Insurance Stress Test 2024
Flashing light provision & EIOPA Stress Test Scenario

2 April 2024

Introduction

◆ Stress test framework for the insurance sector (communication NBB_2017_06)

◆ The NBB's stress test exercises are carried out within this framework.

◇ 2016: EIOPA stress test

◇ 2017: NBB + IMF stress test

◇ 2018: NBB + EIOPA stress test

◇ 2019: NBB stress test

◇ 2021: NBB + EIOPA stress test

◇ 2022: NBB stress test

◇ 2023: NBB + IMF stress test

◇ 2024: NBB + EIOPA Stress Test

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Timing Insurance Stress test 2024

◇ 2 April   Launch + Stress Test Event

◇ 19 April   Opening in Onegate

◇ 30 April   End of Q&As

◇ **9 August**   **Deadline for the submission of results**

◇ Sept./Oct.   Validation meetings & resubmissions

◇ **Mid-Dec.**   Publication of EIOPA & NBB stress test results

Low Yield Scenario
Technical specifications - Scenario

Insurance companies applying for exemption from setting-up the flashing light provision:

These companies must participate in the Low Yield scenario (based on a complete submission).

Low Yield (LY) scenario

The application of the low yield scenario requests stress test participants to calculate the impact of a stressed risk-free rate curve (see next slide) on their financial situation.
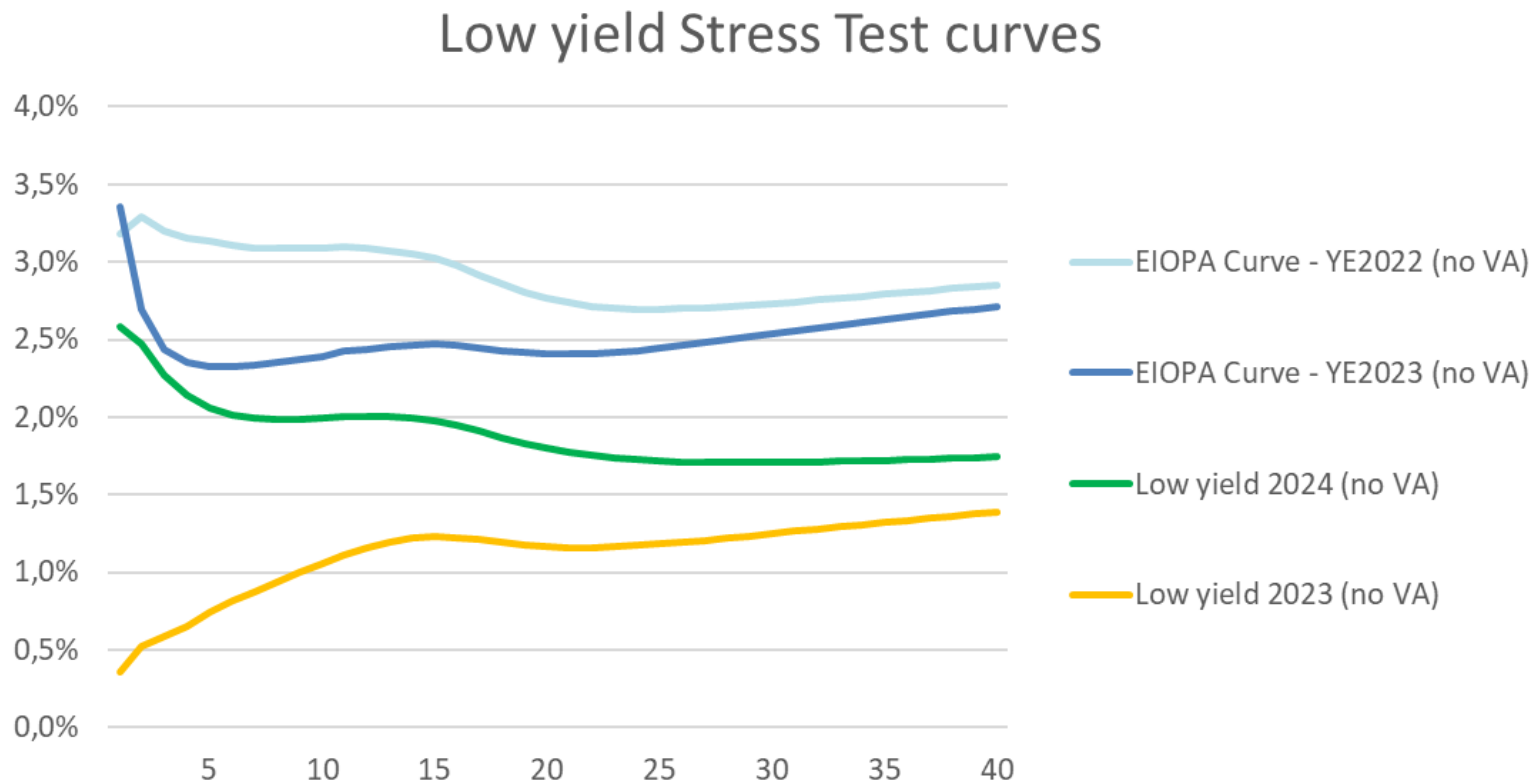
Recalculation of SCR IRR

