INSURANCE STRESS TEST 2024 TECHNICAL SPECIFICATIONS

Version	Reference	Amendment
V0.1	02/04/2024	-
V0.2	22/04/2024	- Paragraph 128: clarifications on the application of the interest rate swap shocks. Reference to the Technical Information file added. - Paragraph 130: inclusion of the inflation linked swap rates on the specification on how to apply the shocks for maturities not provided in the Technical Information. - Paragraph 160: clarification of the impact of the mass lapse shock on the technical provisions.
V0.3	29/04/2024	- Paragraph 151: addition of text specifying investment in infrastructure. - Figure 8: clarification on the applicability of the lapse shock on annuities.
V0.4	13/05/2024	- Figure 3 is updated including the item "Cash for MA and RFF". -Paragraph 93: the wording "cash outflows" is replaced with "cashflows". - Footnote 44: amended specifying "for the capital component". - Paragraph 148 amended to cover uncollateralised loans. - Paragraph 178 and 187: deletion of the sentence "The same applies for the projected outflows". - Paragraph 182: deletion of the specification "(claims provision)".

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ABBREVIATIONS

BE	Best Estimate
BOS	Board of Supervisors
CBS	Constrained Balance Sheet
D&A	Deduction and Aggregation
DTA	Deferred Tax Assets
DTL	Deferred Tax Liabilities
EA	Euro Area
ECB	European Central Bank
EEA	European Ecominic Area
ESRB	European Systemic Risk Board
EU	European Union
FBS	Fixed Balance Sheet
IRS	Interest Rate Swaps
LACDT	Loss Absorbing Capacity of Deferred Taxes
LLP	Last Liquid Point
LTG	Long-Term Guarantees measures
LTV	Loan to Value
MA	Matching Adjustment
NCAs	National Competent Authorities
OF	Own Funds
QRT	Quantitative Reporting Templates
REIT	Real Estate Investment Trust
RFR	Risk Free Rate
RMA	Reactive Management Action
RMBS	Residential Mortgage-Backed Security
SCR	Solvency Capital Requirement
SLT Health	Similar to Life Health obligations
ST	Stress Test
TP	Technical Provisions
UFR	Ultimate Forward Rate
UL/IL	Unit-Linked / Index-Linked
USP	Undertaking Specific Parameters
VA	Volatility Adjustment

1 BACKGROUND

1.   This is the sixth Union-wide exercise run by EIOPA.[1] As with each of the previous exercises, the overall objective is assessing the resilience of the European insurance industry against adverse market developments. Developments reflected in the scenario are deemed to be severe (e.g., beyond the confidence interval of Solvency II) but plausible (e.g., not contradicting economic theories). EIOPA tailors the goal, scope, and scenarios of each exercise according to the foreseen evolutions in market conditions and their potential negative implications for insurers. The 2024 exercise will maintain its non pass or fail nature, hence, any potential weakness emerged in the post-stress position of the participants never automatically triggered actions aimed at strengthening the capital and liquidity position of the insurers.

1.1 LEGAL FRAMEWORK

2.   EIOPA's legal stress testing framework is constituted of the following pillars:

3.   "EIOPA shall, in consultation with the ESRB, develop criteria for the identification and measurement of systemic risk and an adequate stress testing regime which includes an evaluation of the potential for systemic risk that may be posed by financial institutions to increase in situations of stress. This stress testing regime shall help to identify those financial institutions that may pose a systemic risk".[2]

4.   "Systemic risk should be defined as a risk of disruption in the financial system with the potential to have serious negative consequences for the internal market and the real economy. All types of financial intermediaries, markets and infrastructures may be potentially systemically important to some degree".[3]

5.   "EIOPA shall, in cooperation with the ESRB, initiate and coordinate Union-wide assessments of the resilience of financial institutions to adverse market developments".[4] To that end, "EIOPA shall develop the following, for application by the competent authorities:

- common methodologies for assessing the effect of economic scenarios on an institution's financial position;

- common approaches to communication on the outcomes of these assessments of the resilience of financial institutions."

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[1] EIOPA ran Insurance Stress Test exercises in 2011, 2014, 2016, 2018, and 2021.

[2] Art. 23 (1) EIOPA Regulation (EU) No. 1094/2010.

[3] Recital 14 EIOPA Regulation (EU) No. 1094/2010.

[4] Art. 21 (2) b and 32 (2) EIOPA Regulation (EU) No. 1094/2010.

1.2 MARKET CONDITIONS

6. The prevailing economic conditions are characterised by a regime shift, from almost a decade of low interest rates to higher rates but also by heightened geopolitical tensions.

7. The transition to higher interest rates was triggered by unprecedent high inflation due to various reasons, such as supply chain bottlenecks related to Covid-19 measures and the unjustified invasion of Ukraine that resulted in a record increase of energy prices. The pass through of high energy costs in combination with robust demand keep the underlying inflationary pressures.

8. Central banks reacted by increasing interest rates. This increased markedly the short-term interest rates, with this part of the interest rate curve being substantially shifted upwards. The restrictive monetary policy resulted in downward sloping interest rate curve i.e., with long-term rates being lower than the short-term. Among others, this reflected expectations for inflation reverting to the target level of 2%.

9. On this backdrop, financial markets faced a strong correction across asset classes during 2022, but in some cases, e.g., equity markets, rebounded substantially since then. Regarding sovereign bond spreads, the ECB announced some measures to tackle fragmentation risk during the summer of 2022. Although this was enough to stabilise the peak in sovereign spreads in the first months of the tighter monetary policy, it indicates the fragility of the economic environment when rates increase sharply, and liquidity is withdrawn.

10. The same conclusion about fragility can be drew looking at the unwinding of events during the UK gilt market episode. Interestingly, the adverse development was propagated due to leveraged positions of liability driven investment. Weak links in the financial system can have sizable repercussions for other parts of the financial system, even if it does not fully develop to a systemic event. The regional bank crisis in US and the impact it had for Credit Suisse is an indicative example.

11. There are two channels (among others) of how insurers are affected directly by this economic environment: a) through claims and expense inflation and b) through the financial market volatility.

12. Higher prices can directly impact insurers, for example through costlier claims and expenses. In fact, the specific claims inflation per line of business encompasses idiosyncratic characteristics and can deviate from the consumer price index development. The same applies for the expenses, part of which comes through wage expense. At any case, the risk of higher claims inflation and expenses is far from over for insurers and its assessment is crucial to better understand sector's vulnerabilities.

13. Insurers can also be impacted by mass lapses due to policyholders' financial strain and reallocation of their investments in higher yielding savings products which result in heightening liquidity risk for insurance underwriters.

14. Financial market volatility is a material dimension for insurers. The main market movements during the most recent years were a) higher interest rates, b) relatively contained spreads and c) substantial correction (and then recovery) in equity markets with also significant negative effects for real estate prices.

15.   High solvency ratios supported the insurance sector. However, additional increase of yields and inflation can prove detrimental. This increase in yields might be driven more by higher spreads, given their relatively contained levels observed so far vis-à-vis the extent of increase in interest rates.

2 OVERVIEW

16.   This section explains the structure, the different components of the exercise and their interrelations, allowing a better understanding of the choices made in the design of each of the individual components.

17.   Scope, methodology, scenario and disclosure are treated in detail in sections 3, 4, 5, and 6 respectively.

18.   Deviations from what is prescribed in sections 2, 3, 4, 5, and 6 shall be raised, discussed and agreed upon during the pre-validation period (please refer to Section 7 - Timeline).

2.1 OBJECTIVE

19.   The EIOPA stress test (ST) exercises have never been characterised by a pass-fail nature, namely, any potential weakness emerged in the post-stress position of the participants never automatically triggered actions aimed at strengthening the capital and liquidity position of the insurers. The information collected and produced under the stress test process were and will be considered on an aggregated basis to issue recommendations to the EU insurance industry if needed and on individual basis to enrich the analysis on jurisdictions and individual undertakings. Over time, also upon the European Court of Auditors' audit recommendations, EIOPA enhanced the transparency of the exercise including it in the objectives (ref. to 2018 edition of the exercise). The 2024 ST will adhere to these principles.

20.   The objective(s) of the 2024 ST is primarily to assess the resilience of the participants to the adverse scenario(s), providing supervisors with information on whether these insurers are able to withstand severe shocks.

21.   This microprudential-oriented approach allows the issuance of recommendations to the industry and allows supervisors to discuss a follow up from undertakings, where relevant, to improve their resilience.

22.   The aggregation of the results of the individual entities will be used to assess potential sector-wide vulnerabilities.

23.   The 2024 ST complements the assessment of the post-stress capital positions with the assessment of the pre- and post-stress liquidity positions of the participants over a 90 days' time horizon.

24.   The 2024 ST encompasses a macroprudential dimension adding to the standard fixed balance sheet approach a constrained balance sheet approach where participants are allowed to apply reactive management actions in the calculation of their post-stress position.

25.   The latter approach allows the assessment of the resilience of the insurance sector by a different perspective. Through the aggregation of the impacts of the reactive management actions

it explores potential spillover to other markets generated or amplified by the insurance sector against the prescribed scenario.

2.2 STRUCTURE

26.   The structure of the 2024 ST aims at assessing the position of the participants by two perspectives, in line with the 2021 exercise and the respective methodological papers:

- capital (Own Funds - OF, Solvency Capital Requirement - SCR), where the Solvency II framework should be used as a guidance for recalculating the post-stress capital positions as common ground for the assessment in order to ensure the comparability of the baseline positions;[5] and

- liquidity, based on the hybrid stocks / flows assessment of the liquidity sources and liquidity needs,[6] also based on the experience gained in the context of the EIOPA liquidity monitoring exercises.

27.   The two components are based as much as possible to a common narrative, a common scenario, a common set of shocks. Due to the different nature of the two components, the application of the shocks, data collection, assessment and disclosure differ. Figure 1 presents the structure of the two components.

Figure 1- Structure of the exercise

Capital Component	Liquidity Component

• Combined scenarios with Market and Insurance specific shocks
• Approach:
    • Instantaneous shocks
    • Fixed balance sheet (no reactive Management Actions)
    • Constrained balance sheet (with guided reactive Management Actions)
• Metrics:
    • Balance sheet based (Excess of Assets over Liabilities)
    • Solvency based (OF, SCR)
	• Approach:
	    • Instantaneous shocks
	    • Fixed balance sheet (no reactive Management Actions)
	    • Constrained balance sheet (with guided reactive Management Actions)
	    • Stylised flow based evaluation
	    • Stock based evaluation
	• Time Horizon:
	    • 90 days
	• Metrics:
	    • Liquidity sources / Liquidity needs

28.   The post-stress capital and liquidity positions should be calculated under two different assumptions:

a)   Fixed balance sheet (FBS);

b)   Constrained balance sheet (CBS).

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[5] EIOPA (2019) Methodological principles for stress testing. Available at: methodological-principles-insurance-stress-testing.pdf (europa.eu).

[6] EIOPA (2021) Methodological principles for stress testing - Liquidity component. Available at: Methodological principles - liquidity (europa.eu).

29.   For option a) the post stress positions should be calculated considering only the embedded management actions[7], whereas in option b) the FBS assumption is, within specific boundaries, relaxed allowing for the application of plausible and realistic reactive management actions. Details on the application of the management actions can be found in section 4.4.

2.3 SCOPE

30.   The 2024 ST exercise targets European insurance entities based on the following criteria:

- Step a): Large groups;

- Step b): for the purposes of enhancing the scope at national level, additional entities (groups and/or solos) not covered in step a) are included.

31.   The local market coverage was taken into account in a second stage while retaining the total assets criteria to ensure a certain degree of homogeneity as regards to size.

32.   The target sample for the capital component as defined in cooperation with the National Competent Authorities (NCAs) encompasses 48 undertakings registered in 20 European jurisdictions. The selected sample covers 75% of the EU-wide market based on total assets reported at year-end 2022 under Solvency II.

33.   A specific approach is applied for the definition of the scope for the liquidity component of the exercise as described in section 3.1.

