



# ACTUARIAL ASSOCIATION OF EUROPE

## Status of Solvency II

Siegbert Baldauf

20 September 2018

# Agenda

- 1) Solvency II Working Group: structure and tasks
- 2) SCR - Review
- 3) LTG – Review
- 4) Systemic risk and macroprudential policy
- 5) Recovery and Resolution
- 6) Stress Test 2018

# Agenda

- 1) Solvency II Working Group: structure and tasks**
- 2) SCR - Review
- 3) LTG – Review
- 4) Systemic risk and macroprudential policy
- 5) Recovery and Resolution
- 6) Stress Test 2018

# Solvency II: New structure

## Solvency II Working Group

### Until June 2018

Insurance Committee had established the

Solvency II Project, with

- Life working group
  - Chair: Dylan Brooks
- Non-Life working group
  - Chair: Clemens Frey
- Cross sectoral working Group
  - Chair: Lauri Saraste

### Now:

Solvency II Working Group considering the new AAE–Governance and the expected activities relating to Solvency II.

The Working Group will report on a regular basis to Insurance, Risk Management and Pension Committee.

- Highly committed members
- Can include non-actuaries
- In addition: experts may be called upon for specific issues

# Solvency II: New structure

## Solvency II Working Group

Solvency II Working Group:

Terms of reference approved by AAE – Board 20 June 2018

Chair: Siegbert Baldauf

First Members:

