protection is likely only to be triggered in a solo 1 in 200 year scenario, if there is sufficient overlap between the specific risks triggered in the solo and group 1 in 200 year events.

Section VIII: Allocation of Insurance Policies to Liability Risk Groups for the Man-Made Liability Catastrophe Risk Sub-Module

Guideline 34 – Liability Risk Group 1

Undertakings should, for the liability risk group 1 referred to in [Annex NLUR10 of the draft Implementing Measures] include the policies for professional malpractice liability insurance which provide coverage to professional practitioners against potential liability claims.

Undertakings should include in this risk group a range of liability products including:

(a) Medical malpractice liability insurance including specialist or general practitioners, hospitals and other healthcare providers when they bear medical malpractice liability;
Errors and omissions (E&O) or professional indemnity insurance

(b) Coverage for failure to perform and associated financial loss arising from the services provided by a company;

(c) Coverage for breach of warranty or intellectual property;

(d) Coverage for all bodily injury liability or property damage (whether material or financial) and the associated damages and defence costs insurance resulting from errors or negligence of a professional in the course of its activity.

2.32. Examples of errors and omissions (E&O) or professional indemnity insurance include notaries public, real estate brokers, appraisers, management consultants or website developers, surveyors, accountants and lawyers

2.33. For professional malpractice liability insurance, "clients" should be interpreted more broadly and include any third parties where the practitioner has a duty of care.

Guideline 35 - Liability Risk Group 2

Undertakings should, for the liability risk group 2 referred to in [Annex NLUR10 of the draft Implementing Measures] include the policies for employers' liability which provide coverage for any liability that might be imposed on an employer if an employee is injured in the course of his or her employment.

Undertakings should include in this risk group obligations which cover:

(a) The provision of preventive or curative medical treatment or care relating to accident at work, industrial injury or occupational diseases;

(b) Financial compensation for such treatment;

(c) Financial compensation for accident at work, industrial injury or occupational diseases

Guideline 36 - Liability Risk Group 3

Undertakings should, for the liability risk group 3 referred to in [Annex NLUR10 of the draft Implementing Measures] include the policies for directors and officers liability insurance which provide coverage for liability and defence costs to the directors and officers of a company, or to the organization(s) itself, in the event they suffer losses as a result of a lawsuit for alleged wrongful acts while acting in their capacity as directors and officers for the organization, including the coverage of defence costs arising out of criminal and regulatory investigations and/or trials.

Undertakings should include in this risk group the policies for management liability and employment practice liability.

Guideline 37 - Liability Risk Group 4

Undertakings should, for the liability risk group 4 referred to in [Annex NLUR10 of the draft Implementing Measures] include the policies which cover all liabilities arising from negligent acts and/or omissions resulting in bodily injury and/or property damage to third parties other than:

(a) Those included in motor vehicle liability and marine, aviation and transport;

(b) Those included in liability risk groups 1,2,3,and 5 [of Annex NLUR10 of the draft Implementing Measures];

(c) Third party liability coverage provided to individual householders, individuals in a private capacity (including when hunting) and self-employed crafts persons or 'artisans';

(d) Third party liability coverage provided in respect of damage or injury caused by domestic pets.

2.34. Note in particular that third party liability resulting from the use of yachts, pleasure craft, fishing boats etc. are included in marine and transport and so should be considered as covered by the man-made marine scenario and not here.

2.35. The category of 'Self-employed craftsperson's or artisans' is intended to cover occupations such as potters, basket weavers, glassworkers, embroiderers, lace makers and leather workers, making small house ware, clothing or decorative items for non-structural household use.

2.36. Undertakings should include in this risk group a wide range of liability products, including:

- General Liability also known as General Third Party Liability;
- Public Liability;
- Product Liability;
- Event organiser's liability;

- Tour operator's liability;
- Cyber Liability;
- Landlord's Liability and/or Property Manager's Liability;
- Contractor's all risk or Construction project liability;
- Nuclear power operator's liability;
- Environmental pollution/damage liability.

Guideline 38 - Liability Risk Group 5

Undertakings should, for the liability risk group 5 referred to in [Annex NLUR10 of the draft Implementing Measures] include non-proportional reinsurance policies for all lines of business.

Guideline 39 - Allocation and Unbundling

Where liability insurance and proportional reinsurance are sold on a packaged basis, including covers that fall into more than one of the above risk groups, undertakings should unbundle and allocate the premiums for each cover to the most appropriate risk group for that cover.

In the event that this is not possible, undertakings should consider the nature of the claims made against such policies taking into account an appropriate period of claims history, where this is available, that captures similar coverage features of premiums that were written over the last 12 months. Undertakings should allocate the premiums for this type of policy to the risk group into which the majority of such claims, by value, appear to fall.

Undertakings should be able to provide supporting evidence and rationale for such allocations.

Undertakings should apply proportionality considerations when applying the unbundling guidance above.

2.37. There are circumstances where unbundling and allocation may not be possible. For example the premium charged for the insurance may not have been calculated by coverage and then aggregated, but calculated only on an aggregate basis; or the premium may have been calculated separately for each cover and aggregated, but only the aggregate premium recorded on the undertakings policy and premium administration systems.

Section IX – Particular considerations for the group calculation

Guideline 40 – Deeming of reinsurance

Where the intra-group reinsurance inures to the benefit of any of an undertaking's external reinsurance, the participating undertakings should 'deem' the internal

reinsurance in place for the purpose of calculating the impact of the external reinsurance.

2.64. In a group calculation, the impact of any internal participation on reinsurance contracts to the reinsured and reinsuring undertakings will offset, leaving a zero net impact. In the deeming situation undertakings will need to estimate the impact of the internal reinsurance on the receiving undertaking in order to work out the recovery due on the external reinsurance.

Appendix: Flowchart for the non-life underwriting Risk

The non-life SCR calculation can be expressed as a tree structure where certain initial calculations are carried out and then aggregated with others in a hierarchy until the final stage where the non-life SCR is calculated.

A mathematical “rooted” tree is a structure consisting of connected "nodes" (in the case of Solvency II these are the calculation steps above). A single initial node called the "root node" (in our case the final SCR calculation) is connected to one or more "child" nodes, these in turn can each have "children" connected to other nodes. A node may not have children and be termed a "leaf"node; nodes with children are called "branch nodes". The analogy of a tree arises naturally, the root node is the base of the tree, the branch nodes split and stretch out from the root and finally the structure ends in the leaves (these are the initial calculations of the SCR in our example). If a node X has a child Y then we say that X is the "parent" of Y. If Y has a child Z then we say that X is the "grandparent" of Z and so on.

Mathematical trees are often illustrated 'upside down' with the root node as the top or pinnacle of the structure. This is arbitrary, but can be useful, as in the context of the SCR calculation with the final answer at the top of a hierarchy of "aggregation levels". Specifically we can count the number of nodes from the root node. In the non-life catastrophe element of Solvency II the fourth aggregation level below takes us to the calculation of the non-life catastrophe risk capital requirement. In keeping with the concept that the SCR calculation should be the final aggregation step and the initial calculations are first aggregated at their parent node we define the following "aggregation levels". Please note that these only apply to the catastrophe element of the calculation, although the aggregation to non-life underwriting risk is shown for completeness:

(a) Aggregation level 5: Aggregation of the non-life catastrophe, premium and reserve risk sub-modules to form non-life underwriting risk;

(b) Aggregation level 4: Aggregation of the underlying sub-modules to form the non-life catastrophe underwriting risk capital requirement according to Article 86 (2) of Solvency II;

(c) Aggregation level 3: Aggregation of the underlying sub-modules to form the natural catastrophe risk capital requirement according to article 87 (2) and aggregation of the underlying sub-modules to form the Man-made catastrophe risk according to Article 95 (2) of Solvency II;

(d) Aggregation level 2: Aggregation to form the separate underlying natural catastrophe sub-modules and separate underlying man-made catastrophe sub-modules: i.e. windstorm, earthquake, flood, hail and

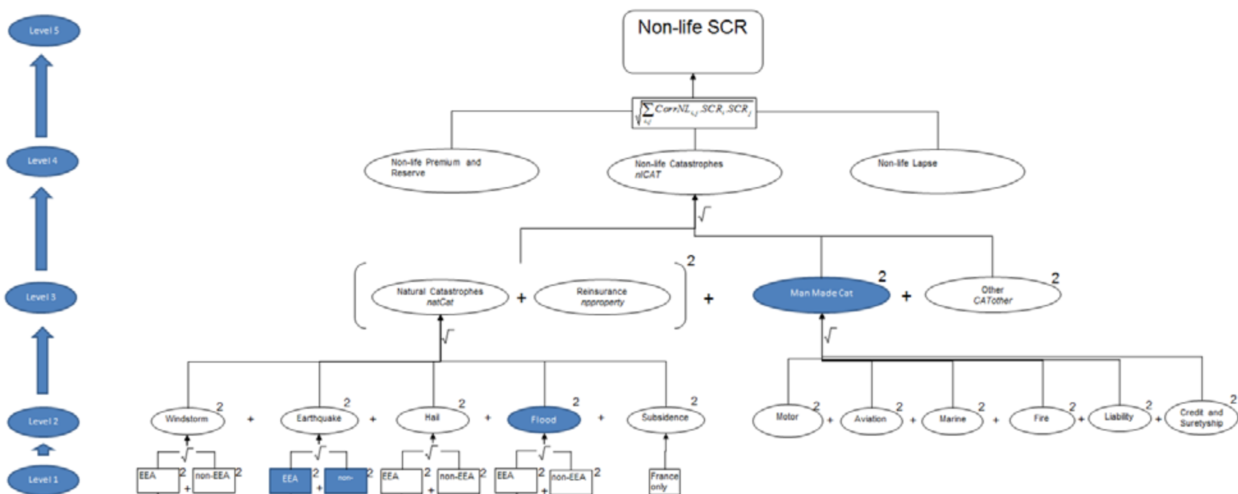
subsidence and motor, marine, aviation, fire, liability and credit and surety-ship sub-modules;

(e) Aggregation level 1: Aggregation at the EEA and non-EEA regions of the windstorm, earthquake, flood, hail and subsidence risk capital requirement according to Articles 88 to 92 of Solvency IIrespectively;

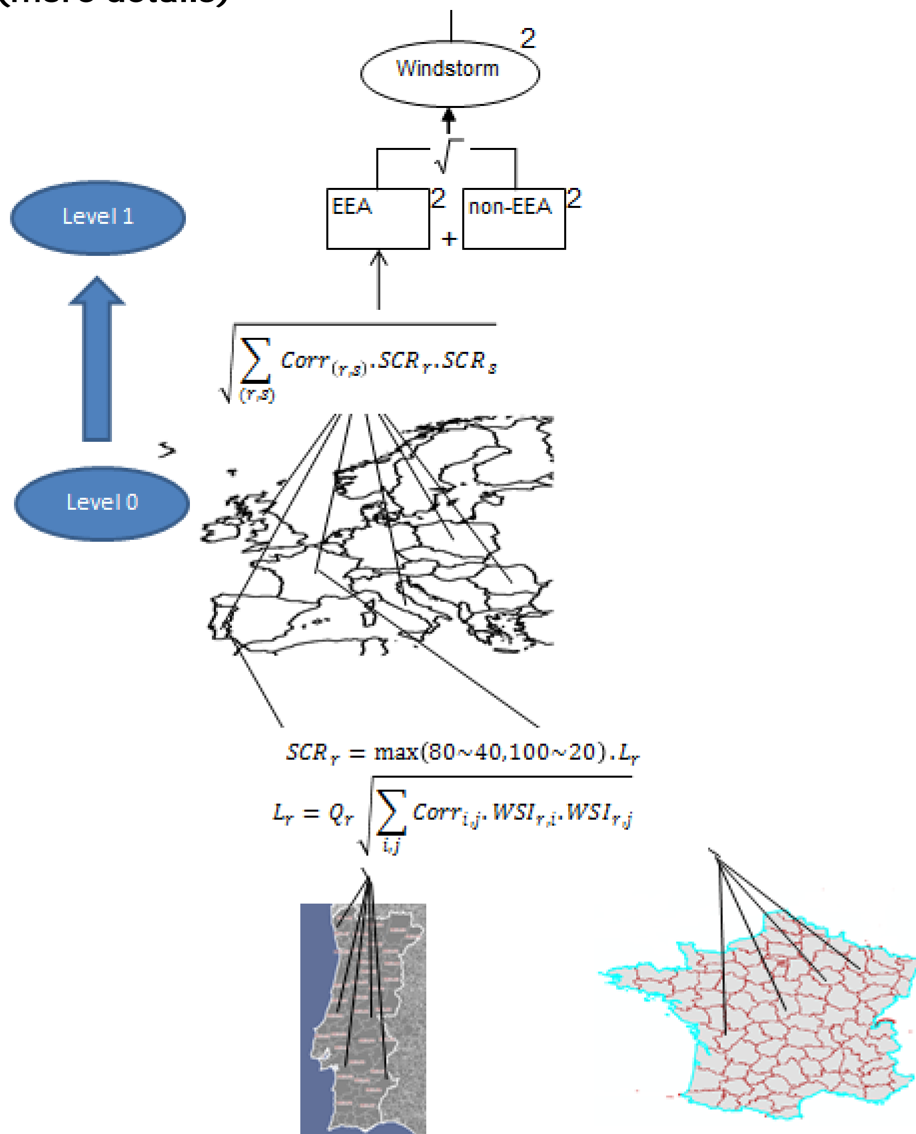
(f) Aggregation level 0: Aggregation at the level of individual regions of the windstorm, earthquake, flood, hail and subsidence risk capital requirement according to Articles 88 to 92 of Solvency II respectively.

The terms defined above are used freely in the reinsurance guidelines. When speaking of going "up" a level aggregating the results of the calculations in the previous step is meant - i.e. to an aggregation level with a number one higher than the current level. In practice the aggregation levels correspond to features such as: country splits, mixtures of man-made and natural events and finally mixtures of catastrophe and non-catastrophe claims. Reinsurance can (and in practice does) apply at any one of these levels. Stop loss covers often apply to total claims for example (i.e. at the highest aggregation levels), whereas some reinsurance is country and natural peril specific (i.e. at the lowest level). The guidelines are designed to respect the variety of contracts available in the market place and to allow the calculation to follow the economics of those contracts.

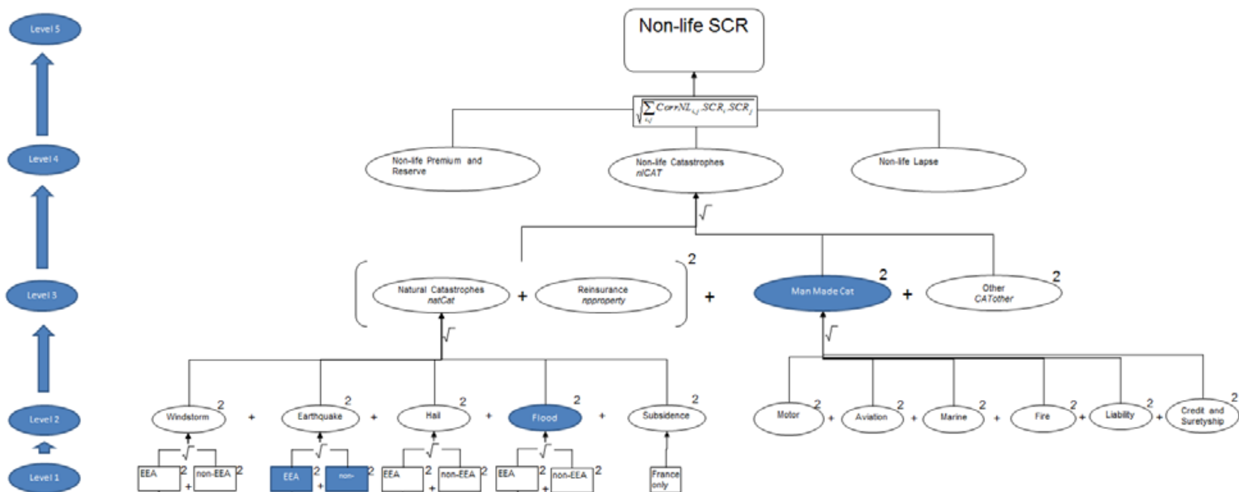
1. Flow chart illustrating non-life SCR calculation



2. Level 0 (more details)



3. Example of applying complex coverages: Guideline 19



Consider the flow diagram above. The general rule is that if you have applied a reinsurance contract to a node (and possibly others at that level) then it is deemed to have already been applied to the parent (and may therefore not be applied to its grandparents and so on).

Example1 (allowed, provided overall recovery is within programme terms): See diagram above. A reinsurance contract is applied at: level 1 earthquake EEA, level 1 earthquake non-EEA. Level 2 flood. Level 3 Man-made.

Example 2 (not allowed): A reinsurance contract is applied at level 1 windstorm EEA and again at level 3 nat cat. – this is double counted because level 3 nat cat is the grandparent of level 1 windstorm EEA.

D. Treatment of market and counterparty risk exposures in the standard formula

1. Guidelines

Introduction

1.16. These Guidelines are drafted according to Article 16 of Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (hereinafter "EIOPA Regulation").

1.17. The Guidelines relate to Article 104 and 105 of Directive 2009/138/EU of the European Parliament and of the Council of 25 November 2009 on the taking up and pursuit of the business of Insurance and Reinsurance (hereinafter "Solvency II").

1.18. These Guidelines are addressed to supervisory authorities under Solvency II.

1.19. These Guidelines aim at facilitating convergence of practice across Member States and supporting undertakings in applying the market and counterparty default risk modules of the standard formula.

1.20. For the purpose of these Guidelines, the following definition has been developed:

- 'short equity position' means a short position relating to equity resulting from a short sale within the meaning of paragraph 1(b) of Article 2 of Regulation (EU) 236/2012.

1.21. If not defined in these Guidelines the terms have the meaning defined in the legal acts referred to in the introduction.

1.22. These Guidelines shall apply from [1 April 2015].

Guideline 1 – Employee benefits

1.23. Where liabilities for employee benefits are recognised in accordance with [Article 8 V4 of the draft Implementing Measures], undertakings should take them into account in the calculation of the capital requirements for counterparty default risk and for the sub-modules in the market risk module. For this purpose, undertakings should take into account the nature of the benefits and where relevant, the nature of all contractual arrangements with an institution for occupational retirement provision as defined by Directive 2003/41/EC or another insurance or reinsurance undertaking for the provision of these benefits.

1.24. If the management of the assets representing the liabilities for employee benefits has been outsourced, undertakings acting as a sponsor should take them into account in the calculation of the capital requirement for market risk provided, they are liable for any loss in value of these assets.

Guideline 2 - Influence of call options on duration

1.25. When determining the duration of bonds and loans with call options undertakings should take into account that they may not be called by the borrower in the event that its creditworthiness deteriorates, credit spreads widen or interest rates increase.

Guideline 3 – Average duration for the duration-based equity sub-module

1.26. Undertakings should interpret the average duration referred to in Article 304 (1) (b) (iii) of Solvency II as the duration of the aggregated cash-flows of the liabilities.

Guideline 4 – Interest rate risk sub-module

1.27. Irrespective of the valuation method used (whether mark-to-model or mark-to-market techniques) undertakings should include assets and liabilities whose value is sensitive to changes in the term structure of interest rates in the calculation of the capital requirement for the interest rate risk sub-module.

1.28. Undertakings should calculate the effect of the increases and decreases in the term structure of interest rates on the value of technical provisions by applying the respective stresses only to the basic risk free interest rate term structure and leaving any adjustment to the curve such as matching adjustment or volatility adjustment unchanged.

1.29. Undertakings should calculate the effect of the increases and decreases in the term structure of interest rates on the value of assets by applying the respective stresses only to the basic risk free interest rate term structure and leaving any spreads over the curve unchanged. This may involve a mark- to-model valuation for the assets under the stresses.

Guideline 5 - Investments with equity and debt instrument characteristics

1.30. Where assets exhibit both debt and equity instrument characteristics, undertakings should take into account both of these features when determining which standard formula risk sub-modules should apply.

1.31. When determining which standard formula risk sub-modules apply undertakings should consider the economic substance of the asset.

1.32. Where the asset can be considered as the composite of discrete components, undertakings should be allowed where appropriate to apply the relevant stresses to each of these components separately.

1.33. Where it is not possible to consider the asset as the composite of separate components undertakings should base the determination of which of the standard formula risk sub-modules apply on whether the debt or equity characteristics predominate in an economic sense.

Guideline 6 - Short equity positions

1.34. Where undertakings hold short equity positions, they should only be used to offset long equity positions in the calculation of the capital requirement for equity risk if the requirements set out in [Chapter V Section 11 of the draft Implementing Measures] are met.

1.35. Undertakings should ignore any other short equity position (residual short equity positions) in the calculation of the capital requirement for equity risk.

1.36. The residual short equity positions should not be considered to increase in value from applying the stresses to equities.

Guideline 7 – Market risk concentration sub-module

1.37. Undertakings should not assign a risk factor of 0 % to investments in entities which are owned by entities included in the list set out in [Article 170 CO6 (3) of the draft Implementing Measures].

Guideline 8 – Securities lending transactions and similar agreements

1.38. When determining the capital requirements for securities lending or borrowing transactions and repurchase or reverse repurchase agreements including liquidity swaps, undertakings should follow the recognition of the exchanged items in the Solvency II balance sheet. They should also take into account contractual terms and risks stemming from the transaction or agreement.

1.39. If the lent asset remains on the balance sheet and the received asset is not recognised, undertakings should:

(a) apply the relevant market risk sub-modules to the lent asset;
(b) include the lent asset in the calculation of the capital requirement for counterparty default risk on type 1 exposures, taking into account the risk-mitigation that the received asset provides if it is recognised as collateral in accordance with the requirements set out in [Article 189 SCRRM6 of the draft Implementing Measures].

1.40. If the received asset is recognised and the lent asset does not remain on the balance sheet, undertakings should:

(a) apply the relevant market risk sub-modules to the received asset;
(b) take into account the lent asset in the calculation of the capital requirement for counterparty default risk on type 1 exposures based on the balance sheet value of the lent asset at the time of the exchange, if the contractual terms and the legal provisions in the case of an insolvency of the borrower give rise to a risk that the lent asset is not returned although the received asset has been handed back.

1.41. If the lent asset and the received asset are recognised in the Solvency II balance sheet, undertakings should:

(a) apply the relevant market risk sub-modules to the lent asset and the borrowed asset;
(b) include the lent asset in the calculation of the capital requirement for counterparty default risk on type 1 exposures, taking into account the risk-mitigation that the received asset provides if it is recognised as collateral in accordance with the requirements set out in [Article 189 SCRRM6 of the draft Delegated Acts];
(c) consider liabilities on its balance sheet which result from the lending arrangement in the calculation of the capital requirement for the interest rate risk sub-module.

Guideline 9 – Commitments which may create payment obligations

1.42. As provided for in [Article 174 CDR1 (2) (e) of the draft Implementing Measures] the capital requirement for type 1 exposures in the counterparty default risk module should be applied to legally binding commitments which an undertaking has provided or arranged.

1.43. When no nominal value is explicitly mentioned in the commitment arrangement, undertakings should determine the corresponding loss given default, as referred to in [Article 175 CDR2 (5) of the draft Implementing Measures] on the basis of an estimated nominal amount.

1.44. The estimated nominal value is the maximum amount that is expected to be paid in case of a credit event of the counterparty.

1.45. Undertakings should be able to justify the estimated amount to the satisfaction of the supervisory authorities.

2. Explanatory text

Guideline 1 – Employee benefits

Where liabilities for employee benefits are recognised in accordance with [Article 8 V4 of the draft Implementing Measures], undertakings should take them into account in the calculation of the capital requirements for counterparty default risk and for the sub-modules in the market risk module. For this purpose, undertakings should take into account the nature of the benefits and where relevant, the nature of all contractual arrangements with an institution for occupational retirement provision as defined by Directive 2003/41/EC or another insurance or reinsurance undertaking for the provision of these benefits.

If the management of the assets representing the liabilities for employee benefits has been outsourced, undertakings acting as a sponsor should take them into account in the calculation of the capital requirement for market risk provided, they are liable for any loss in value of these assets.

2.1. The following examples illustrate what the Guideline means for particular cases:

Case 1: No outsourcing, all the employee benefits are on the balance sheet of the insurance undertaking.
→ The market risk shocks are applied in the same way as for insurance liabilities.

Case 2: Defined Benefit pension promise, completely outsourced in a sponsor underwritten IORP, with unlimited sponsor support.
→ The assets and liabilities of the IORP should be taken into account in the calculation of the Solvency Capital Requirement and the shocks should be applied as if the insurance undertaking were directly holding the assets of the IORP.

Case 3: Defined Benefit pension promise, completely outsourced in an own fund-IORP or another insurer, with no sponsor support (the external IORP or insurer bears the market risks)
→ No need to include the employee benefits in the calculation of the capital requirement for market risk.

Case 4: Pure Defined Contribution pension promise (with no guarantees)
→ No need to include the employee benefits in the calculation of the capital requirement for market risk.

Guideline 2 - Influence of call options on duration

When determining the duration of bonds and loans with call options undertakings should take into account that they may not be called by the borrower in the event that its creditworthiness deteriorates, credit spreads widen or interest rates increase.

2.2. In the case of subordinated bonds with call options, the options may not be exercised in a wider range of circumstances. This uncertainty should be reflected when calculating the duration of such assets.

Guideline 5 - Investments with equity and debt instrument characteristics

Where assets exhibit both debt and equity instrument characteristics, undertakings should take into account both of these features when determining which standard formula risk sub-modules should apply.

When determining which standard formula risk sub-modules apply undertakings should consider the economic substance of the asset.

Where the asset can be considered as the composite of discrete components, undertakings should be allowed where appropriate to apply the relevant stresses to each of these components separately.

Where it is not possible to consider the asset as the composite of separate components undertakings should base the determination of which of the standard formula risk sub-modules apply on whether the debt or equity characteristics predominate in an economic sense.

2.3. Consider as an example bonds with a fixed term to maturity where the holder can convert them into a specified number of shares of the common stock in the issuing company at particular intervals or during the term of the bond. One way of applying the standard formula is to consider them as bond with a call option on equity. The bond component should be subject to the spread risk, interest rate risk and any other relevant risk sub-modules as appropriate. The call option should be subject to the equity risk, interest rate risk and any other relevant risk sub-modules as appropriate.

2.4. With this approach the spread risk charge is not applied to the full market value of the convertible bond but only to the part which can be considered as the fixed income bond.

Guideline 7 – Market risk concentration sub-module

Undertakings should not assign a risk factor of 0 % to investments in entities which are owned by entities included in the list set out in [Article 170 CO6 (3) of the draft Implementing Measures].

2.5. As an example consider two recapitalised banks A and B. A has a credit quality equivalent to step 1 and B has a credit quality equivalent to step 2. Both banks are owned by a holding entity C, which in turn is owned by the national government of a Member State.

2.6. An insurer holds equity of 50 in bank A and of 100 in bank B. These equity investments should not attract a risk factor of 0 % for the calculation in the market risk concentration sub-module. Instead the weighted average credit rating of the exposure to A and B should be used. In this case the weighted average is 1*50 / 150 + 2 * 100 / 150 = 5 / 3. The nearest whole number is 2, so the insurer should use a credit quality step of 2 for this single name exposure.

2.7. Debt issued by the national government does attract a risk factor of 0 % in accordance with [Article 170 CO6 (3) of the draft Implementing Measures].

Guideline 9 – Commitments which may create payment obligations

As provided for in [Article 174 CDR1 (2) (e) of the draft Implementing Measures] the capital requirement for type 1 exposures in the counterparty default risk module should be applied to legally binding commitments which an undertaking has provided or arranged.

When no nominal value is explicitly mentioned in the commitment arrangement, undertakings should determine the corresponding loss given default, as referred to in [Article 175 CDR2 (5) of the draft Implementing Measures] on the basis of an estimated nominal amount.

The estimated nominal value is the maximum amount that is expected to be paid in case of a credit event of the counterparty.
Undertakings should be able to justify the estimated amount to the satisfaction of the supervisory authorities.

2.8. The scope of [Article 174 CDR1 (2) (e) of the draft Implementing Measures] covers a commitment to provide support to another undertaking – related or otherwise – and is also applicable regardless of whether the item constitutes an approved Ancillary Own Fund item for a recipient undertaking within the scope of Solvency II.