2.4 NARRATIVE

34.   The adverse scenario is based on the uncertainty deriving from the economic consequences of a re-intensification or prolongation of geopolitical tensions. Such an environment would fuel supply chain disruptions and lead to lower growth and higher inflation. Second-round effects stemming from a wage-price spiral would further exacerbate inflationary pressures, ultimately leading to a re-appraisal of market expectations of interest rates across tenors and currencies. Concerns about the persistent effects of severe adverse shocks are reflected in a larger increase of expected market rates at the short end of the yield curve than at the long end. This contributes to a further inversion of the yield curve. Despite expectations of decreasing inflationary pressures over time, growth will continue to be adversely affected.

35.   The resulting tightening of financing conditions, combined with higher wages and sluggish economic growth, would weigh on corporates' profitability. Corporate revenues expectations would reflect these degraded prospects, driving credit risk premia upwards and resulting in a widening of credit spreads.

36.   The high level of government bond yields, also driven by sustained high risk-free rates, would impose tight financing conditions for public spending. The pandemic-induced elevated level

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[7] For a thorough treatment of the classification and use of the management action please refer to section 2.3.3 of the Methodological principle for insurance stress testing (EIOPA-BoS_19/568).

of government debt and the need for mitigating measures to support the real economy in a downturn would fuel concerns about sovereign debt sustainability, leading to a further heterogenous increase in government bond rates.

37.   Households would also experience losses in real income and face higher borrowing costs amid higher unemployment. This would make it challenging for homeowners to service their mortgages, resulting in an increase in mortgage defaults. The ensuing fall in residential real estate prices is exacerbated by a slowdown in residential property market activity. At the same time, the large increase in interest rates would fuel a disorderly repricing in the commercial real estate market, in the context of structural changes to demand for office space that had been initiated by the COVID-19 pandemic.

38.   The higher cost of debt-servicing, coupled with the sharp fall in property prices, would trigger a sudden repricing of covered bonds and other asset-backed securities, driving spreads upwards.

39.   Such market reactions would also trigger a sudden revaluation of other financial assets in an uncertain environment characterised by high volatility. In particular, equity valuations would drop substantially worldwide, while hedge funds, real estate investment trusts and private equity funds would incur in losses. The latter would be largely affected by an amplification of liquidity stress. Finally, commodity prices would surge in line with the supply-chain driven inflation prospect.

2.5 DATA COLLECTION

40.   Results will be collected through ad-hoc templates that contain information to be used for analysis and validation purposes (ref. to section 6). The template for the capital component will rely to the maximum extent on a streamlined subset of the regular Solvency II Quantitative Reporting Templates (QRT), whereas templates for the liquidity component will be specifically developed, although in line with the 2021 ST and the EIOPA liquidity monitoring.

41.   For the assessment of the capital position, as a general principle, the templates are kept aligned to the regular Solvency II reporting (according to the latest taxonomy 2.8.0) where possible. Divergences are justified by the needed analysis and validations. To the most part, the templates for the pre- and post – stress position are the same (e.g., subject to small deviation for reporting marginal impact of the shocks etc.).

42.   For the liquidity component the information collected should also cover the pre- and post-stress position. The information for analysis and validation purposes are kept to the minimum.

43.   The subset of information subject to individual disclosure (upon participant's consent) will be clearly identified and will be limited to the capital component (ref. to section 6.1).

2.6 DISCLOSURE

44.   In disclosing the results of the 2024 stress test exercise EIOPA will pursue its goal of increasing the transparency towards policyholders and citizens. In line with the more recent

exercises and following the recommendation of the European Court of Auditors audit on stress test initiatives[8], the communication of the outcome of the 2024 ST exercise will be twofold:

- Publication of a report based on aggregated data covering both the capital and the liquidity component;

- Publication at individual level (upon consent of the participants) of a subset of balance sheet based indicators limited to the capital component.

45.   The public report will include a comprehensive set of capital indicators (e.g., balance sheet and solvency) and of liquidity indicators based on the collected information. For example, it will contain the disclosure of the pre- and post-stress impacts of Long-Term Guarantees (LTG) measures and transitional measures in line with the regular Solvency II reporting obligations. In presenting the aggregated results, EIOPA will avoid that figures from individual participants can be inferred or recalculated.

46.   The request for individual disclosure will only cover a subset of pre-defined balance sheet indicators limited to the pre- and post-stress balance sheet. No disclosure of the solvency position (OF and SCR) and of the liquidity position pre- and post-stress is envisaged.

47.   The rationale for pursuing a common and structured individual disclosure is to ensure the level playing field, to improve market discipline, to increase the reliability of the analysis and conclusions and to ensure a better quality of the data and results. The disclosure at individual level aims at supporting the stress test participants in their follow-up work. It will also enhance their abilities to compare their results with those of their peers ("know your competitor") and refine their own assessment of the results (including potential follow-up measures) directly to the public.

48.   It is worth to clarify that, independently by the consent expressed for individual disclosures, the full set of information collected in the context of this exercise from all the participating entities might be included in the public stress test report ensuring that no individual position could be inferred from the aggregated figures.

49.   While the draft agreement reached on the Solvency II review contains specific provisions on the disclosure of individual information in the context of a stress test exercise, the entry into application by the publication of the results of the 2024 exercise is not certain. Hence, EIOPA will subject the publication of individual results to the consent of the participants. The process to collect the consent for the individual disclosure will be initiated after the validation phase (ref. to section 7). Participants will be provided with the template of the indicators to be disclosed (as presented in the template for the data collection, ref to Section 6) filled with their baseline position and post-stress position calculated with and without the application of management actions. Based on this set of data, participants should express their consent. EIOPA will publish on its website the templates for those participants agreeing to the publication.

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[8] European Court of Auditors (2018) Special report No 29/2018: EIOPA made an important contribution to supervision and stability in the insurance sector, but significant challenges remain. Available at: https://www.eca.europa.eu/en/Pages/DocItem.aspx?did=47562

3 SCOPE

50.   In line with section 2.3, the list of entities included in the 2024 ST is reported in Figure 2.[9]

Figure 2- List of entities

Count	Name	Country
1	VIENNA INSURANCE GROUP AG Wiener Versicherung Gruppe	AT
2	Ageas SA/NV	BE
3	Allianz SE	DE
4	Münchener Rückversicherungs-Gesellschaft AG	DE
5	HDI Group	DE
6	R+V Versicherung AG	DE
7	Debeka Lebensversicherungsverein a. G.	DE
8	Versicherungskammer Bayern Versicherungsanstalt des öffentlichen Rechts	DE
9	Viridium Group GmbH & Co KG	DE
10	Danica Pension, Livsforsikringsaktieselskab	DK
11	PFA_HOLDING_AS	DK
12	Swedbank Life Insurance SE	EE
13	Ethniki Holdings S.à r.l.	EL
14	VIDA-CAIXA, SOCIEDAD ANÓNIMA DE SEGUROS Y REASEGUROS	ES
15	MAPFRE, S. A.	ES
16	OP Ryhmä	FI
17	AXA SA	FR
18	CNP ASSURANCES	FR
19	CAA	FR
20	BNP Paribas Cardif	FR
21	SOGECAP GROUP	FR
22	GROUPE DES ASSURANCES DU CREDIT MUTUEL	FR
23	Covéa	FR
24	BPCE Assurances	FR
25	Groupama Assurances Mutuelles	FR
26	SGAM AG2R LA MONDIALE	FR
27	CROATIA osiguranje d.d.	HR
28	Irish Life Group Limited	IE
29	Sjóvá-Almennar tryggingar hf.	IS
30	VIS Vátryggingafélag Íslands hf.	IS
31	TM tryggingar hf.	IS
32	Assicurazioni Generali S.p.A.	IT
33	Gruppo Intesa Sanpaolo Vita	IT
34	Poste Vita Group	IT
35	UNIPOL GRUPPO SPA	IT
36	Lombard International Assurance Holdings S.à r.l.	LU
37	NN Group N.V.	NL
38	Achmea B.V.	NL
39	ASR Nederland N.V.	NL
40	Athora Netherlands NV	NL
41	Kommunal Landspensjonskasse	NO
42	Storebrand ASA	NO
43	Powszechny Zaklad Ubezpieczen	PL
44	LongRun Portugal, SGPS	PT
45	Skandia Försäkringsgrupp	SE
46	Nordea Life Holding AB Group	SE
47	If Skadeförsäkring AB (publ)	SE
48	Skupina Triglav	SI

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[9] Adopted by the EIOPA Board of Supervisors on 6 December 2023.

3.1 LIQUIDITY

51.   The liquidity component targets the same insurance entities as the capital component, however, in absence of a commonly adopted framework for the assessment and the consolidation of the liquidity positions at group level participating entities have to approach the liquidity component based on the in-force liquidity management practices.

52.   For all the participants, independently by the liquidity management practices (e.g., liquidity managed at group level or at solo level), the assessment has to be conducted at solo level and limited to those entities in the perimeter that are more relevant by a liquidity risk perspective. The identification of the solo entities shall also follow the following criteria:

   a) Entities shall be insurance or reinsurance solo undertakings;

   b) Undertakings that are outside the scope of European insurance supervision (non-insurance entities and solos outside European Economic Area - EEA), shall be excluded;

   c) The selected solos cover a relevant part of the total assets of insurance EEA solos belonging to the participant.

53.   The selection of relevant solos was a joint Participant / NCAs / Project Group effort.

54.   Deviations from what is prescribed here shall be raised, discussed and agreed upon during the pre-validation phase (please refer to section 7).

4 METHODOLOGY

55.   EIOPA ST exercises rely on the Solvency II framework as common ground for the assessment of the resilience of the insurance industry against adverse developments. Solvency II offers common and shared principles for the evaluation and reporting of balance sheets and solvency positions (SCR and OF), which ensure the comparability of the baseline positions and serve as guidance for recalculating the post-stress capital positions.

56.   The reference date is 31 December 2023. The base case is the financial situation of the participant at the reference date and should be fully aligned with the 2023 annual Solvency II reporting submitted to the NCAs. The post-stress valuations have to be done for the above-mentioned reference date according to Solvency II framework and the current technical specifications.

57.   EIOPA ST exercises are based on a full balance sheet approach. Participants are expected to revaluate their entire balance sheet items against the provided shocks, as well as each element of the solvency position. Please refer to section 4.3 for details for the simplifications.

58.   Market shocks and insurance specific shocks are assumed to be applied as one-off shocks to the balance sheet at the reference date. To properly reflect the narrative and to ensure its homogeneous application, participants are requested to apply the shocks following a specific sequence when calculating their post-stress balance sheet and solvency position in the capital component:

- Step 1. Application of market shocks;
- Step 2. Application of insurance specific shocks (e.g., mass lapse, cost of claims).

59.   All the insurance specific shocks are designed to be applied simultaneously (no specific order is needed). Participants are requested to modify their best estimate (BE) assumptions against the prescribed shocks.

60.   The shocks and their specifications might differ in the capital and liquidity assessment. Details are provided for each shock in section 5. Given the structure of the liquidity component and the specifications and the simplifications therein, the sequence of application of the shocks is not relevant.

61.   Deviations from what is prescribed previously or below shall be raised, discussed, and agreed upon during the pre-validation period (please refer to section 7).

4.1 CAPITAL COMPONENT

62.   Shocks prescribed under adverse scenarios shall be applied to the entire in force business at the reference date with the highest possible accuracy in terms of recalculation of the post stress position and in terms of granularity:

- The post-stress figures shall be generated coherently with the model(s) applied by the participating entities for Solvency II valuation purposes. The use of (partial) internal models and undertaking specific parameters (USPs) should have been approved by the supervisor at reference date.[10]

- The look-through approach should be applied when calculating the impact of the scenarios (e.g., for Collective Investment Undertakings).[11]

63.   The approach for the consolidation of the results for the group balance sheet post stress shall be consistent with the baseline situation (e.g., with regards to third country (re)insurance undertakings consolidation). The shocks shall be applied to the whole perimeter of the group. For participations in other financial sectors with capital requirement[12], the balance sheet position and the own funds shall be stressed in line with the shock specified in section 5. Specifically, for entities for which the sectorial capital requirement is consolidated (e.g., banks) the impact of the shock on the solvency position shall be neutralized.[13]

64.   Participating entities shall apply the prescribed stresses to the solo entities aggregated via Deduction & Aggregation (D&A) according to the methodology used for the standard reporting with subsequent identification of the marginal impact on the OF and on the SCR.