Lauri Saraste

Declan Lavelle

Nils Dennstedt

Matthias Pillaudin

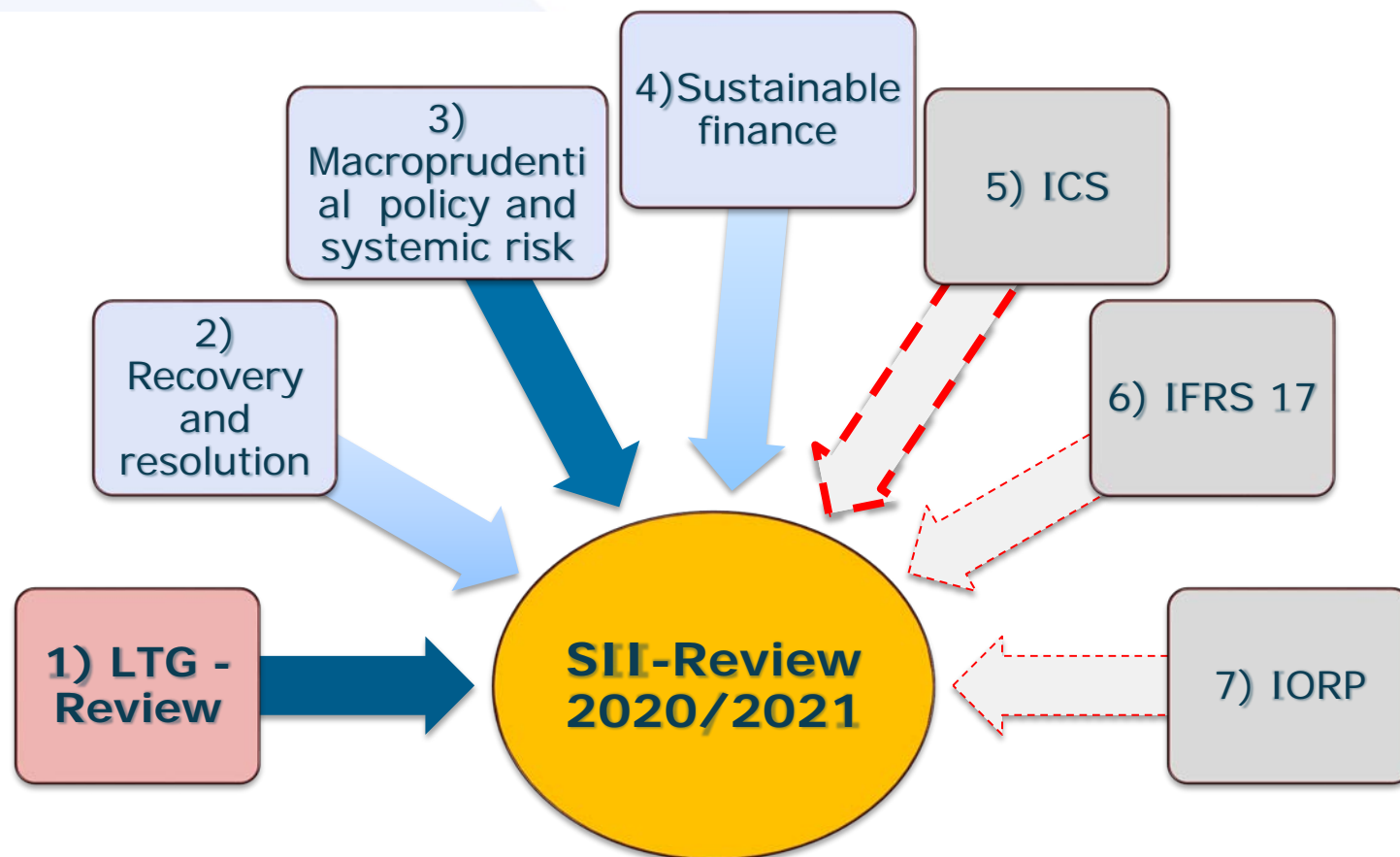
Daphné de Leval

Frank Schiller

Meeting to prepare Terms of Reference and discuss and organise future work (8 May 2008, 28 August 2018).

Prepare a letter to EU-Commission on SII – Review process

# Solvency II 2020/2021 – Potential impact



Gabriel Bernardino: *A second and more comprehensive revision is due in 2020-21. In that revision, we will look at the whole regime **and among other things, review long-term liabilities.***

5. Juni 2018: **Interview with Gabriel Bernardino with Pensioner & Förmåner and Dagens Industri**

# S II Working Group: Tasks and Capacity

First assessment of tasks for the Solvency II Working Group

- 1) Remainders from SCR – Review ✓
- 2) LTG – Review ✓
- 3) Systemic risk and macroprudential tools ✓
- 4) Recovery and resolution – funding of insurance guarantee schemes (✓)
- 5) Sustainable Finance (✓)
- 6) International Capital Standards (ICS) (✓)

✓: Recognised as task

(✓): to be considered

# S II Working Group: Tasks and Capacity

The Solvency II Working Group has identified three tasks to immediately deal with:

- a) Interest rate down stress
- b) Risk Margin
- c) Macroprudential tools

LTG – measures: Request for Advice of the Commission expected

Solvency II Working Group still needs now

- members and
- experts for particular issues, to be called upon

Members should be highly committed to the tasks



# Agenda

- 1) Solvency II Working Group: structure and tasks
- 2) SCR - Review**
- 3) LTG – Review
- 4) Systemic risk and macroprudential policy
- 5) Recovery and Resolution
- 6) Stress Test 2018

## SCR - Review – AAE's concerns

- As a result of the SCR review, the Delegated Regulation may be adapted based on the advice recently provided by EIOPA.
- Two years later, the LTG review may also lead to further changes, this time of the Solvency II Directive itself.
- Since this is aligned with the hierarchy of legal texts, it might appear to be the logical approach.
- However, this two-step process has a serious drawback:
  - It does not take into account that some objects of investigation are in fact affected by both reviews.
  - This could lead to piecemeal changes, without a holistic consideration of the overall impact of all of the inter-related effects in both of the reviews.

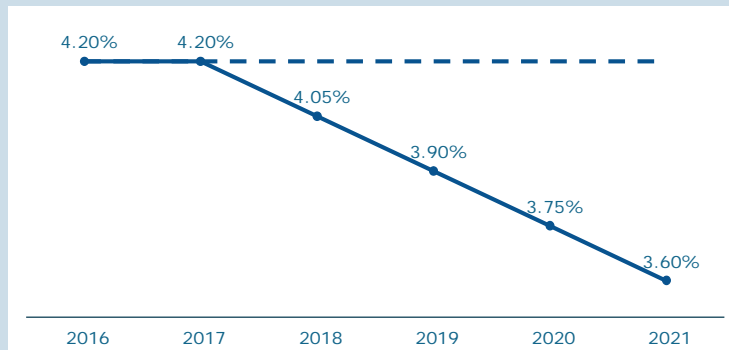
**Exemplification: Risk free interest rate term structure**