Appendix – Duration of cash flows

A future cash flow is determined by payments $c(i)$ at times $t(i)$, $i = 1, 2, 3, \ldots$. When discounting the cash flow one uses an curve for the interest rate intensity $\delta(t)$ or for the rate of interest $r(t)$ as a function of time t. The time t is measured in years. The relation between these is given by

$$e^{-\delta(t)} = \frac{1}{1 + r(t)}$$

The total discounted value of the cash flow is

$$V = \sum_i c(i) e^{-t(i)\delta(t(i))} = \sum_i \frac{c(i)}{(1 + r(t(i)))^{t(i)}}$$

The duration D (Macaulay duration) of the discounted cash flow is the weighted time average of the payments, defined by

$$D = \frac{\sum_i c(i) t(i) e^{-t(i)\delta(t(i))}}{V}$$

Background

The duration D can be interpreted as the relative sensitivity of the value V to a parallel shift of the interest rate curve $\delta(t)$. This can be shown as follows. Let $V(h)$ be the value of the discounted cash flow at interest rate $\delta(t) + h$, i.e.

$$V(h) = \sum_i c(i) e^{-t(i)[\delta(t(i)) + h]}$$

The derivative of $V(h)$ with respect to h is

$$\frac{dV(h)}{dh} = -\sum_i c(i) t(i) e^{-t(i)[\delta(t(i)) + h]}$$

and therefore

$$D = -\left[\frac{dV(h)}{dh}\right]_{h=0} / V$$

If the payments occur at times $t(i) = i/k$, $i = 1, 2, 3, \ldots$, where $k = 1$ for annual payments, $k = 12$ for monthly payments etc., and if the annual rate of interest is constant equal to r, the discounted value of the cash flow is

$$V = \sum_i \frac{c(i)}{(1 + r/k)^i}$$

The duration is

$$D = \frac{\sum_i \frac{(i/k)c(i)}{(1 + r/k)^i}}{V}$$

Background

The sensitivity of the value $V = V(r)$ to a change of the interest rate r can be measured by the derivative of $V(r)$ with respect to r

$$\frac{dV(r)}{dr} = -\sum_i \frac{(i/k)c(i)}{(1 + r/k)^{1+i}}$$

The relative sensitivity of the value is therefore

$$\frac{dV(r)}{dr} / V(r) = -\frac{D}{1 + r/k}$$

The quantity $D/(1 + r/k)$ is called the modified duration. The difference between these two concepts is often immaterial.

If the interest curve is not constant, the modified duration D_{mod} of a cash flow with maturity T is defined as

$$D_{\text{mod}} = \frac{D}{1 + r(T)/k}$$

For a cash flow which is stochastic, future payments are replaced by their expected values. As an example, for an annuity, where payment of an amount $B(i)$ at time $t(i)$ will occur with probability $p(i)$, we have

$c(i) = p(i) \cdot B(i)$.

Duration can also be determined for the undiscounted cash flow, i.e. with $r(t) = 0$.

E. Application of the life underwriting risk module

1. Guidelines

Introduction

1.1. These Guidelines are drafted according to Article 16 of Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (hereinafter "EIOPA Regulation")·

1.1. The Guidelines relate to Article 105 (3) of Directive 2009/138/EU of the European Parliament and of the Council of 25 November 2009 on the taking up and pursuit of the business of Insurance and Reinsurance (hereinafter "Solvency II") as well as to [Articles 105 LUR2, 107 LUR3 and 109 LUR4 of the draft Implementing Measures].

1.2. These Guidelines are addressed to supervisory authorities under Solvency II.

1.3. These Guidelines aim at facilitating convergence of practice across Member States and support undertakings in calculating their capital requirement for life underwriting risk under Solvency II.

1.4. These Guidelines include guidance on which rates should be shocked to calculate the capital requirement for the life underwriting risk module referred to in Article 105(3) of Solvency II. They focus on the:

(a) mortality risk sub-module referred to in Article 105(3) (a) of Solvency II and in [Article 105 LUR2 of the draft Implementing Measures];

(b) longevity risk sub-module referred to in Article 105(3) (b) of Solvency II and in [Article 107 LUR3 of the draft Implementing Measures];

(c) disability-morbidity risk sub-module referred to in Article 105(3) (c) of Solvency II and in [Article 109 LUR4 of the draft Implementing Measures].

1.5. Guideline 5 provides guidance on how undertakings should calculate the capital requirement for disability-morbidity risk in the case of a contract that allows for multiple states of disability. It aims at supporting undertakings in identifying properly which transition rates need to be shocked when calculating technical provisions under stress.

1.6. If not defined in these Guidelines, the terms have the meaning defined in the legal acts referred to in the introduction.

1.7. The Guidelines shall apply from [1 April 2015].

Guideline 1 - Increase of mortality rates

1.8. Undertakings should apply the increase in mortality rate referred to in [Article 105 LUR2 (1) of the draft Implementing Measures] to any mortality rate used in the calculation of technical provisions, irrespective of the time period to which it refers. After the increase mortality rates should not exceed a value of 1.

Guideline 2 - Decrease of mortality rates

1.9. Undertakings should apply the decrease in mortality rates referred to in [Article 107 LUR3 (1) of the draft Implementing Measures] to any mortality rate used in the calculation of technical provisions, irrespective of the time period to which it refers.

Guideline 3 - Shock of disability-morbidity inception rates

1.10. Undertakings should apply the increase in disability and morbidity rates referred to in [Article 109 LUR4 (1) and (2) of the draft Implementing Measures] to any disability and morbidity rate used in the calculation of technical provisions, irrespective of the time period to which they refer. After the increase disability and morbidity rates should not exceed a value of 1.

Guideline 4 - Shock of disability-morbidity recovery rates

1.11. Undertakings should apply the decrease in disability and morbidity recovery rates referred to in [Article 109 LUR4 (3) of the draft Implementing Measures] to any disability and morbidity recovery rate used in the calculation of technical provisions, irrespective of the time period to which they refer.

1.12. Notwithstanding the above paragraph, undertakings should not apply the decrease to recovery rates with a value of 1, which merely reflects the fact that the benefit payments end after a contractually fixed period.

Guideline 5 - Multi-status guarantees

1.13. Where rates of transition between several health statuses enter into the calculation of technical provision, undertakings should consider all rates of transition from one status to a more severe one as disability and morbidity rates and all rates of transition from one status to a less severe one (including the status "healthy") as disability and morbidity recovery rates for the purpose of calculating the capital requirement for disability-morbidity risk referred to in [Article 109 LUR4 of the draft Delegated Acts], irrespective of the current status of the policyholder for which a technical provision is calculated.

2. Explanatory text

Guideline 4 - Shock of disability-morbidity recovery rates
Undertakings should apply the decrease in disability and morbidity recovery rates referred to in [Article 109 LUR4 (3) of the draft Implementing Measures] to any disability and morbidity recovery rate used in the calculation of technical provisions, irrespective of the time period to which they refer. Notwithstanding the above paragraph, undertakings should not apply the decrease to recovery rates with a value of 1, which merely reflects the fact that the benefit payments end after a contractually fixed period.

2.1 Where a disability and disability recovery rate has a value of 1 and this reflects merely the fact that the benefit payments end after a contractually fixed period there is no reason to apply the decrease referred to in [Article 109 LUR4 (3) of the draft Implementing Measures].

2.2 For illustration consider the following series of recovery rates, expressed on a monthly basis:

Time since inception	0	1	2	3	4	5	6
Recovery rate	0.8	0.5	0.2	0.1	0.05	0.04	1

2.3 The shocked recovery rates to be used for recalculating the technical provisions after the disability-morbidity shock are the following:

Time since inception	0	1	2	3	4	5	6
Recovery rate	0.64	0.4	0.16	0.08	0.04	0.032	1

Guideline 5 - Multi-status guarantees
Where rates of transition between several health statuses enter into the calculation of technical provision, undertakings should consider all rates of transition from one status to a more severe one as disability and morbidity rates and all rates of transition from one status to a less severe one (including the status "healthy") as disability and morbidity recovery rates for the purpose of calculating the capital requirement for disability-morbidity risk referred to in [Article 109 LUR4 of the draft Implementing Measures], irrespective of the current status of the policyholder for which a technical provision is calculated.

2.4 For illustration consider an insurance contract that insures two different states of disability, i.e. the insured person can be in one of four different states:

(1) Healthy
(2) Disabled
(3) Heavily disabled
(4) Dead

2.5 Between these states one can define transition rates for a specific age x:

From\to	Healthy (1)	Disabled (2)	Heavily disabled (3)	Dead (4)
Healthy (1)	p(1,1)	p(1,2)	p(1,3)	p(1,4)
Disabled (2)	p(2,1)	p(2,2)	p(2,3)	p(2,4)
Heavily disabled (3)	p(3,1)	p(3,2)	p(3,3)	p(3,4)
Dead (4)	0	0	0	1

2.6 Some models use only a subset of the transition rates for determining expected future cash-flows and some differentiate between the statuses healthy and reactivated. However, for the application of [Article 109 DA] the last line and column of the table (mortality rates) are not relevant. The diagonal entries might change due to a shock to the other rates, but they are not relevant in the following.

Shocks on disability and morbidity rates:

2.7 Every transition rate from a status to a more severe one needs to be shocked as disability-morbidity rate (in the table below shocked transition rates are in **bold print**):

From\to	Healthy (1)	Disabled (2)	Heavily disabled (3)	Dead (4)
Healthy (1)	p(1,1)	**p(1,2)**	**p(1,3)**	p(1,4)
Disabled (2)	p(2,1)	p(2,2)	**p(2,3)**	p(2,4)
Heavily disabled (3)	p(3,1)	p(3,2)	p(3,3)	p(3,4)
Dead (4)	0	0	0	1

2.8 One should be aware that in this approach, for the sake of simplicity, the effect of the shocks on the rest of the matrix has not been considered. In particular, all factors p(1, .) and p(2, .) should be adjusted to ensure that after the shock, each row still adds up to 1.

Shocks on disability and morbidity recovery rates:

2.9 Every transition rate from a status to a less severe one (including the status "healthy") needs to be shocked as disability-morbidity recovery rate (in the table below shocked transition rates are in **bold print**):

From\to	Healthy (1)	Disabled (2)	Heavily disabled (3)	Dead (4)
Healthy (1)	p(1,1)	p(1,2)	p(1,3)	p(1,4)
Disabled (2)	**p(2,1)**	p(2,2)	p(2,3)	p(2,4)
Heavily disabled (3)	**p(3,1)**	**p(3,2)**	p(3,3)	p(3,4)

Dead (4)	0	0	0	1

2.10 One should be aware that in this approach, for the sake of simplicity, the effect of the shocks on the rest of the matrix has not been considered. In particular, all factors p(2, .) and p(3, .) should be adjusted to ensure that after the shock, each row still adds up to 1.

F. Health catastrophe risk sub-module

1. Guidelines

Introduction

1.1. These Guidelines are drafted according to Article 16 of Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority ("EIOPA Regulation").

1.2. The Guidelines relate to Article 105(4) of Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) , as well as to [Articles 134 HUR17 to 137 HUR20 and Annex HUR3 of the draft Implementing Measures].

1.3. These Guidelines are addressed to supervisory authorities under Solvency II.

1.4. These Guidelines aim at facilitating convergent practices across Member States and at helping undertakings to appropriately identify and compute the quantities involved in the calculation of the health catastrophe capital requirement in different possible cases and situations.

1.5. The calculations for the determination of the capital requirement for the health catastrophe risk sub-module should be consistent with the design and calibration of the underlying scenarios.

1.6. Insurance and reinsurance undertakings may face different situations depending on the characteristics of their products and the national legislations.

1.7. For the purpose of these Guidelines the following definition has been developed:

- 'Single claim' means a claim following the occurrence of one particular event to one identified insured person.

1.8. If not defined in these Guidelines, the terms have the meaning defined in the legal acts referred to in the introduction.

1.9. The Guidelines shall apply from [date].

Guideline 1 – General provisions for the calculation of Health CAT capital charges

1.10. Where the determination of the cause of a catastrophe scenario is necessary in the calculations of the capital requirements for the health catastrophe risk sub-module and the effects described in the scenarios can have different causes, undertakings should use in the calculation the cause resulting in the highest loss in basic own funds.

Guideline 2 – Calculation of the sum insured for accidental death benefits

1.11. Where an insurance contract provides for benefits in case of death irrespective of the cause and additional benefits in case of death caused by an accident, undertakings should take only the additional benefits into account when calculating the value of the benefits referred to in [Article 135 HUR18 (3) (b) and Article 136 HUR19 (4) (c) of the draft Implementing Measures] provided the following conditions are met:

(a) the benefits have been unbundled;

(b) the risks related to the benefits in case of death irrespective of the cause are properly captured in the life underwriting risk module.

1.12. Where additional recurring benefit payments are provided for in case of death caused by an accident, undertakings should base the calculation of the value of the benefits payable on best estimate parameters (mortality table and discount rate curve) taking into account relevant demographic characteristics. This includes, but is not limited to, the percentage of married persons, the number of children and the age and gender of the beneficiaries. Undertakings should also reflect in the calculation the contractual duration of the recurring benefit payments.

1.13. Where no or insufficient demographic data is available undertakings should use realistic assumptions on the demographic parameters based on public or internal statistics in the calculation of the value of the benefits. Undertakings should be able to justify these assumptions to the satisfaction of the supervisory authority.

1.14. In the calculation of the value of the benefits, undertakings should account for expected increases in the amount of recurring benefit payments and claims management expenses.

Guideline 3 – Calculation of the sum insured for permanent disability benefits

1.15. Where benefits for disability can be paid either as a single payment or as recurring payments, undertakings should follow a three step approach to determine the value of the benefits referred to in [Article 135 HUR18 (3) (b) and Article 136 HUR19 (4) (c) of the draft Implementing Measures]:

(a) Step 1: determination of the expected proportion of benefit payments in the form of a single payment.

(b) Step 2: determination, for each insured person, of the benefits in the case of a single payment and the best estimate of the recurring benefits.

(c) Step 3: calculation of the average between the two values determined in step 2 weighted by the proportion calculated in step 1.

1.16. Notwithstanding paragraph 1, when the choice between a single payment and recurring payments is at the discretion of the beneficiary, the undertaking should use the maximum of the two values instead of the weighted average.

1.17. Undertakings should justify the assumptions underlying the calculation of the proportions referred to in paragraph 1. Where undertakings cannot justify the calculation of the proportions to the satisfaction of the supervisory authority, they should calculate the value of the benefits as the maximum between the single payment and the best estimate of the recurring benefits.

1.18. Where the amount of the disability benefit payments depends on the degree of disability of injured persons, undertakings should calculate the value of the benefits for all persons in the following way:

(a) derive a distribution of the degrees of disability amongst injured persons;
(b) calculate the claim costs associated with each degree of disability;
(c) apply the distribution of degrees to the associated claim costs accordingly.

1.19. Undertakings should justify the assumptions underlying the calculation of the distribution of degrees referred to in paragraph 4. Where undertakings cannot justify the calculation of the proportions to the satisfaction of the supervisory authority, they should use for all insured persons the maximum claim cost across all degrees of disability.

1.20. In the calculation of the best estimate of the recurring benefit payments for the event type "Permanent disability caused by an accident", undertakings should assume that payments are made over the full benefit period specified in the terms and conditions of the policy, but that exits due to mortality may occur.

1.21. For the calculation undertakings should make realistic assumptions on the mortality rates for permanently disabled people based on public or internal statistics. Undertakings should be able to justify these assumptions.

1.22. In the calculation of the value of benefits, undertakings should account for expected increases in the amount of recurring benefit payments and claims management expenses.

Guideline 4 – Calculation of the sum insured for ten year disability and twelve month disability benefits

1.23. Where the beneficiary can receive either a single payment or recurring benefit payments in the case of the event types "Disability that lasts 10 years caused by an accident" or "Disability that lasts 12 months caused by an accident", undertakings should apply the same approach as set out in Guideline 3.

1.24. Where the amount of the disability benefit payments depends on the degree of disability of injured persons, undertakings should apply the same approach as set out in guideline 3 paragraph 4 and 5.

1.25. When calculating the best estimate of the recurring benefit payments for the event types "Disability that lasts 10 years caused by an accident" or "Disability that lasts 12 months caused by an accident", undertakings should exclude any exit cause and take into account all future payments between:

(a) the end of any deferred period;
(b) the end of the 10 years or 12 months period or, if this is earlier, the end of the coverage period.

1.26. In the calculation undertakings should account for expected increases in the amount of recurring benefit payments and claims management expenses.

Guideline 5 – Calculation of the sum insured for medical treatment caused by accident

1.27. Undertakings should calculate the average amounts in the case of the event type "Medical treatment caused by an accident" as the benefits for medical treatment caused by an accident including related expenses observed during the last years divided by the number of single claims corresponding to these benefits.

1.28. Undertakings should ensure that the observation period is long enough to avoid statistical errors.

1.29. For the calculation of the average amounts undertakings should adjust past data for the inflation rate of medical payments.

1.30. Where a medical treatment is expected to last more than one year undertakings should take into account the expected inflation rate of medical payments.

1.31. Undertakings should appropriately discriminate between benefits paid for medical treatment caused by an accident and other benefits on the basis of past observations. Where necessary, undertakings should complement this analysis by expert judgement. Undertakings should base all estimations on public or

internal statistics. Undertakings should be able to justify these assumptions to the satisfaction of the supervisory authority.

Guideline 6 – Calculation of the sum insured in the accident concentration risk sub-module

1.32. For the calculation of the value of the benefits referred to in [Article 136 HUR19 (4) (c) of the draft Implementing Measures], undertakings should apply the same principles as set out in Guidelines 2 to 4.

1.33. Where an insured person is covered by two or more contracts with benefit payments in the case of the event type e and which are not mutually exclusive, undertakings should add up the benefit payments for the different contracts to determine $SI(e,i)$ as referred to in [Article 136 HUR19 (4) (c) of the draft Implementing Measures].

Guideline 7 – Calculation of the income protection pandemic exposure

1.34. Where the contract provides for recurring benefit payments, undertakings should calculate the best estimate of the benefit payments in case of a permanent work disability caused by an infectious disease as referred to in [Article 137 HUR20 (2) (b) of the draft Implementing Measures], in the same way as set out in Guideline 3 for the best estimate of the benefit payments in case of the event type "Permanent disability caused by an accident".

Guideline 8 – Calculation of the best estimate of medical expense amounts

1.35. Undertakings should calculate the best estimate of amounts payable for healthcare utilisation h as referred to in [Article 137 HUR20 (3) (c) of the draft Implementing Measures] as the product of:

(a) the expected number of healthcare treatments h for an insured person;
(b) the expected average claim cost for a single healthcare treatment h where the expected number of healthcare treatments has at least a value of 1.

1.36. Undertakings should make an accurate estimation, based on their own experience, of:

(a) the expected number of uses of each healthcare treatment h;
(b) the average claim cost for a single use of each healthcare treatment h.

1.37. When undertakings can justify that past experience does not allow for an accurate estimation, they should use as the expected number of healthcare

treatments for the healthcare utilisation type "Hospitalisation" and "No formal medical care sought" a value of 1 and for healthcare utilisation type "Consultations with a medical practitioner" a value of 2.

1.38. Undertakings should adjust the estimation of the average claim cost for the inflation rate of medical payments, and complement it if necessary by expert judgement. The observation period should be long enough to avoid statistical errors.

2. Explanatory text

Guideline 1 – General provisions for the calculation of Health CAT capital charges

Where the determination of the cause of a catastrophe scenario is necessary in the calculations of the capital requirements for the health catastrophe risk sub-module and the effects described in the scenarios can have different causes, undertakings should use in the calculation the cause resulting in the highest loss in basic own funds.

2.1. Consider as an example the case of the mass accident scenario: It consists of an accident occurring in an arena stadium, which results in a large number of people being injured. Such an accident can be caused for instance by a terrorist attack, by an explosion not caused by terrorists, or by the arena collapsing for any reason (subsidence, earthquake, construction defects, etc.).

2.2. A health insurance undertaking may explicitly exclude in its contracts any payment where the cause of the accident is a terrorist attack. However, as the same accident, and its consequences, could also have other causes than a terrorist attack, the undertaking should not consider its exposure to such a scenario as nil.

Guideline 2 – Calculation of the sum insured for accidental death benefits

Where an insurance contract provides for benefits in case of death irrespective of the cause and additional benefits in case of death caused by an accident, undertakings should take only the additional benefits into account when calculating the value of the benefits referred to in [Article 135 HUR18 (3) (b) and Article 136 HUR19 (4) (c) of the draft Implementing Measures] provided the following conditions are met:

(a) the benefits have been unbundled;

(b) the risks related to the benefits in case of death irrespective of the cause are properly captured in the life underwriting risk module.

Where additional recurring benefit payments are provided for in case of death caused by an accident, undertakings should base the calculation of the value of the benefits payable on best estimate parameters (mortality table and discount rate curve) taking into account relevant demographic characteristics. This includes, but is not limited to,

the percentage of married persons, the number of children and the age and gender of the beneficiaries. Undertakings should also reflect in the calculation the contractual duration of the recurring benefit payments.

Where no or insufficient demographic data is available undertakings should use realistic assumptions on the demographic parameters based on public or internal statistics in the calculation of the value of the benefits. Undertakings should be able to justify these assumptions to the satisfaction of the supervisory authority.

In the calculation of the value of the benefits, undertakings should account for expected increases in the amount of recurring benefit payments and claims management expenses.

2.3. The term "other beneficiaries" refers for instance to spouse or children.

Guideline 3 – Calculation of the sum insured for permanent disability benefits

Where benefits for disability can be paid either as a single payment or as recurring payments, undertakings should follow a three step approach to determine the value of the benefits referred to in [Article 135 HUR18 (3) (b) and Article 136 HUR19 (4) (c) of the draft Implementing Measures]:

(a) Step 1: determination of the expected proportion of benefit payments in the form of a single payment.

(b) Step 2: determination, for each insured person, of the benefits in the case of a single payment and the best estimate of the recurring benefits.

(c) Step 3: calculation of the average between the two values determined in step 2 weighted by the proportion calculated in step 1.

Notwithstanding paragraph 1, when the choice between a single payment and recurring payments is at the discretion of the beneficiary, the undertaking should use the maximum of the two values instead of the weighted average.

Undertakings should justify the assumptions underlying the calculation of the proportions referred to in paragraph 1. Where undertakings cannot justify the calculation of the proportions to the satisfaction of the supervisory authority, they should calculate the value of the benefits as the maximum between the single payment and the best estimate of the recurring benefits.

Where the amount of the disability benefit payments depends on the degree of disability of injured persons, undertakings should calculate the value of the benefits for all persons in the following way:

(a) derive a distribution of the degrees of disability amongst injured persons;

(b) calculate the claim costs associated with each degree of disability;
(c) apply the distribution of degrees to the associated claim costs accordingly.

Undertakings should justify the assumptions underlying the calculation of the distribution of degrees referred to in paragraph 4. Where undertakings cannot justify the calculation of the proportions to the satisfaction of the supervisory authority, they should use for all insured persons the maximum claim cost across all degrees of disability.

In the calculation of the best estimate of the recurring benefit payments for the event type "Permanent disability caused by an accident", undertakings should assume that payments are made over the full benefit period specified in the terms and conditions of the policy, but that exits due to mortality may occur.

For the calculation undertakings should make realistic assumptions on the mortality rates for permanently disabled people based on public or internal statistics. Undertakings should be able to justify these assumptions.

In the calculation of the value of benefits, undertakings should account for expected increases in the amount of recurring benefit payments and claims management expenses.

Determination of the expected proportion of benefits payments in the form of a single payment:

2.4. When determining the expected proportion of benefits payments in the form of a single payment as set out in Guideline 3, undertakings have to use all available and relevant statistical and contractual information, including, but not limited to:

- The conditions in which the benefits can be paid as a single payment;
- The discretionary power of the undertaking to choose between the single payment and recurring payments;
- The compatibility of each mode of payment (single payment / recurring payments) with the underlying assumptions of the scenario, and the fact that injured persons are permanently disabled;
- The historical proportion of permanent disability claims paid as a single payment.

2.5. As an example, consider an undertaking providing insured persons with compensation in case of:

- Temporary disability;
- Permanent disability type 1;

- Permanent disability type 2;
- Permanent disability type 3.

2.6. This undertaking, on the basis of its historical claim data in case of accidents, can derive the following statistics: amongst all persons eventually considered as permanently disabled:

- 50% were initially considered as temporarily disabled;
- 10% were initially considered as disabled type 1;
- 35% were initially considered as disabled type 2;
- 5% were initially considered as disabled type 3.

2.7. Moreover, the terms and conditions of the contracts stipulate that recurring benefits are paid to temporarily disabled people, as well as to permanently disabled persons of type 1 and 2. Disabled persons of type 3 receive a single payment.

2.8. On the basis of such statistics and contractual information, when calculating the value of the benefits for permanent disability, the undertaking will determine as a result of step 1 a proportion of 5%.

Calculation of the value of the benefits when the amount of the disability benefit payments depends on the degree of disability of injured persons:

2.9. To illustrate the use of the distribution of disability degrees as set out in Guideline 3, consider a disability product with the following structure of benefits (where x is the degree of disability):

- For a disability degree between 0% and 33%, no benefit is paid;
- For a disability degree between 33% and 67%, the beneficiary receives a recurring payment of 100*x;
- For a disability degree above 67%, the beneficiary receives a recurring payment of 67.

2.10. Based on estimates by the undertaking following an accident:
- 20% of disabled persons have a disability degree between 0% and 33%;
- 60% of disabled persons have a disability degree between 33% and 67%;
- 20% of disabled persons have a disability degree above 67%.

Moreover, for persons in the bracket between 33% and 67% disability degrees are uniformly distributed.

2.11. On this basis the undertaking has to consider for each insured person an average recurring payment of

0 * 20% + 50 * 60% + 67 * 20% = 43.4

The value of 50 used above is the uniform average within the range 33% to 67%.

2.12. If the undertaking was not in a position to justify any distribution of disability degrees, it would have to assume for each insured person an average recurring payment of 67 (i.e. the maximum possible amount).

2.13. Once the recurring payments have been determined for each insured person, the calculation of the value of the benefits has to be derived in the normal way following the relevant guidelines.

Guideline 6 – Calculation of the sum insured in the accident concentration risk sub-module

For the calculation of the value of the benefits referred to in [Article 136 HUR19 (4) (c) of the draft Implementing Measures], undertakings should apply the same principles as set out in Guidelines 2 to 4.

Where an insured person is covered by two or more contracts with benefit payments in the case of the event type *e* and which are not mutually exclusive, undertakings should add up the benefit payments for the different contracts to determine SI(*e,i*) as referred to in [Article 136 HUR19 (4) (c) of the draft Implementing Measures].

2.14. For illustration, consider a company A with 1.000 employees and a second company B with 500 employees located in the same building. An insurance undertaking covers:

- All employees of company A for workers' compensation;
- 200 employees of company A for income protection, by way of a 50% quota-share reinsurance;
- 350 employees of company B for both workers' compensation and income protection.

2.15. In some cases, income protection benefits and workers' compensation benefits may be mutually exclusive, while in other cases both will be triggered by the accident concentration event.

2.16. In cases where the benefits are mutually exclusive, only the triggered benefits have to be taken into account when calculating $SI_{(e,i)}$. If both are triggered, then $SI_{(e,i)}$ has to be determined by adding up income protection and workers' compensation benefits for the insured person *i*.

Guideline 7 – Calculation of the income protection pandemic exposure

Where the contract provides for recurring benefit payments, undertakings should calculate the best estimate of the benefit payments in case of a permanent work disability caused by an infectious disease as referred to in [Article 137 HUR20 (2) (b) of the draft Implementing Measures], in the same way as set out in Guideline 3 for the best estimate of the benefit payments in case of the event type "Permanent disability caused by an accident".

1.17. The disease underlying the calibration of this scenario is the *Encephalitis Lethargica*. If they consider this information relevant, undertakings may use it for the determination of E.

Guideline 8 – Calculation of the best estimate of medical expense amounts

Undertakings should calculate the best estimate of amounts payable for healthcare utilisation *h* as referred to in [Article 137 HUR20 (3) (c) of the draft Delegated Acts] as the product of:

(a) the expected number of healthcare treatments *h* for an insured person;
(b) the expected average claim cost for a single healthcare treatment *h*:
where the expected number of healthcare treatments has at least a value of 1.

Undertakings should make an accurate estimation, based on their own experience, of:

(a) the expected number of uses of each healthcare treatment *h*;
(b) the average claim cost for a single use of each healthcare treatment *h*.

When undertakings can justify that past experience does not allow for an accurate estimation, they should use as the expected number of healthcare treatments for the healthcare utilisation type "Hospitalisation" and "No formal medical care sought" a value of 1 and for healthcare utilisation type "Consultations with a medical practitioner" a value of 2.

Undertakings should adjust the estimation of the average claim cost for the inflation rate of medical payments, and complement it if necessary by expert judgement. The observation period should be long enough to avoid statistical errors.

2.18. Where a medical treatment is expected to last more than one year, undertakings should take into account the expected inflation rate of medical payments. Undertakings should also take it into account when estimating the average claim cost for a single use of healthcare type "No formal medical care sought".

2.19. The average claim cost for the healthcare treatment "no formal medical care sought" can actually be greater than 0. In particular, when a medical expense

contract allows for the reimbursement of medicines bought without medical prescription, the associated costs has to be taken into account.

2.20. Where a legally enforceable commitment by the government of a country exists to provide financial support to insurance or reinsurance undertakings or to settle claims directly with the persons insured in the case of a pandemic, undertakings should take the effect into account in the calculation of the average claim costs for each healthcare treatment h.

2.21. The pandemic scenario has been calibrated for medical expense on the basis of an influenza pandemic. If they consider this information relevant, undertakings may use it for the determination of CH.

G. Loss-absorbing capacity of technical provisions and deferred taxes

1. Guidelines

Introduction

1.1. These Guidelines are drafted according to Article 16 of Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority ("EIOPA Regulation").

1.2. The Guidelines relate to Articles 103(c) and 108 of Directive 2009/138/EU of the European Parliament and of the Council of 25 November 2009 on the taking up and pursuit of the business of Insurance and Reinsurance (Solvency II) as well as to [Article 75 BSCRx and Article 191 ALAC1 to 193 ALAC3 of the draft Implementing Measures].

1.3. These Guidelines are addressed to supervisory authorities under Solvency II.

1.4. According to Article 103(c) of Solvency II, the adjustment for the loss-absorbing capacity of technical provisions and deferred taxes is to be taken into account when calculating the Solvency Capital Requirement.