65.   Potential simplifications in the approach to the calculation of the post stress position and on the perimeter of application of the shocks (e.g., portfolios, entities) can be applied upon discussion with the NCAs and in line with what prescribed in section 4.3.

66.   In principle, no recalculation of the baseline is expected. The recalculation of the baseline position will be requested only in exceptional circumstances. This would apply where there has been a change in the undertaking's structure and/or valuation model that would materially affect the regulatory financial position and the outcome of the stress test exercise (e.g. a change in the perimeter of the entity through restructuring or mergers and acquisitions, a change in the risk model used for the calculation of the SCR — standard formula, USPs or (partial)internal models —

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[10] In case of model changes occurred between the calculation of the baseline and the stressed scenarios, participating entities are requested to liaise with their Supervisors and EIOPA. Furthermore, only models used for the regular QRT submission are allowed.

[11] Any residual 'collective investments undertakings' (i.e. for those for which look-through was not feasible) should be shocked according to the asset shocks most closely resembling the collective investment undertakings. The application of the shocks depends on specific assets included in the balance sheet items.

[12] For example: banks, IORPs (if capital requirement applicable).

[13] To illustrate the neutralisation method as mentioned, assume an insurance group which holds a bank in its perimeter. Let's assume for the insurer own funds 100, solvency capital requirement 50 with both amounts excluding the contribution of the bank. Additionally, let's assume for the bank a sectorial own funds amount of 12, and capital requirements of 5. If the post stress position of the insurer excluding the bank contribution is 60 own funds and 40 solvency capital requirement resulting in 150% of solvency ratio, and the shocked own funds for the bank is 7.2 (assuming a shock to equity of -40%), then bank's capital requirement would be the ratio of this amount of 7.2 own funds by the post stress solvency ratio of the insurer calculated before namely 7.2/150%= 4.8. In this way, for the bank, the ratio of post stress own funds and capital requirements equals 7.2/4.8 = 150%. Consequently, the consolidation of the bank to the insurance groups would result in a solvency ratio of (60+7.2)/(40+4.8) = 150%, neutralising the contribution of the bank to the post stress solvency position of the participant.

and major model changes). Any potential recalculation of the baseline will be assessed and discussed on a case-by-case basis in the pre-validation phase.[14]

67.   As mentioned, the Solvency II framework is taken as common ground for the exercise, hence, as LTG measures represent an integral element of the Solvency II framework, they will be included in the analysis of the 2024 ST. Participating entities are requested to apply any LTG and Transitional measures they used at reference date. When the application of a measure requires a prior approval by the NCA or supervisor this measure can only be used insofar approval at reference date has been granted.

68.   The impact of the LTG and Transitional measures on the post-stress technical provisions, basic OF, eligible OF and SCR has to be calculated.

69.   Calibration of the LTG measures should be assumed to be unchanged with respect to the baseline if not specified differently. However, if the shocks prescribed under the stress scenario trigger a material change in the LTG measures, their values are recalibrated in accordance with EIOPA's methodology. In detail:

- the impact, in absolute terms, of the transitional measure on the Technical Provisions should be calculated in the pre-stress scenario and then kept constant in the post-stress scenario;

- the transitional measure on the risk-free interest rates should be re-evaluated under the stressed scenarios and applied consistently with the baseline case;

- transitional measures on equity shall be applied consistently with the baseline scenario;

- matching adjustments (MA) should be re-evaluated under stressed scenarios and applied consistently with the baseline case;

- recalculated Volatility Adjustment (VA) is provided by EIOPA under the stress scenario;

- a symmetric adjustment mechanism for the equity risk charge under the stressed scenario is provided by EIOPA.

70.   The consistency with the Solvency II framework will be granted also in the calibration of the Ultimate Forward Rate (UFR) which will be the value to be used in 2024 for the calculation of the regular Solvency II position (3.30% for Euro, other currencies are treated accordingly)[15]. This approach is in line with the microprudential objective of the 2024 ST exercise and its strive to an increased transparency (e.g. individual public disclosure of the results). Please note that no recalculation of the baseline is triggered by the change of the UFR between the baseline and the post stress situation.

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[14] For the treatment of the recalculation of baseline please refer to section 2.3.1 of the Methodological principle for insurance stress testing (EIOPA-BoS_19/568).

[15] For additional information please refer to: Technical information relating to risk-free interest rate (RFR) term structures is used for the calculation of the technical provisions for (re)insurance obligations. Available at: https://www.eiopa.europa.eu/tools-and-data/risk-free-interest-rate-term-structures_en.

4.2 LIQUIDITY COMPONENT

71.   The methodology applied for the 2024 ST regarding the liquidity component is based on the second EIOPA methodological paper on stress testing[16], the experience gained during the 2021 ST exercise and the ongoing EIOPA Liquidity monitoring exercise.

72.   The methodological approach to the assessment of the baseline and post stress liquidity position is based on a hybrid stocks / flows assessment of the liquidity sources and liquidity needs. The calculation of the liquidity position of the participants will account for the full stack of the liquidity sources and of the liquidity needs.

73.   Liquid assets will be estimated both in the baseline and in the post-stress position via liquidity haircuts automatically applied to the different asset classes as reported in Figure 3. Therefore, the amounts of the assets should be reported in each scenario without application of haircuts.

Figure 3- Classification of assets

	Assets (excluding assets held for UL/IL, MA portfolios and Ring Fenced Funds)	Weights
S.1	Cash & Bank Deposits & Bank Commercial Paper/Certificates of Deposits	1.00
S.1.1	of which stemming from repo agreements	1.00
S.2	Government-Related Securities (Central governments & affiliates)	
S.2.1	issued/guaranteed by EU member states (all CQSs) and issued by highly rated non-EU countries (CQS0/1)	0.95
S.2.1	Issued or guaranteed by highly rated non-EU countries (CQS2/3)	0.75
S.3	Exposures to ECB, Central banks, multilateral development banks & international organisations	
S.3.1	issued or guaranteed by ECB, EU central banks, supranational institutions (BIS, IMF, EC,..) or Multilateral Development Banks	0.95
S.3.2	issued or guaranteed by central banks of non-EU countries (CQS0/1)	0.85
S.4	High Quality Covered bonds	
S.4.1	Extremely high quality covered bonds - CQS0/1	0.65
S.4.2	High quality covered bonds - CQS2	0.60
S.5	Corporate bonds not issued by a financial institution or its affiliate	
S.5.1	Corporate debt securities (CQS0/1)	0.65
S.5.2	Corporate debt securities (CQS2/3)	0.60
S.6	Corporate bonds issued by a financial institution or its affiliate	
S.6.1	Corporate debt securities (CQS0/1)	0.55
S.6.2	Corporate debt securities (CQS2/3)	0.50
S.7	Listed Equity not issued by a financial institution or its affiliate	0.40
S.8	Listed Equity issued by a financial institution or its affiliate	0.30
S.9	Collateralised securities (CQS0/1)	0.55
S.10	Collective Investment Undertakings	
S.10.1	Liquid Collective Investment Undertakings	0.45
S.10.2	Illiquid Collective Investment Undertakings	0.20

S.11	Total Assets (excluding assets held for UL/IL, MA portfolios and Ring fenced Funds)	
S.12	Assets held for UL/IL	0.45
S.12.1	Cash for UL/IL	1.00
S.13	Assets held for matching adjustments portfolios and ring fenced funds	1.00
S.13.1	Cash for MA and RFF	1.00

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[16] EIOPA (2021) Methodological principles of insurance stress testing - Liquidity component. Available at: Methodological principles - liquidity (europa.eu).

74.   Liquidity haircuts will be kept constant under baseline and stressed scenario and will be applied on the baseline and post stress reported exposure. The liquidity position is shocked in the adverse scenario through the reduction in the values of the assets against the prescribed market shocks. Haircuts for each bucket are calibrated according to the most recent standards defined at international level (e.g., IAIS[17]). Additionally, only unencumbered assets should be considered.

75.   Net-flows should be computed over a time horizon of 90 days starting from the reference date 31 December 2023. Under this hypothesis the baseline net-flow position should be based on the actual in- and out-flows registered in the first quarter of 2024. The stressed net-flow should be estimated via the reassessment of cash in- and out-flows against the prescribed market and insurance specific shocks according to the provisions in section 5.

76.   It is worth to be noted that the flow analysis is not based on detailed cash flows, but on the relevant flows registered over the 90 days time horizon (ref. to Figure 4 for an example limited to life business under baseline and adverse scenario.

Figure 4- Exemplificative flow analysis for life business[18]

		In 90 days Volume
	Life (excluding UL/IL, MA portfolios and RFF) business	
C.1.1	Premium (written)*	
C.1.2	Claims and other technical outflows (excluding surrender)*	
C.1.3	Surrender	
C.1.4	Reinsurance inflows	
C.1.5	Reinsurance outflows	
C.1	**Net Cash Flows**	

77.   In principle the assessment of the liquidity flows could be based on the present value of the cash in- and out-flows over the prescribed time horizon discounted at the risk-free rate curve. Given the short time horizon (90 days), a simple sum of undiscounted cash in- and out-flows is requested.

78.   Participants are also requested to report the amount of securities traded in the 90-day time horizon under baseline and adverse scenarios under fixed and constrained balance sheet approach according to the granularity provided in Figure 5.

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[17] IAIS (2022) Liquidity metrics as an ancillary indicator – Level 2 document. Available at: Level-2-document-Liquidity-Metrics-as-an-ancillary-indicator.pdf (iaisweb.org). Haircuts not defined in the IAIS methodology (e.g., CIUs) are in principle calibrated using the haircuts assigned to direct investments and the aggregated exposures of European insurers.

[18] Detailed instruction on the information to be provided for each item can be found in the liquidity template tab. I.Information. Detailed instruction on the information to be provided for the investments can be found in the liquidity template tab. I.Information.

Figure 5- Purchase and sales of assets

		Baseline (Actual flows for 90 days)		Stressed		Stressed with reactive management actions	
		Purchase of assets	Sales of assets	Purchase of assets	Sales of assets	Purchase of assets	Sales of assets
C.9.	Government-Related Securities (Central governments & affiliates)	-	-	-	-	-	-
C.9.1.	issued/guaranteed by EU member states (all CQSs) and issued by highly rated non-EU countries (CQS0/1)						
C.9.2.	Issued or guaranteed by highly rated non-EU countries (CQS2/3)						
C.9.3.	Other Government-Related securities						
C.10.	Exposures to ECB, Central banks, multilateral development banks & international organisations	-	-	-	-	-	-
C.10.1.	issued or guaranteed by ECB, EU central banks, supranational institutions (BIS, IMF, EC,..) or Multilateral Development Banks						
C.10.2.	issued or guaranteed by central banks of non-EU countries (CQS0/1)						
C.11.	High Quality Covered bonds	-	-	-	-	-	-
C.11.1.	Extremely high quality covered bonds - CQS0/1						
C.11.2.	High quality covered bonds - CQS2						
C.12.	Other Covered bonds - CQS3/4/5						
C.13.	Corporate bonds not issued by a financial institution or its affiliate	-	-	-	-	-	-
C.13.1.	Corporate debt securities (CQS0/1)						
C.13.2.	Corporate debt securities (CQS2/3)						
C.13.3.	Other Corporate debt securities (CQS4/5)						
C.14.	Corporate bonds issued by a financial institution or its affiliate	-	-	-	-	-	-
C.14.1.	Corporate debt securities (CQS0/1)						
C.14.2.	Corporate debt securities (CQS2/3)						
C.14.3.	Other Corporate debt securities (CQS4/5)						
C.15.	Equity	-	-	-	-	-	-
C.15.1.	Listed Equity not issued by a financial institution or its affiliate						
C.15.2.	Listed Equity issued by a financial institution or its affiliate						
C.15.3.	Unlisted Equity						
C.16.	Collateralised securities (CQS0/1)						
C.17.	Collateralised securities (CQS2/3/4/5)						
C.18.	Collective Inverstment Undertakings	-	-	-	-	-	-
C.18.1	Liquid Collective Investment Undertakings						
C.18.2	Illiquid Collective Investment Undertakings						
C.19.	Other investments						
C.20.	Collateralized assets						
C.21.	Total Cash Flows	-	-	-	-	-	-