# Risk of piecemeal changes

## Ultimate forward rate

New methodology leads to a stepwise UFR reduction by 0.15% (until 2017: UFR = 4.2%)

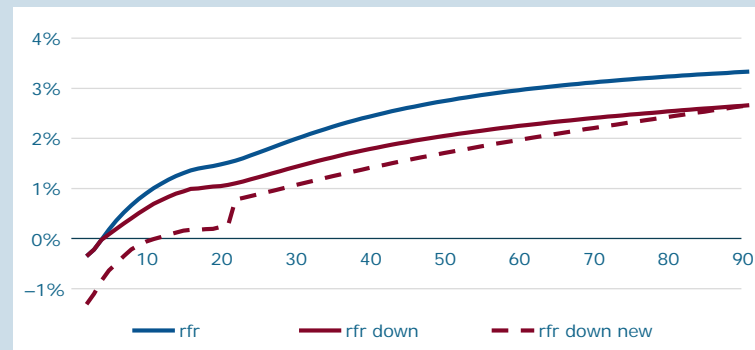
Implemented since 2018



## SCR review

Proposed interest rate shock: Requires in addition a higher stress after LLP (rfr data: February 2018)

Potential modification

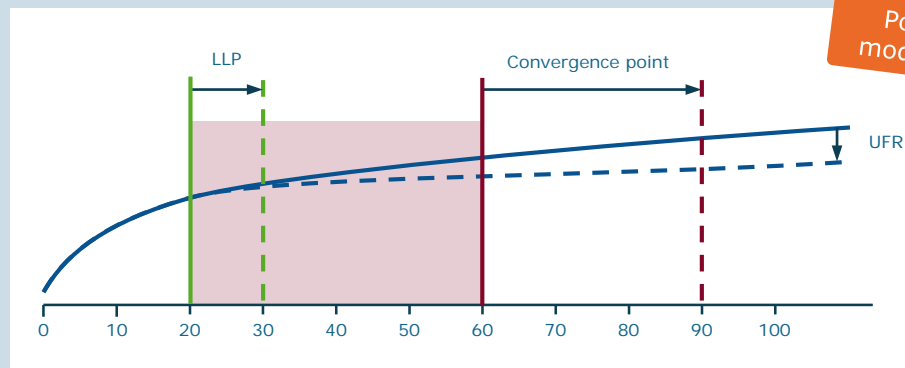


## LTG review

Already tested for LTG report 2017:

- LLP: 30 years (instead of 20 years)
- Convergence period: 60 years (instead of 40 years)
- UFR: 3.2% (instead of 4.2%)

Scenarios proposed by ESRB



Potential modification

# SCR - Review Interest rate downward shock

## **EIOPA's proposals**

Consultation paper: EIOPA had proposed two options:

- A) Symmetric 200 basis point (bp) minimum shock with a static interest rate floor (-2% maturity one year to -1% maturity 20 year)
- B) Combined approach – proposal A combined with affine stress.

EIOPA's final proposal:

- EIOPA advises to implement this relative shift approach.
- Phasing-in over the next three years

## **AAE comments**

- Actuaries advocated a shift approach (shifting the yield curve to determine the adequate downward shock)
- Actuaries criticized a methodological error that led to a wrong back-testing result and the exclusion of the shifted approach.

