National Bank of Belgium

Insurance Stress Test 2024

Technical Specifications v1.0

Version	Date	Major changes
v1.0	March 2024	Initial version of the Technical Specifications

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INTRODUCTION

1. Stress testing is an appropriate tool to identify vulnerabilities in the financial system and to assess the potential impact of risks on the stability of the financial system in general and the insurance sector. Stress tests also help to identify undertakings that may pose a risk to the stability of the financial system or the insurance sector. After analysing the results of the stress tests, the NBB may issue recommendations to be implemented by insurance undertakings to contribute to the stability of the financial system.

2. The NBB provides additional guidance on the use of stress tests in its *Communication NBB_2017_06 on the stress test framework for the insurance sector*. The framework distinguishes between microprudential stress tests, which are the responsibility of the undertaking (e.g., stress tests for the purposes of the ORSA) and stress tests which are initiated by the NBB, which may have either a microprudential objective (e.g., focus on a specific exposure that is only present in a few undertakings) or a macroprudential objective.

3. The design and features of these NBB stress tests are flexible and depend on the objective of the exercise. However, to limit the impact on undertakings, the NBB stress tests will, as far as possible, build on the experience gained from previous (EIOPA/NBB) stress tests. Under normal circumstances, there should be an annual stress test initiated by either EIOPA and/or the NBB. The NBB stress tests for insurance are based on Articles 322 and 467 of the Law of 13 March 2016 on the legal status and supervision of insurance and reinsurance undertakings.

4. For 2024, both the NBB and the EIOPA will conduct stress tests. For the NBB stress test, two scenarios are foreseen. The first one will be based on a Low Yield scenario while the second one will be based on the EIOPA 2024 Insurance Stress Test scenario (capital and liquidity component).

NBB INSURANCE STRESS TEST 2024 – General considerations

Process and timeline

5. The NBB Insurance Stress Test 2024 will be launched on **2 April 2024**. The results must be submitted to the NBB no later than **9 August 2024**. The results must be transmitted electronically via the OneGate application of the NBB (domain CPA). The data can be entered manually, or the reporting can be automated by using files generated in a CSV or XML format. Please refer to Annex 1 for the exact list of templates that must be submitted.

6. The following table provides an overview of the detailed timeline of the NBB Insurance Stress Test 2024.

Date	Activity
2 April 2024	Official launch to participants: Transmission to the participants of technical specifications, technical information, and templates
2 April – 30 April 2024	Questions and Answers process
19 of April	Opening of OneGate for the low yield Stress Test 2024
9 August 2024	Submission of the results
September 2024	Validation (resubmission) and analysis of the results

7. A mock spreadsheet containing all reporting templates is available on the NBB stress test webpage (NBB IST 2024 reporting templates) for information purposes only. The reporting templates have been developed with the intention of being as consistent as possible with the corresponding Solvency II QRTs and the stress test templates from the previous year.
8. Once the results have been submitted, the NBB will carry out thorough validation. Undertakings should be able to explain the main drivers behind the impact of a scenario on their balance sheet and solvency. The analysis of the results could lead to a request for further clarification or a resubmission of the results.

Communication and disclosure

9. The NBB will not disclose individual results of the NBB stress test exercise. Any public communication will be based on anonymised and/or aggregated data. The format and content of the communication will depend on the results of the stress test and the nature of the messages that the NBB wishes to convey to the stakeholders and other participants.
10. The undertakings participating in the stress test cannot disclose, discuss, or comment on any of their individual results.

NBB INSURANCE STRESS TEST 2024 – low yield Scenarios

11. The NBB Insurance Stress Test 2024 – Low Yield scenario assumes a persistent low-interest rate environment and combines a stressed risk-free rate curve with a new calibration for the SCR interest rate risk as proposed in the Opinion on the 2020 review of Solvency II (EIOPA-20/749) published by EIOPA on the 17 December 2020.
12. Further information on the technical specifications and the templates for the NBB Insurance Stress Test 2024 - Low Yield scenario, can be found below.

Impact on flashing light provision

13. The Low Yield stress test is a bottom-up exercise focused on solo insurers. All companies wishing to apply for an exemption from the obligation to contribute to the provision for flashing lights must participate in this NBB Insurance Stress Test 2024 - Low Yield Scenario.
14. The companies participating in the low yield stress test are those that have explicitly confirmed to the NBB that they wish to be exempted from the compulsory contribution to the provision on flashing lights.
15. The general conditions for exemption from the establishment of the flashing light provision are set out in article 34*quinquies* § 4 of the Royal Decree of 17 November 1994 on the ***statutory accounts*** of insurance and reinsurance undertakings and in circular NBB_2016_39. In summary:
    a. All undertakings should submit a formal request to the NBB for exemption from the mandatory contribution to the flashing light provision.

b. The undertaking's own funds should cover its capital requirements without the use of transitional measures as provided for in articles 668 and 669 of the Insurance Supervisory Law[1].

c. In addition, the NBB may impose additional conditions for the recognition or maintenance of the exemption if the situation of the undertaking and the market so require.