79.   The calculation of the post-stress liquidity position should be performed under fixed balance sheet and constraint balance sheet assumptions, namely:

- in the first case no reactive management actions are allowed and the sales/purchase of assets should include only "business as usual" transactions, e.g. (i) transactions in line with the in-force investment plan (if any); (ii) transactions in line with the investment mandate for Unit-Linked and Index-Linked (UL/IL) business (if any). For example, in the case of purchases and sales of assets that have already been executed and reported in the "Baseline", the value to be reported should correspond to the value reported in the baseline shocked according to the related market shocks used in the capital component (refer to the Technical information tab: "Market_Shocks"). In case of purchases/sales of assets that differ in terms of quantity / type from the assets of the actual flows executed in "Baseline" (and are done within the context of "business as usual"), the amount should reflect the price as of 2023 year end shocked according to the related market shocks used in the capital component (refer to the Technical information tab: "Market_Shocks"). If an asset is issued after 2023 year end, the 2023 year end price of a comparable asset shall be used.[19]

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[19] Example on equity:
Baseline: purchase of 100 EUR of stock X and sale of 150 of stock Y (both within the 90 days). Let's assume, for the purpose of the example, an equity shock of -40%, which should be applied to the value of the stocks X and Y.
Case 1: The value of the stock X becomes 100*(1-40%) = 60 EUR and of the stock Y 150*(1-40%) = 90 EUR.
Case 2:
- If additional shares of stock X need to be purchased/sold:
In order to determine the purchase/selling price, the price of stock X as of the 2023 year end should be used, say 95 EUR. Then, the value shall be shocked based on the provided shock to equity (e.g. -40% for the shake of the example), resulting in (1-40%)*95 = 57 EUR. This resulting value shall be used as purchase/selling price.
- If a different stock Z needs to be purchased:
Starting from the price of stock Z as of 2023 year end, say 80 EUR, then, the provided shock to equity (e.g. -40%) shall be applied resulting in (1-40%)*80 = 48 EUR. This resulting value shall be used as purchase/selling price.

▪ in the second case the constraints will be relaxed, and the impact of the reactive management actions can be included. Any applied reactive management action should be consistent with the stressed scenario and documented.[20]

80.   When re-estimating the price of the fixed income assets, participants are allowed to apply simplified approaches such as duration based approach or scaling approach. The approach taken should be discussed during the pre-validation phase and disclosed in section "simplification" of the qualitative information included in the liquidity template.

81.   When computing the post stress liquidity position, companies shall not consider potential mitigation effects stemming from local micro- or macro-prudential regulatory regime e.g., temporary suspension of the redemption rights.

82.   The assessment of the liquidity of the liabilities for life business is based on the classification of the BE according to a criterion based on the economic penalties (contractual and fiscal) to lapse as displayed in Figure 6. Specific reporting is requested for ring-fenced funds and matching portfolios.

Figure 6- Classification of the life best estimate liabilities[21]

	Liabilities	Weights
	Life (excluding UL/IL, MA portfolios and RFF portfolios)	
S.11.1	Without surrender option	0.00
S.11.2	Surrender value equal to or bigger than the 100% of best estimates/statutory reserves	0.50
S.11.3	Surrender value between 100% (exclusively) and 80% of the best estimates/statutory reserves	0.25
S.11.4	Surrender value lower than 80% of the best estimates/statutory reserves	0.05
S.11	**Total**	
	UL/IL	
S.12.1	Without surrender option	0.00
S.12.2	Surrender value equal to or bigger than the 100% of best estimates/statutory reserves	0.75
S.12.3	Surrender value between 100% (exclusively) and 80% of the best estimates/statutory reserves	0.50
S.12.4	Surrender value lower than 80% of the best estimates/statutory reserves	0.10
S.12	**Total**	
	MA portfolio/Ring fenced funds	
S.13.1	Without surrender option-MA	0.00
S.13.2	With surrender value limited to the value of the assets- MA	0.50
S.13.3	Without surrender option -RFF	0.00
S.13.4	Surrender value equal to or bigger than the 100% of best estimates/statutory reserves -RFF	0.50
S.13.5	Surrender value between 100% (exclusively) and 80% of the best estimates/statutory reserves -RFF	0.25
S.13.6	Surrender value lower than 80% of the best estimates/statutory reserves- RFF	0.05
S.13	**Total**	

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[20] In principle, in the stress scenario without reactive management actions, participants are supposed to sell and purchase asset according to their day-to-day investment strategy. Therefore, they are not necessarily supposed to sell/purchase the same assets as in the baseline scenario if they do not deviate from the investment strategy that they use in their day-to-day business. The distinction between embedded and reactive management actions should be defined case by case and specifically discussed with the National Supervisor during the pre-validation phase of the exercise. In principle, in the context of the liquidity exercise embedded management actions refer to automatic/predefined processes of investment/disinvestment operations. The effect of these actions should be reported in the liquidity template under the columns labelled as "Stressed". Any other action (e.g., actions aimed at changing the investment strategy or, actions aimed at postponing/delaying payments against the market conditions prescribed in the scenario, or actions aimed at raising cash using cash pooling agreements for entities belonging to groups that do not manage their liquidity centrally or using other liquidity sources like loans, credit lines, etc.) should be considered as reactive management actions and should be included in the liquidity template under the columns labelled as "Stressed with reactive management actions".

[21] Detailed instruction on the information to be provided for each item can be found in the liquidity template tab. I.Information.

83.   Specific liquidity weights are automatically applied to each bucket; therefore, the amounts of the liabilities should be reported in each scenario without application of liquidity weights. Weights will be kept unchanged in the pre- and post-stress scenario.

84.   The liquidity component does not require the calculation of the post-stress standard Solvency II metrics (e.g., Excess of Assets over Liabilities or SCR).

4.3 SIMPLIFICATIONS AND APPROXIMATIONS

85.   EIOPA ST exercises are based on the Solvency II framework and hence on a full balance sheet approach. Participants are expected to re-evaluate their balance sheet items against the provided shocks. In principle, shocks should be applied to the entire business in force, hence to the full balance sheet (assets and liabilities), and to each element of the solvency position. The same applies for the liquidity position, subject to its different scope and other specificities. Simplifications and approximations can be allowed within the limits and the provisions described in this section. The simplifications and approximations that make specific reference to group perimeter and consolidation related aspects that are discussed below do not apply to solo entities included in the scope of the ST exercise.

86.   The use of simplifications for the post-stress Solvency II balance sheet, capital position and liquidity position shall be implemented after a discussion with the supervisor. This should take place as early as possible after the start of the calculation phase so that the supervisor can assess how the participant will incorporate these simplifications in order to limit or avoid exchanges related to their use, after the final results have been submitted. During this discussion, the participating entities should demonstrate how they intend to respect the principles on the basis of the applied simplifications.

87.   All approximations and simplifications used for the calculation of the post-stress results (that go beyond those used for the pre-stress calculations) should be clearly identified, and detailed (e.g., why is this simplification needed? What is the exact simplification and how is it applied?).

88.   The participants should also be able to give a quantitative or at least qualitative indication of the materiality of the deviations created using the simplification. This information should allow the supervisor to judge the suitability of each of the simplifications and will be evaluated on a case-by-case basis (ref. to pre-validation activity in section 7). This refers in particular to the following aspects.

89.   Perimeter of application for the shocks[22]: which refers to excluding part of the business, e.g., specific asset classes or liability portfolios (applicable to both solos and groups participants) or excluding entities (applicable for groups).

90.   Based on relevance and materiality criteria, participants can be allowed to reduce the perimeter of application of the shocks to a subset of their activities (e.g., assets classes, liability portfolios), using a scaling approach for the remaining part. The post-stress values of the part of the business excluded in line with the above-mentioned criteria should be scaled according to the

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[22] For the perimeter related simplifications please refer to section 5.4.1 of the Methodological principle for insurance stress testing (EIOPA-BoS_19/568).

change in the corresponding items calculated for the business being treated and the resulting post stress position shall be reflected in the templates. This is only allowed if the remaining part is marginally impacted by the prescribed shocks and if limited vulnerability to the shock is demonstrated.

91.   Groups might also opt to exclude one or more non-material / marginally impacted entities from the scope of application of the shocks. In consideration of the operational burden in applying the scaling approach to the whole balance sheet of the excluded entities and the approximation needed for the recalculation of the OF and of the sub-modules of the SCR (including the diversification effects), groups are allowed to keep the position of these entities unchanged with respect to the baseline.

92.   Besides the element of the relevance, the exclusions as mentioned above should be subject to a materiality criterion. To avoid large approximations in the post-stress position, participants are allowed to apply a simplified treatment to only a portion of the business that is not material in terms of the pre-stress value of:

- Group OF;

- Group SCR (also relevant for section 4.3.1).

At any case, the approach chosen has to be discussed with the NCAs during the pre-validation phase.

93.   Calculation of specific balance sheet items:

- Deferred tax assets and liabilities (DTA and DTL): The preferred approach should be the same as the method already applied in the baseline. Proxies could be considered especially for companies operating in different jurisdictions. As an example, with respect to the classification of the DTA based on the enacted tax regime, it can be assumed that all impacts which relates to cashflows on the economic balance sheet are directly transferred into income tax payable and receivable, while all other elements are transferred to deferred tax assets or liabilities.

- Best Estimates: in case the BE is calculated via regression techniques[23] the parameters used in the baseline scenario can be kept constant also for the estimations in the post-stress scenario. Companies should be able to provide credible quantitative or qualitative arguments that the approximations are appropriate with regard to the quality of the results. This information should form a central component of the pre-validation process. This dialogue should happen at an early stage of the 2024 ST process.

- Risk margin[24]: Solvency II allows different methodologies for this calculation based on a hierarchy of four methods going from the full computation to the scaling approach (calculating the risk margin as a percentage of the BE). To ensure comparability with the baseline, the post-stress risk margin should be computed, as a default option, using the same method used for the calculation of the 2023 balance sheet. As a simplification, i) for

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[23] For the regression technique related simplifications please refer to section 5.4.3 of the Methodological principle for insurance stress testing (EIOPA-BoS_19/568).

[24] For the post stress risk margin related simplifications please refer to section 5.4.5 of the Methodological principle for insurance stress testing (EIOPA-BoS_19/568).

life liability portfolios, participants are allowed to recalculate the post–stress risk margin using a more simplified method, namely dropping one notch down in the hierarchy of methods provided in EIOPA guideline 61[25] with respect to the method used in the baseline calculation; ii) for the non-life liability portfolios participants are allowed to apply a scaling approach independently by the method used in the regular reporting.

94.   Approach to consolidation at group level. The Solvency II Directive (2009/138/EC) allows groups to consolidate their solo's positions using one of two calculation methods: (*i*) the accounting consolidation-based method[26]; and (*ii*) the D&A method[27]. Post stress, the consolidation method used for the standard year-end reporting should be followed.

95.   However, potential simplifications might be applied to the calculation of the post-stress positions of solos according to the principle of materiality as specified in the section on the perimeter of application of the shocks.

96.   Groups can approach the calculation of the post-stress figures according to two main approaches:

▪ full reassessment of the solos' positions followed by a consolidation at group level. The full solo reassessment approach consists in applying all the shocks on each insurance undertaking followed by an exhaustive consolidation of all liabilities and assets at the group level. This approach can be mixed or complemented with any group consolidated-based approach. Any proxies deviating from the year-end procedure shall be discussed with the group supervisors during the pre-validation phase as stated in section 7 and should be reported and justifies in the qualitative information to be provided;

▪ the use of a group consolidated-based approach. A pure group consolidated-based approach to this exercise consists of the use of a group model granting the assessment of companies' balance sheet positions. In this concern balance sheet calculations involved should give a prudential picture of the group with, at least, the same reliability than any quarterly reporting. Therefore, this group consolidated-based approach should guarantee a calculation of the post stress group balance sheet with enough precision to fill in the 2024 stress test reporting templates. Approximation via sensitivity analysis should not be allowed regarding the magnitude of the shocks. All simplifications should consist in, for example, grouping liabilities in tractable quantities instead of breaking them down at solo level. Therefore, participating entities are allowed to apply their own model points (or model units or segments) and are requested to describe them in the qualitative information to be provided;

▪ Combinations of those two approaches are also allowed for the purpose of this exercise. The selected approach to produce the scenario's figures shall be discussed with the group supervisor as well.