The second step requires the recalculation of the SCR interest rate risk as proposed in *the Opinion on the 2020 review of Solvency II* (EIOPA-19/451) published by EIOPA on the 11 September 2019.

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Low-for-long combined with SCR Interest rate SII review
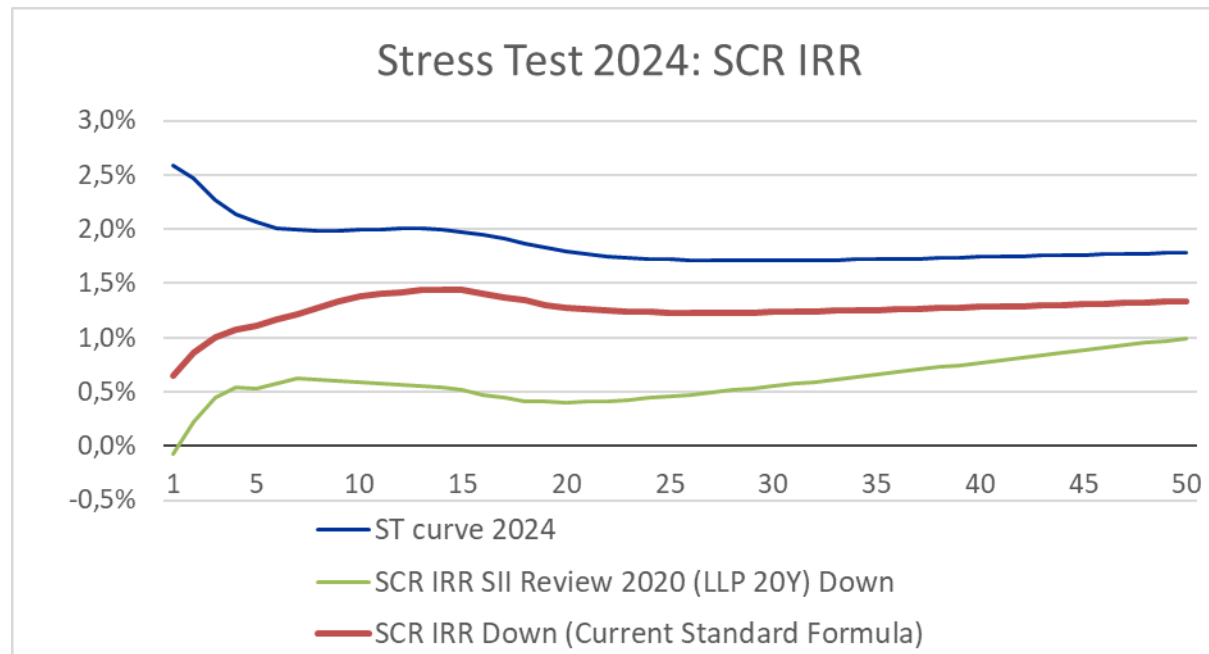## Scenario design (in line with previous years)

➢ A "Low-for-long" interest rate curve shock applied on EIOPA's risk-free rate curve.

   ➢ Curve derived on the basis of the the lowest rates observed during 2023 (18/01/2023)

   ➢ A further decrease of 25 bps on the « liquid » part of the interest rate curve

   ➢ UFR 2%

Low yield Stress Test curves

Legend:
- EIOPA Curve - YE2022 (no VA)
- EIOPA Curve - YE2023 (no VA)
- Low yield 2024 (no VA)
- Low yield 2023 (no VA)

Low for long combined with SCR Interest rate SII review
Scenario design

➢ Calculation of the SCR IRR module

- On the basis of the revised SCR IRR module as proposed by EIOPA in scope of the SII review (cfr. EIOPA opinion on SII review)

- Partial SCR calculation (IRR module) based on Q4 2023

Stress Test 2024: SCR IRR

— ST curve 2024
— SCR IRR SII Review 2020 (LLP 20Y) Down
— SCR IRR Down (Current Standard Formula)