1.5. Article 108 of Solvency II requires that the adjustment for the loss-absorbing capacity of technical provisions and deferred taxes reflects potential compensation of unexpected losses through a simultaneous decrease in technical provisions or deferred taxes or a combination of the two.

1.6. [Articles 191, 192 and 193 of the draft Implementing Measures] set out in greater detail the method for separately calculating the adjustment for the loss-absorbing capacity of technical provisions and the adjustment for the loss-absorbing capacity of deferred taxes in the standard formula.

1.7. The following Guidelines are intended to establish consistent, efficient and effective supervisory practices and to ensure the common, uniform and consistent application of Union law on the calculation of the adjustments for the loss-absorbing capacity of technical provisions and deferred taxes to the Solvency Capital Requirement.

1.8. Guidelines 1 to 15 apply, on a solo basis, to insurance and reinsurance undertakings using the standard formula and also to groups using the standard formula where relevant.

1.9. Guidelines 16 to 23 apply to groups using the standard formula and when method 1 is used, exclusively or in combination with method 2. When method 2 is used exclusively, Guidelines 16 to 23 do not apply since the adjustment for the loss-absorbing capacity of technical provisions and deferred taxes is not

done additionally at group level. When the combination of methods is used, the Guidelines apply only to the consolidated part.

1.10. The Guidelines do not cover the valuation of technical provisions or deferred tax assets and liabilities in the Solvency II balance sheet, as these are covered by [Article 11 V7 of the draft Implementing Measures].

1.11. The term "deferred taxes" is used in Solvency II in two contexts: Firstly to describe items on the Solvency II balance sheet and secondly in connection with the calculation of tax adjustments to the Solvency Capital Requirement. In order to avoid confusion, the following Guidelines introduce the term "notional deferred taxes" for items used in the calculation of the adjustment.

1.12. For the purpose of these Guidelines, therefore, the following definition has been developed:

'Notional deferred taxes' means all deferred tax effects resulting from the instantaneous loss referred to in [Article 193(1) ALAC3 of the draft Implementing Measures]. Notional deferred taxes differ from the changes in deferred taxes post stress to the extent that only the deferred tax items that are calculated on the basis of the loss referred to in [Article 193 ALAC3 (1) of the draft Implementing Measures] should be taken into account in the "notional deferred taxes". In the simplest case, the notional deferred taxes would be represented by the product of a uniform tax rate and the loss referred to in [Article 193 ALAC3 (1) of the draft Implementing Measures]. "Notional deferred taxes" do not represent the post-stress deferred taxes.

1.13. If not defined in these Guidelines, the terms have the meaning defined in the legal acts referred to in the introduction.

1.14. The Guidelines shall apply from [date].

Section I: Adjustment for the loss-absorbing capacity of technical provisions

Guideline 1 - Calculation of the Basic Solvency Capital Requirement

1.15. When calculating the impact of a scenario on the basic own funds as referred to in [Article 75 BSCRx of the draft Implementing Measures] undertakings should:

(a) keep the cash flows relating to future discretionary benefits unchanged and not rediscount them; and

(b) where the scenario affects the risk free interest rate term structure, especially the stress on the interest rate level, rediscount only the cash flows relating to guaranteed benefits.

1.16. Undertakings should allow for the requirements set out in paragraph 1 when formulating future management actions as referred to in [Article 75 BSCRx (2) (a) of the draft Implementing Measures].

Guideline 2 – Method for determining the capital requirement of sub-modules in the calculation of the Basic Solvency Capital Requirement

1.17. Without prejudice to Guideline 1, where the calculation of a module or sub-module of the Basic Solvency Capital Requirement is based on the impact of a scenario supervisory authorities should allow undertakings to determine its capital requirement based on the respective capital requirement derived for calculating the net Basic Solvency Capital Requirement in the following way:

(a) calculate the value of future discretionary benefits taking into account the impact of the scenario;

(b) calculate the difference between the value of future discretionary benefits in the current Solvency II balance sheet and the value referred to in a);

(c) add the difference in b) to the capital requirement for the module or sub-module derived for calculating the net Basic Solvency Capital Requirement.

Guideline 3 – Stress impact on future discretionary benefits in the net calculation

1.18. When determining the impact of a scenario on future discretionary benefits included in technical provisions referred to in [Article 192(2) ALAC2 (b) of the draft Implementing Measures] undertakings should take into account:

(a) the impact of the scenario on future profits; and

(b) the future management actions regarding the distribution of future discretionary benefits in response to the scenario.

1.19. When calculating the net Basic Solvency Capital Requirement, undertakings should allow for any stresses to the interest rate level, including any changes to the relevant risk free interest term structure used for discounting cash flows relating to future discretionary benefits.

Guideline 4 - Future bonus rates

1.20. Where the assumptions on future management actions following a scenario referred to in [Article 192 ALAC2 (2) (b) of the draft Implementing Measures]

include the variation of future bonus rates, undertakings should allow in the extent of the variation for the nature and the scale of the underlying stress.

Guideline 5 - Management actions

1.21. Undertakings should make assumptions on future management actions regarding the distribution of future discretionary benefits that are consistent with their current business practice.

1.22. In the calculation of the adjustment for the loss-absorbing capacity of technical provisions undertakings should make assumptions on future management actions which are granular enough to account for all applicable legal, regulatory or contractual restrictions on the distribution of future discretionary benefits.

Section II: Adjustment for the loss-absorbing capacity of deferred taxes - calculation

Guideline 6 - Granularity of calculation

1.23. Undertakings should perform the calculation of the adjustment for the loss-absorbing capacity of deferred taxes at a level of granularity that reflects all material and relevant regulations in all applicable tax regimes.

Guideline 7 – Valuation principles and approaches

1.24. For the purpose of [Article 193 ALAC3 (1) of the draft Implementing Measures], undertakings should value deferred taxes in accordance with the valuation principles as set out in [Article 11 V7 of the draft Implementing Measures].

1.25. Undertakings should calculate the adjustment for the loss-absorbing capacity of deferred taxes by stressing the Solvency II balance sheet and determining the consequences on the tax figures of the undertaking. The adjustment should then be calculated on the basis of temporary differences between the stressed Solvency II values and the corresponding figures for tax purposes.

1.26. In accordance with the requirements of [Article 11 V7 (1) of the draft Implementing Measures], undertakings should take into account all assets and liabilities that are recognized for solvency or tax purposes in the calculation of the loss-absorbing capacity of deferred taxes.

1.27. Notwithstanding paragraph 3, supervisory authorities should allow undertakings when determining the tax consequences of the loss referred to in [Article 193 ALAC3 (1) of the draft Implementing Measures] to use an approach based on average tax rates, provided they are able to demonstrate that those average

tax rates are determined at an appropriate level, and that such an approach avoids a material misstatement of the adjustment.

Guideline 8 - Loss attribution

1.28. Where undertakings use an approach based on average tax rates, they should allocate the loss referred to in [Article 193 ALAC3 (1) of the draft Implementing Measures] to its causes in accordance with [Article 193 ALAC3 (5) of the draft Implementing Measures] if the calculation of the deferred tax adjustment on an aggregate level does not reflect all material and relevant regulations of applicable tax regimes.

1.29. Where the allocation set out in paragraph 1 does not reflect all material and relevant regulations of applicable tax regimes, undertakings should allocate the loss to balance sheet items with a sufficient level of granularity to meet this requirement.

Guideline 9 - Arrangements for the transfer of profits or losses

1.30. Where an undertaking has entered into contractual agreements regarding the transfer of profit or loss to another undertaking or is bound by other arrangements under existing tax legislation in the member state (tax groups), the undertaking should take these agreements or arrangements into account in the calculation of the adjustment for loss-absorbing capacity of deferred taxes.

1.31. Where it is contractually agreed and probable that a loss will be transferred to a third party ("receiving undertaking") after the undertaking ("transferring undertaking") suffers the instantaneous loss referred to in [Article 193 ALAC3 (1) of the draft Implementing Measures] the transferring undertaking should only recognize the related deferred tax adjustment to the extent that the payment or other benefit will be received in exchange for the transfer of notional tax losses.

1.32. The transferring undertaking should only recognize the payment or benefit receivable to the extent that a deferred tax adjustment could be recognized under Guideline 11 if the loss was not transferred.

1.33. The transferring undertaking should only recognize payment or benefits receivable if the arrangement or contractual agreement is legally effective and enforceable by the transferring undertaking with respect to the transfer of those items.

1.34. If the value of payment or benefit receivable is conditional on the solvency or tax position of the receiving undertaking, the transferring undertaking should

base the valuation of the payment or benefits receivable on a reliable estimate of the value that is expected to be received in exchange for loss transferred.

1.35. The transferring undertaking should verify that the receiving undertaking is able to honor its obligations in stressed circumstances, namely after suffering the Solvency Capital Requirement stress if the receiving undertaking is subject to Solvency II.

1.36. The transferring undertaking should reflect any tax payable on the payment or benefit received in the recognized amount of notional deferred taxes.

1.37. Where the receiving solo undertaking is subject to Solvency II it should not recognize the transferred loss in the calculation of the adjustment for the loss-absorbing capacity of deferred taxes.

Guideline 10 - Time value of money

1.38. In accordance with [Article 11 V7 of the draft Implementing Measures], undertakings should not take into account the time value of money with respect to the projected time horizon over which they are expected to be used in the valuation of notional deferred taxes.

Section III: Adjustment for the loss-absorbing capacity of deferred taxes – recognition

Guideline 11 - Temporary nature

1.39. Undertakings should recognize notional deferred tax assets conditional on their temporary nature. The recognition should be based on the extent to which offsetting is permitted according to the relevant tax regimes. This may include offset against past tax liabilities or current or likely future tax liabilities.

Guideline 12 - Avoidance of double counting

1.40. Undertakings should ensure that deferred tax assets arising from the instantaneous loss defined in [Article 193 ALAC3 (1) of the draft Implementing Measures] are not supported by the same deferred tax liabilities or future taxable profits already supporting the recognition of deferred tax assets for valuation purposes in the Solvency II balance sheet in accordance with Article 75 of Solvency II.

1.41. Undertakings should follow in their recognition of notional deferred tax assets in a stressed Solvency II balance sheet the principles set out in [Article 11 V7 of the draft Implementing Measures].

Guideline 13 - Recognition based on future profits

1.42. If the recognition of notional deferred tax assets is supported by an assessment of future taxable profit, undertakings should recognize notional deferred tax assets to the extent it is probable that they will have sufficient future taxable profit available after suffering the instantaneous loss.

1.43. Undertakings should employ appropriate techniques to assess the temporary nature of the notional deferred tax assets and the timing of future taxable profits which meet the following requirements:

(a) The assessment is in accordance with [Article 11 V7 (3) of the draft Implementing Measures];

(b) The projections take into account the prospects of the undertaking after suffering the instantaneous loss.

Guideline 14 - Relief where demonstration of eligibility is burdensome

1.44. Supervisory authorities should allow undertakings to disregard notional deferred tax assets in the calculation of the adjustment for loss-absorbing capacity where it would be too burdensome for the undertaking to demonstrate their eligibility.

Guideline 15 – Notional deferred tax liabilities

1.45. Without prejudice to [Article 193 ALAC3 (4) of the draft Implementing Measures] undertakings should include notional deferred tax liabilities resulting from the instantaneous loss defined in [Article 193 ALAC3 (1) of the draft Implementing Measures] in the calculation of the adjustment for the loss-absorbing capacity of deferred taxes.

Section IV: Adjustment for the loss-absorbing capacity of technical provisions and deferred taxes at group level – General provisions

Guideline 16 - Scope

1.46. The participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company should only apply the adjustment for the loss-absorbing capacity of technical provisions and deferred taxes, when method 1 or the combination of methods is used, to the part of the consolidated data determined in accordance with [Article 323bis SCG3 (1) (a) to (c) of the draft Implementing Measures].

Section V: Adjustment for the loss-absorbing capacity of technical provisions on group level

Guideline 17 - Scenarios

1.47. Where the standard formula requires the choice between alternative scenarios, the selection should be undertaken at group level. In order to derive the loss-absorbing capacity of technical provisions in the sub-modules of the group calculation, the scenario relevant for the group should be calculated for each insurance and reinsurance undertaking that is consolidated in accordance with [Article 323bis SCG3 (1) (a to(c) of the draft Implementing Measures], on the basis of the application of the formula in Guideline 18.

Guideline 18 - Calculation of net basic SCR

1.48. When determining the loss-absorbing capacity of technical provisions at sub-module level, the participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company should consider the actual loss-absorbency of technical provisions of each insurance and reinsurance undertaking that is consolidated in accordance with [Article 323bis SCG3 (1) (a) to (c) of the draft Implementing Measures].

1.49. The group's net calculation of the Solvency Capital Requirement should be derived on sub-modular level based on the following formula:

$$netSCR_{sub-module}^{group} = grossSCR_{sub-module}^{group} +$$

$$-\sum_{solo} \alpha^{solo} \left(grossSCR_{sub-module}^{solo} - netSCR_{sub-module}^{solo} \right) \bullet \min(1; \frac{FDB^{solo}}{grossSCR^{solo} - netSCR^{solo}})$$

Where:

- α^{solo} represents the percentage used for the establishment of the consolidated accounts,
- FDB^{solo} represents the total amount of FDB at the individual level adjusted for intra group transaction, if necessary, according to [Art. 326 ter of the draft Implementing Measures],

- $netSCR_{sub-module}^{solo}$ and $grossSCR_{sub-module}^{solo}$ should be determined in accordance with guideline 17,

- $grossSCR^{solo}$ and $netSCR^{solo}$ represent the aggregated $netSCR^{solo}_{sub-module}$ and $grossSCR^{solo}_{sub-module}$ for each insurance and reinsurance undertaking and using the relevant correlation matrices.

1.50. The value of nBSCR in [Article 192 ALAC2 (1) of the draft Implementing Measures] should be derived via aggregation with the aggregation matrices of the standard formula. The value of FDB in [art 192 ALAC2 (1) of the draft Implementing Measures] should correspond to the part of future discretionary benefits that relates to the part of consolidated data determined in accordance with [Article 323bis SCG3 (1) (a) to (c) of the draft Implementing Measures].

Guideline 19 – Intragroup Transactions

1.51. When preparing the consolidated data, if the part of the best estimate for technical provisions related to future discretionary benefits of the individual insurance and reinsurance undertakings is adjusted for intra-group transactions in line with [art 326 ter (2) of the draft Implementing Measures], the total amount of Future Discretionary Benefits at group level should be adjusted accordingly.

Guideline 20 - Upper limit

1.52. The adjustment for loss-absorbency of technical provisions at group level should not exceed the sum of the adjustments for loss absorbency of technical provisions of the insurance and reinsurance undertakings consolidated in accordance with [Article 323bis SCG3 (1) (a) to (c) of the draft Implementing Measures].

Guideline 21 - Alternative Calculation

1.53. Alternatively to the calculation proposed in guideline 18, when there is a reasonable level of homogeneity among future discretionary benefits of the participating insurance and reinsurance undertaking and insurance and reinsurance undertakings that are consolidated in accordance with [Article 323bis SCG3 (1) (a) to (c) of the draft Implementing Measures] within the group, the participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company should calculate the Loss-Absorbing Capacity of technical provisions at group level according to Guideline 22.

1.54. The participating insurance and reinsurance undertaking or insurance holding company should be able to prove to the group supervisor that, according to the

group business and risk profile, a reasonable level of homogeneity among future discretionary benefits within the group is ensured.

Guideline 22 - Alternative Calculation

1.55. In accordance with guideline 21, the participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company should calculate the adjustment for the loss-absorbing capacity of technical provisions using the following formula:

$$Adj_{TP}^{group} = \frac{SCR^{diversified*}}{\sum_{solo} \alpha^{solo} SCR^{solo*}} \bullet \sum_{solo} \alpha^{solo} \cdot Adj_{TP}^{solo}$$

Where:

1.56. - Adj_{TP}^{solo} is the adjustment for the loss-absorbing capacity of technical provision of each insurance and reinsurance undertaking consolidated in accordance with [Article 323bis SCG3 (1) (a) to (c) of the draft Implementing Measures],

- α^{solo} represents the percentage used for the establishment of the consolidated accounts,

1.57. - the ratio $\frac{SCR^{diversified*}}{\sum_{solo} \alpha^{solo} SCR^{solo*}}$ represents the proportional adjustment due to the diversification effects at group level and, in particular, at the numerator $SCR^{diversified*}$[8] is the Solvency Capital Requirement calculated on the basis of the consolidated data in accordance to [Article 323ter SCG3 (a) of the draft Implementing Measures] but before the adjustment for the loss-absorbing capacity of technical provisions and deferred taxes and the denominator SCRsolo* is the Solvency Capital Requirement before the adjustment for the loss-absorbing capacity of technical provisions and deferred taxes of each insurance and reinsurance undertaking consolidated in accordance with [Article 323bis SCG3 (1) (a) to (c) of the draft Implementing Measures].

Section VI: Adjustment for the loss-absorbing capacity of deferred taxes on group level

---

[8] $SCR^{diversified*}$ is equal to the following sum, in the case of application of the standard formula: $SCR^{diverisified*} = BSCR^{diversified} + SCR_{operational}^{diversified}$

Guideline 23 - Calculation

1.58. The participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company should calculate the adjustment for the loss-absorbing capacity of deferred taxes according to the following formula:

$$Adj_{DT}^{group} = \frac{SCR^{diversified**}}{\sum_{solo} \alpha^{solo} SCR^{solo**}} \bullet \sum_{solo} \alpha^{solo} \cdot Adj_{DT}^{solo}$$

Where:

α^{solo} represents the percentage used for the establishment of the consolidated accounts,

Adj_{DT}^{solo} is the solo adjustment for the loss-absorbing effect of deferred taxes of each (re)insurance undertaking consolidated in accordance with Article [323bis SCG3 (1) (a) to (c) of the draft Implementing Measures],

SCR^{solo**} is the solvency capital requirement after the LAC adjustment for technical provisions and before the LAC adjustment for deferred taxes of each insurance and reinsurance undertaking consolidated in accordance with [Article 323bis SCG3 (1) (a) to (c) of the draft Implementing Measures], and

$SCR^{diversified**}$ [9] is the solvency capital requirement calculated on the basis of the consolidated data in accordance to [Article 323ter SCG3 (a) of the draft Implementing Measures] after the LAC adjustment for technical provisions and before the LAC adjustment for deferred taxes.

[9] SCR^{diversified**} is equal to the following sum, in the case of application of the standard formula: $SCR^{diverisified**} = BSCR^{diversified} + SCR_{operational}^{diversified} + Adj_{TP}^{group}$

2. Explanatory text

Guideline 8 - Loss attribution

Where undertakings use an approach based on average tax rates, they should allocate the loss referred to in [Article 193 ALAC3 (1) of the draft Implementing Measures] to its causes in accordance with [Article 193 ALAC3 (5) of the draft Implementing Measures] if the calculation of the deferred tax adjustment on an aggregate level does not reflect all material and relevant regulations of applicable tax regimes.

Where the allocation set out in paragraph 1 does not reflect all material and relevant regulations of applicable tax regimes, undertakings should allocate the loss to balance sheet items with a sufficient level of granularity to meet this requirement.

2.1. An example for loss attribution to sub-modules can be found in Appendix 3.2. Appendix 3.3 gives an example for a method that could be employed for re-distributing the loss to sub-modules, appropriately taking into account a diversification adjustment.

Guideline 9 - Arrangements for the transfer of profits or losses

Where an undertaking has entered into contractual agreements regarding the transfer of profit or loss to another undertaking or is bound by other arrangements under existing tax legislation in the member state (tax groups), the undertaking should take these agreements or arrangements into account in the calculation of the adjustment for loss-absorbing capacity of deferred taxes.

Where it is contractually agreed and probable that a loss will be transferred to a third party ("receiving undertaking") after the undertaking ("transferring undertaking") suffers the instantaneous loss referred to in [Article 193 ALAC3 (1) of the draft Implementing Measures] the transferring undertaking should only recognize the related deferred tax adjustment to the extent that the payment or other benefit will be received in exchange for the transfer of notional tax losses.

The transferring undertaking should only recognize the payment or benefit receivable to the extent that a deferred tax adjustment could be recognized under Guideline 11 if the loss was not transferred.

The transferring undertaking should only recognize payment or benefits receivable if the arrangement or contractual agreement is legally effective and enforceable by the transferring undertaking with respect to the transfer of those items.

If the value of payment or benefit receivable is conditional on the solvency or tax position of the receiving undertaking, the transferring undertaking should base the valuation of the payment or benefits receivable on a reliable estimate of the value that is expected to be received in exchange for loss transferred.

The transferring undertaking should verify that the receiving undertaking is able to honor its obligations in stressed circumstances, namely after suffering the Solvency Capital Requirement stress if the receiving undertaking is subject to Solvency II.

The transferring undertaking should reflect any tax payable on the payment or benefit received in the recognized amount of notional deferred taxes.

Where the receiving solo undertaking is subject to Solvency II it should not recognize the transferred loss in the calculation of the adjustment for the loss-absorbing capacity of deferred taxes

2.2. Agreements or arrangements for the transfer of taxable losses to another group company for payment or benefit receivable should not be considered as an alternative means by which undertakings can justify the utilisation of the loss-absorbing capacity (LAC) of deferred taxes (DT). If undertakings cannot provide evidence that it is likely they will have current tax liabilities or future profits against which they could utilise the tax losses then they should not recognise any LAC of DT in the Solvency Capital Requirement calculation, notwithstanding that they may receive payment for transfer of the tax loss to a group company.

2.3. Where undertakings can prove evidence of current tax liabilities or likely future taxable profits against which they could utilise the tax loss, but are bound by agreements or arrangements on the transfer of tax losses or, in the absence of a formal agreement or arrangement, choose instead to transfer the loss to another group company for less value than they would obtain by using it themselves, then they should only recognise the lower amount in their Solvency Capital Requirement calculation.

Guideline 12 - Avoidance of double counting

Undertakings should ensure that deferred tax assets arising from the instantaneous loss defined in [Article 193 ALAC3 (1) of the draft Implementing Measures] are not supported by the same deferred tax liabilities or future taxable profits already supporting the recognition of deferred tax assets for valuation purposes in the Solvency II balance sheet in accordance with Article 75 of the Solvency II.

Undertakings should follow in their recognition of notional deferred tax assets in a stressed Solvency II balance sheet the principles set out in [Article 11 V7 of the

draft Implementing Measures].

2.4. To avoid double counting, future profits that are already recognised for the purposes of deferred tax assets in the Solvency II balance sheet can be deducted from the post-stress projections of future profits. Only the remaining amount may be recognised to demonstrate eligibility of the notional deferred tax asset. This is especially relevant where an approach based on average tax rates is used.

Guideline 16 - Scope

The participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company should only apply the adjustment for the loss-absorbing capacity of technical provisions and deferred taxes, when method 1 or the combination of methods is used, to the part of the consolidated data determined in accordance with [Article 323bis SCG3 (1) (a) to (c) of the draft Implementing Measures].

2.5. The LAC adjustment of TP and DT is applied at group level only when method 1 is used, exclusively or in combination with method 2, only to the part of the consolidated data determined in accordance with [Article 323bis (1) (a) to (c) of the draft Implementing Measures].

2.6. If the participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company applies the deduction and aggregation (D&A) method, the calculation of the adjustment is not done at group level, since the group SCR is computed as the aggregation of individual SCR's that have already been adjusted for loss-absorbing capacity of technical provisions and deferred taxes.

Guideline 17 - Scenarios

Where the standard formula requires the choice between alternative scenarios, the selection should be undertaken at group level. In order to derive the loss-absorbing capacity of technical provisions in the sub-modules of the group calculation, the scenario relevant for the group should be calculated for each insurance and reinsurance undertaking that is consolidated in accordance with [Article 323bis SCG3 (1) (a) to (c) of the draft Implementing Measures], on the basis of the application of the formula in Guideline 18.

2.7. Certain sub-modules require the adoption of the most severe of alternative scenarios (i.e. interest rate, currency, lapse, health disability-morbidity). Since the relevant scenarios may differ between individual undertakings and the group, this may imply that solo undertakings need to provide the

participating (re)insurance undertaking, insurance holding company or mixed financial holding company with alternative calculations on sub-module level. The selection of the relevant scenario at group level follows the same principle as at individual level, i.e. the relevant scenario at group level should be the one for which the net solvency capital requirement at sub-modular level is the highest. The details of the approach to be followed for the selection of the relevant scenario at group level are provided in step 4 of the explanatory text under the following guideline 18.

Guideline 18 - Calculation of net basic SCR

When determining the loss-absorbing capacity of technical provisions at sub-module level, the participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company should consider the actual loss-absorbency of technical provisions of each insurance and reinsurance undertaking that is consolidated in accordance with [Article 323bis SCG3 (1) (a) to (c) of the draft Implementing Measures].

The group's net calculation of the Solvency Capital Requirement should thus be derived on sub-modular level based on the following formula:

$$netSCR^{group}_{sub-module} = grossSCR^{group}_{sub-module} +$$

$$-\sum_{solo} \alpha^{solo}\left(grossSCR^{solo}_{sub-module} - netSCR^{solo}_{sub-module}\right) \bullet \min(1; \frac{FDB^{solo}}{grossSCR^{solo} - netSCR^{solo}})$$

Where:

- α^{solo} represents the percentage used for the establishment of the consolidated accounts,
- FDB^{solo} represents the total amount of FDB at the individual level adjusted for intra group transaction, if necessary, according to art 326 ter of the draft Implementing Measures ,

- $netSCR^{solo}_{sub-module}$ and $grossSCR^{solo}_{sub-module}$ should be determined in accordance with guideline 17,

- $grossSCR^{solo}$ and $netSCR^{solo}$ represent the aggregated $netSCR^{solo}_{sub-module}$ and $grossSCR^{solo}_{sub-module}$ for each insurance and reinsurance undertaking and using the relevant correlation matrices.

The value of nBSCR in [art 192 ALAC2 (1) of the draft Implementing Measures] should be derived via aggregation with the aggregation matrices of the standard formula. The value of FDB in [art 192 ALAC2 (1) of the draft Implementing Measures] should correspond to the part of future discretionary benefits that relates to the part of consolidated data determined in accordance with [Article 323bis SCG3 (1) (a) to (c) of the draft Implementing Measures].

2.8. The calculation of the LAC of TP at group level starts at sub-modular level: the group's net basic SCR referred to in [Article 192 ALAC2 (1) (b) of the draft Implementing Measures] is obtained on sub-modular level by using the actual loss-absorbency of technical provisions of each solo (re)insurance undertaking (consolidated in accordance with [Article 323bis (1) (a) to (c))

of the draft Implementing Measures] eventually recalculated taking into account the relevant scenario at the group level in accordance with GL 17. This means that the gross SCR ($grossSCR^{solo}_{sub-module}$) and net SCR ($netSCR^{solo}_{sub-module}$) at sub modular level used in the formula are the ones adjusted for the group calculation on the basis of the relevant scenario at group level.

2.9. The calculation of the group LAC of TP derived on sub-modular level follows the following steps:

a) identify the (re) insurance undertakings that are consolidated in accordance with [Article 323bis (1) (a) to (c) of the draft Implementing Measures],
b) for each one of the individual undertaking, identify the proportional share used for the establishment of the consolidated accounts[10] α (usually 100%, unless they are proportionally consolidated),
c) for each one of the individual undertaking, identify the portion of LAC generated by Technical Provisions that is admitted considering the cap at individual level: FDBi / (grossSCRi - netSCRi)[11], where FDBi is adjusted for IGTs if necessary according to [art 326 ter of DA],
d) for each sub-module, consider the actual LAC of each individual undertaking and multiply with the coefficients calculated in steps 2 and 3 for the related undertakings.
e) For sub-modules which require the application of several scenarios (for instance: up and down for the interest rate risk), the LAC at individual level in the sub-module should be (re)calculated taking into consideration the scenario relevant at group level (see GL 17) and step 4 would consist of the following calculations:
    a. calculation of gross SCR solo and net SCR solo at sub-module level for up and down scenarios of each (re)insurance undertakings in the scope,
    b. calculation of the gross group SCR for all required scenarios (up and down) (=> grossSCR(group, sub-module, up) and grossSCR(group, sub-
        i. module, down))
    c. application of the formula in GL18 for up and down scenarios; this step
        i. gives a netSCR(group, sub-module, up) and a netSCR(group, sub-module, down)
    d. selection of the scenario relevant at group level, depending on the outcome of the previous step

[10] Taking into account the current draft of EIOPA Guidelines on Group Solvency Calculation (guideline 10), the percentage used for the inclusion of subsidiaries that are fully consolidated in accordance to [Article 323bis (1) (a) and (b) of the draft Implementing Measures] should be 100%, then α solo should be one.

[11] In step 3 above, if this ratio happens to be higher than 1 then we should apply 1.

ii. for each sub-module, obtain the group LAC of TP by summing up the results of step 4 across all solo undertakings in the scope,

iii. for each sub-module, obtain the net basic SCR, $netSCR_{sub-module}^{group}$, as the difference between $grossSCR_{sub-module}^{group}$ and the sum obtained at step 5 (group LAC of TP at sub-modular level),

iv. the adjustment for LAC of TP at group level is then, as indicated in [ALAC2 (1)], the difference between the basic $SCRgroup$ calculated on the basis of the consolidated data in accordance with [Article 323ter SCG3 (1) (a) of the draft Implementing Measures] and the $netSCR^{group}$ obtained aggregating the net SCR at step 6 via the relevant correlation matrix,

v. the adjustment for LAC of TP at group level is then capped to the amount of FDB at group level net of IGTs according to guidelines 19.