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[25] EIOPA, 2015, 'Guidelines on valuation of technical provisions' (guideline 61). Available at: https://www.eiopa.europa.eu/content/guidelines-valuation-technical-provisions_en.

[26] Directive 2009/138/EC, Art. 230, Method 1 (default method): accounting consolidation-based method.

[27] Directive 2009/138/EC, Art. 233, Method 2 (alternative method): deduction and aggregation method.

97.   It is worth noting that, a pure group consolidated-based approach which consists of the use of a single or of a limited number of model points (with respect to the complexity of the business) for the evaluation of companies' their balance sheet positions (e.g., technical provisions) should in principle not be allowed.

4.3.1   SCR RECALCULATION

98.   It should be re-emphasized that the insurance stress test is not a pass-or-fail exercise; hence the recalculation of solvency ratios after stress is not intended to be used as a basis to impose any additional capital requirement.

99.   The post-stress SCR shall be calculated following the same approach used for the calculation of the regular Solvency II submission and specifically the submission of the 2023 year-end reporting used as a reference for this exercise.

100.   Given the complexity of the post-stress SCR calculation and the potential application of post stress management actions, additional methodological assumptions and potential allowances for simplifications can be considered. To avoid large approximations in the post-stress position, participants are allowed to apply a simplified treatment to only a portion of the business that is not material in terms of the pre-stress value of the SCR.

101.   Conscious of the complexity of the SCR recalculation, participants are allowed to apply the simplifications and approximations previously described depending on:

▪   Relevance of the risk drivers: given that the prescribed shocks of a scenario may not materially affect each and every risk factor, the recalculation of the SCR could exclude certain risk factors (SCR submodules) that are assumed not to change materially following the shocks.

▪   Relevance of the subsidiaries: given that the prescribed shocks of a scenario may not materially affect all subsidiaries or given that the solo SCR contribution of a subsidiary to the group SCR is not material, the recalculation of the group SCR could exclude certain subsidiaries for which the impact of the scenario is assumed to be not material due to their exposures or their contribution to the group SCR.

102.   All the simplifications and approximations shall be subject to the conditions prescribed for the recalculation of the balance sheet position.

103.   Additionally, simplification for SCR recalculation concerns the loss absorbing capacity of the deferred taxes. Participants are expected to fully recalculate their Loss Absorbing Capacity of Deferred Taxes (LACDT) position according to the standard procedure, however, if not, undertakings should calculate LACDT at a level of granularity that reflects all relevant regulations in all applicable tax regimes. When determining the tax consequences of the loss, an approach based on average tax rates might be used, provided that those average tax rates are determined at an appropriate level.[28]

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[28] For the LACDT please refer to section 5.4.2 of the Methodological principle for insurance stress testing (EIOPA-BoS_19/568)

104.   In the case that an undertaking would not pursue a full recalculation, it is allowed either to set the post-stress LACDT at zero or to approximate it with reference to the value of post stress net DTL, namely:

- if the post-stress net DTL is greater than zero, then participants are allowed to apply a reduction in LACDT by this amount in the calculation of the post-stress SCR;

- if the post-stress net DTL is negative, then this reduction can be set to zero.

105.   This approach is formalised in the following equation:

$$LACDT_{post-stress} = \max\left(0, netDTL_{post-stress}\right)$$

106.   Undertakings should be able to provide evidence to support their approach to LACDT post-stress calculations and its appropriateness.

4.4   MANAGEMENT ACTIONS

107.   Consistently with its micro- and macro-prudential objectives 2024 exercise requires participants to calculate their post-stress capital and liquidity position under two assumptions:

- Fixed balance sheet (microprudential dimension);
- Constrained balance sheet (macroprudential dimension).

108.   While all the other elements, as discussed in the section 4, remain the same under both assumptions, the use of the management actions is treated differently as specified below.

109.   Fixed balance sheet: to achieve a level playing field and to ensure that the results after stress reflect the instantaneous nature of the stresses, participating entities should not take into account measures, actions or risk mitigating strategies that rely on taking future actions after the reference date (e.g., de-risking strategies and any future action taken in the context of a recovery plan). That said, only the embedded management actions should be considered, and the reactive post-stress management actions should not be applied.[29]

110.   Constrained balance sheet: the inclusion of the management actions, which implies the relaxation of the FBS towards a CBS approach where, within specific boundaries, reactive management actions (RMA) should be taken into account in the calculation of the post-stress balance sheet and, if required in the calculation of the post stress solvency and liquidity position (e.g. de-risking strategies and any future action taken in the context of a recovery plan).[30]

111.   The estimation of the post stress position under constrained assumptions should be in line with the Solvency II approach (as for the baseline and FBS assumption).

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[29] For a thorough treatment of the classification and use of the management action please refer to section 2.3.3 of the Methodological principle for insurance stress testing (EIOPA-BoS_19/568).

[30] Reassessment of the "foreseeable dividends or other foreseeable distributions" under stressed scenario is included in the allowed actions.

112.   The applied RMA should be part of the governance framework adopted by the participating entity (e.g., risk management plans, investment strategies, recovery plans) and not specifically defined and implemented in this specific exercise.

113.   Any already planned and approved distribution of dividends has to be included in the FBS approach, and it can only be relaxed in the CBS approach.

114.   The RMA applied by the participants shall be appropriate and plausible and their assessment should form a central component of the pre-validation and validation process. Reactive post-stress management actions need to be realistic and proportionate and take account of the time needed to implement them and any expenses arising from them.[31] Participants should be able to provide credible explanations on whether and how the post-stress management action could actually be implemented under the adverse conditions of the stress scenario, also taking into account any potential secondary consequences (e.g. availability of assets on the market and potential drop in prices against widespread selling).

115.   Against this:

- an external recapitalization through the emission of new equity or debt, even if included in the recovery plan of the participant, is not allowed to be implemented in the stressed scenario. More general, regarding market-based operations, only repo contracts which have been negotiated before the launch of the ST exercise can be utilized. No new agreements should be considered;

- intragroup operations shall be discussed in the pre-validation phase;

- any management action that requires approvals outside the governing bodies of the participants (e.g., approval from the supervising authorities) shall not be considered as a RMA.

116.   The applied management actions shall be clearly documented qualitatively through the information to be provided directly in the templates for the data collection of the liquidity and capital component, and quantitatively providing information on the size of the actions and on their marginal impacts to the post stress balance sheet, solvency and liquidity positions (ref to section 6).

117.   In case of liquidity managed at solo level potential liquidity related intragroup transaction should be considered as a RMA, therefore included in the CBS approach. In case liquidity is managed at group level intragroup transactions are considered embedded management actions therefore to be accounted in the FBS approach.

118.   If a participant considers that RMAs are not necessary, the exercise can be limited to the FBS assumption. In this respect, if the company's solvency ratio falls below the target solvency ratio explicitly linked or derived from risk management framework of the participant (e.g., risk appetite), it is expected that RMAs will be implemented to possibly restore the situation. This applies both for the capital and liquidity component. For the latter, RMAs are expected to be implemented in case of breach of any metric / level specifically defined in the risk management framework, e.g., liquidity

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[31] Management actions enforced in the capital component should have an effect over a time horizon of 1 year, in line with the SCR estimation. Impacts of the management actions enforced in the liquidity component should materialise in the first quarter, in line with the prescribed time horizon.

management plan, contingency funding plan. It should be noted that the RMAs can differ in the capital and liquidity component.

5 SCENARIO, SHOCKS AND THEIR APPLICATION

119.   The scenario, developed in cooperation with the ESRB, converts the narrative of re-intensification or prolongation of geopolitical tensions (refer to section 2.4) into a consistent set of market and insurance specific shocks.

120.   The scenario is the outcome of several simulations based on a number of triggers that reflect the main sources of financial stability risks, with a focus on swap rates. Shocks to corporate and government credit spreads, equity and funds prices, commodities, infrastructure securities, and real estate prices in the European Union and other advanced economies are derived by conditioning on the triggering events. The sample period chosen for the calibration spans from January 2008 to December 2023. The sample has been set to reflect the main features of the scenario as reflected in the current risk landscape. The applied approach ensures that the scenario embodies the required characteristics of economic consistency and severity/plausibility.[32]

121.   Section 5 provides detailed information on the shocks and their application for the calculation of the capital and liquidity post stress positions. Deviations from what is described in the next two sections shall be raised, discussed and agreed upon during the pre-validation period (please refer to section 7).

5.1 MARKET SHOCKS

122.   Market shocks are assumed to represent one-off, instantaneous, and simultaneous shifts in asset prices relative to their end-2023 levels.

123.   A detailed overview of the market stress parameters is contained in the technical information file, which accompanies these specifications.

124.   The market stress parameters refer to the following risk drivers:

- swap rates (nominal and inflation linked);

- sovereign bond spreads;

- corporate bond and covered bond spreads;

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[32] The overall probability of materialisation of the market risk shocks depends on several factors, including the probabilities of the triggering events and their level of correlation. The market risk scenario has been calibrated on triggering events whereby the 1-year euro swap rate and the euro swap curve slope (defined as the difference between the EUR Swap 1Y and the EUR Swap 10Y) shocks are assumed to reach a given thresholds (168 bps and 122 bps, respectively). These thresholds have been set so that the marginal probabilities for each trigger (the probability that each trigger in isolation takes values at least as large the threshold considered) is 8% and 5% respectively. Based on the individual probabilities of the triggering events, and considering their sample correlation, the likelihood of the joint materialisation of the triggers is estimated at 4.5%. The overall likelihood of the scenario for affected variables can be gauged by the probabilities of the shocks simulated for each response variable jointly with the historical (sample-dependent) probability of the trigger events. These joint probabilities vary across the different categories of financial assets, ranging between 0.03% and 0.5%.

- equity prices;

- real estate prices (residential and office & commercial);

- residential mortgage-backed securities spreads (RMBS);

- investments in infrastructure (equity, corporate bonds, other);

- other assets prices (private equity, hedge funds, real estate investment trusts (REITs), commodities).

125.   Shocks to swaps are utilised to derive the EIOPA risk-free rate (RFR) curves via the Smith-Wilson model according to the EIOPA methodology (also included in the technical information file) following parameters:

   a. last liquid point (LLP) defined coherently with the LLP used for the definition of the EIOPA risk-free interest rate term structures;[33]

   b. the ultimate forward rate (UFR) is set at 3.30% for Euro in line with the current Solvency II regulation for 2024. The same approach will be used for the other currencies where the curves will be produced using their 2024 UFR levels.;

   c. Credit risk adjustment is kept unchanged with respect to the baseline.

126.   RFR curves that are not based on swaps are also estimated consistently with the EIOPA methodology and are included in the technical information file.

127.   RFR curves, with and without VA, are provided for most of the currencies. Currencies not included in the corresponding table of technical information file are not supposed to be stressed, therefore for these currencies baseline figures shall be used to reevaluate the technical provisions in the post stress situation.

128.   Post stress interest rate swaps (IRS) shocks, provided in the technical information[34], shall further be used as input to:

- Revaluate post stress position of fixed income assets and other interest rate sensitive positions. For example, for fixed income type of assets the technical information file provides the shocks to spreads, in which case, to reach the shock to yields, the IRS shock should be taken into account. This is illustrated in more detail in a subsequent paragraph;

- Revaluate other asset classes (e.g., derivatives). With specific reference to the liquidity component, the liquidity needs stemming from the net IRS position would have to be estimated based on the prescribed shocks to IRS;

- The shocks to swaps are also used to derive the RFR curves to be used in the SCR in the interest rate risk following the delegated regulation 2015/35 provisions.

129.   This paragraph is relevant for fixed income type of assets (among others) and it provides a way to derive the corresponding changes in the yields, from the information provided in the

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[33] Technical documentation of the methodology to derive EIOPA's risk-free interest rate term structures. Available at: RFR Technical Documentation (europa.eu).