**AAE appreciates the proposed relative shift approach.**

**AAE does not agree with the stress of the Ultimate forward rate.**

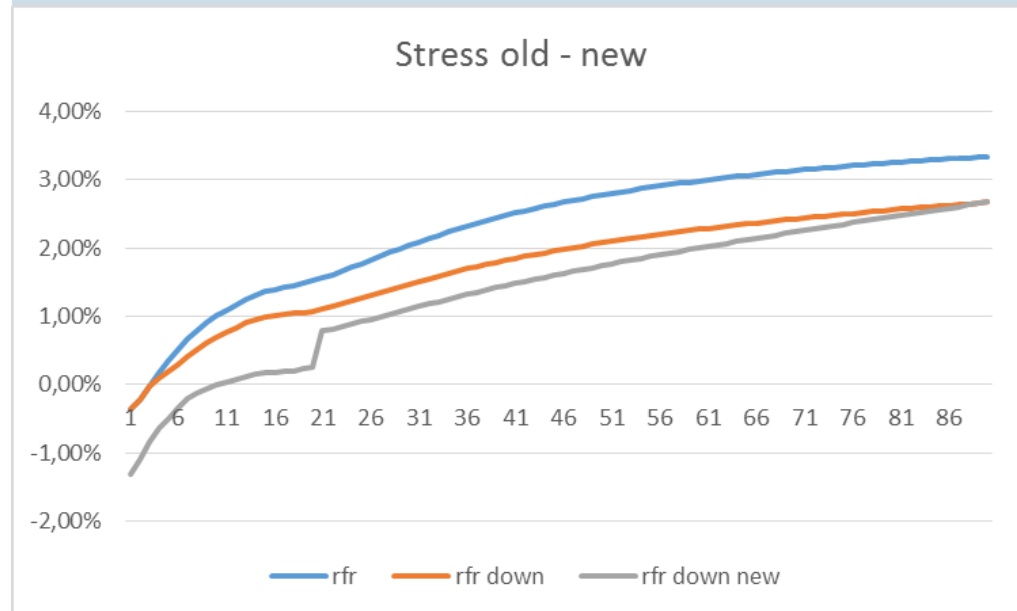
**AAE does not agree with EIOPA's impact assessment**

# SCR - Review Interest rate downward shock

EIOPA's proposal (change of Article 167)

- Stress after LLP
- Stress of UFR (despite new methodology)

rfr data: February 2018)