2.10. The limitation of the loss-absorbing effect of future profit participation to the amount of Future Discretionary Benefits (FDB) on the pre-stressed balance sheet is applied to both the loss-absorbing effect at the group level and at the individual level.

2.11. 2.11. In the cases when the initial LAC of TP adjustment of the individual undertaking (difference between gross and net SCR) calculated according to the solo scenario exceeds the actual solo future discretionary benefits then the recalculation according to the group scenario should be adjusted by the cap (as expressed by function "minimum") to reflect the fact that the initial adjustment amount according to the group scenario at sub-module level has in fact limited possibility to absorb losses to the same extent as at the level of the whole insurance undertaking.

Guideline 21 - Alternative Calculation

Alternatively to the calculation proposed in guideline 18, when there is a reasonable level of homogeneity among future discretionary benefits of the participating insurance and reinsurance undertaking and insurance and reinsurance undertakings that are consolidated in accordance with [Article 323bis SCG3 (1) (a) to (c) of the draft Implementing Measures] within the group, the participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company should calculate the Loss-Absorbing Capacity of technical provisions at group level according to Guideline 22.

The participating insurance and reinsurance undertaking or insurance holding company should be able to prove to the group supervisor that, according to the group business and risk profile, a reasonable level of homogeneity among future discretionary benefits within the group is ensured.

2.12. A reasonable level of homogeneity among future discretionary benefits of the participating and controlled (re)insurance entities within the group can be assessed in relation to the type of profit sharing mechanism of the portfolios (i.e. considering the type of financial guarantees) and in relation to the underlying types of assets held by the participating and controlled (re)insurance entities. For the purpose of assessing the level of homogeneity, the geographical localization of the group may be a relevant information (i.e. national or cross border groups).

2.13. In particular, the following criteria would apply:

a) homogenous SCR risk profile with respect to relative weight of sub-modules and relevant scenarios,
b) homogenous business portfolios with respect to types of policies, policyholder features, profit sharing mechanisms,
c) homogenous reinsurance program,
d) homogenous tax regimes

2.14. Where the standard formula requires the choice between alternative scenarios, in case of a reasonable level of homogeneity among future discretionary benefits of the participating and controlled insurance and reinsurance undertakings within the group, the relevant scenarios selected at group level mirror on a sufficient level the relevant scenarios selected at solo level.

Guideline 22 - Alternative Calculation

In accordance with guideline 21, the participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company should calculate the adjustment for the loss-absorbing capacity of technical provisions using the following formula:

$$Adj_{TP}^{group} = \frac{SCR^{diversified*}}{\sum_{solo} \alpha^{solo} SCR^{solo*}} \bullet \sum_{solo} \alpha^{solo} \cdot Adj_{TP}^{solo}$$

Where:

- Adj_{TP}^{solo} is the adjustment for the loss-absorbing capacity of technical provision of each insurance and reinsurance undertaking consolidated in accordance with [Article 323bis SCG3 (1) (a) to (c) of the draft Delegated Acts],
- α^{solo} represents the percentage used for the establishment of the consolidated accounts,

- the ratio $\frac{SCR^{diversified*}}{\sum_{solo} \alpha^{solo} SCR^{solo*}}$ represents the proportional adjustment due to the diversification effects at group level and, in particular, at the numerator $SCR^{diversified*}$ [12] is the solvency capital requirement calculated on the basis of the consolidated data in accordance to [Article 323ter SCG3 (a) of the draft Implementing Measures] but before the adjustment for the loss-absorbing capacity of technical provisions and deferred taxes and the denominator SCRsolo* is the Solvency Capital Requirement before the adjustment for the loss-absorbing capacity of technical provisions and deferred taxes of each insurance and reinsurance undertaking consolidated in accordance with [Article 323bis SCG3 (1) (a) to (c) of the draft Implementing Measures].

2.15. Under this alternative procedure, the adjustment for the LAC of TP at group level is calculated as an adjusted sum of the individual adjustments for the LAC of TP where the individual LAC adjustments are proportionally reduced due, on one hand, to the recognition of diversification effects at group level given that the SCR of the group is less than the sum of the individual solvency requirements and, on the other one, due to the percentage (α solo) used for the establishment of the consolidated accounts.

2.16. The adjustment for the LAC of TP calculated as suggested above ensures that the limitation of the loss absorbency capacity of TP to the amount of the Future Discretionary Benefits (FDB) is applied to both the loss absorbing effects at the group and at the individual level.

2.17. In fact, the proportional reduction of the contribution of each individual LAC of TP to the adjusted sum in the formula ensures that the adjustment for loss-absorbency of technical provisions at group level does not exceed the sum of individual adjustments.

[12] $SCR^{diversified*}$ is equal to the following sum, in the case of application of the standard formula: $SCR^{diverisified*} = BSCR^{diversified} + SCR^{diversified}_{operational}$

Guideline 23 -Calculation

The participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company should calculate the adjustment for the loss-absorbing capacity of deferred taxes according to the following formula:

$$Adj_{DT}^{group} = \frac{SCR^{diversified**}}{\sum_{solo} \alpha^{solo} SCR^{solo**}} \bullet \sum_{solo} \alpha^{solo} \cdot Adj_{DT}^{solo}$$

Where:

α^{solo} represents the percentage used for the establishment of the consolidated accounts,

Adj_{DT}^{solo} is the solo adjustment for the loss-absorbing effect of deferred taxes of each (re)insurance undertaking consolidated in accordance with Article [323bis SCG3 (1) (a) to (c) of the draft Implementing Measures],

SCR^{solo**} is the solvency capital requirement after the LAC adjustment for technical provisions and before the LAC adjustment for deferred taxes of each insurance and reinsurance undertaking consolidated in accordance with [Article 323bis SCG3 (1) (a) to (c) of the draft Implementing Measures], and

$SCR^{diversified**}$ [13] is the solvency capital requirement calculated on the basis of the consolidated data in accordance to [Article 323ter SCG3 (a) of the draft Implementing Measures] after the LAC adjustment for technical provisions and before the LAC adjustment for deferred taxes.

2.18. The adjustment for the LAC of DT at group level is calculated as an adjusted sum of the individual adjustments for the LAC of DT where the individual LAC adjustments are proportionally reduced due, on one hand, to the recognition of diversification effects at group level given that the SCR of the group is less than the sum of the individual solvency requirements and, on the other one, due to the percentage (α solo) used for the establishment of the consolidated accounts[14].

[13] $SCR^{diversified**}$ is equal to the following sum, in the case of application of the standard formula: $SCR^{diverisified**} = BSCR^{diversified} + SCR_{operational}^{diversified} + Adj_{TP}^{group}$

[14] Taking into account the current draft of EIOPA Guidelines on Group Solvency Calculation (guideline 10), the percentage used for the establishment of the consolidated accounts for the fully consolidated undertakings in accordance to [Article 323bis (1) (a) and (b) of the draft Implementing Measures] should be 100%, than α solo should be one.

Appendix - Examples

3.1 Example for a method based on the concept of notional deferred taxes

An undertaking holds only equities and has no liabilities. The Solvency II value of the equities is 100, the tax value is 80 and the tax rate is 25%. Therefore the Solvency II balance sheet looks as following (DTL denotes the deferred tax liabilities):

Equities = 100	DTL = (100-80)*25% = 5
	NAV = 95

The gross SCR has a value of 39, the sole contributor to the risk charge is equity risk, and no other effects (diversification, loss-absorbing capacity of technical provisions) are applicable. Thus, the notional deferred taxes amount to:

nDTA = 39*25% = 9.75

The simplified method presented in this section follows a two-step approach that separates the valuation from the recognition of the adjustment for the loss-absorbing capacity of deferred taxes. Notional deferred taxes are an interim step in this approach representing the valuation of the adjustment. In a second step, recognition could follow the following procedure:

a. Check if nDTA can be recognised, full or in part, on basis of DTL by considering if the items could be offset in future tax accounts.

b. Identify the remaining notional deferred taxes. In the above example, assuming all relevant criteria for offset are met, the remaining notional deferred taxes ($nDTA^r$) is :

   $nDTA^r$ = nDTA – DTL = 4.75

c. $nDTA^r$ can be recognised solely based on future profits that are projected for the undertaking in a post-stress environment.

If after completing the steps a to c the full amount of notional deferred taxes can be recognised, the net SCR would be:

SCR = 39 – 9.75 = 29.25

Assuming that offsetting against current DTL is possible, but future profit projection would not provide sufficient evidence for recognising the remaining part of the loss-absorbing capacity of notional deferred taxes the net SCR would be:

SCR = 39 – 5 = 34.

3.2 Examples for a method for calculation of notional deferred taxes on a sub-module basis

(a) Example of how the LAC of notional deferred taxes can be calculated in a tax regime which has a uniform tax rate on all profits, and where no item-specific treatment or limits apply in respect of the tax deductibility of losses:

> An undertaking faces a very simple tax regime, where all profits are taxed at 25%, and profits/losses from all types of transaction are considered together. If this undertaking calculated its pre-DT SCR as €1,000,000 then the notional DTA would be:
>
> €1,000,000 x 25% = €250,000

(b) Example of how the LAC of notional deferred taxes can be calculated in a more complex tax regime where:

i. investment profits are taxed at 25% and all other profits are taxed at 35%;

ii. it is not possible to offset losses from one source against profits in others.

> In this case, the undertaking must split the pre-DT SCR between losses that will attract a tax relief of 25% and 35%. It may be reasonable to assume that the losses arising from market risk are those that attract the 25% and all others attract the 35% relief.
>
> Suppose that the undertaking has a total pre-DT SCR of €1,000,000 of which, after appropriate re-distribution of the diversification effect (for an optional method see Annex 3.3), 70% is derived from market risk and 30% from other risk modules. In that case the undertaking would calculate the notional DT as:
>
> (€700,000 x 25%) + (€300,000 x 35%) = €280,000

(c) Example of how the LAC of notional deferred tax can be calculated in a more complex tax regime where:

i. all profits are taxed at 35%, except from investments in certain infrastructure projects, that are exempt from taxation;

ii. it is not possible to offset losses from one source against profits from others.

> In this case, the undertaking must split the pre-DT SCR between losses that will attract tax relief of 35% and those that will attract no tax relief.
>
> Suppose that the undertaking has a total pre-DT SCR of €1,000,000 of which 10%

is derived from property risk and 90% from other risk modules. 50% of the property exposure is in infrastructure. In that case the undertaking would the calculate notional DT as:

€950,000 x 35% = €332,500

3.3 Optional Method for the redistribution of risk charges to standard formula modules

Let *U* be the vector of undiversified net risk charges of the sub-modules within a risk module, and *C* be the corresponding correlation matrix. Then, the diversified risk capital *s* of the module is:

$$s = (U^T \times C \times U)^{0.5},$$

and the diversified risk charge r_i of the individual sub-module *i* is:

$$r_i = u_i \cdot y_i / s, \qquad \text{wheras } y_i \in Y,\ Y = C \times U.$$

H. Undertaking-specific parameters

1. Guidelines

Introduction

1.1. These Guidelines are drafted according to Article 16 of Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (hereinafter "EIOPA Regulation").

1.2. The Guidelines relate to Article 104(7), 110, 111, 230, 248(2) of Directive 2009/138/EU of the European Parliament and of the Council of 25 November 2009 on the taking up and pursuit of the business of Insurance and Reinsurance (hereinafter "Solvency II") as well as to [Articles 196 USP1, 197 USP2, 198 USP3, 200bis USP5bis and 339bis CGS3 of the draft Implementing Measures].

1.3. These Guidelines are addressed to supervisory authorities under Solvency II.

1.4. When calculating the Solvency Capital Requirement, undertakings may replace a subset of parameters (standard parameters) within the standard formula by parameters specific to them, if the standard formula does not provide an appropriate representation of their underlying risks. This should help to promote sound risk management within insurance and reinsurance undertakings.

1.5. For the calculation of the undertaking-specific parameters, undertakings can select a method from a number of standardised methods prescribed in Annex USP of the draft implementing measures. Any change made to the standardised methods for undertaking-specific parameters means that there can be no longer an approval as referred to in Article 110 of Solvency II. But the modified method might qualify as partial internal model subject to the supervisory approval as provided in Articles 112, 113 and Article 120 to 126 of Solvency II.

1.6. These Guidelines provide further specification on the data quality criteria that should be taken into account during the process of calculating undertaking-specific parameters and group-specific parameters. Article 48(1)(i) of Solvency II sets out the role of the actuarial function and how it should contribute to the effective implementation of the risk-management system, and in particular the risk modeling that underlies the calculation of the capital requirements. The role of the actuarial function is therefore very important in the assessment of the quality of data used in the calculation of undertaking-specific parameters.

1.7. Undertakings may only replace a subset of standard parameters within the underwriting risk modules by specific parameters. This means that some of the inputs used to calculate these parameters will be similar (and in some cases

may constitute exactly the same information) to the inputs used to calculate technical provisions. It is expected that the actuarial function co-ordinates these inputs.

1.8. Only the approval process of undertaking-specific parameters at solo level is harmonised by implementing technical standards. To improve the consistency of the use of group-specific parameters by insurance groups across Member States, the guidelines aim at harmonising the supervisory approval process for the group-specific parameters.

1.9. The Guidelines 1 to 13 are applicable for both solo undertakings as well as for the group Solvency Capital Requirement calculation under the consolidation method or under a combination of methods on the consolidated data calculated in accordance with [Article 323bis (1) (a)-(b)-(c) of the draft Implementing Measures].

1.10. If not defined in these Guidelines, the terms have the meaning defined in the legal acts referred to in the introduction.

1.11. The Guidelines shall apply from [1 April 2015].

Guideline 1 – Role of expert judgement

1.12. For the purpose of adjusting data in the determination of undertaking-specific parameters undertakings should be allowed to use assumptions based on expert judgement only as an adjustment to existing data and not as a substitute for missing data.

1.13. When using assumptions based on expert judgement, undertakings should comply with the requirements on the application of expert judgement set out in the Guidelines on valuation of technical provisions except for those guidelines covering the use of assumptions based on expert judgement to replace missing data.

1.14. Undertakings should only use assumptions based on expert judgement if the resulting adjusted data meet the criteria set out in [Article 197 USP2 of the draft Implementing Measuress] to a higher degree and should demonstrate such compliance upon request of the supervisory authorities.

Guideline 2 – Materiality

1.15. Undertakings should ensure that the criteria on data quality set out in [Article 197 USP2 of the draft Implementing Measures] are met regardless of the materiality of the segment for which undertaking-specific parameters are used.

Guideline 3 – Adjustments to increase the level of appropriateness in data

1.16. Subject to paragraph 1.14 of Guideline 1, when determining undertaking-specific parameters undertakings should adjust historical data as necessary to eliminate the effect of risks that are irrelevant over the next twelve months.

Guideline 4 – Data quality criteria for external data

1.17. When using external data, undertakings should meet the following criteria:

(a) the collection and processing of data takes into consideration any sources of inconsistencies among different sources of external data. These sources are appropriately managed to ensure that the data is sufficiently consistent and homogeneous in terms of coherency of information;

(b) data with material shortcomings or for which the assumptions or sources are inconsistent with the other data collected is rejected unless these limitations can be remedied;

(c) regardless of its quality, data is not included if there are material deviations between the risk profile of the undertaking and the risk profile of the external data source.

1.18. Undertakings should avoid the use of data which is not representative of the risk due to the features of a particular entity providing data, including its risk mitigation arrangements.

Guideline 5 – Use of external data

1.19. Where undertakings use external data to calculate undertaking-specific parameters, they should assess whether the external data properly reflects their risk profile based on the analysis set out in the following paragraphs and validate the conclusions arising from this assessment.

1.20. Undertakings should analyse whether the estimates of the volatility of underlying risks derived with external data and internal data as input deviate significantly.

1.21. Undertakings should not limit the analysis to the application of the standardised methods, but it should also comprise any other relevant comparison between the probability distribution forecast resulting from internal and external data.

Guideline 6 – Limitations in data to calculate undertaking-specific parameters

1.22. Undertakings should ensure that factors which adversely affect the quality of data are identified and possible solutions are investigated.

Guideline 7 – Adjustment of historical data to eliminate the effect of catastrophe events

1.23. Undertakings should ensure that the data used to calculate undertaking-specific parameters exclude the effects of catastrophe events. For this purpose, undertakings should identify catastrophe events using the definition of the scenarios provided in the health and non-life catastrophe risk sub-modules as referred to in [Article 134 HUR17 and Article 86 NLUR6 of the draft Implementing Measures] or the definition used in an approved partial internal model for the relevant segment.

1.24. Undertakings should establish internal policies and procedures to identify losses from catastrophe events and to adjust data in accordance with the above paragraph.

1.25. Undertakings should verify that the data after the adjustments comply with the criteria set out in [Article 197 USP2 of the draft Implementing Measures].

Guideline 8 – Adjustment of historical data to reflect the current reinsurance arrangements

1.26. Undertakings should ensure that the data used to calculate undertaking-specific parameters for reserve risk reflects the reinsurance coverage and it takes into account the basis of operation of the reinsurance programme.

Guideline 9 – Calculation of non-proportional reinsurance adjustment in the scope of premium risk

1.27. When undertakings determine the adjustment factor for the non-proportional reinsurance effect as provided in [Article 196 (1) (a) (iii) and (1) (c) (iii) of the draft Implementing Measures] they should ensure that both gross data and data net of non-proportional reinsurance for the next twelve months comply with the data criteria set out in the Guidelines 1 to 7.

Guideline 10 – Continuous compliance

1.28. Undertakings should monitor their compliance with the requirements for undertaking-specific parameters as part of the own-risk and solvency assessment.

1.29. Undertakings should inform, as part of the own-risk and solvency assessment supervisory report, the supervisory authorities each time the Solvency Capital Requirement is calculated whether there have been any material changes to the information included in the application.

1.30. Undertakings should provide relevant details of the material changes and where applicable, the actions the undertaking has taken to fulfil the requirements for the use of undertaking-specific parameter.

1.31. Where the material changes include the use of new data, undertakings should provide at the request of supervisory authorities the new calculation of the undertaking-specific parameters and information that the calculation is adequate.

1.32. Notwithstanding paragraph 2, undertakings should immediately inform the supervisory authorities of any material changes in the circumstances that are relevant to assess the appropriateness of the replacement of a subset of parameters of the standard formula by undertaking-specific parameters.

1.33. If undertakings become aware that another standardised method provides a more accurate result for the purpose of fulfilling the calibration requirements included in Article 101(3) of Solvency II, they should submit a new application for the use of this standardised method.

Guideline 11 – Remedial of non-compliance

1.34. In case of non-compliance with the requirements for undertaking-specific parameters, the supervisory authority should decide whether the undertaking can remedy the non-compliance and submit a new application.

1.35. When taking the decision referred to in [Article 8 of the EIOPA draft implementing technical standards with regard to the supervisory approval procedure to use undertaking-specific parameters (hereinafter "ITS on USP approval")], the supervisory authority should consider the degree and the scope of the non-compliance as well as the time needed to remedy it.

1.36. The supervisory authority should withdraw the approval to use undertaking specific parameters where compliance with the requirements is not restored within three months.

Guideline 12 – Requirement from the supervisory authority to use undertaking-specific parameters

1.37. Where in accordance with Article 110 of Solvency II the supervisory authority deems the use of undertaking specific parameters necessary, it should indicate to the undertaking which parameters as referred to in [Article 196 USP1 of the draft Implementing Measures] have to be replaced. After liaising with the undertaking, the supervisory authority should set a reasonable timeframe for the submission of the application.

1.38. After receiving the request of the supervisory authority, the undertaking should analyse the available standardised methods. When assessing the choice referred to in [Article 4(1) of the ITS on USP approval] the supervisory authority should take into account that the application was submitted upon its request.

Guideline 13 – Significant deviation

1.39. When considering if there is a significant deviation as referred to in Article 110 of Solvency II, supervisory authorities should take into account all relevant factors including the followings:

a) the findings arising out of the supervisory review process;

b) the nature, type and size of the deviation;

c) the likelihood and severity of any adverse impact on policyholders and beneficiaries;

d) the level of sensitivity of the assumptions to which the deviation relates;

e) the expected duration and volatility of the deviation over the duration of the deviation.

1.40. Supervisory authorities should perform this analysis at the level of each segment for which the use of undertaking-specific parameters is possible.

Guideline 14 – Application for approval of the use of group-specific parameters

1.41. The application for approval of the use of group-specific parameters should include as a minimum the information required in [paragraph 2, 4 and 5 of Article 1 of ITS on USP approval], where any reference to 'undertaking-specific parameters' shall be understood as a reference to 'group-specific parameters'.

1.42. At the reasoned request of the group supervisor, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should provide additional information where necessary to assess the application.

Guideline 15 – Scope of the group using group-specific parameters

1.43. When the group Solvency Capital Requirement is calculated under the accounting consolidation-based method or under the combination of accounting consolidation-based method and deduction and aggregation method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should use the group specific-parameters only on consolidated data calculated in accordance with [Article 323bis 1 (a)-(b)-(c) of the draft Implementing Measures].

1.44. When the group Solvency Capital Requirement is calculated under the deduction and aggregation method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should not use group-specific parameters.

1.45. If an insurance or reinsurance undertaking within the scope of group solvency calculation under the deduction and aggregation method uses undertaking-specific parameters, then undertaking-specific parameters should be included in the group Solvency Capital Requirement calculation only for those undertakings which received approval from the supervisory authorities.

Guideline 16 – Data quality requirements at group level

1.46. The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should be able to demonstrate to the group supervisor that the nature of the group business and its risk profile are similar enough to those of the solo undertakings providing the data to ensure consistency between the statistical assumptions underlying the data used at solo and group level.

Guideline 17 – Consultation within the college of supervisors

1.47. In the consultation set out in [Article 339bis (3) of the draft Implementing Measures] the group supervisor and the other supervisory authorities within the college of supervisors should inter alia analyse and discuss the representativeness of the data at group level and the relevance of the used standardised method.

Guideline 18 – Information for the college of supervisors

1.48. In the case of an application for approval of the use of undertaking-specific parameters by a solo undertaking which is included in the scope of group solvency calculation, the supervisory authority which receives the application should inform the college of supervisors of the receipt and its decision. If the application is rejected, it should inform the college of supervisors about the main reasons for its decision.

1.49. Prior to making its final decision on the application to use group-specific parameters, the group supervisor should consider the decisions by the supervisory authorities on the applications of solo undertakings included in the scope of group solvency calculation to use undertaking-specific parameters.

2. Explanatory text

General criteria

Guideline 1 – Role of expert judgment

For the purpose of adjusting data in the determination of undertaking-specific parameters undertakings should be allowed to use assumptions based on expert judgment only as an adjustment to existing data and not as a substitute for missing data.

When using assumptions based on expert judgment, undertakings should comply with the requirements on the application of expert judgment set out in the Guidelines on valuation of technical provisions except for those guidelines covering the use of assumptions based on expert judgment to replace missing data.

Undertakings should only use assumptions based on expert judgment if the resulting adjusted data meet the criteria set out in [Article 197 USP2 of the draft Implementing Measures] to a higher degree and should demonstrate such compliance upon request of the supervisory authorities.

2.1. Expert judgement may complement the analysis made to decide if and which adjustments are necessary to increase the level of appropriateness and/or accuracy of data.

2.2. This means that expert judgement is only acceptable where data is available but has some limitations which are likely to be overcome by its use (provided that the limitations are not related to completeness). Therefore expert judgement should not be regarded as a way to increase the length of a data series or its granularity in case data is not available.

Guideline 2 – Materiality

Undertakings should ensure that the criteria on data quality set out in [Article 197 USP2 of the draft Delegated Acts] are met regardless of the materiality of the segment for which undertaking-specific parameters are used.

2.3. This means that the data quality standards have to be met regardless what results the assessment of the nature, scale and complexity for the risks modelled by undertaking-specific parameters produces.

2.4. This means that undertakings have to ensure compliance with the data quality standards set out in these guidelines regardless, for instance, of the scale of the underlying risks.

2.5. There are at least two reasons why there should be no relaxation of standards even in the extreme scenario where the underlying risks are not material to the solvency position of the undertaking: First, the risks may become material in the future. Second, there would be no solid reasons to demonstrate that the undertaking-specific parameters would better reflect the risk profile compared to the standard factors.

Guideline 3 – Adjustments to increase the level of appropriateness in data

Subject to paragraph 1.14 of Guideline 1, when determining undertaking-specific parameters undertakings should adjust historical data as necessary to eliminate the effect of risks that are irrelevant over the next twelve months.

2.6. There are cases when the quality of data can be demonstrably enhanced by reasonably adapting the historical data to make it more representative of the risks being measured. Consequently, their use in the standardized methods allows a more reliable estimate of volatility. In these situations such adjustments should be made.

2.7. Undertakings should review the available data for any observations which are influenced by factors that will not be present in the following year. Only where adjustments to these observations are adequate, the adjusted observations should be used as input of the standardized methods.

2.8. No adjustments should be made to the time series that introduce a smoothing effect which is not reflective of the reality being measured. This could bias the volatility estimate. However, adjustments should be made where the use of raw data would likely introduce artificial volatility due to limitations in data which may thus be remedied.

Specificities of external data

Guideline 4 – Data quality criteria for external data

When using external data, undertakings should meet the following criteria:

(a) the collection and processing of data takes into consideration any sources of inconsistencies among different sources of external data. These sources are appropriately managed to ensure that the data is sufficiently consistent and homogeneous in terms of coherency of information;

(b) data with material shortcomings or for which the assumptions or sources are inconsistent with the other data collected is rejected unless these limitations can be remedied;

(c) regardless of its quality, data is not included if there are material deviations between the risk profile of the undertaking and the risk profile of the external data source.

Undertakings should avoid the use of data which is not representative of the risk due to the features of a particular entity providing data, including its risk mitigation arrangements.

2.9. Condition c) is imposed to ensure that the risk profile represented by external data is similar to the risk profile of the undertaking for the line of business where the undertaking applies for the approval to use undertaking-specific parameters. Material deviations between the risk profile of the undertaking and the risk profile underlying the external data can be measured by/observed through material differences in parameters or features of the distributions (function, mean, variance, symmetry, kurtosis, etc.).

Guideline 5 – Use of external data

Where undertakings use external data to calculate undertaking-specific parameters, they should assess whether the external data properly reflects their risk profile based on the analysis set out in the following paragraphs and validate the conclusions arising from this assessment.

Undertakings should analyse whether the estimates of the volatility of underlying risks derived with external data and internal data as input deviate significantly.

Undertakings should not limit the analysis to the application of the standardised methods, but it should also comprise any other relevant comparison between the probability distribution forecast resulting from internal and external data.

2.10. The term "external data" should be interpreted as data whose source is not internal, i.e. not derived from the own experience of the undertaking. This includes data provided by other undertakings, even if they are included in the same group, insurance associations, etc.

Review and Validation of Data Quality

Guideline 6 – Limitations in data to calculate undertaking-specific parameters

Undertakings should ensure that factors which adversely affect the quality of data are identified and possible solutions are investigated.

2.11. Even if the problems cannot be solved in a sufficiently short timeframe to (re-)establish compliance with the standards the implementation of measures to attenuate limitations and thus increase data quality is crucial (not only for a possible future calculation of undertaking-specific parameters, but also for other areas of analysis where data is necessary).

Issues regarding adjustments of raw data in the specific context of the application of standardized methods

Guideline 7 – Adjustment of historical data to eliminate the effect of catastrophe events

Undertakings should ensure that the data used to calculate undertaking-specific parameters exclude the effects of catastrophe events. For this purpose, undertakings should identify catastrophe events using the definition of the scenarios provided in the health and non-life catastrophe risk sub-modules as referred to in [Article 134 HUR17 and Article 86 NLUR6 of the draft Implementing Measures] or the definition used in an approved partial internal model for the relevant segment.

Undertakings should establish internal policies and procedures to identify losses from catastrophe events and to adjust data in accordance with the above paragraph.

Undertakings should verify that the data after the adjustments comply with the criteria set out in [Article 197 USP2 of the draft Implementing Measures].

2.12. The use of consistent criteria over time to identify losses from catastrophe events is necessary to ensure compliance with the accuracy criteria. The definition of these criteria and their application are associated with a certain level of subjectivity and therefore may involve the use of expert judgement.

2.13. However, the identification should be as objective as possible taking into consideration that "outliers" should not per se be classified as catastrophe losses. The assumptions used in the definition of catastrophe losses should be consistent with the criteria used in the calculation of the health and non-life catastrophe risk sub-modules.

2.14. Usually, catastrophe losses fall into one of the following two classes:

(a) They have a very low frequency but high severity and different types of coverage or even segments refer to the event which gives rise to the losses.

(b) Cumulative high frequency and low severity losses caused by one event.

2.15. Undertakings may consider two approaches to produce net data excluding the effect of catastrophe events in the presence of reinsurance arrangements:

(a) Introduce the adjustments to reflect the current reinsurance arrangements and subsequently review these for the exclusion of the catastrophe effects;
(b) Introduce the adjustments in gross data envisaging the exclusion of catastrophe claims and subsequently introduce the adjustments to reflect the current reinsurance arrangements.

Guideline 8 – Adjustment of historical data to reflect the current reinsurance arrangements

Undertakings should ensure that the data used to calculate undertaking-specific parameters for reserve risk reflects the reinsurance coverage and it takes into account the basis of operation of the reinsurance programme.

2.16. In particular, changes in retentions on non-proportional reinsurance should be appropriately considered where they have an impact on the reserve risk volatility. Adjustments for proportional reinsurance and per risk excess of loss are in principle less complex and their application relatively straightforward.