[34] This refers to worksheet "Market_Shocks" of the technical information file.

technical information file (which refers to change in spreads against the baseline). The following example illustrates the process for the example of a bond:

a. The stressed level EUR swap rates is given by the following equation, assuming the same tenors are considered: $\text{SWAP}_t^{\text{Stress}} = \text{SWAP}_t^{\text{Base}} + \Delta\text{SWAP\_level}_t$;

b. The yield level of a bond generally includes a spread on top of the swap curve. Therefore, the yield of a bond with a specific maturity can be expressed as $\text{Yield\_level}_t = \text{SWAP\_level}_t + \text{Spread\_level}_t$ (where the swap term equals the maturity of the bond);

c. The shock levels for spreads and swaps (i.e., delta) is what is shown in the technical information file. The change in yields can then be derived as follows, with the right hand side implied by the shocks in the technical information file: $\Delta\text{Yield\_level}_t = \Delta\text{SWAP\_level}_t + \Delta\text{Spread\_level}_t$

d. In order to provide an illustrative example to reach the yield shock of 10Y Belgian government bond (i.e. $\Delta\text{Yield\_level}_{10}$ using the notation above), the $\Delta\text{SWAP\_level}_{10}$ can be retrieved directly from the technical information file which amounts to 46 bps, and also the $\Delta\text{Spread\_level}_{10}$ for the 10Y which amounts to 80 bps. Finally, the $\Delta\text{Yield\_level}_{10}$ = 126 bps.

130. Shocks to sovereign bonds spreads and IRS (including inflation linked swap rates) for maturities not provided in the technical information file should be derived:

- by interpolation (e.g., spline) for maturities that are not explicitly provided and that are not exceeding the last maturity provided with an explicit shock;

- by keeping the shock constant for all maturities exceeding the last maturity provided with an explicit shock.

131. Sovereign bonds issued by countries not explicitly covered shall be treated with shocks to other advanced economies or emerging markets according to the IMF classification. [35]

132. The classification and stressing of Municipal/Local Authority bonds should be consistent with how they would be treated under the Solvency II Standard Formula guidance.

133. No specific shock to spreads is provided to bonds issued by EU or non-EU supranational institutions. The post stress value of these securities should be calculated only taking into account the change in the IRS.

134. The technical information file also provides shocks to corporate bonds spreads, split by credit worthiness, financial / non-financial[36] and region (or country)/advanced/emerging markets.

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[35] A reference list for "advances economies" and "emerging markets" can be retrieved from the IMF World Economic Outlook, October 2023 - statistical appendix - Report available at: World Economic Outlook, October 2023: Navigating Global Divergences (imf.org)

[36] EIOPA applies ESA 2010 definition for "Financials" which includes the sectors "Central bank", "Deposit-taking corporations except the central bank", "Money market funds", "Non-MMF investment funds", "Other financial intermediaries, except insurance corporations and pension funds (excluding financial vehicle corporations engaged in securitization transactions), "Financial auxiliaries", "Captive financial institutions and money lenders", "Financial vehicle corporations engaged in securitization transactions", "Insurance corporations" and "Pension funds". All other positions would be assigned to "Non-Financials".

135.   Similar structure, but with different granularity, is provided for covered bonds and residential mortgage back securities (RMBS).

136.   Shocks to corporate bonds[37], covered or RMBS shall be applied as prescribed for the government bonds. Shocks to spreads should be applied homogeneously to all the maturities.

137.   For structured notes the spread shocks to corporate bonds shall be applied.

138.   Additional specifications should be followed for bonds wherever applicable:

- Bonds issued by corporations based in non-explicitly covered geographical areas shall be shocked with shocks to other advanced economies or emerging markets according to the IMF classification[38];

- The shocks to CCC rating class shall also be applied to corporate bonds with lower ratings;

- Unrated bonds shall be shocked according to the shocks prescribed to the BBB-rated bonds.

139.   The shocks for equities are provided in terms of percentage changes in the stock prices per geographical area and should be applied to the Solvency II value of the equity at the reference date. For unlisted equities the same shock application shall be followed.

140.   Own shares (held directly) and holdings in related undertakings, including participations, should be treated as listed equities. For participations please also refer to section 4.1 for more details.

141.   Equities in geographical areas whose shocks are not prescribed shall be shocked according to the average shocks provided for larger geographical areas, e.g. other advanced economies, and emerging markets. This applies to listed equities, unlisted equities, own shares, and participations.

142.   In the case of equity of companies listed in more than one stock exchange, the average shock over all areas where the equity is listed shall be applied (only the areas for which a shock has been specified as a part of the scenario description should be taken into account).

143.   Stock indices should be treated according to geographical criteria.

144.   The symmetric adjustment for this scenario is set at -10%.

145.   The technical information file provides the shocks to office & commercial and residential real estates for different countries. Investments in real estates located in countries that are not explicitly included shall be shocked according to the average shocks provided to the closest geographical areas, e.g., EU, EA, other advanced economies, and emerging markets.

146.   Shocks to real estate should be also partially applied to the balance-sheet item "property plant & equipment held for own use". Specifically, commercial properties for own use (including offices) should be treated in line with the office & commercial real estate held for investment purposes and property for own use classified as residential should be treated with the shocks to

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[37] Also for private credit.

[38] Please refer to the following publication World Economic Outlook, October 2023: Navigating Global Divergences (imf.org).

residential real estate held for investment purpose. Equipment should be kept constant with respect to the baseline.

147.   Property other than for own use should be fully shocked according to the shocks provided to the area where they are located.[39]

148.   Loans and mortgage portfolios (e.g., collateralised loans or mortgages to individuals and other collateralised loans and mortgages), should be revaluated according to the spread shocks provided to residential and mortgage-backed securities (RMBS). [40] The technical information file provides the relevant shocks for geographical areas and credit ratings. Only in case the rating quality of the (different) portfolio(s) cannot be determined, the following approach can be followed:

   a.   In case information of on the Loan-to-Value (LTV) of the portfolio is available, for portfolios with LTV<80% an A rating quality has to be assumed; for portfolios with LTV>=80% a BBB rating quality has to be assumed

   b.   In case LTV information is not available, a BBB rating quality has to be assumed for the non-rated portfolios.

149.   For loans on policies no shocks should be applied.

150.   The post stress value of Collateralised Loan Obligations (CLO), Commercial Mortgage-backed Securities (CMBS) and Asset-backed Securities (ABS) exposures (or other collateralized securities) shall also be determined applying the RMBS shocks.

151.   The participating entities shall apply the shock to other asset as percentage of change in the baseline Solvency II value according to the asset (private equity, hedge funds, commodities) and the geographical area (EU, global). In case participants opt to identify investments in infrastructure and to apply the specific shocks, the assets qualified as investments in infrastructure shall be identified through the information provided in the year-end reporting - S.06 [C0300] and shall be treated with the specific shocks provided for to the relevant asset classes.

152.   Derivatives other than IRS (specified above) should be shocked in line with the corresponding shocks to the underlying asset where possible or kept constant (e.g., FX derivatives).

153.   Oher assets classes not specified (e.g. CIC 0 or CICX9[41] - Other) shall be kept constant in value with respect to the baseline.

154.   In general, assets denominated in a currency other than the currency of the country of issuance should be first shocked according to the country shock and then, the resulting amount shall be transformed into the reporting currency by applying the exchange rate registered at the reference date. Example for government bonds: "Country A" currency is EUR and it issues two bonds: "bond 1" denominated in EUR and "bond 2" denominated in USD. Both bonds shall be treated according to the shock prescribed to "Country A" and, where needed, converted in the reporting currency of the participant.

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[39] For rural estate exposures, the residential real estate shock should be applied.

[40] The rationale for this treatment is that when insurers are forced to sell their portfolio of mortgages in a stressed situation, change in RMBS is considered the best proxy for the stressed values.

[41] Where "X" denotes the CIC category with X=1,…,9.

5.2 INSURANCE SPECIFIC SHOCKS

155.   The exercise encompasses a set of insurance shocks to be applied to specific business lines as presented in Figure 7.

Figure 7- Insurance specific shocks and their application

Shock	Life	Non-life
Mass lapse	$X_{C,L}$	
Cost of claims	$X_{C,L(health\ SLT)}$	$X_{C,L}$
Expenses	$X_{C,L}$	$X_{C,L}$
Reinsurance recoverables/receivables	X_L	X_L
Reduction in written premia	X_L	X_L

C=capital component; L=liquidity component

156.   The marginal impact of the insurance specific shocks to the Technical Provisions (TP), excess of assets over liabilities and to the OF shall be reported separately.

157.   Subsections provide details on the definition and the application of the shocks therein for the capital component and the liquidity component of the exercise.

158.   Level of the insurance specific shocks are also contained in the technical information file.

5.2.1 MASS LAPSE SHOCK

159.   The scenario assumes a sudden non-permanent discontinuance of the in-force insurance policies as in Art.142.1 c) of the delegated regulation 2015/35.

160.   Participating entities shall apply the lapse shock to the non-mandatory insurances of their in-force life portfolio, excluding pension schemes (e.g., Defined Benefits and Defined Contributions based products) as specified in Figure 8[42], independently by its impact (increase or decrease) on the technical provision.

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[42] Example: in case the best estimate lapse assumption of the insurer for an endowment is 4%, the instantaneous discontinuance shall be applied as 20% (taken from Figure 8) and not as 4% + 20% = 24%.

Figure 8- Product classification for lapse shock

Characteristic of product	Instantaneous discontinuance
Build-up of capital. This includes traditional products (e.g., endowment) as well as products in which the return is linked to the return of a capital market product such as an index (e.g., unit linked). At any case, products either with or without guarantees shall be considered. Combination with protection against mortality or longevity risk possible.	20%
Products such as term insurance, annuities in the pay-out phase, annuities in the deferral phase without lapse options relevant to the instantaneous discontinuance, disability insurance and health insurance should be excluded.	-

161.   In case a participating entity applies a dynamic lapse model, the prescribed immediate shocks shall overrule the dynamic adjustment of the lapses potentially generated by the set of prescribed market shocks, namely any dynamic adjustment shall be neutralized.[43]

162.   The shock shall be applied to any kind of policyholder lapse option as specified in Art. 142 of the delegated regulation 2015/35.

163.   The shocks should be applied to individual contracts only i.e., excluding the collective contracts. Mandatory coverage according to national laws included in the business lines identified in the two first lines of Figure 8 shall also be excluded from the mass lapse shock.

164.   When applying the shocks, companies shall not take into account potential mitigation effects stemming from local micro- or macro-prudential regulatory regime e.g., temporary suspension of the redemption rights.

5.2.1.1   Application in the capital component

165.   The impact of the instantaneous lapse shock shall be reflected only in a change of the TP with no impact on the assets side (only prescribed market shocks shall be applied, no fire-sales against the lapses). This approach, inspired by article 142 of the delegated regulation 2015/35, shall be applied independently of the approach used by participating entities for the assessment of their capital position. (Partial)internal model, USP, standard formula users shall apply the approach based on article 142 of the delegated regulation 2015/35 for the aim of comparability of the results in the stress test exercise.

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[43] Only in case the model used in the regular reporting does not allow to switch the dynamic lapse off for the first year, then participants are allowed to keep it always on to grant consistency with the baseline. In case this applies, it should be signalled during the pre-validation phase.

5.2.1.2   Application in the liquidity component

166.   For the purposes of the liquidity exercise, all the payments resulting from the discontinuance of the policies are supposed to be paid within the 90 days' time horizon. Payments for surrenders shall take into account penalties and other characteristics included in the contracts.

167.   In case the post stress projected value of surrenders is lower than the actual value of surrenders paid over the 90 days horizon, the actual value should be used as post-stress value. In case the post stress projected value is higher than the actual value, the actual value should be replaced by the post stress projected value. For example:

$$Surrender_{post-stress} = max(Surrender_{Actual}, Surender_{post-stress,projected})$$

168.   No changes to actual claims, actual premia, and actual reinsurance flows should be applied.

169.   Shock to lapse should be applied only to the in-force portfolio.

170.   No recalculation of the TP over the time horizon is requested.

5.2.2   INCREASE OF COST OF CLAIMS

171.   The scenario assumes simultaneously an increase in cost of claims based on the shocks provided in Figure 9.

172.   The shock applies for all in-force non-life insurances and Similar to Life (SLT) health insurance.[44]

Figure 9- Application of shock to cost of claims

Tenor	Excess claims inflation assumption (based on forward rates)
1Y	5.00%
2Y	3.50%
3Y	2.50%
4Y	1.50%
5Y	1.00%
6Y	0.50%
7Y	0.50%
8Y	0.25%
9Y	0.25%
10Y	0.00%

5.2.2.1   Application in the capital component

173.   The impact of claims inflation should be fully reflected into the TP of the non-life business and SLT health business lines, by revaluating their BE given an increase in claims inflation.