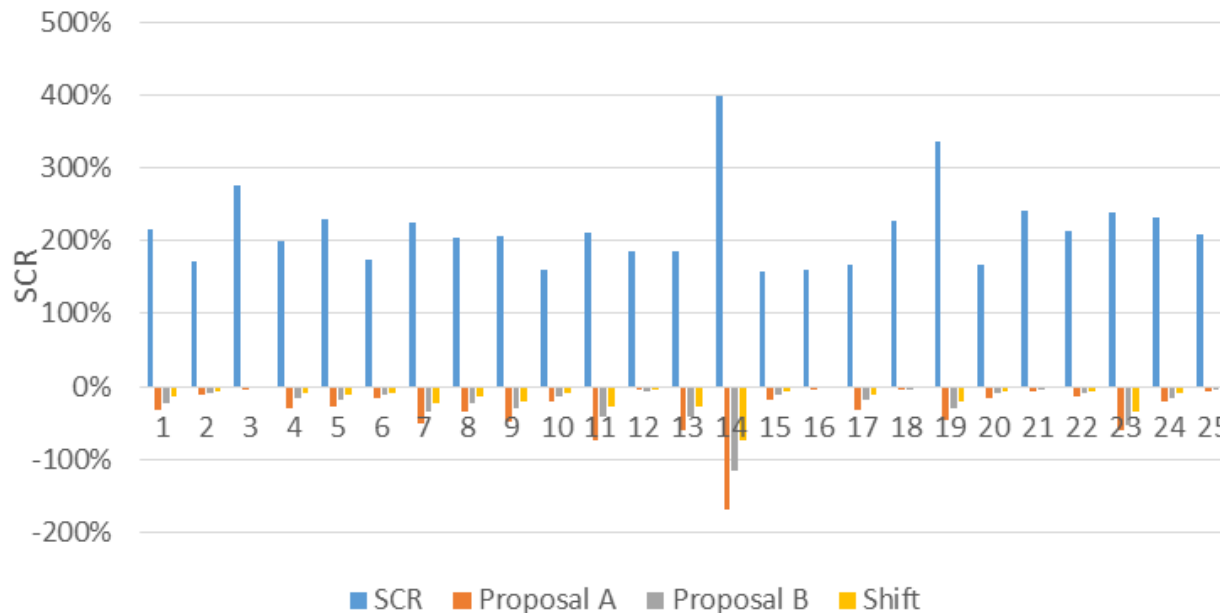


	new		
	prop.	additiv	prop. old
1	58,0%	-1,16%	75,0%
2	51,0%	-0,99%	65,0%
3	44,0%	-0,83%	56,0%
4	40,0%	-0,74%	50,0%
5	40,0%	-0,71%	46,0%
6	38,0%	-0,67%	42,0%
7	37,0%	-0,63%	39,0%
8	38,0%	-0,62%	36,0%
9	39,0%	-0,61%	33,0%
10	40,0%	-0,61%	31,0%
11	41,0%	-0,61%	30,0%
12	42,0%	-0,60%	29,0%
13	43,0%	-0,59%	28,0%
14	44,0%	-0,57%	28,0%
15	45,0%	-0,57%	27,0%
16	47,0%	-0,56%	28,0%
17	48,0%	-0,55%	28,0%
18	49,0%	-0,54%	28,0%
19	49,0%	-0,52%	29,0%
20	50,0%	-0,50%	29,0%
21	49,6%	0,00%	28,9%

# EIOPA's impact assessment

"... , the **average impact** on the solvency ratio is estimated being around **14 percentage points** (from a solvency ratio of 216% to a solvency ratio of 202%)."

Impact on SCR



## Criticism

EIOPA has added more details in the Annex, but

- 1) Countries cannot be identified
- 2) Average SCR is calculated as mean value without weights
- 3) It is an average of national average value
- 4) Extreme effects are visible in the text
- 5) Effects from transitionals not clear

# SCR – Review Risk margin

## **EIOPA's proposals**

### Consultation Paper:

EIOPA had proposed to maintain the Cost-of-capital (CoC) rate of 6%. Methodological issue had not been considered.

### EIOPA's advice:

- EIOPA recommends that the currently applicable CoC rate of 6% should not be changed
- Review of other aspects of the risk margin should be done as part of the review that the Commission is required to undertake after five years of implementation.

## **AAE comments**

- CoC rate of 6% is too high considering the low interest rate environment.
- CoC rate is not adequate in consideration of the nature of the business.
- The methodology to calculate the risk margin prescribed in the Delegated Regulation and in the Guideline on the valuation of technical provisions requires revision.

**AAE still assesses the CoC rate as too high and advocates further investigation.**

# SCR – Review Risk margin

The risk margin is the discounted sum of current and future SCR multiplied by the Cost of Capital – Rate

$$RM = CoC \cdot \sum_{t \geq 0} \frac{SCR(t)}{(1+r(t+1))^{t+1}}$$

- SCR(t) SCR after t years;
- $r(t+1)$ : basic risk-free rate for the maturity of t+1 year
- CoC = 6%

To be further considered: CoC – Rate of 6%

- Discounting with basic risk-free interest rate
- Further methodological questions



# Agenda

- 1) Solvency II Working Group: structure and tasks
- 2) SCR - Review
- 3) LTG – Review**
- 4) Systemic risk and macroprudential policy
- 5) Recovery and Resolution
- 6) Stress Test 2018

# LTG Review already started

According to Article 77f (2) of the Directive, EIOPA provides an opinion on the assessment of the application of the LTG measures and the measures on equity risk to the Commission.

Commission shall submit a report to the European Parliament and to the Council by 1 January 2021, or, where appropriate, earlier.  
Report shall be accompanied, if necessary, by legislative proposals.

Although LTG Review is required by 1 January 2021, preparatory activities of EIOPA can be observed:

- first preparations for the assessment and
- already apparent changes concerning the risk-free interest rate term structure:

- |                        |                                 |
|------------------------|---------------------------------|
| 1) UFR:                | change of methodology           |
| 2) Interest rate risk: | new calibration in SCR – review |
| 3) Extrapolation:      | different scenarios tested      |

# Process SCR - Review

Can this timeline be an indicator for the forthcoming review?