2.17. The adjustments depend also on the basis which triggers the recoveries. This may be the accident year, policy issue period, claims reporting period or any other basis of operation. For instance, if the reinsurance treaty covers losses for a given accident year the allocation is relatively simple. But if the recoveries refer to claims arising from policies starting during the reinsurance period, recoverables could relate to different accident years and then require a more complex allocation.

2.18. If reinsurance programmes have been stable during the period covered by historical data and no material changes are expected in the following year, net historical data is considered appropriate to be used in the calculation of undertaking-specific parameters. Nevertheless there is the possible need to include other relevant adjustments which are not related to such changes.

Calculation of non-proportional reinsurance adjustment in the scope of premium risk

Guideline 9 – Calculation of non-proportional reinsurance adjustment in the scope of premium risk

When undertakings determine the adjustment factor for the non-proportional reinsurance effect as provided in [Article 196 (1) (a) (iii) and (1) (c) (iii) of the draft Implementing Measures] they should ensure that both gross data and data net of non-proportional reinsurance for the next twelve months comply with the data criteria set out in the Guidelines 1 to 7.

2.19. The following paragraphs provide some clarification on the relevant criteria in this particular area.

2.20. The net data should reflect the reinsurance arrangements that the undertaking will have in place in the following year.

2.21. As a necessary condition to meet the appropriateness criteria, net data should include any proportional recoveries that may have occurred in the period covered by historical data and adjustments should be included to eliminate the effect of other types of non-proportional reinsurance that may have been in force in that period different from the current arrangements. In addition, any relevant adjustments have to be made which are necessary to adequately reflect such arrangements in the net data.

2.22. Both gross and data net of non-proportional reinsurance should have the same level of granularity. This implies that the adjustments to derive the net data do not reduce the level of granularity in the gross data. In other words, there is sufficient available information to support the adjustments while preserving the level of granularity.

2.23. Furthermore, the net data can only be considered complete if it covers a sufficiently long period where the relevant reinsurance arrangements were in place and thus the volatility of premium risk implied by the data can be considered as representative for the volatility in the next twelve months. If such a long period with experience on this type of arrangements is not available, undertakings need to demonstrate that the adjustments to historical data reflect appropriately the relevant reinsurance treaties in force in the next year.

Compliance

Guideline 10 – Continuous compliance

Undertakings should monitor their compliance with the requirements for undertaking-specific parameters as part of the own-risk and solvency assessment.

Undertakings should inform, as part of the own-risk and solvency assessment supervisory report, the supervisory authorities each time the Solvency Capital

Requirement is calculated whether there have been any material changes to the information included in the application.

Undertakings should provide relevant details of the material changes and where applicable, the actions the undertaking has taken to fulfil the requirements for the use of undertaking-specific parameter.

Where the material changes include the use of new data, undertakings should provide at the request of supervisory authorities the new calculation of the undertaking-specific parameters and information that the calculation is adequate.

Notwithstanding paragraph 2, undertakings should immediately inform the supervisory authorities of any material changes in the circumstances that are relevant to assess the appropriateness of the replacement of a subset of parameters of the standard formula by undertaking-specific parameters.

If undertakings become aware that another standardised method provides a more accurate result for the purpose of fulfilling the calibration requirements included in Article 101(3) of Solvency II, they should submit a new application for the use of this standardised method.

2.24. Significant changes in the risk profile or in the assumptions made for the USP calculation should inter alia be considered as material change that can lead to non-compliance.

Guideline 11 – Remedial of non-compliance

In case of non-compliance with the requirements for undertaking-specific parameters, the supervisory authority should decide whether the undertaking can remedy the non-compliance and submit a new application.

When taking the decision referred to in [Article 8 of the EIOPA draft implementing technical standards with regard to the supervisory approval procedure to use undertaking-specific parameters (hereinafter "ITS on USP approval")], the supervisory authority should consider the degree and the scope of the non-compliance as well as the time needed to remedy it.

The supervisory authority should withdraw the approval to use undertaking specific parameters where compliance with the requirements is not restored within three months.

2.25. As there can be different reasons for non-compliance it is desirable to leave the decision on the appropriate measure to be taken to the discretion of the supervisory authority. Possible situations where the supervisory authority might contemplate allowing a new application could be when compliance can be

restored in a reasonable time period, the method to achieve this is known or the impact on the Solvency Capital Requirement is not significant.

2.26. The assessment of the new application by the supervisory authority may not include all elements considered in the previous decision, for example the scope of parameters to be replaced by undertaking-specific parameters.

Requirement from the supervisory authority to use undertaking-specific parameters

Guideline 12 – Requirement from the supervisory authority to use undertaking-specific parameters

Where in accordance with Article 110 of Solvency II the supervisory authority deems the use of undertaking specific parameters necessary, it should indicate to the undertaking which parameters as referred to in [Article 196 USP1 of the draft Implementing Measures] have to be replaced. After liaising with the undertaking, the supervisory authority should set a reasonable timeframe for the submission of the application.

After receiving the request of the supervisory authority, the undertaking should analyse the available standardised methods. When assessing the choice referred to in [Article 4(1) of the ITS on USP approval] the supervisory authority should take into account that the application was submitted upon its request.

2.27. If the supervisory authority considers that the undertaking-specific parameters cannot be a solution for the inappropriateness of the standard formula parameters, it may rather consider requiring the use of a partial internal model from the undertaking in accordance with Article 119 Solvency II.

Guideline 13 – Significant deviation

When considering if there is a significant deviation as referred to in Article 110 of Solvency II, supervisory authorities should take into account all relevant factors including the followings:

(a) the findings arising out of the supervisory review process;

(b) the nature, type and size of the deviation;

(c) the likelihood and severity of any adverse impact on policyholders and beneficiaries;

(d) the level of sensitivity of the assumptions to which the deviation relates;

(e) the expected duration and volatility of the deviation over the duration of the deviation.

Supervisory authorities should perform this analysis at the level of each segment for which the use of undertaking-specific parameters is possible.

2.28. While the factors to be taken into account listed in the Guideline are the same as for the imposition of a capital add-on as set out in [Article 266 DA of the draft Implementing Measures] the assessment might be different because it concerns only one risk in one specific segment and not the risk profile of the undertaking as a whole.

Group specific issues

Guideline 16 – Data quality requirements at group level

The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should be able to demonstrate to the group supervisor that the nature of the group business and its risk profile are similar enough to those of the solo undertakings providing the data to ensure consistency between the statistical assumptions underlying the data used at solo and group level.

2.29. There should be sufficient statistical evidence that the probability distributions underlying the data of the undertaking and at group level exhibit a high degree of similarity (in particular evidence that a deviation in the volatility level is not caused by the lack of homogeneity in the group).

2.30. The participating insurance or reinsurance undertaking, insurance holding company or mixed financial holding company should verify whether the risk mitigating effect of reinsurance contracts or special purpose vehicles which affects the data at solo level also affects group consolidated data. If this is not the case it should be responsible for making appropriate adjustments to calculate the parameters on the basis of consistent data.

2.31. Similarly to the solo undertakings which may use external data which is directly relevant for the operations of this undertaking, the participating insurance or reinsurance undertaking, insurance holding company or mixed financial holding company may use external data from sources outside the scope of the group for the purpose of group solvency calculation.

Appendix – Criteria of completeness

2.32. To calculate undertaking-specific parameters in the life and health revision risk sub-modules, sufficient data should be available to allow for the measurement of the volatility and uncertainty of:

(a) the behaviour of biometric factors, such as the evolution of the health state of insured persons.

(b) the impact of the legal environment on potential revisions to the amount of annuities.

2.33. To calculate undertaking-specific parameters in the Non-life and NSLT health premium and reserve risk sub-modules, sufficient historical information should be available to allow for the measurement of the volatility and uncertainty:

(a) in the relation between the total amount of future claims and the premiums received for the risks covered. This means that sufficiently granular data should be available on the different sources of payments (within each homogeneous risk group) arising from future claims. This is to ensure that each component of the risk is effectively measured and the volatility (and uncertainty) of each component is appropriately estimated.

(b) in the claims development patterns. This means that sufficiently granular data should be available to ensure the possibility to analyse such behaviour per homogeneous risk groups and therefore the volatility (and uncertainty) of each component is appropriately estimated.

2.34. The level of granularity of the data used should be equivalent (i.e. the same) to the level of granularity of the inputs set out in the scope of the standardized methods. In any case the data should be at least as granular as required in those methods.

2.35. Data is considered complete if it also covers a sufficiently long period. This means that the period should be as long or longer than the period that would be necessary for an undertaking to calculate technical provisions (whether that undertaking was using undertaking-specific parameters or not). This requirement is necessary as the volatility of losses is likely more sensitive to each individual observation than their expected value.

2.36. However, it is expected that an undertaking which applies undertaking-specific parameters to calculate the Solvency Capital Requirement uses as input the same data as for the calculation of technical provisions. This implies that the

levels of completeness in data are equivalent (i.e. the same or more granular) in both cases. It may only be acceptable that both differ in very specific circumstances where the undertaking is able to demonstrate that the difference in the number of years that the data cover increases the level of accuracy, completeness or appropriateness of data for one or both calculations. There should be no "cherry-picking."

IV. Groups

A. Group Solvency

1. Guidelines

Introduction

1.1. These Guidelines are drafted according to Article 16 of Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (hereinafter "EIOPA Regulation").

1.2. The Guidelines relate to Articles 212 to 235 and Articles 261 to 263 of Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (hereinafter "Solvency II").

1.3. These Guidelines are addressed to supervisory authorities under Solvency II.

1.4. The Guidelines on group solvency calculation aim at specifying and harmonising the requirements on the calculation of group solvency.

1.5. The Guidelines apply to all the methods of group solvency calculation unless otherwise specified. When relevant, the standard formula or the internal model will be specified in the Guidelines.

1.6. The Guidelines provide guidance on the treatment of European Economic Area (hereinafter "EEA") groups as well as of any subgroup established in the EEA in the context of Articles 215 to 217 of Solvency II.

1.7. When the group is allowed to use the deduction and aggregation method for the purpose of calculating the group solvency and provided that the Member State has implemented the option set out in paragraph 1 of Article 227 of Solvency II, the local solvency capital requirements and eligible own funds as laid down by the equivalent third-country can be used.

1.8. If not defined in these Guidelines the terms have the meaning defined in the legal acts referred to in the introduction.

1.9. The Guidelines shall apply from [1 April 2015].

Guideline 1 - Scope of the group for the group solvency calculation

1.10. The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company responsible for calculating the group solvency should ensure that all related undertakings and all risks within the group are included in the group solvency calculation.

Guideline 2 - Consolidation process

1.11. The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should provide guidance to all related undertakings on how to prepare data for the purpose of calculating the group solvency. They should provide the necessary instructions for the preparation of consolidated, combined or aggregated data depending on the method of calculation used. They should ensure that their instructions are applied adequately and homogenously within the group with respect to the recognition and valuation of balance sheet items as well as the inclusion and treatment of related undertakings.

Guideline 3 - Assessment of significant and dominant influence

1.12. When determining the scope of the group, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should ensure that any decision made by the group supervisor with regard to the level of the influence effectively exercised by any undertaking over another undertaking is being implemented.

Guideline 4 – Cases of application of group supervision

1.13. Since the four cases of application of group supervision referred to in Article 213(2)(a) to (d) of Solvency II are not mutually exclusive, supervisory authorities should consider applying group supervision prescribed under this Article at several levels of the same group.

Guideline 5 - Parent insurance or reinsurance undertaking, insurance holding company or mixed financial holding company headquartered in a third country

1.14. According to Article 215 of Solvency II, where a subgroup referred to in Article 213(2)(a) and (b) of Solvency II exists, supervisory authorities of the ultimate parent undertaking in the European Union, after consulting with other supervisory authorities concerned, should ensure that group supervision applies by default at the level of the ultimate parent undertaking in the European Union and that it is waived - on a case-by-case basis - for groups headquartered in a

third country that have a positive equivalence finding for group solvency supervision.

1.15. Where the parent insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company is headquartered in an equivalent third country, supervisory authorities of the ultimate parent undertaking in the European Union should rely on the group supervision exercised by the third-country supervisory authorities according to Article 261 of Solvency II and exempt the third-country group from group supervision at the ultimate level of the European Union on a case-by-case basis, where this would result in a more efficient supervision of the group and would not impair the supervisory activities of the supervisory authorities concerned in respect of their individual responsibilities.

1.16. Supervisory authorities of the ultimate parent undertaking in the European Union should consider a more efficient group supervision as achieved when at least the following criteria are met:

1. the cooperation currently in place between the third-country group supervisor and EEA supervisory authorities for the group concerned is structured and well-managed through regular exchange of information and meetings within a college of supervisors to which the EEA supervisory authorities and EIOPA are invited;
2. a yearly work plan, including joint on-site examinations, is agreed upon in these regular meetings by the supervisory authorities involved in the supervision of the group;
3. on the basis of a structured and appropriate information exchange, EEA supervisory authorities and EIOPA should have an adequate view of the worldwide risks of the group to enable the EEA supervisory authorities to form an opinion on the possible consequences for the EEA supervised entities, including in terms of capital allocation.

1.17. Supervisory authorities concerned together with the third-country group supervisor should outline their cooperation including any arrangement related to the above criteria in the coordination arrangement of the third-country supervisory college.

1.18. Where the parent insurance and reinsurance undertaking, the insurance holding company or the mixed financial holding company is headquartered in a non-equivalent third country, group solvency supervision should be applied at the level of the ultimate parent undertaking in the European Union where a group, as defined by Article 213(2)(a) or (b) of Solvency II, exists. Where such group does not exist, the supervisory authorities should decide whether to require, by virtue of Article 262(2) of Solvency II, the establishment of an insurance

holding company or a mixed financial holding company which has its head office in the European Union and subject this subgroup to group supervision and group solvency calculation.

Guideline 6 – Criteria to exercise subgroup supervision at national level or at the level of several Member States

1.19. The criteria set out in [Article 340bis CGS4 of the draft Implementing Measures] should be assessed with regard to the overall objectives of Solvency II, in particular the protection of the policyholders of the subgroup.

1.20. Supervisory authorities should explain their decision both to the group supervisor and to the ultimate parent undertaking.

Guideline 7 - Parent undertaking is a mixed-activity insurance holding company

1.21. Group solvency calculation should not be applied to groups, where the parent undertaking is a mixed-activity insurance holding company, but should be applied to groups within that group, provided that they satisfy the criteria of 213(2)(a), (b) or (c) of Solvency II.

Guideline 8 – Application of the method of calculation

1.22. For the purpose of calculating the group solvency, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should consider the same scope of the group irrespective of whether the accounting consolidation-based method, the deduction and aggregation method or a combination of both methods is used.

1.23. They should ensure to cover all related undertakings belonging to the group unless otherwise excluded in Article 214 of Solvency II.

Guideline 9 - Choice of the method of calculation and assessment of the intra-group transactions

1.24. When deciding whether the exclusive application of the accounting consolidation-based method is inappropriate according to [Article 321 SCG1 1(e) of the draft Implementing Measures], the group supervisor should consider the presence of intra-group transactions between the undertakings that will be using the deduction and aggregation method and the consolidated part of the group, rather than intra-group transactions between the undertakings within the consolidated part of the group.

Guideline 10 - Proportional share

1.25. When calculating the group solvency according to the accounting consolidation-based method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should determine the proportional share it holds in its related undertakings by taking:

(a) 100 % when including a subsidiary according to [Article 323bis SCG3(1)(a)-(b) of the draft Implementing Measures] unless otherwise decided in accordance with Guideline 11;

(b) the percentage used for the establishment of the consolidated accounts when including undertakings according to [Article 323bis SCG3 (1)(c) of the draft Implementing Measures];

(c) the proportion of the subscribed capital that is held, directly or indirectly, by the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company when including related undertakings according to [Article 323bis SCG3 (1)(e) of the draft Implementing Measures].

Guideline 11 - Criteria for the recognition of the solvency deficit of a subsidiary on a proportional basis

1.26. In order to prove that the responsibility of the parent undertaking is strictly limited to the share of capital of the insurance or reinsurance subsidiary as envisaged in Article 221(1) of Solvency II, the parent undertaking should provide evidence to the group supervisor that at least the following criteria are met:

(a) no profit and loss transfer agreement and no guarantees, net worth maintenance agreements or other agreements of the parent undertaking or any other related undertaking to provide financial support are in place;

(b) the investment in the subsidiary is not considered as a strategic investment for the parent undertaking;

(c) the parent undertaking does not benefit of any advantage from its participation in the subsidiary where such advantage could take the form of intra-group transactions such as loans, reinsurance agreements, service agreements or other transactions;

(d) the subsidiary is not a core component of the group's business model, in particular regarding product offering, client base, underwriting, distribution, investment strategy and management. Furthermore it is not operating under the same name or brand, and there are no

interlocking responsibilities at the level of the group senior management;

(e) a written agreement between the parent undertaking and the subsidiary explicitly limits the support of the parent undertaking in case of a solvency deficit to the parent undertaking's share in the capital of that subsidiary. In addition, the subsidiary should have a strategy in place to resolve the solvency deficit, such as guarantees from minority shareholders.

1.27. Where a subsidiary is included in the scope of the internal model to calculate the group solvency capital requirement, the group supervisor should not allow the parent undertaking to take into account the solvency deficit of the subsidiary on a proportional basis.

1.28. The group supervisor should assess such criteria, after consulting the other supervisory authorities concerned and the group itself, on a case-by-case basis, taking into account the specific features of the group.

1.29. The status of strictly limited responsibility of the parent undertaking should be subject to an annual review by the group supervisor.

1.30. The parent undertaking and the subsidiary should disclose the positive decision of the group supervisor that allows the recognition of the solvency deficit on a proportional basis in order to inform policyholders and investors, as material information in the capital management section of the group and individual Solvency and Financial Condition Report.

1.31. When preparing the consolidated data using the accounting consolidation-based method, the own funds and the solvency capital requirement of the subsidiary should be calculated on a proportional basis instead of applying a full consolidation.

1.32. When preparing the aggregated data using the deduction and aggregation method, the own funds and the solvency capital requirement of the subsidiary should be calculated using the proportional share of that subsidiary, also in the case of a solvency deficit.

Guideline 12 - Treatment of specific related undertakings for group solvency calculation

1.33. When the undertakings of other financial sectors form a group subject to sectoral capital requirement, and this group is not excluded from the scope of group supervision, 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.

1.34. The capital requirements and the own-funds of related third-country undertakings of other financial sectors and institutions for occupational retirement provision should be taken into account according to the relevant sectoral rules existing in the European Union.

Guideline 13 - Notional solvency capital requirement for an insurance holding company and a mixed financial holding company included in the group solvency calculation

1.35. The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should calculate a notional individual solvency capital requirement for both the parent and the intermediate insurance holding company or the parent and the intermediate mixed financial holding company, including those located in third countries.

1.36. The notional solvency capital requirement for insurance holding companies and mixed financial holding companies should be calculated in accordance with Articles 100 to 127 of Solvency II.

Guideline 14 - Availability at group level of the eligible own funds of related undertakings

1.37. In order to calculate the amount of own funds that cannot effectively be made available to cover the group solvency capital requirement, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should use the sum of the own funds as referred to in Article 222(2) of Solvency II and in [Article 323 SCG3 of the draft Implementing Measures] for each related insurance or reinsurance undertaking, intermediate insurance holding company or intermediate mixed financial holding company.

1.38. They should only consider non-available own funds to cover the group solvency capital requirement up to the contribution of the related undertaking to the group solvency capital requirement.

Guideline 15 - Contribution of a subsidiary to the group solvency capital requirement

1.39. When using the accounting consolidation-based method and when the standard formula is applied, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should calculate the contribution of a subsidiary to the group solvency capital requirement according to Technical Annex 1.

1.40. For insurance or reinsurance undertakings, intermediate insurance holding company or intermediate mixed financial holding company consolidated according to [Article 323bis SCG3 (1)(c) of the draft Implementing Measures],

the contribution of the individual solvency capital requirement should be calculated taking into account the proportional share used for the determination of the consolidated data.

1.41. When the consolidated group solvency capital requirement is calculated on the basis of an internal model, the contribution of a subsidiary to the group solvency capital requirement should be the product of the solvency capital requirement of that subsidiary and the percentage corresponding to the diversification effects attributed to that subsidiary according to the internal model.

1.42. When using the deduction and aggregation method, the contribution of a subsidiary to the group solvency capital requirement should be the individual solvency capital requirement, since no diversification effects at group level are taken into account.

Guideline 16 - Availability of own funds at group level of related undertakings that are not subsidiaries

1.43. The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should assess the availability of own funds according to Article 222(2) of Solvency II and to [Article 323 SCG3 of the draft Implementing Measures] for insurance or reinsurance undertakings, intermediate insurance holding companies and intermediate mixed financial holding companies over which a significant influence is exercised, when the own-fund items of these undertakings materially affect the amount of group own funds or the group solvency. They should explain to the group supervisor how the assessment was made.

1.44. The group supervisor should review, in close cooperation with the other supervisory authorities involved, the assessment made by the group.

Guideline 17 - Availability of own funds at group level of ancillary services undertakings and special purpose vehicles

1.45. The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should assess the availability of own funds according to Article 222(2) of Solvency II and to [Article 323 SCG3 of the draft Implementing Measures] for related ancillary services undertakings and special purpose vehicles, when the own-fund items of these undertakings materially affect the amount of group own funds or the group solvency. They should explain to the group supervisor how the assessment was made.

1.46. The group supervisor should review, in close cooperation with the other supervisory authorities involved, the assessment made by the group.

Guideline 18 - Treatment of minority interests for covering the group solvency capital requirement

1.47. The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should 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:

(a) calculate the eligible own funds exceeding the contribution of the subsidiary to the group solvency capital requirement;

(b) deduct non-available own funds from the own funds calculated in point 1;

(c) calculate the minority interest share from the result of point 2.

Guideline 19 - Treatment of ring-fenced funds and matching adjustment portfolios for covering the group solvency capital requirement

1.48. For all undertakings included in the group solvency calculation using the accounting consolidation-based method and for undertakings in non-equivalent third countries included in the group solvency calculation using the deduction and aggregation method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should apply the principles for ring-fenced funds and matching adjustment portfolios as set out in [Article 70 RFFOF2 of the draft Implementing Measures] and [Article195 RFFSCR2 of the draft Implementing Measures].

1.49. For undertakings in equivalent third countries included in the group solvency calculation using the deduction and aggregation method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should identify any restriction to the undertakings' own funds due to ring-fencing of assets or liabilities or similar arrangements in accordance with the equivalent solvency regime. These restrictions should be assessed as part of the assessment of the availability in accordance with Guideline 14.

1.50. When calculating the group solvency capital requirement using the accounting consolidation-based method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should not eliminate intra-group transactions between the assets and liabilities associated with each material ring-fenced fund or with each matching adjustment portfolio and the remaining consolidated data. The group solvency capital requirement calculated on the basis of the consolidated data should be the sum of:

(a) the notional solvency capital requirement for each material ring-fenced fund and each matching adjustment portfolio, both calculated with the assets and liabilities of the ring-fenced fund gross of intra-group transactions; and

(b) the (diversified) group solvency capital requirement for the remaining consolidated data (excluding assets and liabilities of all material ring-fenced funds, but including the assets and liabilities of all non-material ring-fenced funds). When calculating the group solvency capital requirements for the remaining consolidated data intra-group transactions should be eliminated, while intra-group transactions between the remaining consolidated data and the material ring-fenced funds should not be eliminated.

1.51. The consolidated data used to calculate the group own funds should be net of intra-group transactions as set out in [Article 323bis SCG3(3) of the draft Implementing Measures]. Therefore, all intra-group transactions between material ring-fenced funds and the remaining consolidated data should be eliminated for the calculation of the group own funds.

1.52. For each material ring-fenced funds and for each matching adjustment portfolio identified within the consolidated data under the accounting consolidation-based method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should calculate the restricted own-fund items using the same assets and liabilities of the ring-fenced fund used to calculate its notional solvency capital requirement or matching adjustment portfolio as described above, i.e. gross of intra-group transactions.

1.53. Therefore, the total restricted own funds within the ring-fenced fund or matching adjustment portfolio to be deducted from the group reconciliation reserve should be the sum of all material restricted own funds identified in EEA insurance or reinsurance undertakings and the restricted own funds identified in any non-EEA insurance and reinsurance undertaking in the scope of the consolidated data.

Guideline 20 - Treatment of non-available own funds of third-country insurance and reinsurance subsidiaries for covering the group solvency capital requirement

1.54. When using the accounting consolidation-based method, the participating insurance and reinsurance undertaking, the insurance holding company or the mixed financial holding company should consider all own funds of a third-country insurance and reinsurance subsidiary to be non-available, if there are restrictions to their fungibility and transferability at group level. In such case,

they should only include them up to the contribution of the subsidiary to the group solvency capital requirement. This contribution should be calculated according to Technical Annex 1.

1.55. When assessing whether the own funds of a third country insurance or reinsurance subsidiary are available at group level, the group supervisor should take into account the criteria set out in [Article 323 SCG3 of the draft Implementing Measures] and discuss its assessment with the other supervisory authorities in the college, including the supervisory authorities of the third countries involved, and with the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company.

1.56. When using the deduction and aggregation method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should include non-available own funds in subsidiaries located in non-equivalent third countries up to the level of the individual solvency capital requirement.

1.57. They should include non-available own funds in subsidiaries located in equivalent third-countries up to the level of the local capital requirement included in the group solvency calculation.

Guideline 21 - Adjustments related to non-available own funds for the calculation of group eligible own funds

1.58. When using the accounting consolidation-based method, the participating insurance and reinsurance undertaking, the insurance holding company or the mixed financial holding company should deduct the part of the own funds of related undertakings not available for covering the group solvency capital requirement from the relevant own-fund items and the relevant tiers of the consolidated group own funds.

1.59. They should follow the process described below for calculating eligible group own funds to cover the group solvency capital requirement and the minimum consolidated group solvency capital requirement:

(a) the group own funds are calculated on the basis of the consolidated data as referred to in [Article 323bis SCG3 (a) to (f) of the draft Implementing Measures] net of any intra-group transactions;

(b) the group own funds are classified into tiers;

(c) the available group own funds are calculated net of group adjustments relevant at group level;

(d) the eligible own funds are subject to the same tiering limits applying at individual level in order to cover the group solvency capital requirement and the minimum consolidated group solvency capital requirement.

1.60. When using the deduction and aggregation method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should use the sum of the eligible own funds of related undertakings after deducting non-available own funds at group level.

1.61. For both calculation methods, where the non-available own funds have been classified into more than one tier, the order in which they are deducted from the different tiers should be explained to the group supervisor.

Guideline 22 - Process for assessing non-available own funds by the group supervisor

1.62. The group supervisor should discuss its assessment of non-available own funds with the other supervisory authorities concerned within the college and with the participating insurance and reinsurance undertaking, the insurance holding company or the mixed financial holding company. The process should be as follows:

a) in its Regular Supervisory Report, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should provide the group supervisor with its assessment of non-available own funds for all the undertakings included in the calculation of the group solvency. They should also explain the adjustments made in order to deduct non-available own funds;
b) in the context of a cross-border group, the group supervisor should discuss its assessment of non-available own funds within the college as well as with the group;
c) each supervisory authority should provide its assessment of the availability at group level of the own funds related to the supervised undertakings;
d) the group supervisor should discuss with the other supervisory authorities concerned whether the availability of own funds changes when assessing it at individual or group level.

Guideline 23 - Reconciliation reserve at group level

1.63. The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should ensure that the reconciliation reserve at group level equals to the excess of assets over liabilities excluding the basic own-funds items separately identified on the list of

own-funds items, as well as minority interests. The amount of the reconciliation reserve should be reduced by:

(a) the value of own shares held by the participating insurance or reinsurance undertaking, the insurance holding company and the related undertakings,

(b) the foreseeable dividends and distributions,

(c) the restricted own-fund items that exceed the notional solvency capital requirement in the case of ring fenced funds at group level.

1.64. The reconciliation reserve should be reduced to reflect the non-availability of basic own-fund items included in the reconciliation reserve at group level that have not already been deducted from the relevant own-fund items according to Guideline 21.

Guideline 24 - Determination of the consolidated data for the group solvency calculation

1.65. The consolidated data should be calculated on the basis of the consolidated accounts that have been valued according to Solvency II rules with respect to the recognition and valuation of balance sheet items as well as the inclusion and treatment of the related undertakings.

1.66. Where a related undertaking is linked with another undertaking by a relationship as set out in Article 12(1) of Directive 83/349/EEC, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should determine which proportional share should be used when calculating the group solvency. By default they should use a proportional share of 100%. Where they seek to use another percentage, they should explain to the group supervisor why this is appropriate. After consulting the other supervisory authorities concerned and the group itself, the group supervisor should decide on the appropriateness of the proportional share chosen by the group.

Guideline 25 - Treatment of special purpose vehicles

1.67. When using the accounting consolidation-based method and when the special purpose vehicle is not in one of the situations described in [Article 322(1) 3) of the draft Implementing Measures], the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should fully consolidate the special purpose vehicle in line with [Article 323 bis SCG3 1(b)]. They should fully consolidate the data of a special purpose

vehicle to which they or any related insurance or reinsurance undertaking have transferred risks.

1.68. When the special purpose vehicle is regulated by a third-country supervisory authority and the special purpose vehicle does not comply with equivalent requirements as set out in Article 211 of Solvency II, this special purpose vehicle should be included in the group solvency calculation as described above.