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Low Yield Scenario
Technical specifications - Methodology

- The scenario is designed as an **instantaneous** shock

- **All interest rate sensitive assets and liabilities** shall be revalued using the stressed interest rate term structures

- The post-stress figures shall be generated coherently with the models applied for Solvency II valuation purposes

- **Simplifications** in the calculation of the stress test can be used only if they have an insignificant economic impact. Undertakings applying simplifications should inform the NBB (via IST@nbb.be) prior to the submission of their results

Exemption contribution to the flashing light provision

Conditions to be exempted from the mandatory contribution to the flashing light provision are outlined in the Royal Decree financial statements (art.34quinquies) and circular letter NBB_2016_39

- ◆ **The exemption file, the assessment of which consists to a large extent of the results of the stress test, shall be submitted to the Bank by 9 August 2024**
- ◆ SCR ratio > 100% without transitional measures
- ◆ The NBB can impose additional conditions for the recognition or preservation of the exemption, when necessitated by the condition of the undertaking and/or the market

→ Result of 2024 Low Yield Stress test will be an important element when assessing the conditions to be exempted from the mandatory contribution to the flashing light provision

Reporting

Results shall be submitted through OneGate.

➢ For information purposes only, a mock spreadsheet (excel file) containing all reporting templates is provided.

➢ Low yield Scenario :
 • Basecase (pre-filled)
 • After stress

➢ Scenario EIOPA
 • Basecase (pre-filled)
 • After stress - No management action
 • After stress - Constrained reactive management actions (only if applied)
 • Liquidity reporting

Scenario EIOPA
Technical Specifications

▶ **Set of market shocks**

Shock
swap rates (nominal and inflation linked)
sovereign bond spreads
corporate bond and covered bond spreads
equity prices
real estate prices (residential and office & commercial)
residential mortgage-backed securities yields (RMBS)
other assets prices (private equity, hedge funds, real estate investment trusts (REITs), commodities)
investments in infrastructure

▶ **Set of insurance specific**

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

Scenario EIOPA
Economic environment and stress test scenario

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

- Financial markets faced a strong correction across asset classes during 2022, but in some cases, e.g., **equity markets**, rebounded substantially since then. It required the announcement of some extraordinary measures by ECB to tackle **sovereign spread fragmentation** risk during 2022. **Credit spreads** remained overall contained in relative terms

- Gilt crisis and regional banks crisis in US are some examples of the fragility of the economic environment when rates increase sharply and when liquidity is withdrawn

- There are **several channels** (among others) through which insurers are affected by this economic environment:
  - **1) Claims and expense inflation**
  - **2) Financial market volatility**
  - **3) Policyholders' behaviour**

- Insurers show solid capital buffers, with solvency ratios peaking within the first quarters of 2023 (albeit with heterogenous effect for parts of the market), before closing to 2021 levels at year-end 2023

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Scenario EIOPA
Reactive Management Actions

▸ **Decision on the application of RMAs remains in the capacity of the ST participants, but shall be considered in light of the post stress position**: if a participant considers that reactive management actions are not necessary, the exercise can be limited to the fixed-balance sheet assumption

▸ However, to ensure homogeneity in the approach some guidelines are specified:

  ▸ If the company's SCR ratio falls below the **target solvency ratio explicitly linked or derived from the risk management framework of the participant** (e.g., risk appetite), it is expected that reactive management actions will be implemented to possibly restore the situation

▸ This applies also to the 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 management plan, contingency funding plan**. It should be noted that the RMAs can differ in the capital and liquidity component

Scenario EIOPA

Financial Shocks (1/2)

Shocks to corporate bond spreads absolute changes (basis points)								
Country/region	Type	AAA	AA	A	BBB	BB	B	CCC
EU	Financial	147	170	194	253	397	424	484
EU	Non-financial	126	148	172	242	389	414	473
UK	Financial	153	177	201	258	405	433	492
UK	Non-financial	133	154	177	247	394	422	481
US	Financial	166	190	214	272	419	444	503
US	Non-financial	159	180	204	261	408	433	492
Emerging markets	Financial	281	304	328	386	532	559	618
Emerging markets	Non-financial	264	286	309	375	522	548	607
Other advanced economies	Financial	156	179	203	261	407	434	493
Other advanced economies	Non-financial	139	161	184	250	397	423	482

Shocks to RMBS spreads absolute changes (basis points)				
Country/region	AAA	AA	A	BBB
EU	157	187	230	287