16. In accordance with condition (c), the results of the low yield scenario of the 2024 stress test will determine whether an exemption from the mandatory contribution to the flashing light provision can be obtained.

TECHNICAL SPECIFICATIONS for Low Yield scenario

17. The reference date for the stress test exercise is 31 December 2023. Shocks prescribed in the stressed scenario shall be applied to the entire business in force at the reference date. Measures, actions or risk mitigating strategies based on taking future actions after the reference date should not be taken into account.

18. The scenario is designed as an instantaneous shock. The entire balance sheet including Unit-Linked / Index Linked assets and liabilities are subject to the prescribed shocks.

19. All assets and liabilities sensitive to interest rates shall be revalued using the stressed interest rate term structures.

20. The shocks to be applied for the (re)calculation of the SCR interest rate risk according to the new methodology follow the principles of the EIOPA SII review (based on the *Opinion on the 2020 review of Solvency II).* These shocks are derived according to the process described below:
    - The increased term structure for a given currency is equal to: $r_t^{up}(m) = r_t(m)\left(1 + s_m^{up}\right) + b_m^{up}$ where $r_t(m)$ denotes the risk-free interest rate in the corresponding currency, m denotes the maturity and b_m^{up} and s_m^{up} are the calibrated maturity dependent up-shock components.
    - The decreased term structure for a given currency is equal to: $r_t^{down}(m) = r_t(m)(1 - s_m^{down}) - b_m^{down}$ where $r_t(m)$ denotes the risk-free interest rate in the corresponding currency, m denotes the maturity and b_m^{down} and s_m^{down} are the calibrated maturity dependent down-shock components.
    - For maturities between 1 and 20 years, the shock components are as follows (the resulting curves can be found in the Excel file: *2024 ST - Technical Information)*:

Maturity M [years]	s_m^{down}	b_m^{down}	s_m^{up}	b_m^{up}
1	58%	1.16%	61%	2.14%
2	51%	0.99%	53%	1.86%
3	44%	0.83%	49%	1.72%
4	40%	0.74%	46%	1.61%
5	40%	0.71%	45%	1.58%
6	38%	0.67%	41%	1.44%
7	37%	0.63%	37%	1.30%

8	38%	0.62%	34%	1.19%
9	39%	0.61%	32%	1.12%
10	40%	0.61%	30%	1.05%
11	41%	0.60%	30%	1.05%
12	42%	0.60%	30%	1.05%
13	43%	0.59%	30%	1.05%
14	44%	0.58%	29%	1.02%
15	45%	0.57%	28%	0.98%
16	47%	0.56%	28%	0.98%
17	48%	0.55%	27%	0.95%
18	49%	0.54%	26%	0.91%
19	49%	0.52%	26%	0.91%
20	50%	0.50%	25%	0.88%

- For maturities shorter than one year the value of b_m^{up} and s_m^{up} are equal to 2.14% and 61% respectively. For maturities shorter than one year the value of b_m^{down} and s_m^{down} are equal to 1.16% and 58%.
- For maturities between 20 and 90 years, the value of s_m^{up} is linearly interpolated. For maturities of 90 years and up the value of s_m^{up} is 20%. For maturities between 20 and 60 years the value of b_m^{up} is linearly interpolated. For maturities of 60 years and up the value of b_m^{up} is 0%.
- For maturities between 20 and 90 years, the value of s_m^{down} is linearly interpolated. For maturities of 90 years and up the value of s_m^{down} is 20%. For maturities between 20 and 60 years the value of b_m^{down} is linearly interpolated. For maturities of 60 years and up the value of b_m^{down} is 0%.
- The shocked interest rates in the downward scenario should not be lower than -1.25%.

21. The final base and stressed interest rate risk curves which need to be applied can be found in the Excel file: *2024 ST - Technical Information* (available on NBB's stress test webpage). These interest rate curves include:

    - Basic RFR curves for 31/12/2023 reference date (with and without VA)
    - NBB 2024 Stress test curves (with and without VA)
    - NBB 2024 Stress test curves to calculate the SCR IRR shock up/down (with and without VA) after stress according to the new proposed methodology

22. If no stressed interest rate term structures are provided for a scenario or a specific currency, participating groups shall use the relevant term structures used for the base case at the reference date as published by EIOPA.

23. The look-through approach shall be used to calculate the impact of the scenario.

24. Simplifications in the calculation of the stress test may only be used if they have an insignificant economic impact. Undertakings using simplifications should inform the NBB via IST@nbb.be before submitting the results.