Guideline 26 - Determination of the currency for the purpose of the currency risk calculation

1.69. Where the consolidated group solvency capital requirement is calculated on the basis of the standard formula, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should calculate the capital requirement for the currency risk according to Article 105(5) of Solvency II.

1.70. When applying the standard formula, the group's local currency referred to in the currency risk calculation should be the currency used for the preparation of the consolidated accounts.

1.71. The capital requirement for the currency risk should take account of any relevant risk mitigation techniques which meet the requirements set out in [Articles SCRRM1 to SCRRM7 of the draft Implementing Measures]. Where the consolidated solvency capital requirement is calculated using the standard formula, all the investments denominated in a currency pegged to the currency of the consolidated accounts should be taken into account in accordance with [Article 172 CR1 of the draft Implementing Measures].

1.72. Where an internal model is used to calculate the consolidated group solvency, groups should be able to demonstrate that the internal model covers all material quantifiable risks, including currency risk. The assessment should take into account an appropriate set of qualitative and quantitative indicators as set out in [Article 222 TSIM 12 of the draft Implementing Measures].

Guideline 27 - Minimum consolidated group solvency capital requirement (floor to the group solvency capital requirement)

1.73. The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should determine the minimum consolidated group solvency capital requirement calculated as the sum of:

(a) the minimum capital requirement of the participating insurance or reinsurance undertaking or the notional minimum capital requirement of the insurance holding company or mixed financial holding company;
(b) the proportional share of the minimum capital requirement of the related insurance or reinsurance undertakings and the proportional share of the notional minimum capital requirement of the intermediate insurance holding companies or intermediate mixed financial holding companies.

1.74. The proportional share of the minimum capital requirement of the related undertakings should be the same as the proportional share used to calculate the consolidated data.

1.75. For insurance holding companies and mixed financial holding companies, the notional minimum capital requirement should be 35% of their notional solvency capital requirement.

1.76. The individual minimum capital requirement of third-country insurance or reinsurance undertakings to be taken into account should be the local capital requirement under which the authorisation would be withdrawn, independently of any equivalence finding.

Guideline 28 – Minimum consolidated group solvency capital requirement

1.77. When the minimum consolidated group solvency capital requirement is no longer complied with, or when there is a risk of non-compliance in the following three months, the supervisory measures set out in paragraphs 1 and 2 of Article 139 of Solvency II for non-compliance with the individual minimum capital requirement should apply at group level.

Guideline 29 - Calculation of the aggregated group own funds

1.78. When applying the deduction and aggregation method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should calculate the aggregated group own funds as the sum of:
(a) the own funds of the participating insurance or reinsurance undertaking or the notional own funds of the parent insurance holding company or mixed financial holding company;

(b) the proportional share of the own funds of the related insurance or reinsurance undertakings and the proportional share of the notional own funds of the intermediate insurance holding companies or intermediate mixed financial holding companies;

(c) the proportional share of the own funds of the related third-country insurance or reinsurance undertakings and the proportional share of the notional own funds of the intermediate insurance holding companies or intermediate mixed financial holding companies calculated according to Solvency II rules. If the third country is equivalent, local rules apply depending on how the option set out in Article 227(1) of Solvency II was implemented by the Member State;

(d) the proportional share of the own funds of credit institutions, investment firms, financial institutions, alternative investment fund managers, asset management companies and institutions for occupational retirement provision, calculated according to the relevant sectoral rules existing in the European Union, and the proportional share of the own funds of non-regulated undertakings carrying out financial activities; for related third-country undertakings own funds should be calculated according to the relevant sectoral rules existing in the European Union.

1.79. Other related undertakings in the scope of the group solvency calculation should be included in accordance with [Article 9bis V5bis].

1.80. Own funds should be calculated net of intra-group transactions and of the adjustments related to non-available own funds.

Guideline 30 - Calculation of aggregated group solvency capital requirement

1.81. When applying the deduction and aggregation method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should calculate the aggregated group solvency capital requirement as the sum of:

(a) the solvency capital requirement of the participating insurance or reinsurance undertaking or the notional solvency capital requirement of the parent insurance holding company or mixed financial holding company;

(b) the proportional share of the solvency capital requirement of the related insurance or reinsurance undertakings and the proportional share of the notional solvency capital requirement of the intermediate insurance holding companies or intermediate mixed financial holding companies;

(c) the proportional share of the solvency capital requirement of the related third-country insurance or reinsurance undertakings and the proportional share of the notional solvency capital requirement of the intermediate insurance holding companies or intermediate mixed financial holding

companies calculated according to Solvency II rules. If the third country is equivalent, local rules apply depending on how the option set out in Article 227(1) of Solvency II was implemented by the Member State;

(d) the proportional share of the capital requirement of credit institutions, investment firms, financial institutions, alternative investment fund managers, asset management companies and institutions for occupational retirement provision, calculated according to the relevant sectoral rules existing in the European Union and the proportional share of the notional solvency capital requirement of non-regulated undertakings carrying out financial activities; for related third country undertakings, the capital requirement should be calculated according to the relevant sectoral rules existing in the European Union.

1.82. The solvency capital requirement for the other related undertakings should be determined in accordance with [Article 9bis V5bis, Articles ER1 to ER4, Articles CO1 to CO6 and Article CR1 of the draft Implementing Measures].

Guideline 31 – Treatment of group specific risks

1.83. The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should calculate the group solvency capital requirement taking into account all quantifiable, material specific risks existing at group level, which may impact the solvency and financial position of the group. If the group specific risks are material, the group should use group-specific parameters or a partial internal model for the calculation of the solvency capital requirement corresponding to the group-specific risks.

1.84. These risks are:

(a) the risks which are also present at individual level, but whose impact is significantly different (which behave in a different way) at group level, or

(b) the risks only present at group level.

1.85. The group solvency capital requirement for the quantifiable part of these risks should be calculated as follows:

(a) in the case described in (a) by applying different calibrations to the relevant risk modules or sub-modules than those used at the individual level, or by applying appropriate scenarios;

(b) in the case of (b) by applying appropriate scenarios.

1.86. If the group is unable to reflect the risk profile in the group solvency capital requirement due to the specific risks existing at group level as described above, the group supervisor, after consulting the other supervisory authorities

concerned, should be able to impose a group capital add-on, as provided for in Articles 232(a) and 233(6) of Solvency II.

Guideline 32 – Treatment of reinsurance arrangements concluded within the group

1.87. When using the accounting consolidation-based method, a reinsurance arrangement concluded entirely within a group should not result in a decrease of the group solvency capital requirement in the absence of additional external financing of the group. Any reduction in the group solvency capital requirement should reflect an effective transfer of risks outside of the group.

Guideline 33 - Risk profile capital add-on when using the accounting consolidation-based method

1.88. Where a risk profile capital add-on has been set on a related undertaking, and where all or part of the group solvency capital requirement has been calculated using the accounting consolidation-based method, the group supervisor should assess at group level the significance of the deviation of the risk profile from the assumptions underlying the solvency capital requirement as calculated using the standard formula or an internal model, and should consider the need for imposing a capital add-on on the group solvency capital requirement.

Guideline 34 – Governance capital add-on when using the accounting consolidation-based method

1.89. Where a governance capital add-on has been set on a related undertaking of a group, and where all or part of the group solvency capital requirement has been calculated using the accounting consolidation-based method, the group supervisor should assess at group level the significance of the deviation from the standards laid down in Articles 41 to 49 of Solvency II, and should consider the need for imposing a capital add-on on the group solvency capital requirement.

Guideline 35 - Assessment of the deviation when imposing a capital add-on at group level

1.90. When a capital add-on has been set at group level, the supervisory authority of a related undertaking should assess whether the deviation stems from the risk profile or from the system of governance at the level of the related undertaking.
1.91. If so, the supervisory authority concerned should assess the significance of the deviation from the risk profile or from the system of governance standards, and

should consider the need for imposing a capital add-on at the level of the related undertaking.

Guideline 36 – Capital add-on when using the deduction and aggregation method

1.92. Where all or part of the group solvency capital requirement is calculated using the deduction and aggregation method, any risk profile capital add-on set on a related undertaking that is included under the deduction and aggregation method should be added to the group solvency capital requirement for the proportional share as referred to in Article 221(1) (b) of Solvency II. The double counting of the same deviation from the risk profile at individual and group level should be avoided.

2. Explanatory text

Guideline 1 - Scope of the group for the group solvency calculation
The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company responsible for calculating the group solvency should ensure that all related undertakings and all risks within the group are included in the group solvency calculation.

2.1. Once the scope of the group for the purpose of calculating the group solvency has been identified in accordance with the definition of the group in Article 212, the cases of application of group supervision in Article 213 and the supervision of group solvency in Article 218 of Solvency II, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company responsible for calculating the group solvency needs to ensure that all related undertakings and all risks within the group are included in the group solvency calculation.

2.2. According to Article 212(1)(c), a group consists of a participating undertaking, its subsidiaries and related undertakings.

2.3. Article 212(2) of Solvency II gives to the supervisory authorities the possibility to consider:

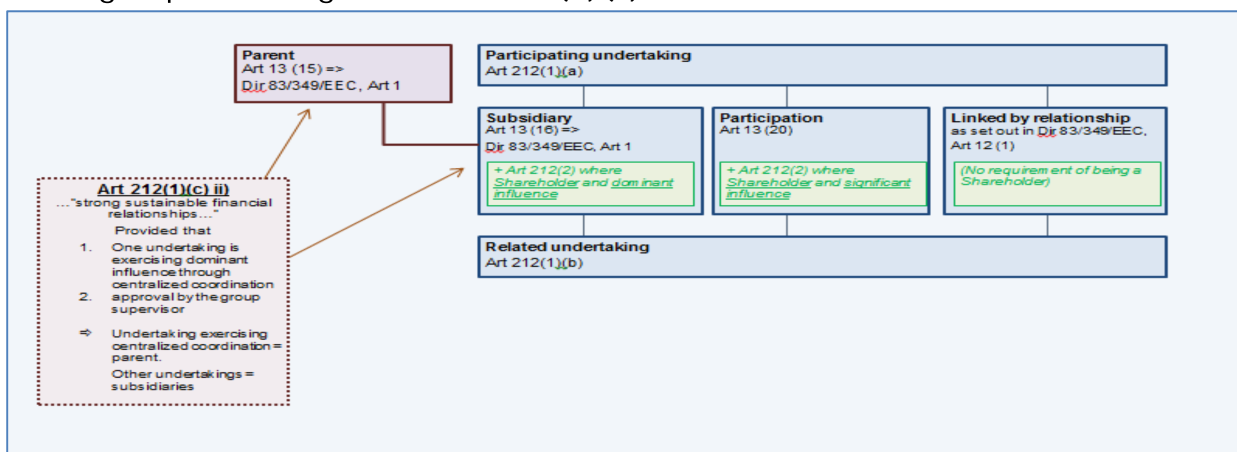
(a) as a parent undertaking any undertaking which effectively exercises a dominant influence over another undertaking;

(b) as a subsidiary any undertaking over which a parent undertaking effectively exercises a dominant influence;

(c) as a participation the holding, directly or indirectly, of voting rights or capital in an undertaking over which a significant influence is effectively exercised.

2.4. Where an undertaking is linked with another undertaking by a relationship as referred to in Article 12(1) of Directive 83/349/EEC, this undertaking is not considered a subsidiary.

2.5. The illustration below shows all the undertakings included in the scope of a group according to Article 212 (1)(c).



2.6. Article 213(2) of Solvency II sets out four different cases of application of group supervision under Solvency II. Full group supervision is applied to groups defined under Article 213(2)(a) and (b). For groups defined under Article 213(2)(c), the application of group supervision depends on a finding of equivalence, as set out in Articles 260-263. Group supervision is limited to the supervision of intra-group transactions as regards groups defined under Article 213(2)(d).

2.7. In the cases of application of Article 213(2)(b) and (c), when there is an insurance holding company or a mixed financial holding company that is a parent undertaking of at least one insurance or reinsurance undertaking, there is a group for the purpose of calculating the group solvency.

2.8. Insurance holding companies and mixed financial holding companies are treated as insurance undertakings for the purpose of the group solvency calculation, in order to avoid a more favourable treatment due to the fact that they are not subject to any national supervision.

Guideline 2 - Consolidation process

The participating insurance or reinsurance undertaking, the insurance holding

company or the mixed financial holding company should provide guidance to all related undertakings on how to prepare data for the purpose of calculating the group solvency. They should provide the necessary instructions for the preparation of consolidated, combined or aggregated data depending on the method of calculation used. They should ensure that their instructions are applied adequately and homogenously within the group with respect to the recognition and valuation of balance sheet items as well as the inclusion and treatment of related undertakings.

2.9. The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company reports to the group supervisor how the consolidated, aggregated or combined data (depending on the method of calculation used) have been prepared as well as the processes put in place to prepare it.

Guideline 3 - Assessment of significant and dominant influence

When determining the scope of the group, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should ensure that any decision made by the group supervisor with regard to the level of the influence effectively exercised by any undertaking over another undertaking is being implemented.

2.10. The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company assesses the level of influence that any undertaking effectively exercises over the other undertakings. This assessment is consistent with the assessment made for the preparation of the consolidated accounts in most cases.

2.11. Significant and dominant influence is usually evidenced by one or several criteria indicated in Guideline 1 of the Guidelines on the treatment of related undertakings, including participations.

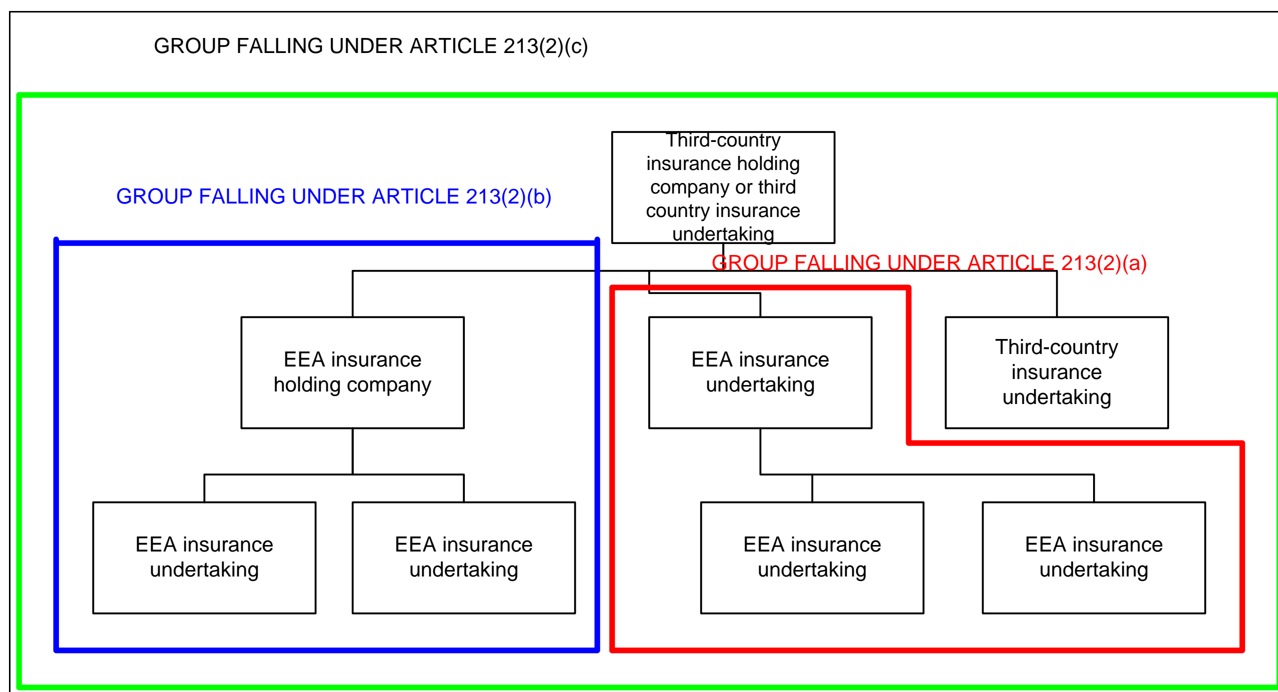
2.12. If the group supervisor, in cooperation with other supervisory authorities in the college and after consulting the group, assesses that the degree of influence exercised over an undertaking, for the purpose of calculating group solvency, is different from the assessment of the group, it informs the participating insurance and reinsurance undertaking, the insurance holding company or the mixed financial holding company of its assessment.

Guideline 4 – Cases of application of group supervision

Since the four cases of application of group supervision referred to in Article 213(2)(a) to (d) of Solvency II are not mutually exclusive, supervisory authorities should

consider applying group supervision prescribed under this Article at several levels of the same group.

2.13. Depending on the structure of the group, the group supervision as prescribed under Article 213.2 may be applicable at several levels of the same group. Situations set out in points (a) to (d) of Article 213(2) are not mutually exclusive and may apply in an overlapping way.



Guideline 5 - Parent insurance or reinsurance undertaking, insurance holding company or mixed financial holding company headquartered in a third country

According to Article 215 of Solvency II, where a subgroup referred to in Article 213(2)(a) and (b) of Solvency II exists, supervisory authorities of the ultimate parent undertaking in the European Union, after consulting with other supervisory authorities concerned, should ensure that group supervision applies by default at the level of the ultimate parent undertaking in the European Union and that it is waived - on a case-by-case basis - for groups headquartered in a third country that have a positive equivalence finding for group solvency supervision.

Where the parent insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company is headquartered in an equivalent third country, supervisory authorities of the ultimate parent undertaking in the European Union should rely on the group supervision exercised by the third-country supervisory authorities according to Article 261 of Solvency II and exempt the third-country group from group supervision at the ultimate level of the European Union on a

case-by-case basis, where this would result in a more efficient supervision of the group and would not impair the supervisory activities of the supervisory authorities concerned in respect of their individual responsibilities.

Supervisory authorities of the ultimate parent undertaking in the European Union should consider a more efficient group supervision as achieved when at least the following criteria are met:

(a) the cooperation currently in place between the third-country group supervisor and EEA supervisory authorities for the group concerned is structured and well-managed through regular exchange of information and meetings within a college of supervisors to which the EEA supervisory authorities and EIOPA are invited;

(b) a yearly work plan, including joint on-site examinations, is agreed upon in these regular meetings by the supervisory authorities involved in the supervision of the group;

(c) on the basis of a structured and appropriate information exchange, EEA supervisory authorities and EIOPA should have an adequate view of the worldwide risks of the group to enable the EEA supervisory authorities to form an opinion on the possible consequences for the EEA supervised entities, including in terms of capital allocation.

Supervisory authorities concerned together with the third-country group supervisor should outline their cooperation including any arrangement related to the above criteria in the coordination arrangement of the third-country supervisory college.

Where the parent insurance and reinsurance undertaking, the insurance holding company or the mixed financial holding company is headquartered in a non-equivalent third country, group solvency supervision should be applied at the level of the ultimate parent undertaking in the European Union where a group, as defined by Article 213(2)(a) or (b) of Solvency II, exists. Where such group does not exist, the supervisory authorities should decide whether to require, by virtue of Article 262(2) of Solvency II, the establishment of an insurance holding company or a mixed financial holding company which has its head office in the European Union and subject this subgroup to group supervision and group solvency calculation.

Guideline 6 – Criteria to exercise subgroup supervision at national level or at the level of several Member States

The criteria set out in [Article 340bis CGS4] of the draft implementing measures should be assessed with regard to the overall objectives of Solvency II, in particular the protection of the policyholders of the subgroup.

Supervisory authorities should explain their decision both to the group supervisor and to the ultimate parent undertaking.

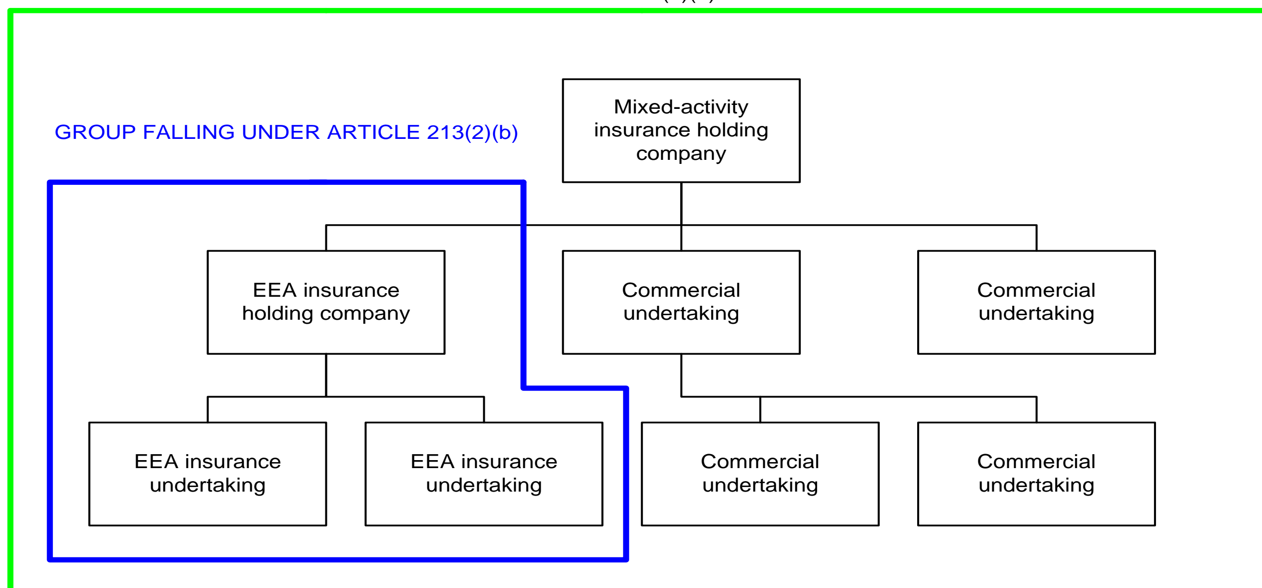
2.14. Member States may allow their supervisory authorities to establish subgroup supervision in accordance with Article 216 or Article 217 of Solvency II. To establish subgroup supervision, supervisory authorities should assess on a case-by-case basis the need for subgroup supervision in accordance with the criteria described above. The aim of Guideline 6 is to ensure a harmonised and consistent approach in exercising subgroup supervision.

2.15. Subgroup supervision established at a national level includes all related undertakings within the scope of the subgroup as referred to in Article 212 of Solvency II irrespectively of their location; whether they are based in the same Member State or not.

Guideline 7 - Parent undertaking is a mixed-activity insurance holding company

Group solvency calculation should not be applied to groups, where the parent undertaking is a mixed-activity insurance holding company, but should be applied to groups within that group, provided that they satisfy the criteria of 213(2)(a), (b) or (c) of Solvency II.

2.16. More than one case of application of group supervision prescribed in Article 213(2) of Solvency II is applied to the same group headed by an insurance or reinsurance undertaking, an insurance holding company or a mixed financial holding company, the parent undertaking of which is a mixed-activity insurance holding company. In that case, group supervision including group solvency calculation is applied to the insurance group within the mixed-activity group and the supervision of intra-group transactions is applied to the mixed-activity group, in accordance with Article 265 of Solvency II.



Guideline 8 – Application of the method of calculation

For the purpose of calculating the group solvency, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should consider the same scope of the group, irrespective of whether the accounting consolidation-based method, the deduction and aggregation method or a combination of both methods is used.

They should ensure to cover all related undertakings belonging to the group unless otherwise excluded in Article 214 of Solvency II.

2.17. Irrespective of the method of calculation, all related undertakings belonging to the group are included in the group solvency calculation. This includes related undertakings in other financial sectors, both regulated and not regulated, special purpose vehicles[15], ancillary services undertakings and any other related undertaking belonging to the group.

[15] These Guidelines, according to [Art. 323 bis SCG3.1.(b) of the draft Implementing Measures], make reference to special purpose vehicles to which the participating undertaking or one of its subsidiaries has transferred risk and which are not excluded from the scope of the group solvency calculation pursuant to [Article 322 SCG2(3) of the draft Implementing Measures].

Guideline 9 - Choice of the method of calculation and assessment of the intra-group transactions

When deciding whether the exclusive application of the accounting consolidation-based method is inappropriate according to [Article 321 SCG1 1(e) of the draft Implementing Measures], the group supervisor should consider the presence of intra-group transactions between the undertakings that will be using the deduction and aggregation method and the consolidated part of the group, rather than intra-group transactions between the undertakings within the consolidated part of the group.

2.18. Unless otherwise advised by the group supervisor, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company applies the accounting consolidation-based method by default. On request of the group, or on its own initiative, the group supervisor assesses whether the exclusive application of the accounting consolidation-based method is appropriate or not and communicates its decision to the group.

2.19. The group supervisor will carry out this assessment based on the list of criteria set out in [Article 321 SCG1 of the draft Implementing Measures].

Guideline 10 - Proportional share

When calculating the group solvency according to the accounting consolidation-based method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should determine the proportional share it holds in its related undertakings by taking:

(a) 100 % when including a subsidiary according to [Article 323bis SCG3(1)(a)-(b) of the draft Implementing Measures] unless otherwise decided in accordance with Guideline 11;

(b) the percentage used for the establishment of the consolidated accounts when including undertakings according to [Article 323bis SCG3 (1)(c) of the draft Implementing Measures];

(c) the proportion of the subscribed capital that is held, directly or indirectly, by the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company when including related undertakings according to [Article 323bis SCG3 (1)(e)].

Guideline 11 - Criteria for the recognition of the solvency deficit of a subsidiary on a proportional basis

In order to prove that the responsibility of the parent undertaking is strictly limited to the share of capital of the insurance or reinsurance subsidiary as envisaged in Article

221(1) of Solvency II, the parent undertaking should provide evidence to the group supervisor that at least the following criteria are met:

- no profit and loss transfer agreement and no guarantees, net worth maintenance agreements or other agreements of the parent undertaking or any other related undertaking to provide financial support are in place;
- the investment in the subsidiary is not considered as a strategic investment for the parent undertaking;
- the parent undertaking does not benefit of any advantage from its participation in the subsidiary where such advantage could take the form of intra-group transactions such as loans, reinsurance agreements, service agreements or other transactions;
- the subsidiary is not a core component of the group's business model, in particular regarding product offering, client base, underwriting, distribution, investment strategy and management, furthermore it is not operating under the same name or brand, and there are no interlocking responsibilities at the level of the group senior management;
- a written agreement between the parent undertaking and the subsidiary explicitly limits the support of the parent undertaking in case of a solvency deficit to the parent undertaking's share in the capital of that subsidiary. In addition, the subsidiary should have a strategy in place to resolve the solvency deficit, such as guarantees from minority shareholders.

Where a subsidiary is included in the scope of the internal model to calculate the group solvency capital requirement, the group supervisor should not allow the parent undertaking to take into account the solvency deficit of the subsidiary on a proportional basis.

The group supervisor should assess such criteria, after consulting the other supervisory authorities concerned and the group itself, on a case-by-case basis, taking into account the specific features of the group.

The status of strictly limited responsibility of the parent undertaking should be subject to an annual review by the group supervisor.

The parent undertaking and the subsidiary should disclose the positive decision of the group supervisor that allows the recognition of the solvency deficit on a proportional basis in order to inform policyholders and investors, as material information in the capital management section of the group and individual Solvency and Financial Condition Report.

When preparing the consolidated data using the accounting consolidation-based method, the own funds and the solvency capital requirement of the subsidiary should

be calculated on a proportional basis instead of applying a full consolidation.

When preparing the aggregated data using the deduction and aggregation method, the own funds and the solvency capital requirement of the subsidiary should be calculated using the proportional share of that subsidiary, also in the case of a solvency deficit.

2.20. When assessing whether the parent undertaking's responsibility is strictly limited to the share of the capital in that subsidiary and therefore could be allowed to take into account the solvency deficit of that subsidiary on a proportional basis, several criteria have to be considered by the group supervisor. Proportional basis means the proportion of the subscribed capital held by the parent undertaking in the subsidiary.

2.21. The parent undertaking is expected to demonstrate to the group supervisor that the criteria set in Guideline 11 are met. The group supervisor is expected to consult the other supervisory authorities concerned and the group itself.

2.22. The possibility to include a subsidiary's solvency deficit on a proportional basis is expected to remain an exception to the general rule according to which 100% of subsidiaries' own funds and solvency capital requirement are included when there is a solvency deficit.

2.23. When at least the criteria set out in Guideline 11 are met, the group supervisor may allow the parent undertaking to include the subsidiary on a proportional basis in the group solvency calculation. This means:

(a) when using the accounting consolidation-based method, the subsidiary is included in the consolidated data with the proportion of the subscribed capital held by the parent undertaking instead of being fully consolidated (i.e. same treatment as for undertakings referred to in Article 323bis SCG3 (1)(d)). The parent undertaking's responsibility is limited to the share of capital it holds. In the Solvency II group balance sheet this subsidiary will be reported as an asset balance sheet item, 'participation', instead of being fully consolidated line-by-line and the own funds will be part of the reconciliation reserve. There is no recognition of diversification benefits (in the solvency capital requirement calculation) since the proportion of the solvency capital requirement of the subsidiary included on a proportional basis is added to the other parts of the group solvency requirement and there is no recognition of minority interests in the own funds calculation;

(b) when using the deduction and aggregation method, the own funds and the solvency capital requirement of the subsidiary will be calculated

using the proportional share instead of 100%, including in the case of a solvency deficit.

Guideline 12 - Treatment of specific related undertakings for group solvency calculation

When the undertakings of other financial sectors form a group subject to sectoral capital requirement, and this group is not excluded from the scope of group supervision, 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.