<u>Loans and mortgage portfolios:</u> If rated: based on to the spread shocks to RMBS. If not rated:
- For portfolios with LTV<80% an A rating ;
- For portfolios with LTV>=80% a BBB rating

Shocks to real estate relative changes (percentage points)	
Country/region	Office & commercial
AT	-17,4
BE	-19,3
BG	-14,7
CY	-9,5
HR	-17,0
CZ	-18,5
DK	-18,6
EE	-17,5
FI	-17,0
FR	-15,5
DE	-19,1
GR	-9,8
HU	-16,9
IE	-16,3
IT	-11,3
LV	-16,5
LT	-18,6
LU	-16,7
MT	-8,9
NL	-19,7
PL	-19,7
PT	-17,8
RO	-13,0
SK	-18,4
SI	-13,0
ES	-14,8
SE	-19,6
EA (weighted averages)	-16,7

Shocks to government bond spreads absolute changes (basis points)	
Country/region	10Y
Austria	73
Belgium	80
Bulgaria	145
Cyprus	146
Croatia	127
Czech Republic	87
Denmark	58
Estonia	84
Finland	77
France	66
Germany	54
Greece	149
Hungary	138
Ireland	70
Italy	136
Latvia	129
Lithuania	135
Luxembourg	69
Malta	109
Netherlands	65
Poland	132
Portugal	101
Romania	139
Slovakia	91
Slovenia	100
Spain	127
Sweden	76
EA (weighted averages)	84

Scenario EIOPA

Financial Shocks & Insurance Shocks (2/2)

Shocks to market-implied expectations on inflation (inflation linked swaps) absolute changes (basis points)							
Country/region	Currency	1Y	2Y	3Y	5Y	7Y	10Y
EU	EUR	196	140	98	60	39	20
UK	GBP	218	153	103	71	48	27
US	USD	182	131	94	64	43	24
JP	JPY	154	114	98	82	53	27

Shocks to swaps	10Y (in bp)
EUR	46
CHF	48
GBP	56
USD	57

Reinsurance in-flows
-5%

Written premia
-10%

Mass lapse shock	
Type 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 (deferral or pay-out phase), disability insurance and health insurance should be excluded.	-

Tenor	Excess claims inflation assumption (based on forward rates)	Excess expense inflation assumption (based on forward rates)
1Y	5,00%	1,50%
2Y	3,50%	0,80%
3Y	2,50%	0,20%
4Y	1,50%	0,20%
5Y	1,00%	0,20%
6Y	0,50%	0,15%
7Y	0,50%	0,10%
8Y	0,25%	0,00%
9Y	0,25%	0,00%
10Y	0,00%	0,00%

Validation - Presentation

Participants shall submit a presentation of their results that will serve as support for the validation meeting that will be organised after the submission of the results via mail to ist@nbb.be

The presentation should include at least the following:

I. Assessment and impact of the Stress Test: The information requested in this section relate to the impact of the stress on the SCR Ratio, Assets, liabilities, SCR, Deffered taxes, LTG, transitional measures, etc.

II. Reactive management actions (only if applied): Participants are requested to identify the management actions and their triggering shocks as well as the underlying rationale for participating entities to select them.

III. Simplifications and approximations: This section should include information concerning potential deviations from regular reporting, along with relevant details.

Thank you for your attention

Questions?

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Appendix 1
Reporting Template - low yield

Templates				Scenario
Content	**Title**	**Origin**	**Prefilled**	**Low Yield**
Information				
General information	Information	IST2022 specific	Not prefilled	
Overview of sheets	Index	IST2022 specific	Not prefilled	
Participant information				
Participating entity information	Participant.Basics	IST2022 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

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Appendix 2
Reporting Template – EIOPA Scenario

Description	Baseline (0)	Scenario without reactive management actions - Fixed Balance Sheet (FBS)	Scenario with reactive management actions - Constrained Balance Sheet (CBS)*
General information	Participant		
Balance sheet reporting template as per QRT data	0.BS	FBS.BS	CBS.BS
Impact of long term guarantees measures and transitionals as per QRT data	0.LTG	FBS.LTG	CBS.LTG
Own funds as per QRT data	0.OF	FBS.OF	CBS.OF
Calculation of Solvency Capital Requirement as per QRT data	0.SCR.SF	FBS.SCR.SF	CBS.SCR.SF
Solvency Capital Requirement - for groups using the standard formula and partial internal model as per QRT data	0.SCR.PIM	FBS.SCR.PIM	CBS.SCR.PIM
Solvency Capital Requirement - for groups on Full Internal Models as per QRT data	0.SCR.FIM	FBS.SCR.FIM	CBS.SCR.FIM