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

26. The Long-Term Guarantee (LTG) and Transitional measures are part of the stress testing framework, in line with Solvency II. Therefore, undertakings are requested to apply any LTG and Transitional measures they were using at the reference date.
    a. LTGs and Transitional measures can only be used if they have been approved at the reference date.
    b. The impact of the LTG and Transitional measures on the post-stress technical provisions, basic own funds, eligible own funds and SCR have to be calculated.
    c. Transitional measures on Equity shall be applied consistently with the baseline scenario.

REPORTING TEMPLATES for Low Yield scenario

27. All data should be reported in units (incl. ratios and percentages), and no blank cells are allowed.

28. Participants shall submit their results through OneGate. For information purposes only, a mock spreadsheet (NBB *quantitative reporting templates*) containing all the reporting templates is provided. The templates are divided in two main sections:
    a. Base case situation (0)
    b. Low Yield (LY) scenario

29. The templates are based on the Solvency II annual reporting. Annex 1 gives an overview of the templates covered in the spreadsheet and indicates which template must be completed and be submitted to the NBB.

30. **Balance sheet** (0.BS, LY.BS). The base case balance sheet (0.BS) corresponds to the annual SII balance sheet for 2023 and will not be collected again. The LY balance sheet (LY.BS) requires less granularity on the asset side.

31. Impact of **long-term guarantee measures and transitionals measures** (0.LTG, LY.LTG). The base case LTG template (0.LTG) corresponds to the 2023 annual SII LTG template and will not be collected again. For the post-stress LTG template, only data on the aggregate impact of all LTG and transitional measures on technical provisions, basic own funds, eligible own funds to meet the SCR, and the SCR are required.

32. **Own Funds** (0.OF, LY.OF). The base case own funds template (0.OF) equals the 2023 annual SII own funds template and will not be collected again. The LY own funds template (LY.OF) reflects the fact that no MCR recalculation is required and it does not ask for the information on the expected profits.

33. Templates devoted to collect data on the **Solvency Capital Requirement** (SCR.SF, SCR.PIM, SCR.IM) are mutually exclusive. Undertakings shall report the SCR.SF in case there is no authorisation to use a full or partial internal model at reference date. SCR.PIM or SCR.IM shall be reported in case an authorisation for respectively a partial internal model or a full internal model was granted by the NBB at reference date. The MCR should not be recalculated after stress.

34. The base case SCR templates (0.SCR.SF, 0.SCR.PIM, 0.SCR.IM) equal the 2023 annual SII SCR template and will not be collected again. Undertakings are required to recalculate their SCR after applying the Low Yield scenario - including the SCR recalculation with the new calibration for the SCR interest rate risk as proposed in the Opinion on the 2020 review of Solvency II (LY.SCR.SF, LY.SCR.PIM, LY.SCR.IM).

35. The base case **SCR Market risk** template (0.SCR.MKT) equals the 2023 annual SII SCR template and will not be collected again. For the base case with the recalculated interest rate risk sub-module, within the SCR market risk module, only changes in the SCR interest rate risk, diversification effects between SCR market risk submodules and loss absorbing capacity of technical provisions and deferred taxes need to be recalculated. When calculating the SCR, all parameters not asked in the reporting are to be considered as unaffected by the interest rate shock recalculation.

CONTACT

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ANNEX 1 - Overview of templates

Templates				Scenario
Content	Title	Origin	Prefilled	Low Yield
Information				
General information	Information	IST specific	Not prefilled	
Overview of sheets	Index	IST specific	Not prefilled	
Participant information				
Participating entity information	Participant.Basics	IST specific	Not prefilled	X
Base case (pre-stress)				
Balance sheet	0.BS	QRT-based	Prefilled	
Long-term Guarantees	0.LTG	QRT-based	Prefilled	
Own funds	0.OF	QRT-based	Prefilled	
SCR - for undertakings using SF	0.SCR.SF	QRT-based	Prefilled	
SCR - for undertakings using PIM	0.SCR.PIM	QRT-based	Prefilled	
SCR - for undertakings using full IM	0.SCR.IM	QRT-based	Prefilled	
SCR - Market risk	0.SCR.MKT	QRT-based	Prefilled	
Low Yield (LY) scenario				
Balance sheet	LY.BS	QRT-based	Not prefilled	X
Long-term Guarantees	LY.LTG	QRT-based	Not prefilled	X
Own funds	LY.OF	QRT-based	Not prefilled	X
SCR - for undertakings using SF	LY.SCR.SF	QRT-based	Not prefilled	X
SCR - for undertakings using PIM	LY.SCR.PIM	QRT-based	Not prefilled	X
SCR - for undertakings using full IM	LY.SCR.IM	QRT-based	Not prefilled	X
SCR - Market risk	LY.SCR.MKT	QRT-based	Not prefilled	X