The capital requirements and the own-funds of related third-country undertakings of other financial sectors and institutions for occupational retirement provision should be taken into account according to the relevant sectoral rules existing in the European Union.

2.24. For the purpose of calculating the group solvency, equivalence considerations do not apply to other financial sectors. For this reason, the capital requirements and the own-funds of related third-country undertakings of other financial sectors or institutions for occupational retirement provision are taken into account as calculated according to the relevant sectoral rules in the European Union.

Guideline 13 - Notional solvency capital requirement for an insurance holding company and a mixed financial holding company included in the group solvency calculation

The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should calculate a notional individual solvency capital requirement for both the parent and the intermediate insurance holding company or the parent and the intermediate mixed financial holding company, including those located in third countries.

The notional solvency capital requirement for insurance holding companies and mixed financial holding companies should be calculated in accordance with Articles 100 to 127 of Solvency II.

2.25. The notional solvency capital for the insurance holding company or the mixed financial holding company is calculated by applying the solvency capital requirement to assets and liabilities of the insurance holding company or the mixed financial holding company as if it were an insurance undertaking.

When using the accounting consolidation-based method, the notional solvency capital requirement for the intermediate insurance holding company or the intermediate mixed financial holding company is required for the calculation of the minimum consolidated group solvency capital requirement, for the assessment of the availability of own funds (see Article 323.6 SCG3 of the draft Implementing Measures) and for the calculation of the proportional share of the solvency capital requirement in the insurance holding companies or mixed financial holding companies that are not subsidiaries (see Article 323.ter SCG3 of the draft Implementing Measures).

2.26. When using the deduction and aggregation method, the notional solvency capital requirement for the intermediate insurance holding companies or intermediate mixed financial holding companies is required for the assessment of the availability of own funds (see Article 323.6 SCG3 of the draft Implementing Measures) and for the calculation of the proportional share of the solvency capital requirement in the related insurance holding companies or mixed financial holding companies.

Guideline 14 - Availability at group level of the eligible own funds of related undertakings

In order to calculate the amount of own funds that cannot effectively be made available to cover the group solvency capital requirement, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should use the sum of the own funds as referred to in Article 222(2) of Solvency II and in [Article 323 SCG3 of the draft Implementing Measures] for each related insurance or reinsurance undertaking, intermediate insurance holding company or intermediate mixed financial holding company.

They should only consider non-available own funds to cover the group solvency capital requirement up to the contribution of the related undertaking to the group solvency capital requirement.

2.27. When determining the group available own funds, the group assesses whether there are restrictions to their transferability or fungibility at group level to determine whether own funds available at individual level are also available at group level.

2.28. According to Article 222(4) of Solvency II, the group non-available own funds are calculated, entity by entity, by adding up own funds as referred to in Article 222(2) of Solvency II (i.e. surplus funds and any subscribed but not paid-up capital) and in [Article 323 SCG3 of the draft Implementing Measures].

2.29. The part of such non-available own funds that exceeds the contribution of the related undertaking to the group solvency capital requirement cannot be considered as available for covering the group solvency capital requirement (for the calculation of the contribution of the related undertaking to the group solvency capital requirement see Guidelines 15, 16 and 17).

2.30. When the total amount of non-available own funds does not exceed the contribution of the related undertaking to the group solvency capital requirement, the above mentioned limitation does not apply.

Guideline 15 - Contribution of a subsidiary to the group solvency capital requirement

When using the accounting consolidation-based method and when the standard formula is applied, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should calculate the contribution of a subsidiary to the group solvency capital requirement according to Technical Annex 1.

For insurance or reinsurance undertakings, intermediate insurance holding company or intermediate mixed financial holding company consolidated according to [Article 323bis SCG3 (1)(c) of the draft Implementing Measures], the contribution of the individual solvency capital requirement should be calculated taking into account the proportional share used for the determination of the consolidated data.

When the consolidated group solvency capital requirement is calculated on the basis of an internal model, the contribution of a subsidiary to the group solvency capital requirement should be the product of the solvency capital requirement of that subsidiary and the percentage corresponding to the diversification effects attributed to that subsidiary according to the internal model.

When using the deduction and aggregation method, the contribution of a subsidiary to the group solvency capital requirement should be the individual solvency capital requirement, since no diversification effects at group level are taken into account.

2.31. When using the accounting consolidation-based method, the objective of the calculation of the contribution of a subsidiary to the group solvency capital requirement is to take into account the benefits of the diversification effects that arise at group level on its individual solvency capital requirement. When applying the standard formula, the calculation is made through a proxy tested in the QIS 5, based on the assumption that diversification benefits derive equally from each undertaking of the group.

2.32. In the sum of the individual solvency capital requirement (∑SCRisolo) neither ancillary services undertakings nor special purpose vehicles are included (even though they are included in the calculation of solvency capital requirement at the numerator of the ratio) because the calculation of a notional solvency capital requirement is not required for them, neither in Solvency II nor in the Delegated Acts. This may cause an overestimation of availability of individual own funds to cover the group solvency capital requirement.

2.33. Related undertakings of other financial sectors are not included in the calculation since both own funds and capital requirements follow the relevant sectoral rules.

Guideline 16 - Availability of own funds at group level of related undertakings that are not subsidiaries

The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should assess the availability of own funds according to Article 222(2) of Solvency II and to [Article 323 SCG3 of the draft Implementing Measures] for insurance or reinsurance undertakings, intermediate insurance holding companies and intermediate mixed financial holding companies over which a significant influence is exercised, when the own-fund items of these undertakings materially affect the amount of group own funds or the group solvency. They should explain to the group supervisor how the assessment was made.

The group supervisor should review, in close cooperation with the other supervisory authorities involved, the assessment made by the group.

Guideline 17 - Availability of own funds at group level of ancillary services undertakings and special purpose vehicles

The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should assess the availability of own funds according to Article 222(2) of Solvency II and to [Article 323 SCG3 of the draft Implementing Measures] for related ancillary services undertakings and special purpose vehicles, when the own-fund items of these undertakings materially affect the amount of group own funds or the group solvency. They should explain to the group supervisor how the assessment was made.

The group supervisor should review, in close cooperation with the other supervisory authorities involved, the assessment made by the group.

2.34. For ancillary services undertakings and special purpose vehicles the calculation of a notional solvency capital requirement is not required - neither in Solvency II, nor in the Delegated Acts. For this reason the national supervisory authority

is expected to provide the group supervisor with the necessary information to assess compliance with Article 222(2) to (5) of Solvency II.

Guideline 18 - Treatment of minority interests for covering the group solvency capital requirement

The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should 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. deduct non-available own funds from the own funds calculated in point 1;
3. calculate the minority interest share from the result of point 2.

2.35. The part of minority interests in the eligible own funds that is not available for covering the group solvency capital requirement is calculated for each insurance or reinsurance undertaking, insurance holding company or mixed financial holding company after deducting non-available own funds as referred to in Article 222(2) of Solvency II and in [Article 323 SCG3 of the draft Implementing Measures] from the excess of own funds.

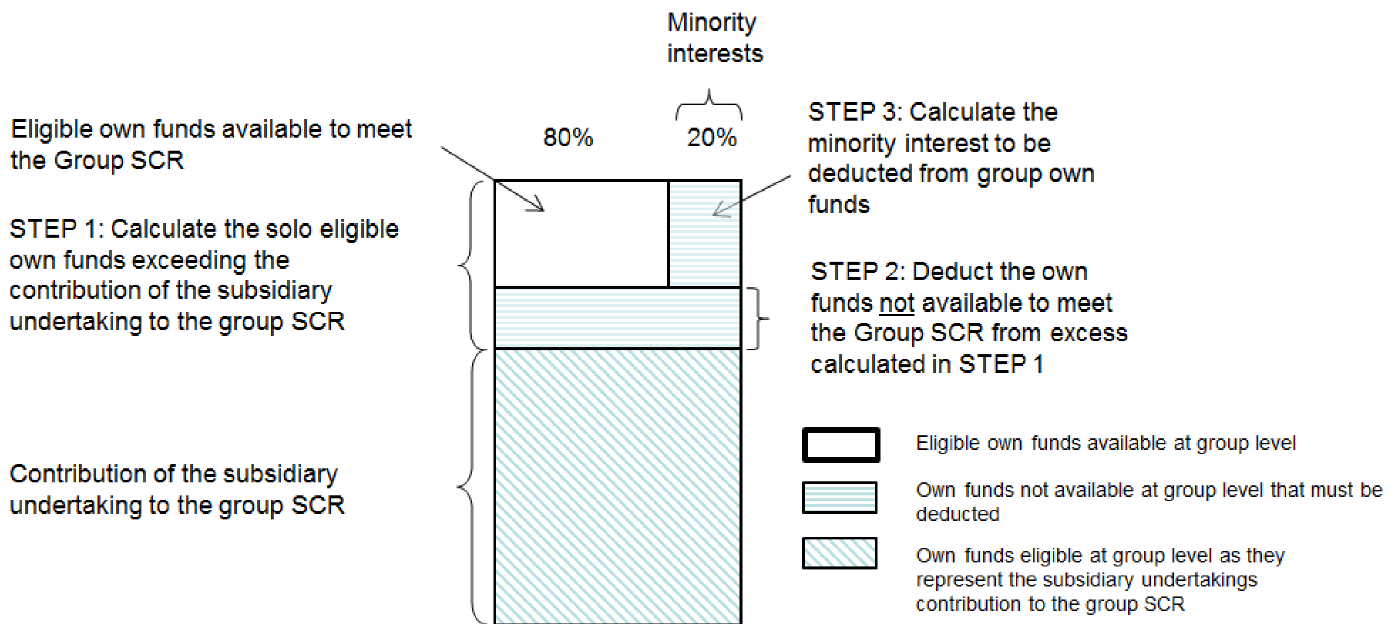
2.36. According to [Article 323 SCG3 (4)(a) of the draft Implementing Measures] "any minority interests in a subsidiary exceeding the contribution of that subsidiary undertaking to the group Solvency Capital Requirement….." is not available to cover the group solvency capital requirement.

2.37. The amount to be excluded = $MI\%_i * (OF_i - Contr_i)$

2.38. Where:

- MI% is the percentage of the minority interests
- OF is the eligible own funds of the subsidiary, after deduction of non-available own funds
- Contri is the contribution of the subsidiary to the group solvency capital requirement as defined in Annex 1.

2.39. The illustration below shows the order to follow when deducting minority interests.



2.40. The group cannot demonstrate that the total amount of minority interests is available at group level, since the part of minority interests in the eligible own funds of the subsidiary that exceeds the contribution of the subsidiary to the group solvency capital requirement cannot be considered as available at group level.

2.41. The proxy used for calculating the contribution of the subsidiary to the group solvency capital requirement taking into account the diversification effects is the same as the one described in Guideline 15.

2.42. The total amount of minority interests in ancillary services undertakings, over which a dominant influence is exercised is deducted from the group own funds.

Guideline 19 - Treatment of ring-fenced funds and matching adjustment portfolios for covering the group solvency capital requirement

For all undertakings included in the group solvency calculation using the accounting consolidation-based method and for undertakings in non-equivalent third countries included in the group solvency calculation using the deduction and aggregation method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should apply the principles for ring-fenced funds and matching adjustment portfolios as set out in [Article 70 RFFOF2 of the draft Implementing Measures] and [Article195 RFFSCR2 of the draft Implementing Measures].

For undertakings in equivalent third countries included in the group solvency calculation using the deduction and aggregation method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial

holding company should identify any restriction to the undertakings' own funds due to ring-fencing of assets or liabilities or similar arrangements in accordance with the equivalent solvency regime. These restrictions should be assessed as part of the assessment of the availability in accordance with Guideline 14.

When calculating the group solvency capital requirement using the accounting consolidation-based method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should not eliminate intra-group transactions between the assets and liabilities associated with each material ring-fenced fund or with each matching adjustment portfolio and the remaining consolidated data. The group solvency capital requirement calculated on the basis of the consolidated data should be the sum of:

(a) the notional solvency capital requirement for each material ring-fenced fund and each matching adjustment portfolio, both calculated with the assets and liabilities of the ring-fenced fund gross of intra-group transactions; and

(b) the (diversified) group solvency capital requirement for the remaining consolidated data (excluding assets and liabilities of all material ring-fenced funds, but including the assets and liabilities of all non-material ring-fenced funds). When calculating the group solvency capital requirements for the remaining consolidated data intra-group transactions should be eliminated, while intra-group transactions between the remaining consolidated data and the material ring-fenced funds should not be eliminated.

The consolidated data used to calculate the group own funds should be net of intra-group transactions as set out in [Article 323bis SCG3(3) of the draft Implementing Measures]. Therefore, all intra-group transactions between material ring-fenced funds and the remaining consolidated data should be eliminated for the calculation of the group own funds.

For each material ring-fenced funds and for each matching adjustment portfolio identified within the consolidated data under the accounting consolidation-based method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should calculate the restricted own-fund items using the same assets and liabilities of the ring-fenced fund used to calculate its notional solvency capital requirement or matching adjustment portfolio as described above, i.e. gross of intra-group transactions.

Therefore, the total restricted own funds within the ring-fenced fund or matching adjustment portfolio to be deducted from the group reconciliation reserve should be the sum of all material restricted own funds identified in EEA insurance or reinsurance undertakings and the restricted own funds identified in any non-EEA insurance and reinsurance undertaking in the scope of the consolidated data.

2.44. Three situations exist when identifying ring-fenced funds (RFFs) for the group solvency calculation:

- RFFs in EEA operations (the accounting consolidation-based method or the deduction and aggregation method): no additional RFF are identified at group level from its EEA operations. RFFs identified in the individual solvency calculation will continue to be recognised as RFFs in the group solvency calculation.

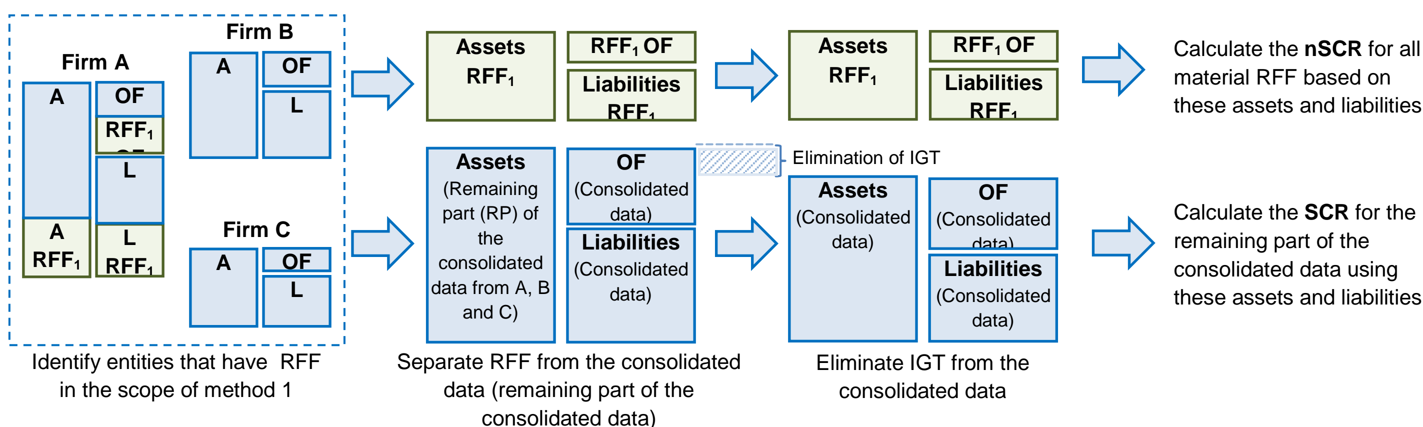
- RFFs in non-equivalent third countries: irrespective of the method of calculation used, Solvency II RFF principles are used to identify assets and liabilities associated with RFFs.

- RFFs in equivalent third countries: under the accounting consolidation-based method, Solvency II RFF principles are used to identify assets and liabilities associated with RFFs. Under the deduction and aggregation method, any restricted own funds from a RFF-like arrangement in an equivalent third country, identified according to local rules, is captured in the group solvency through the assessment of availability of the group own funds (Guidelines 14, 16 & 17).

2.45. Where the accounting consolidation-based method is used for the calculation of group solvency capital requirement, no intra-group transactions should be eliminated between the assets and liabilities associated with all material RFFs and the remaining part of the consolidated data.

2.46. The illustration below describes how the RFFs are separated from the consolidated data for the purpose of the group solvency capital requirement calculation and identification of restricted RFF own funds. The intra-group transactions are only eliminated within the remaining part of the consolidated data for the group solvency capital requirement calculation.

The Group SCR calculation with RFF illustrated



2.47. The solvency capital requirement for the consolidated data defined in [Article 323bis SCG3(1)(a)-(c) of the draft Implementing Measures] is the sum of the nSCR (notional solvency capital requirement of the material RFF) and the solvency capital requirement calculated for the remaining part of the consolidated data.

2.48. No diversification effects are allowed between the RFF and the remaining part of the consolidated data. Where an internal model is used for the calculation of the group solvency capital requirement, the systems used for measuring the diversification effects take into account the material restrictions of diversification arising from the existence of ring-fenced funds.

2.49. When calculating the restricted RFF own funds, which are RFF own funds in excess of the RFF nSCR, the RFF assets and liabilities used to identify this restriction should also be gross of intra-group transactions. Therefore, when calculating the restricted RFF own funds, no intra-group transactions should be eliminated between the RFF and the remaining part of the consolidated data.

2.50. For a RFF identified in an EEA insurance operation and included using the accounting consolidation-based method, the restricted RFF own funds calculated at group level should be the same as the restricted RFF own funds calculated at individual level.

2.51. Groups need to consider whether a RFF restriction is captured in the group solvency calculation when assessing availability and transferability of own funds for related undertakings in accordance with Guideline 14.

2.52. The same approach applies to matching adjustment portfolios identified in the consolidated data defined in [Article 323bis SCG3(1)(a)-(c) of the draft Implementing Measures].

Guideline 20 - Treatment of non-available own funds of third country insurance and reinsurance subsidiaries for covering the group solvency capital requirement

When using the accounting consolidation-based method, the participating insurance and reinsurance undertaking, the insurance holding company or the mixed financial holding company should consider all own funds of a third country insurance and reinsurance subsidiary to be non-available, if there are restrictions to their fungibility and transferability at group level. In such case, they should only include them up to the contribution of the subsidiary to the group solvency capital requirement. This contribution should be calculated according to Technical Annex 1.

When assessing whether the own funds of a third country insurance or reinsurance

subsidiary are available at group level, the group supervisor should take into account the criteria set out in [Article 323 SCG3 of the draft Implementing Measures] and discuss its assessment with the other supervisory authorities in the college, including the supervisory authorities of the third countries involved, and with the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company.

When using the deduction and aggregation method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should include non-available own funds in subsidiaries located in non-equivalent third-countries up to the level of the individual solvency capital requirement.

They should include non-available own funds in subsidiaries located in equivalent third-countries up to the level of the local capital requirement included in the group solvency calculation.

Guideline 21 - Adjustments related to non-available own funds for the calculation of group eligible own funds

When using the accounting consolidation-based method, the participating insurance and reinsurance undertaking, the insurance holding company or the mixed financial holding company should deduct the part of the own funds of related undertakings not available for covering the group solvency capital requirement from the relevant own-funds items and the relevant tiers of the consolidated group own funds.

They should follow the process described below for calculating eligible group own funds to cover the group solvency capital requirement and the minimum consolidated group solvency capital requirement:

(a) the group own funds are calculated on the basis of the consolidated data as referred to in [Article 323bis SCG3 (a) to (f) of the draft Implementing Measures] net of any intra-group transactions;

(b) the group own funds are classified into tiers;

(c) the available group own funds are calculated net of group adjustments relevant at group level;

(d) the eligible own funds are subject to the same tiering limits applying at individual level in order to cover the group solvency capital requirement and the minimum consolidated group solvency capital requirement.

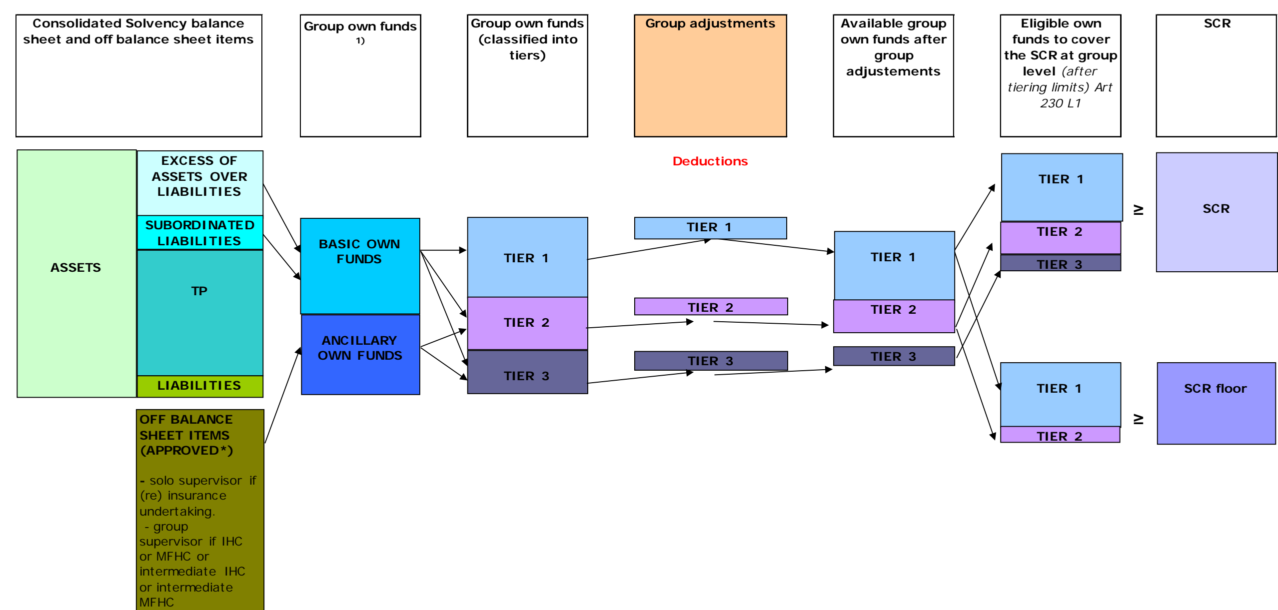
When using the deduction and aggregation method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should use the sum of the eligible own funds of related undertakings after deducting non-available own funds at group level.

For both calculation methods, where the non-available own funds have been classified into more than one tier, the order in which they are deducted from the different tiers should be explained to the group supervisor.

2.53. The illustration below describes the process for calculating eligible group own funds:

Calculation of eligible group own funds

Illustration of the calculation of eligible own funds for the insurance part where Method 1 (AC method) is used.



[1)] **Group own funds (classified into tiers)** is based on the classification of own-fund items already done at solo level, before any reclassification of an own-fund item is assessed at group level.

2.54. Related undertakings of other financial sectors are not included in this calculation since both own funds and capital requirements follow the relevant sectoral rules.

Guideline 22 - Process for assessing non-available own funds by the group supervisor

The group supervisor should discuss its assessment of non-available own funds with the other supervisory authorities concerned within the college and with the participating insurance and reinsurance undertaking, the insurance holding company or the mixed financial holding company. The process should be as follows:

(a) in its Regular Supervisory Report, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should provide the group supervisor with its assessment of non-available own funds for all the undertakings included in the calculation of the group solvency. They should also explain the adjustments made in order to deduct non-available own funds;

(b) in the context of a cross-border group, the group supervisor should discuss its assessment of non-available own funds within the college as well as with the group;

(c) each supervisory authority should provide its assessment of the availability at group level of the own funds related to the supervised undertakings;

(d) the group supervisor should discuss with the other supervisory authorities concerned whether the availability of own funds changes when assessing it at individual or group level.

Guideline 23 - Reconciliation reserve at group level

The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should ensure that the reconciliation reserve at group level equals to the excess of assets over liabilities excluding the basic own-funds items separately identified on the list of own-funds items, as well as minority interests. The amount of the reconciliation reserve should be reduced by:

(a) the value of own shares held by the participating insurance or reinsurance undertaking, the insurance holding company and the related undertakings;

(b) the foreseeable dividends and distributions;

(c) the restricted own-fund items that exceed the notional solvency capital requirement in the case of ring fenced funds at group level.

The reconciliation reserve should be reduced to reflect the non-availability of basic own-fund items included in the reconciliation reserve at group level that have not already been deducted from the relevant own-fund items according to Guideline 21.

2.55. The excess of assets over liabilities includes own-fund items of related undertakings referred to in [Article 323bis (1)(d) and (f) of the draft Implementing Measures]. For this reason the reconciliation reserve is reduced to take into account the non-availability of own-funds items of undertakings included in Article 323bis (1)(f).

2.56. Own funds of related undertakings which are credit institutions, investment firms and financial institution, alternative investment fund managers, UCITS management companies, institutions for occupational retirement provision as well as non–regulated undertakings carrying out financial activities contribute to the group own funds according to the relevant sectoral rules. As a result, they are not part of the reconciliation reserve.

Guideline 24 - Determination of the consolidated data for the group solvency calculation

The consolidated data should be calculated on the basis of the consolidated accounts that have been valued according to Solvency II rules with respect to the recognition and valuation of balance sheet items as well as the inclusion and treatment of the related undertakings.

Where a related undertaking is linked with another undertaking by a relationship as set out in Article 12(1) of Directive 83/349/EEC, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should determine which proportional share should be used when calculating the group solvency. By default they should use a proportional share of 100%. Where they seek to use another percentage, they should explain to the group supervisor why this is appropriate. After consulting the other supervisory authorities concerned and the group itself, the group supervisor should decide on the appropriateness of the proportional share chosen by the group.

2.57. The consolidated data should be all the data needed in order to calculate the eligible group own funds and the consolidated group solvency capital requirement.

2.58. At group level, differences may exist between the balance sheet prepared on the basis of consolidated accounts (IFRS, local GAAP) and Solvency II consolidated data due to the recognition and valuation rules, as well as the scope and treatment of related undertakings, in accordance with [Article 323 bis SCG3 of the draft Implementing Measures].

2.59. The illustration below summarises the treatment of the related undertakings for the inclusion in the group balance sheet when using the accounting consolidation-based method.

Treatment of related undertakings for the purpose of calculating group solvency[1)]

Type of undertaking	Insurance or reinsurance	Insurance or reinsurance	Insurance or reinsurance	Insurance holding or mixed financial holding company	Insurance holding or mixed financial holding company	Insurance holding or mixed financial holding company	Ancillary services undertakings	Ancillary services undertakings	Ancillary services undertakings	SPV[2)]	OFS[4)]	OTHER incl CIU
Influence	Dominant	Joint Venture[3)]	Significant	Dominant	Joint Venture[3)]	Significant	Dominant	Joint Venture[3)]	Significant		ALL	ALL
Indications of %	*"50-100%"*	*"50%"*	*"20-50%"*	*"50-100%"*	*"50%"*	*"20-50%"*	*"50-100%"*	*"50%"*	*"20-50%"*		*>20%*	*>20%*
S2 BALANCE SHEET												
Method 1												
Inclusion in the balance sheet in accordance with Art 323 bis SCG3 "Determination of consolidated data". Will be reflected in the BS (column "Solvency II value")	Art 323 bis SCG3 1.(a) Full consolidation	Art 323 bis SCG3 1. (c) [Proportionate consolidaton]	Art 323 bis SCG3 1.(d) Holdings valued in accordance with Art 9 V5, adjusted equity method	Art 323 bis SCG3 1.(a) Full consolidation	Art 323 bis SCG3 1. (c) [Proportionate consolidaton]	Art 323 bis SCG3 1.(d) Holdings valued in accordance with Art 9 V5, adjusted equity method	Art 323 bis SCG3 1.(a) Full consolidation	Art 323 bis SCG3 1. (c) [Proportionate consolidaton]	Art 323 bis 1. (f) Holdings valued in accordance with Art 9 V5	Art 323 bis SCG3 1.(b) Full consolidation	Art 323 bis SCG3 1. (e) Proportional share of own funds according to relevant sectoral rules	Art 323 bis SCG3 1. (f) Holdings valued in accordance with Art 9 V5
GROUP SOLVENCY												
Method 1												
Consolidated data:												
Calc of OF	Art 323 bis SCG3 3. => Art 323 bis SCG3 1.(a) Included in consolidated part of consolidated data	Art 323 bis SCG3 3. => Art 323 bis SCG3 1.(c) Included in consolidated part of consolidated data	Art 323 bis SCG3 1.(d) Holdings valued in accordance with Art 9 V5, adjusted equity method	Art 323 bis SCG3 3. => Art 323 bis SCG3 1.(a) Included in consolidated part of consolidated data	Art 323 bis SCG3 3. => Art 323 bis SCG3 1.(c) Included in consolidated part of consolidated data	Art 323 bis SCG3 1.(d) Holdings valued in accordance with Art 9 V5, adjusted equity method	Art 323 bis SCG3 3. => Art 323 bis SCG3 1.(a) Included in consolidated part of consolidated data	Art 323 bis SCG3 3. => Art 323 bis SCG3 1.(c) Included in consolidated part of consolidated data	Art 323 bis SCG3 1.(f) Holdings valued in accordance with Art 9 V5	Art 323 bis SCG3 3. => Art 323 bis SCG3 1.(b) Included in consolidated part of consolidated data	Art 323 bis SCG3 1. (e) Proportional share of own funds according to relevant sectoral rules	Art 323 bis SCG3 1.(f) Holdings valued in accordance with Art 9 V5
Calc of group SCR	Art 323 ter SCG3 1.(a) => Art 323 bis SCG3 1. (a) Calculated on consolidated part of consolidated data	Art 323 ter SCG3 1.(a) => Art 323 bis SCG3 1.(c) Calculated on consolidated part of consolidated data	Art 323 ter SCG3 1. (c) proportional share of solo SCR	Art 323 ter SCG3 1.(a) => Art 323 bis SCG3 1. (a) Calculated on consolidated part of consolidated data	Art 323 ter SCG3 1.(a) => Art 323 bis SCG3 1.(c) Calculated on consolidated part of consolidated data	Art 323 ter SCG3 1. (c) proportional share of solo notional SCR	Art 323 ter SCG3 1.(a) => Art 323 bis SCG3 1. (a) Calculated on consolidated part of consolidated data	Art 323 ter SCG3 1.(a) => Art 323 bis SCG3 1.(c) Calculated on consolidated part of consolidated data	Art 323 ter SCG3 1.(d) Capital charge on Asset (valued in accordance with Art 9 V5)	Art 323 ter SCG3 1.(a) => Art 323 bis SCG3 1. (b) Calculated on consolidated part of consolidated data	Art 323 bis SCG3 1. (e) Proportional share of capital requirement according to relevant sectoral rules	Art 323 ter SCG3 1.(d) Capital charge on Asset (valued in accordance with Art 9 V5)

[1)] When an undertaking linked to another undertaking by a relationship as set out in Article 12 (1) of Directive 83/349/EEC, the proportional share is set in accordance with L1 art 221.2.a. However, such relationship will imply an inclusion of 100% by default, if not decided otherwise by the group supervisor after consulting the other supervisory authourities and the group itself. This undertaking is not a subidiary undertaking.
When method 1 is used, these undertakings will be included in the balance sheet and consolidated data in accordance with Article 323bis (1) (a), (c), (d), (e) or (f).
When method 2 is used, same treatment as stated in the Directive 2009/138/EC Article 233, Delegated acts and Gls 29 and 30 of Guidelines on Group Solvency Calculation.