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[44] Shocks to inflation refer to gross BE. Reinsurance recoveries should be considered for the capital component (if relevant) given the shocked BE cash flows.

174.   Assuming a baseline undiscounted cash-flow at time t, noted as $CF_t^{baseline}$, the corresponding shocked cashflow should be estimated as the formula below specifies. For cashflows later than 10Y, the shock of the 10Y should be assumed. The formula for the stressed undiscounted cash-flow at time t shall be estimated as:

$$CF_t^{Shocked} = CF_t^{baseline} * \prod_{i=1}^{t}(1 + X_i)$$

Where X_i is the excess claims inflation assumption as reported in Figure 9.

175.   The cash-flows mentioned above refer to C0010 and C0050 from S.18.01.01, and C0211, C0215, C0251 and C0255 from S.13.01.01 for non-life and for SLT health business.

5.2.2.2   Application in the liquidity component

176.   In the liquidity component participants shall apply the shock to claims inflation for both the actual payments that take place during the 90-day time horizon (i.e., claims incurred up to 2023 year-end and claims incurred afterwards).

177.   Participants shall apply the shocks prescribed for tenor 1Y in Figure 9.

178.   For example, assuming a relevant actual claims outflow paid of 100 the post stress outflow should be calculated as 100*(1+5.00%).

179.   No changes in the reinsurance flows should be applied.

5.2.3   INCREASE OF LIFE AND NON-LIFE EXPENSES

180.   The scenario assumes simultaneously an increase in cost of life and non-life expenses as specified in Figure 10.

181.   The shock affects all in-force life and non-life insurances.

Figure 10- Application of shock to life and non-life expenses

Tenor	Excess expense inflation assumption (based on forward rates)
1Y	1.50%
2Y	0.80%
3Y	0.20%
4Y	0.20%
5Y	0.20%
6Y	0.15%
7Y	0.10%
8Y	0.00%
9Y	0.00%
10Y	0.00%

5.2.3.1   Application in the capital component

182.   The impact of expense inflation should be fully reflected into the TP of the life and non-life business lines, by revaluating their BE since an increase in expense inflation.

183.   The application shall be the same as the one for claims inflation. Expenses covered by existing contracts on costs (e.g., outsourcing expenses) based on fixed fees (i.e., not linked to inflation), shall be excluded from the application of the shock.

184.   The relevant cash-flows refer to C0020 and C0060 from S.18.01.01, and C0020, C0060, C0100, C0140, C0180, C0220, C0260 from S.13.01.01.

5.2.3.2   Application in the liquidity component

185.   In the liquidity component participants shall apply the shock to expense for both the actual expenses that take place during the 90-day time horizon.

186.   Participants shall apply the shocks to expense inflation prescribed for tenor 1Y in Figure 10. Expenses covered by existing contracts on costs (e.g., outsourcing expenses) based on fixed fees (i.e., not linked to inflation), shall be excluded from the application of the shock.

187.   For example, assuming a relevant actual expense outflow paid of 100, the post stress amount should be calculated as 100*(1+1.50%).

188.   No changes in the reinsurance flows should be applied.

5.2.4   SHOCK TO REINSURANCE IN-FLOWS

189.   The general economic environment and its impact on corporate sector is also reflected to deterioration of the credit worthiness of reinsurers. In order to reflect this effect on the flows of insurers, the amount of actual reinsurance in-flows shall be shocked based on a flat haircut of 5.00%.

5.2.4.1   Application in the capital component

190.   The shock to reinsurance recoverable should not be applied in the calculation of the post-stress balance sheet and solvency position, given its non-material impact.

5.2.4.2   Application in the liquidity component

191.   The prescribed haircut shall be applied to the actual in-flows (e.g., reinsurers' share in sum of claims paid, reinsurers' share in sum of expenses paid) notwithstanding whether these in-flows stem from treaties in place at the reference date or purchased afterwards. For example, assuming a relevant actual inflow of 100 the post stress inflow should be calculated as 100*(1-5.00%).

5.2.5   REDUCTION IN WRITTEN PREMIA

192.   The scenario assumes a decrease by the 10.00% of the total cash-in premiums with respect to the actual baseline figures for all non-mandatory in-force and new business (both life and non-life). Pension schemes (Defined Benefits and Defined Contributions based products) are excluded from the application of the shock.

193.   No changes to other flows should be applied.

5.2.5.1   Application in the capital component

194.   Given that the reduction of premia due to the lapse shock is already captured in the recalculation of the life TP and that the shock related to the new business is marginally captured by the Solvency II framework, for the sake of simplicity and to reduce the burden of the exercise, the impact of the shock on the capital component is neglected.

5.2.5.2   Application in the liquidity component

195.   The actual cash-in flows related to premiums observed in the 90 days should be recalculated reflecting the decrease of the written premia to be received in the 90-day time horizon. For example, assuming a relevant actual inflow of 100 the post stress inflow should be calculated as 100*(1-10.00%).

6 REPORTING TEMPLATES

196.   The reporting templates are designed in spreadsheets, and they are split for the two components of the exercise (capital and liquidity). The qualitative questionnaires for the capital and liquidity components are embedded in the respective templates.

197.   Participants shall fill the embedded qualitative templates as extensive as possible. Only in the case that residual information is needed for the relevant explanation, e.g., in the form of graphs or tables, the participants can provide this information using a word document. The document shall make explicit reference in case it is related to specific reporting template or cells.

198.   As it will be highlighted below in section 6.1, participants shall also provide qualitative explanations to the worksheet "Indicators", even if the indicators are calculated automatically.

199.   In both capital and liquidity component participants are expected to report under three scenarios: baseline, stress scenario under FBS assumption and stress scenario with reactive management actions (CBS assumption). In case no reactive management actions are applied, the corresponding template shall still be filled-in by using the FBS data.

200.   Participating entities are requested to submit one capital template (e.g., based on group information) and one liquidity template for each of the solos included in the liquidity assessment (refer to section 3.1). For example, assuming a situation where a group is composed by four solo undertakings and that only three of them are identified as relevant for the liquidity assessment, the reporting package to be submitted its NCA should encompass:

- 1 template for the capital component (filled with group data);

- 3 templates for the liquidity component (filled with solo data, one for each of the three solos identified for the liquidity component).

6.1 CAPITAL COMPONENT

201.   The set of templates to be used to report the results under baseline and stressed scenarios are broadly based on the Solvency II QRT reporting. Guidance on the content of the templates can be retrieved from the Supervisory Reporting Annex II.[45]

202.   Additional or adjusted templates are also included, in which case specific guidance is given below.

203.   Participating entities shall fill in the reporting templates in the provided spreadsheets. The reporting templates are structured as follow:

a. Baseline scenario;

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[45] Information on the Solvency II reporting are available at: Supervisory reporting - DPM and XBRL - European Union (europa.eu).

    b.   Stress scenario;

    c.   Stress scenario with reactive management actions;

    d.   Qualitative information (either embedded across the reporting templates for a., b., and c. or explicit worksheet for reactive management actions).

204.   The collected information will be partly disclosed on an individual basis (upon consent of the participants) and partly on an aggregated basis as described in section 2.6.

205.   For the purpose of having a sound understanding of the ST results and to allow for a proper data quality assurance process, participating entities are requested to provide sufficient and relevant information (as part of the qualitative information) in line with the approach followed to run the calculations (ref. to section 4.1, 4.3 and 4.3.1).

206.   Participants are requested to provide the qualitative information directly in the templates for the data collection. If the technical limitation of the excel templates does not allow participants to provide all the information, they are allowed to provide additional details using the form for qualitative information (word file). It should be noted that:

- The excel templates are the primary source to provide quantitative and qualitative information;

- The use of the word file is in the full capacity of participants and if used, it should serve the purpose of adding information on top of what provided in the excel file. The word file should not be used as alternative way to provide qualitative information in the excel files.

207.   The structure of the reporting templates for the capital component is provided in Figure 11.

Figure 11- Capital reporting templates

Description	Baseline (0)	Scenario without reactive management actions - Fixed Balance Sheet (FBS)	Scenario with reactive management actions - Constrained Balance Sheet (CBS)
Participating entity information	P.Participant		
Basic information - general	P.Gen		
Indicators	Indicators		
Balance sheet reporting template	0.BS	FBS.BS	CBS.BS
Impact of long term guarantees measures and transitionals	0.LTG	FBS.LTG	CBS.LTG
Own funds	0.OF	FBS.OF	CBS.OF
Solvency Capital Requirement - for Participants using the standard formula	0.SCR.SF	FBS.SCR.SF	CBS.SCR.SF
Solvency Capital Requirement - for Participants using partial or full internal model	0.SCR.FIM & PIM	FBS.SCR.FIM & PIM	CBS.SCR.FIM & PIM
Asset characteristics	0.Assets	FBS.Assets	CBS.Assets
Liabilities description	0.Liabilities.Char	FBS.Liabilities.Char	CBS.Liabilities.Char
Miscellaneous	0.Misc	FBS.Misc	CBS.Misc
Reactive management actions	Reactive management actions		
Status of the template	Status of the template		

208.   Indicators ([Indicators sheet])

A set of indicators is calculated automatically in the templates based on key figures reported under baseline and stressed scenarios. The aim of those indicators is to provide a comprehensive

picture of the major drivers behind the impact of the prescribed scenarios on the balance sheet and on the capital position of the participating entities. Indicators are based on figures reported by participating entities in the reporting templates. A subset of items, clearly identified in the template will be proposed for the individual public disclosure. All the indicators can be used in the aggregated analysis of the report.

There is a dedicated column next to the indicators that participants should fill as exhaustive as possible and which intends to capture the "story behind the numbers" and provide any explanation that is relevant for the interpretation of the movements. This forms the embedded qualitative questionnaire and shall be filled as extensive as possible. For example, participants are requested to explain the main movements, impacts, drivers etc. of the reported numbers, including, if relevant, any simplification applied.

The rationale of how to provide information regarding the "story behind the numbers" applies for most of the templates as explained below.

209.   Balance sheet ([0.BS, FBS.BS, CBS.BS])

The balance sheet fully replicates the QRT template for groups/solos. Solvency II figures shall be reported under the baseline, stress scenario with fixed balance sheet and stress scenario with reactive management actions. The template shall be used to report balance sheet data of all the participating entities irrespectively of the method applied for the calculation of group solvency, namely the "accounting consolidation-based method", the "deduction and aggregation method" or a "combination of both methods".

In particular for the fixed and constrained balance sheet, there is an extra column asking to provide any explanation that is relevant for the interpretation of the numbers reported.

210.   Impact of the long term guarantees measures and transitionals ([0.LTG, FBS.LTG, CBS.LTG])

The templates replicate the corresponding Solvency II template and require the application of the step-by-step approach on the impact of LTG and transitionals e.g., on TP, basic and eligible OF and SCR. The templates shall be filled according to the guidance provided in the context of regular reporting.

The templates shall be filled in independently by the application of LTG and transitionals. In case one or more measures are not applied, the impact should be set at 0 and the relevant amount kept unchanged.

211.   Own Funds ([0.OF, FBS.OF, CBS.OF])

Information on the OF is collected under each scenario via the corresponding templates e.g. in case of groups the S.23.01.04.01/ S.23.01.04.02. The templates fully replicate the format of the standard Solvency II reporting templates.

For participants that are solo entities, only the relevant information of the group template shall be provided. The remaining information at solo level are added via an additional template including relevant rows of the standard Solvency II templates for solos that are missing.

Qualitative information is requested for part of the data reported.