[2)] SPV as defined in Art 13(26) and which comply with Art 211 will be excluded from calculation of group solvency, but will be taken into account for the risk mitigation technique (Art 322(3)). SPVs which do not fall under the definition in Art 13 (26) of the Directive and which do not comply with Art 211 of the Directive will be fully consolidated at group level.

[3)] Near final draft IFRS standards have been published. For ex IFRS 11 Joint arrangements, where equity method should be used instead proportionate consolidation for JV.

[4)] Including credit institutions, investment firms and financial institutions, alternative investment fund managers, UCITS management companies, institutions for occupational retirement provision and non-regulated undertakings carrying out financial activities.

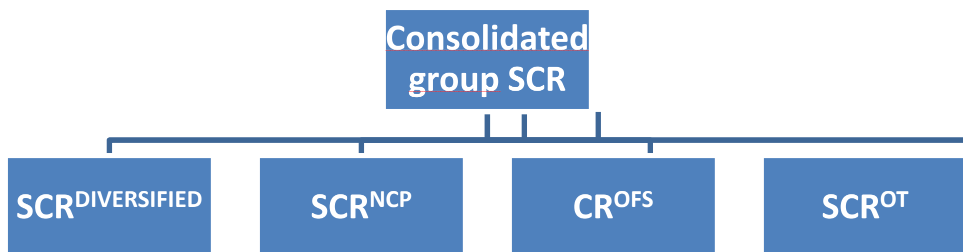
2.60. When the related undertakings are included in the consolidated data with full or proportional consolidation in accordance with [Article 323bis SCG3 (1)(a)-(c) of the draft Implementing Measures], their assets and liabilities are included line by line in the consolidated data. The related undertakings referred to in [Article 323ter SCG3 (1)(a) of the draft Implementing Measures] contribute to the diversification effects recognised at group level when calculating the consolidated group solvency capital requirement. This component of the group solvency capital requirement is the solvency capital requirement diversified at group level, $SCR^{DIVERSIFIED}$.

2.61. For related insurance or reinsurance undertakings, insurance holding companies or mixed financial holding companies which are not subsidiary, the proportional share of the related undertakings solvency capital requirements is calculated as referred to in [Article 323ter SCG3 (1)(b) of the draft Implementing Measures]. This component of the group solvency capital requirement is the solvency capital requirement of non-controlled participations, SCR^{NCP}, for which no diversification effect is recognised at group level.

2.62. For related undertakings which are credit institutions, investment firms, financial institutions, alternative investment fund managers, asset management companies and institutions for occupational retirement provision as referred to in [Article 323ter (1)(c) of the draft Implementing Measures], the proportional share of the related undertakings capital requirements is calculated according to the relevant sectoral rules. This component of the group solvency capital requirement is the capital requirement of the other financial sectors, CR^{OFS}, for which no diversification effect is recognised at group level.

2.63. Other undertakings, including related but not subsidiary ancillary services undertakings, as referred to in [Article 323ter (1)(d) of the draft Implementing Measures] are included in the group solvency calculation in accordance with [Article 9bis V5bis of the draft Implementing Measures]. Related collective investment undertakings[16], also fall under [Article 323bis (1)(f) of the draft Implementing Measures] and are consolidated in accordance with [Article 9bis V5bis of the draft Implementing Measures].This component of the group solvency capital requirement is the solvency capital requirement of the other undertakings, SCR^{OT}, for which no diversification effect is recognised at group level.

2.64. The diagram below shows the components of the consolidated group solvency capital requirement:



2.65. Where:

- $SCR^{DIVERSIFIED}$ = SCR of the fully consolidated undertakings calculated in accordance with [Article 323ter SCG3, (1)(a) of the draft Implementing Measures].
  The $SCR^{DIVERSIFIED}$, when applying the standard formula, is calculated as follows : $SCR^{diversified} = BSCR^{diversified} + Oprisk^{diversified} + Adj_{TP}^{group} + Adj_{DT}^{group}$
- SCR^{NCP} = SCR of non-controlled participations calculated in accordance with [Article 323ter SCG3 (1)(b) of the draft Implementing Measures]
- CR^{OFS} = CR of other financial sectors calculated in accordance with [Article 323ter SCG3, (1)(c) of the draft Implementing Measures].

---

[16] 'Collective investment undertaking' means an undertaking for collective investment in transferable securities (UCITS) as defined in Article 1(2) of Directive 2009/65/EC or an alternative investment fund (AIF) as defined in Article 4(1)(a) of Directive 2011/61/EU.

- SCR^{OT} = SCR of other undertakings calculated in accordance with [Article 323ter SCG3, (1)(d) of the draft Implementing Measures].

2.66. As regards undertakings linked by a relationship as set out in Article 12(1) of Directive 83/349/EEC, [Article 323bis(2) of the draft Implementing Measures] states that these undertakings should be included in the consolidated data in accordance with letters (a), (c), (d), (e) or (f) of the [first paragraph], respectively full consolidation, proportional consolidation, adjusted equity method, according to the relevant sectoral rules in other financial sectors, in accordance with [Article 9bis V5bis of the draft Implementing Measures].

2.67. [Article 323bis (2)] does not specify the proportional share to be used. Guideline 24 specifies that these undertakings should use, by default, a proportional share of 100%.

2.68. The way of including such undertakings depends on the type of undertaking. In principle, if the undertaking linked by a relationship as set out in Article 12 of Directive 83/349/EC is an insurance undertaking, it is fully consolidated, according to [Article 323 bis (1) (a) of the draft Implementing Measures]. However, there may be cases where an insurance undertaking is included with 100% but treated for the purpose of the determination of the consolidated data as a related undertaking according to [Article 323bis (1)(d) of the draft Implementing Measures], based on a case-by-case assessment.

Guideline 25 - Treatment of special purpose vehicles

When using the accounting consolidation-based method and when the special purpose vehicle is not in one of the situations described in [Article 322(1) 3) of the draft Implementing Measures], the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should fully consolidate the special purpose vehicle in line with [Article 323 bis SCG3 1(b) of the draft Implementing Measures]. They should fully consolidate the data of a special purpose vehicle to which they or any related insurance or reinsurance undertaking have transferred risks.

When the special purpose vehicle is regulated by a third country supervisory authority and the special purpose vehicle does not comply with equivalent requirements as set out in Article 211 of Solvency II, this special purpose vehicle should be included in the group solvency calculation as described above.

2.69. Guideline 25 only applies to special purpose vehicles that are not in one of the situations described [Article 322(1) 3) of the draft Implementing Measures] and therefore are included in the scope of the group solvency calculation. Data of special purpose vehicles are consolidated on a line by line basis which does not

allow risk-mitigation techniques between the ceding undertaking and the special purpose vehicles to be taken into account when calculating the group basic solvency capital requirement.

2.70. Where an undertaking cedes risks to a special purpose vehicle that is not in one of the situations described in [Article 322(1) 3) of the draft Implementing Measures], the group applies [Article 186 of the draft Implementing Measures] for the purposes of the treatment of any risk transfer at group level. In this case, the risk mitigation techniques can only be applied when they comply with the rules set out in [Article 184 to 186 of the draft Implementing Measures].

2.71. The group supervisor is expected to check whether the criteria which allow the exclusion of a special purpose vehicle from the group solvency calculation are fulfilled.

2.72. Guideline 17 is also applicable if the special purpose vehicle is fully consolidated in accordance with [Article 323 bis SCG3 1 (b) of the draft Implementing Measures].

Guideline 26 - Determination of the currency for the purpose of the currency risk calculation

Where the consolidated group solvency capital requirement is calculated on the basis of the standard formula, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should calculate the capital requirement for the currency risk according to Article 105(5) of Solvency II.

When applying the standard formula, the group's local currency referred to in the currency risk calculation should be the currency used for the preparation of the consolidated accounts.

The capital requirement for the currency risk should take account of any relevant risk mitigation techniques which meet the requirements set out in [Articles SCRRM1 of the draft Implementing Measures] to [SCRRM7 of the draft Implementing Measures]. Where the consolidated solvency capital requirement is calculated using the standard formula, all the investments denominated in a currency pegged to the currency of the consolidated accounts should be taken into account in accordance with [Article 172 CR1 of the draft Implementing Measures].

Where an internal model is used to calculate the consolidated group solvency, groups should be able to demonstrate that the internal model covers all material quantifiable risks, including currency risk. The assessment should take into account an appropriate set of qualitative and quantitative indicators as set out in [Article 222 TSIM 12 of the

draft Implementing Measures].

2.73. Consolidated group solvency calculation needs to consider currency risk. When applying the standard formula under the accounting consolidation-based method, groups are expected to calculate the currency risk for the consolidated data, as the loss in the basic own funds that would result from an instantaneous increase in the value of the foreign currency against the group's local currency.

2.74. When assessing the impact on the basic own funds, groups can account for any risk mitigation instruments, e.g. currency hedging, as set out in [Article 75 BSCRx(4) of the draft Implementing Measures]. Risk mitigation instruments can only be accounted for in the group solvency calculation if they meet the requirements set out in [Articles SCRRM1 to SCRRM7 of the draft Implementing Measures].

2.75. Any pegging arrangements, as described in [Article 172 CR1 of the draft Implementing Measures] can also be reflected in the group currency risk calculation provided that they meet the criteria set out in [Article 172 CR1(5) of the draft Implementing Measures].

Guideline 27 - Minimum consolidated group solvency capital requirement (floor to the group solvency capital requirement)

The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should determine the minimum consolidated group solvency capital requirement calculated as the sum of:

(a) the minimum capital requirement of the participating insurance or reinsurance undertaking or the notional minimum capital requirement of the insurance holding company or mixed financial holding company;

(b) the proportional share of the minimum capital requirement of the related insurance or reinsurance undertakings and the proportional share of the notional minimum capital requirement of the intermediate insurance holding companies or intermediate mixed financial holding companies.

The proportional share of the minimum capital requirement of the related undertakings should be the same as the proportional share used to calculate the consolidated data.

For insurance holding companies and mixed financial holding companies, the notional minimum capital requirement should be 35% of their notional solvency capital requirement.

The individual minimum capital requirement of third-country insurance or reinsurance undertakings to be taken into account should be the local capital requirement under which the authorisation would be withdrawn, independently of any equivalence finding.

2.76. A minimum consolidated group solvency capital requirement applies when using the accounting consolidation-based method and the combination of methods for the consolidated part.

2.77. The proportional share of the minimum capital requirement of the related undertakings is the same as the proportional share used to calculate the consolidated data. Therefore, when the proportional share used in the consolidated data is 100% for a subsidiary, the proportional share is 100%.

2.78. The minimum consolidated group solvency capital requirement using the accounting consolidation-based method or a combination of methods cannot be less than the group solvency capital requirement floor as determined in Guideline 27.

2.79. Ancillary services undertakings and special purpose vehicles are not included in the minimum consolidated group solvency capital requirement since no notional

requirement is required for them. Therefore, the group and the group supervisor are expected to assess carefully the minimum consolidated group solvency capital requirement since it may be under-estimated.

2.80. The notional minimum capital requirement for the insurance holding company or the mixed financial holding company is assumed to be 35% of the notional solvency capital requirement since this percentage is in the middle of the corridor for the insurance or reinsurance undertaking's minimum capital requirement (25%-45%) prescribed in Article 129(3) of Solvency II.

2.81. In order not to calculate a notional solo minimum capital requirement for the only purpose of determining the group SCR floor, related insurance or reinsurance undertakings in third countries may use the local capital requirement under which the authorisation would be withdrawn, as a proxy for their solo minimum capital requirement, independently of any equivalence decision.

Guideline 28 – Minimum consolidated group solvency capital requirement

When the minimum consolidated group solvency capital requirement is no longer complied with, or when there is a risk of non-compliance in the following three months, the supervisory measures set out in paragraphs 1 and 2 of Article 139 of Solvency II for non-compliance with the individual minimum capital requirement should apply at group level.

2.82. When the minimum consolidated group solvency capital requirement is no longer complied with, or when there is a risk of non-compliance in the following three months, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company informs immediately the group supervisor. Then, the group supervisor informs the other supervisory authorities within the college of supervisors in order to assess the solvency position of the group.

2.83. Within one month from the observation of non-compliance with the minimum consolidated group solvency capital requirement, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company submits to the group supervisor a short-term realistic finance scheme to restore, within three months, the compliance with the minimum consolidated group solvency capital requirement or to reduce its risk profile.

2.84. Article 139 paragraph 3 of Solvency II does not apply since it is not possible to restrict or prohibit the free disposal of assets at group level.

Guideline 29 - Calculation of the aggregated group own funds

When applying the deduction and aggregation method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should calculate the aggregated group own funds as the sum of:

(a) the own funds of the participating insurance or reinsurance undertaking or the notional own funds of the parent insurance holding company or mixed financial holding company;

(b) the proportional share of the own funds of the related insurance or reinsurance undertakings and the proportional share of the notional own funds of the intermediate insurance holding companies or intermediate mixed financial holding companies;

(c) the proportional share of the own funds of the related third-country insurance or reinsurance undertakings and the proportional share of the notional own funds of the intermediate insurance holding companies or intermediate mixed financial holding companies calculated according to Solvency II rules. If the third country is equivalent, local rules apply depending on how the option set out in Article 227(1) of Solvency II was implemented by the Member State;

(d) the proportional share of the own funds of credit institutions, investment firms, financial institutions, alternative investment fund managers, asset management companies and institutions for occupational retirement provision, calculated according to the relevant sectoral rules existing in the European Union, and the proportional share of the own funds of non-regulated undertakings carrying out financial activities; for related third-country undertakings own funds should be calculated according to the relevant sectoral rules existing in the European Union.

Other related undertakings in the scope of the group solvency calculation should be included in accordance with [Article 9bis V5bis of the draft Implementing Measures].

Own funds should be calculated net of intra-group transactions and of the adjustments related to non-available own funds.

2.85. The table below summarises the treatment of related undertakings for the purpose of calculating the group own funds when applying the deduction and aggregation method.

Treatment of related undertakings for the purpose of calculating group solvency[1)]

Type of undertaking	Insurance or reinsurance	Insurance or reinsurance	Insurance or reinsurance	Insurance holding or mixed financial holding company	Insurance holding or mixed financial holding company	Insurance holding or mixed financial holding company	Ancillary services undertakings	Ancillary services undertakings	Ancillary services undertakings	OFS[3)]	OTHER incl CIU
Influence	Dominant	Joint Venture[3)]	Significant	Dominant	Joint Venture[3)]	Significant	Dominant	Joint Venture[2)]	Significant	ALL	ALL
Indications of %	*"50-100%"*	*"50%"*	*"20-50%"*	*"50-100%"*	*"50%"*	*"20-50%"*	*"50-100%"*	*"50%"*	*"20-50%"*	*>20%*	*>20%*
Method 2											
Calc of OF	L1 Art 233 2. (b) Proportional share of solo Own funds	L1 Art 233 2. (b) Proportional share of solo Own funds	L1 Art 233 2. (b) Proportional share of solo Own funds	L1 Art 233 2. (b) Proportional share of solo Own funds	L1 Art 233 2. (b) Proportional share of solo Own funds	L1 Art 233 2. (b) Proportional share of solo Own funds	Included via the Asset in the participating undertaking, Holdings valued in accordance with solo	Included via the Asset in the participating undertaking, Holdings valued in accordance with solo	Included via the Asset in the participating undertaking, Holdings valued in accordance with solo	Proportional share of own funds according to relevant sectoral rules	Included via the Asset in the participating undertaking, Holdings valued in accordance with solo

[1)] When an undertaking linked to another undertaking by a relationship as set out in Article 12 (1) of Directive 83/349/EEC, the proportional share is set in accordance with L1 art 221.2.a. However, such relationship will imply an inclusion of 100% by default, if not decided otherwise by the group supervisor after consulting the other supervisory authourities and the group itself. This undertaking is not a subidiary undertaking.
When method 1 is used, these undertakings will be included in the balance sheet and consolidated data in accordance with Article 323bis (1) (a), (c), (d), (e) or (f).
When method 2 is used, same treatment as stated in the Directive 2009/138/EC Article 233, Delegated acts and Gls 29 and 30 of Guidelines on Group Solvency Calculation.

[2)] Near final draft IFRS standards have been published. For ex IFRS 11 Joint arrangements, where equity method should be used instead proportionate consolidation for JV.

[3)] Including credit institutions, investment firms and financial institutions, alternative investment fund managers, UCITS management companies, institutions for occupational retirement provision and non-regulated undertakings carrying out financial activities.

Guideline 30 - Calculation of aggregated group solvency capital requirement

When applying the deduction and aggregation method, the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should calculate the aggregated group solvency capital requirement as the sum of:

(a) the solvency capital requirement of the participating insurance or reinsurance undertaking, the notional solvency capital requirement of the parent insurance holding company or mixed financial holding company;

(b) the proportional share of the solvency capital requirement of the related insurance or reinsurance undertakings and the proportional share of the notional solvency capital requirement of the intermediate insurance holding companies or intermediate mixed financial holding companies;

(c) the proportional share of the solvency capital requirement of the related third-country insurance or reinsurance undertakings and the proportional share of the notional solvency capital requirement of the intermediate insurance holding companies or intermediate mixed financial holding companies calculated according to Solvency II rules. If the third country is equivalent, local rules apply depending on how the option set out in Article 227(1) of Solvency II was implemented by the Member State;

(d) the proportional share of the capital requirement of credit institutions, investment firms, financial institutions, alternative investment fund managers, asset management companies and institutions for occupational retirement provision, calculated according to the relevant sectoral rules existing in the European Union and the proportional share of the notional solvency capital requirement of non-regulated undertakings carrying out financial activities; for related third-country undertakings, the capital requirement should be calculated according to the relevant sectoral rules existing in the European Union.

The solvency capital requirement for the other related undertakings should be determined in accordance with [Article 9bis V5bis, Articles ER1 to ER4, Articles CO1 to CO6 and Article CR1 of the draft Implementing Measures].

2.86. The table below summarises the treatment of related undertakings for the purpose of calculating the group solvency capital requirement when applying the deduction and aggregation method.

Treatment of related undertakings for the purpose of calculating group solvency[1)]

Type of undertaking	Insurance or reinsurance	Insurance or reinsurance	Insurance or reinsurance	Insurance holding or mixed financial holding company	Insurance holding or mixed financial holding company	Insurance holding or mixed financial holding company	Ancillary services undertakings	Ancillary services undertakings	Ancillary services undertakings	OFS[3)]	OTHER incl CIU
Influence	Dominant	Joint Venture[3)]	Significant	Dominant	Joint Venture[3)]	Significant	Dominant	Joint Venture[2)]	Significant	ALL	ALL
Indications of %	*"50-100%"*	*"50%"*	*"20-50%"*	*"50-100%"*	*"50%"*	*"20-50%"*	*"50-100%"*	*"50%"*	*"20-50%"*	*>20%*	*>20%*
Method 2											
Calc of group SCR	L1 Art 233 3.(b) Proportional share of solo SCR	L1 Art 233 3.(b) Proportional share of solo SCR	L1 Art 233 3.(b) Proportional share of solo SCR	L1 Art 235 / L1 Art 233 3.(b) Proportional share of solo SCR	L1 Art 235 / L1 Art 233 3.(b) Proportional share of solo SCR	L1 Art 235 / L1 Art 233 3.(b) Proportional share of solo SCR	Capital charge on Asset in the participating undertaking (valued in accordance with Art 9 V5)	Capital charge on Asset in the participating undertaking (valued in accordance with Art 9 V5)	Capital charge on Asset in the participating undertaking (valued in accordance with Art 9 V5)	Proportional share of capital requirement according to relevant sectoral rules	Capital charge on Asset in the participating undertaking (valued in accordance with Art 9 V5)

[1)] When an undertaking linked to another undertaking by a relationship as set out in Article 12 (1) of Directive 83/349/EEC, the proportional share is set in accordance with L1 art 221.2.a. However, such relationship will imply an inclusion of 100% by default, if not decided otherwise by the group supervisor after consulting the other supervisory authourities and the group itself. This undertaking is not a subidiary undertaking.
When method 1 is used, these undertakings will be included in the balance sheet and consolidated data in accordance with Article 323bis (1) (a), (c), (d), (e) or (f).
When method 2 is used, same treatment as stated in the Directive 2009/138/EC Article 233, Delegated acts and Gls 29 and 30 of Guidelines on Group Solvency Calculation.

[2)] Near final draft IFRS standards have been published. For ex IFRS 11 Joint arrangements, where equity method should be used instead proportionate consolidation for JV.

[3)] Including credit institutions, investment firms and financial institutions, alternative investment fund managers, UCITS management companies, institutions for occupational retirement provision and non-regulated undertakings carrying out financial activities.

Guideline 31 – Treatment of group specific risks

The participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company should calculate the group solvency capital requirement taking into account all quantifiable, material specific risks existing at group level, which may impact the solvency and financial position of the group. If the group specific risks are material, the group should use group-specific parameters or a partial internal model for the calculation of the solvency capital requirement corresponding to the group-specific risks.

These risks are:

(a) the risks which are also present at individual level, but whose impact is significantly different (which behave in a different way) at group level, or

(b) the risks only present at group level.

The group solvency capital requirement for the quantifiable part of these risks should be calculated as follows:
- in the case described in a) by applying different calibrations to the relevant risk modules or sub-modules than those used at the individual level, or by applying appropriate scenarios;
- in the case of b) by applying appropriate scenarios.

If the group is unable to reflect the risk profile in the group solvency capital

requirement due to the specific risks existing at group level as described above the group supervisor, after consulting the other supervisory authorities concerned, should be able to impose a group capital add-on, as provided for in Articles 232(a) and 233(6) of Solvency II.

2.87. According to Articles 101.3 and 220.2 of Solvency II, the solvency capital requirement reflects all quantifiable risks to which an insurance or reinsurance undertaking is exposed to. When applying the standard formula, the group SCR is calculated based on individual data which are designed and calibrated regardless of the appurtenance of that undertaking to the group. Although the impact of the significant risks stemming from being a member of a group may be felt at individual level (for example through a higher lapse rate at individual level in the case of a deteriorating financial situation of a group member or the whole group) they are not reflected in the individual capital requirement (e.g. in the calibration). Therefore, the group specific risks should be incorporated in the group capital requirement.

2.88. Capital add-on is a last resort measure, therefore prior to the decision made by the group supervisor to impose it, the group is expected to assess the materiality of group specific risks and quantify them.

2.89. The quantification of group specific risks needs to be complemented by an appropriate qualitative assessment (i.e. regarding strategic risks and conflict of interests between the group goals, which may change in a crisis, and the local undertaking interests). If group specific risks are material and are not reflected properly or not reflected at all in the group capital requirement, a capital add-on is expected to be imposed.

2.90. The scenarios mentioned in Guideline 31 may include for example: higher lapse rate, higher acquisition costs, lower renewal rate, earlier withdrawal of a counterparty from a contract, lower participation values, another calibration of concentration risk due to a lack of intra-group transactions at group level.

Guideline 32 – Treatment of reinsurance arrangements concluded within the group

When using the accounting consolidation-based method, a reinsurance arrangement concluded entirely within a group should not result in a decrease of the group solvency capital requirement in the absence of additional external financing of the group. Any reduction in the group solvency capital requirement should reflect an effective transfer of risks outside of the group.

2.91. The group solvency capital requirement calculated using the accounting consolidation-based method cannot be influenced by any reinsurance contracts

which transfer some risks from one undertaking to another within the group but in fact still remain on the group balance sheet. Therefore, the supervisory authority needs to pay attention whether the decrease in the solvency capital requirement (as a result of intra-group transactions) is justified by the actual limitation of the risks at group level or is artificial which would justify corrective measures to be applied.

Guideline 33 - Risk profile capital add-on when using the accounting consolidation-based method

Where a risk profile capital add-on has been set on a related undertaking, and where all or part of the group solvency capital requirement has been calculated using the accounting consolidation-based method, the group supervisor should assess at group level the significance of the deviation of the risk profile from the assumptions underlying the solvency capital requirement as calculated using the standard formula or an internal model, and should consider the need for imposing a capital add-on on the group solvency capital requirement.

2.92. The extent to which a risk profile capital add-on needs to be set for a related undertaking and to be reflected in the group SCR may depend on the size of the undertaking relative to the rest of the group and can be influenced by diversification effects.

Guideline 34 – Governance capital add-on when using the accounting consolidation-based method

Where a governance capital add-on has been set on a related undertaking of a group, and where all or part of the group solvency capital requirement has been calculated using the accounting consolidation-based method, the group supervisor should assess at group level the significance of the deviation from the standards laid down in Articles 41 to 49 of Solvency II, and should consider the need for imposing a capital add-on on the group solvency capital requirement.

Guideline 35 - Assessment of the deviation when imposing a capital add-on at group level

When a capital add-on has been set at group level, the supervisory authority of a related undertaking should assess whether the deviation stems from the risk profile or from the system of governance at the level of the related undertaking.

If so, the supervisory authority concerned should assess the significance of the deviation from the risk profile or from the system of governance standards, and should consider the need for imposing a capital add-on at the level of the related undertaking.

2.93. The group supervisor is expected to verify that the risk management and internal control systems and reporting procedures are implemented consistently in all the undertakings in the scope of group supervision.

Guideline 36 – Capital add-on when using the deduction and aggregation method

Where all or part of the group solvency capital requirement is calculated using the deduction and aggregation method, any risk profile capital add-on set on a related undertaking that is included under the deduction and aggregation method should be added to the group solvency capital requirement for the proportional share as referred to in Article 221(1) (b) of Solvency II. The double counting of the same deviation from the risk profile at individual and group level should be avoided.

2.94. In order to avoid a double counting for the same deviation, when imposing a capital add-on at group level, the group supervisor takes into account all capital add-ons already imposed at individual level which may address the deviation from the risk profile arising at group level.

2.95. For participations in which the group has a significant influence without control, the proportion of the add-on flowing automatically from the individual calculation is the same as the percentage of the SCR included in the group calculation.

Technical Annex 1

Calculation of the contribution of the insurance and reinsurance subsidiary to group solvency capital requirement [Guidelines 12, 15 and 20]

$$Contr_j = SCR_j \times SCR_{diversified} / \sum_i SCR_{isolo}$$

Where:

- SCRj is the solo SCR of the undertaking j
- SCRdiversified = SCR calculated in accordance to [Article 323ter SCG3 (a) of the draft Implementing Measures]
- SCRisolo is the solo SCR of the parent undertaking and each insurance or reinsurance undertaking, intermediate insurance holding company or mixed financial holding company included in the calculation of the SCRdiversified
- the ratio is the proportional adjustment due to the recognition of diversification effects at group level.

For undertakings included in consolidated data with proportional consolidation, according to [Article 323bis (1)(c) of the draft Implementing Measures], only the proportional share of the solo SCR is included in the above calculation.

Compliance and Reporting Rules

1. Compliance and Reporting Rules

1.1. This document contains Guidelines issued under Article 16 of the EIOPA Regulation. In accordance with Article 16(3) of the EIOPA Regulation, Competent Authorities and financial institutions shall make every effort to comply with guidelines and recommendations.

1.2. Competent authorities that comply or intend to comply with these Guidelines should incorporate them into their regulatory or supervisory framework in an appropriate manner.

1.3. Competent authorities shall confirm to EIOPA whether they comply or intend to comply with these Guidelines, with reasons for non-compliance, within two months after the issuance of the translated versions.

1.4. In the absence of a response by this deadline, competent authorities will be considered as non-compliant to the reporting and reported as such.

2. Final Provision on Reviews

2.1. The present Guidelines shall be subject to a review by EIOPA.