212.   Solvency Capital Requirement ([0.SCR.SF, FSB.SCR.SF, CBS.SCR.SF, 0.SCR.FIM & PIM, FBS.SCR.FIM & PIM, CBS.SCR.FIM & PIM])

Information on capital requirement shall be provided according to the approach used by the participant in their regular reporting. Participants shall fill in only the template in line with the approach they regularly utilise to report the capital position to the NCA. Participants calculating their SCR via standard formula or USP should fill-in the templates [0.SCR.SF, FBS.SCR.SF, CBS.SCR.SF]. Participants calculating their SCR via partial internal model or via full internal model should fill-in the templates [0.SCR.FIM & PIM, FBS.SCR.FIM & PIM, CBS.SCR.FIM & PIM].

213.   Asset Characteristics ([0.Assets, FBS.Assets, CBS.Assets])

Participating entities are requested to provide a breakdown of their asset allocation under the baseline and the stress scenario (both FBS and CBS assumptions). The reported assets shall refer only to the solo entities consolidated via Method 1 in order to grant consistency with the values of the asset classes reported in the balance sheet.[46] The modified durations[47] (weighted with respect of the corresponding line within the template) are requested for the relevant asset classes (only for 0.Assets). Modified durations shall rely upon market-based data when available.

When completing the templates, participating entities shall exclude the assets held for unit and index linked portfolios.

However, for each asset class, two separate tables are included in order to clearly identify the different exposures between direct and CIUs assets.

In case participants make use of the provided shocks for infrastructure assets, then those shall only be reported to the dedicated table included under the subsection "Other assets" in the 0.Assets, FBS.Assets and CBS.Assets.

In case participants opt to treat the unrated collateralised portfolio of loans and mortgages relying on the LTV values (refer to section 5.1), the amounts and the modified duration of these

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[46] Assets held by entities consolidated via D&A that are included in the balance sheet under the item "Holdings in related undertakings, including participations" shall not be reported.

[47] Modified duration defined as percentage change in the price of a bond for a 1% change in the yield to maturity (in %): $D^{mod} = \frac{1}{1+y} * D_{Mac}$, where $D_{Mac} = \frac{1}{P_0(y)} * \sum_{t=1}^{T} \frac{t*CF_t}{(1+y)^t}$, where $P_0(y)$ is the market value of the bond with yield to maturity of y, and CF_t are the cashflows of the bond.

portfolios shall be provided and the market values of the positions should only be reported in the dedicated table for unrated collateralised loans and mortgages.

In all other cases, unrated bonds positions should be reported under the column for BBB rating.

The requested granularity resembles to the granularity of the technical information file, to facilitate better the validation.

At any case, participants are also requested to include all relevant qualitative information in the dedicated column of the FBS.Assets and CBS.Assets.

The geographical allocation of the securities should follow the country of issuance and not the denomination of the security. All the values imputed in the templates should be reported in the reporting currency of the participant independently by the country of issuance of the security and its denomination[48].

214.   Liability description ([0.Liabilities.Char, FBS.Liabilities.Char, CBS.Liabilities.Char])

The template elaborates on the annual Solvency II TP reporting for life and health (S.12.01.01) and for Non-Life (S.17.01.01). The reported liabilities shall refer only to the entities consolidated via Method 1 in order to grant consistency with the values of the TP reported in the balance sheet.[49]

Participants are requested to include all relevant qualitative information in the dedicated rows of the FBS.Liabilities.Char, CBS.Liabilities.Char which allow identifying relevant insights at the line of business level.

215.   Miscellaneous ([0.Mics, FBS.Mics, CBS. Mics])

In this template some residual information is requested to allow better understanding of the impact and to allow more comprehensive validation of the results. The templates for baseline differs from the fixed and constrained balance sheet.

In the 0.Misc information on the modified duration of TP for non-life lines of business is requested. Additionally, information on sensitivities and mass lapse shocks is requested, all of which resemble to the market or insurance specific shocks of the ST. Information for sensitivities shall be filled according to the guidance provided in the context of regular reporting if applicable, meaning only for non-standard formula users.

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[48] For example, if an undertaking whose reporting currency is the Danish Krona, holds a sovereign bond issued by the Canadian Government (whose currency is Canadian Dollar) and denominated in US dollars the position should be reported in Danish Krona.

[49] Participating groups with non-EEA entities consolidated via Method 1 should fill the templates Liabilities.Char including the liabilities of all the Method 1 consolidated solos on a best effort basis. The approach taken should be discussed in the pre-validation phase.

In the stressed scenarios, participants are requested to report the aggregated marginal impacts of the insurance specific shocks on the TP, excess of assets over liabilities and own funds (applicable for both FBS.Misc and CBS.Misc).

Qualitative explanations shall be provided in the corresponding columns for these marginal impacts.

Finally, qualitative, and quantitative explanations shall be provided in terms of the approximation and simplifications taken, as requested by the last table of FBS.Misc. This should be in line with the outcome of the pre-validation discussions.

216.   Status of the template ([Status of the template]),

The tab contains a set of automatic checks on the formatting and consistency of the data filled in the template. Participants are requested to submit templates without warning signals or, if any, to explain the background motivation.

6.1.1   QUALITATIVE INFORMATION

217.   The full extend of qualitative information is included via the dedicated columns for specific reporting lines, as detailed in the previous section. This information shall be adequate to understand what drives the key and material figures and the final stressed positions.

218.   Furthermore, an additional worksheet is included in the templates dedicated to reactive management actions ([Reactive management actions]).

219.   It collects information on the identification and application of the reactive management actions enforced against the prescribed scenario. For example, participants are requested to identifying the management actions and their triggering shocks as well as the underlying rationale for participating entities to select them. Participants are also requested to provide information on risk management aspects e.g., target solvency ratios or risk appetite.

220.   The qualitative information provided in the templates for the data collection can also be complemented via the qualitative information form according to the provisions reported in paragraph 206.

6.2   LIQUIDITY COMPONENT

221.   The set of templates to report the results under baseline and stressed scenarios are based on the second methodological paper as well as on the experience gained during the EIOPA liquidity monitoring exercise and the 2021 EIOPA Insurance stress test exercise.

222.   Participating entities should collect and submit to the NCA one liquidity template for each of the identified relevant solos. The reporting templates are structured as follows:

   a. Flows template (template [Flows], baseline and stressed scenarios results);

   b. Stocks template (Template [Stocks], baseline and stressed scenarios results);

c.   Questionnaire (template [LiquidStrat.Q]).

223.   The flows template collects a set of information on the net cash position of the undertakings over 90-day time horizon starting from QRT S.05.01 focusing on the inflows and outflows stemming from:

- life business (excluding UL/IL business);

- UL/IL business;

- MA and ring fenced portfolios;

- non-life business;

- investments;

- other flows.

Allocation by type of business should follow the following principles.
- Undertakings pursuing both life and non-life insurance activity - article 73 (2) (a) should allocate all under the life business;

- Undertakings pursuing both life and non-life insurance activity - article 73 (2) (b) should allocate all under the non-life business;

- Undertakings pursuing both life and non-life insurance activity - article 73 (5) should split the health business according to the treatment of the TP;

- Health business should be allocated following the principle used in the allocation of the TP in the regular Solvency II reporting. In case of life undertakings and non-life undertakings the allocation of the health follows the type of business run by the undertaking. For composite undertakings it should be followed the split explained above;

- Reinsurers should follow the same principle of Undertakings pursuing both life and non-life insurance activity - article 73 (5).

224.   The template collects also information on the impact of the investment flows on the asset allocation of the participants.

225.   The stock template contains *i*) detailed information on the asset allocation for life, non-life, MA / ring fenced portfolios and UL/IL business (based on QRT S.06.02); *ii*) a breakdown of the life BE into traditional life, UL/IL, MA and ring-fenced funds[50] and should be filled in using the post stress values from the capital component. As specified in paragraph 170 no recalculation of the TP is required specifically for the liquidity component. The amounts of assets and liabilities should be reported in each scenario without application of haircuts.

226.   Given the absence of a reference framework, the file includes detailed instruction on how to populate the templates (tab I.Information).

227.   A tab labelled "Status of the template" contains a set of automatic checks on the formatting and consistency of the data filled in the template.

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[50] Potential simplification on the split of assets between life and non-life portfolios should be discussed with the NCA.

6.2.1   QUALITATIVE INFORMATION

228.   The aim of the questionnaire, embedded in the liquidity template, is to collect information on the management of the liquidity position with specific reference to:

- other sources of liquidity;

- reactive management actions taken against the prescribed shocks to liquidity;

- cash management;

- liquidity governance;

- simplifications.

229.   Additionally, information on the existence (plus short description) of a liquidity risk management plan and a contingency funding plan and the inclusion of liquidity stress test in the Own Risks and Solvency Assessment (ORSA) report is requested.

230.   Finally, qualitative information is collected also via the dedicated columns added next to the quantitative reporting lines in the Flows and Stocks sheets of the liquidity template. If needed, the qualitative information provided in the templates for the data collection can be complemented via the qualitative information form according to the provisions reported in paragraph 206.

7 TIMELINE

231.   The timeline for the 2024 insurance stress test is tailored to account for its essential features and it is as follows:

Figure 12- Timeline
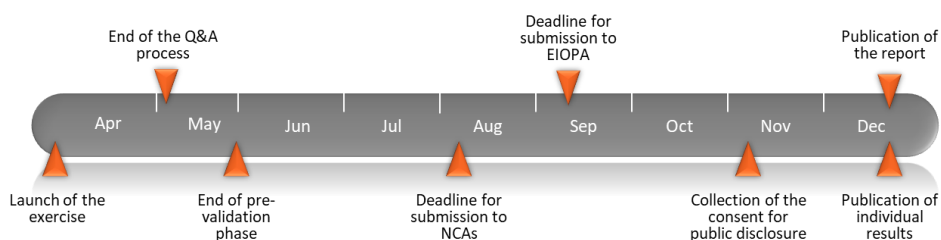
232.   Beginning of April to mid-August - Calculation phase: the launch of the exercise is planned on 2 April 2024. During the calculation phase, participants are requested to calculate the results and indicators according to the prescribed scenarios. Participants are requested to submit the filled in templates and questionnaires to NCAs by 9 August 2024.

233.   Beginning of April to mid-May – Question & Answer (Q&A) process: the process will take place from 8 April 2024 for four weeks. This timeline is deemed appropriate and strikes the right balance between the need to have enough time to request potential clarifications and the need to have a stable stress test framework (e.g., technical specifications, templates and scenarios) as soon as possible in the process. Participating entities can send questions to the EIOPA Q&A workstream via the national supervisory authorities (NSAs) at any time during the Q&A process. The deadline for the submission of questions is 28 April 2024.

234.   End-April to end-May - Pre-validation process. The pre-validation is based on the interaction between the NCAs and the participants during the calculation phase. The pre-validation process, based on bilateral discussions between participant and NCA, aims at assessing whether approaches, simplifications and approximations proposed by the participants are in line with the provisions of the Technical Specifications and allow to maintain a sufficient level of comparability of the results.

235.   Mid-August to end October - Quality assurance of the results: the envisaged process follows a two-step approach divided into i) local quality assurance step and ii) central quality assurance step. At local level, the proximity between NCA and participants allows a thorough analysis of the consistency of the reporting; the central level process will focus on cross-sectional consistency. Potential resubmissions requested by NCAs or EIOPA in case the submitted information appears inconsistent or implausible (based on findings in the local or central validation) will take place between mid-August and end-October 2024. Therefore, participating entities should stand ready to react to NCAs requests during this period.

236.   1st week of November 2024 - Collection of consent for publication. EIOPA will liaise with participating entities in order to gather the consensus for the individual publication with regard to the reported data and calculated indicators.

237.   Mid-October to mid-December – Drafting: The two-month time window will be devoted to draft the stress test report and to the approval process. The aim is allowing the disclosure of the individual results by the participating entities and the publication of the insurance stress test report before the end of the year.

7.1 CONSULTATION PROCESS

238.   Relevant stakeholders and participants have been consulted during the preparation of the stress test package through interactions at technical level. Ahead of the launching of the exercise, EIOPA engaged in discussions on the main elements of the exercise such as: the potential approaches for calculation of the balance sheet figures as well as the capital position and the liquidity position post stress, the indicators and stress test results to be publicly disclosed, the number and design of the stress scenarios, the timeline, and the technical specifications.