<b>Review Solvency II Delegated Regulation</b>		
<b>Process step</b>	Commission's request to EIOPA 18 July 2016	
Discussion paper	8 December 2016 - 3 March 2017	
	<b>1. set of advice</b>	<b>2. set of advice</b>
Roundtable with stakeholders	23 May 2017 8 June 2017	27 September 2017
Advice to Commission	<b>31 October 2017</b>	<b>28 February 2018</b>
Consultation paper	4 July 2017	5 November 2017
End of Consultation	31 August 2017	5 January 2018

# LTG measures

LTG measures were introduced through Omnibus II Directive in order to ensure an appropriate treatment of insurance products that include long-term guarantees.

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

# Agenda

- 1) Solvency II Working Group: structure and tasks
- 2) SCR - Review
- 3) LTG – Review
- 4) Systemic risk and macroprudential policy**
- 5) Recovery and Resolution
- 6) Stress Test 2018

# Systemic Risk in Insurance

**EIOPA published three papers on this issue:**

**Systemic risk and macroprudential policy in insurance. (6 February 2018).**

*The paper also includes a proposal for a macroprudential framework for insurance and defines specific operational objectives based on the previously-identified sources of systemic risk.*

<https://eiopa.europa.eu/Publications/Reports/Systemic%20risk%20and%20macroprudential%20policy%20in%20insurance.pdf>

**Mitigating systemic risk through Solvency II: EIOPA publishes the second paper of a series on systemic risk and macroprudential policy in the insurance sector. (21 March 2018)**

*The paper also includes a detailed annex on the macroprudential impact of some of the long-term guarantees measures under stress.*

<https://eiopa.europa.eu/Pages/News/Mitigating-systemic-risk-through-Solvency-II-EIOPA-publishes-the-second-paper-of-a-series-on-systemic-risk-and-macroprudent.aspx>

**Other potential macroprudential tools and measures to enhance the current framework (31 July 2018)**

*The paper focuses on whether a specific instrument should or should not be further considered. This is an important aspect in light of future work in the context of the Solvency II review.*

<https://eiopa.europa.eu/Publications/Reports/EIOPA%20Other%20potential%20macroprudential%20tools.pdf>

# Systemic Risk and macroprudential policy

First paper: 'Systemic risk and macroprudential policy in insurance', EIOPA identified and analysed the sources of systemic risk in insurance and proposed a specific macroprudential framework for the sector.

EIOPA considered three layers of objectives with the existence of a set of instruments.

## **Ultimate objective**

Financial stability

## **Intermediate objectives**

- a) Mitigating likelihood of systemic crisis
- b) Mitigating the impact of systemic crisis

## **Operational objectives**

Instruments / measures

Risk indicators and  
Expert judgement required

*Essential information is provided by risk indicators. The use of indicators should, however, be supplemented with expert judgement, particularly when it comes to the use and calibration of the instruments and measures.*

# Systemic Risk in Insurance

In 'Solvency II tools with macroprudential impact', EIOPA identified, classified and provided a preliminary assessment of the tools or measures already existing within the Solvency II framework, which could mitigate any of the systemic risk sources that were previously identified.

These tools are the following:

- Symmetric adjustment in the equity risk module.
- Volatility adjustment.
- Matching adjustment.
- Extension of the recovery period.
- Transitional measure on technical provisions.

It is acknowledged:

*Given that Solvency II entered into force in 2016, there is not an extensive amount of experience. This analysis should only be considered as a first step. Further work might be needed at a later stage, once more information and data are available.*



# Systemic Risk in Insurance

The third paper contains an initial assessment of other potential tools or measures to be included in a macroprudential framework designed for insurers.

EIOPA carried out an analysis focusing on four categories of tools:

- Capital and reserving-based tools
- Liquidity-based tools
- Exposure-based tools
- Pre-emptive planning

*“The focus of this paper is essentially on new tools, leaving aside the analysis of potential changes in the current LTG measures and measures on equity risk, which will be carried out in the context of the Solvency II review by 1 January 2021.”*

Focus: Assessment if a specific instrument should or should not be further considered. This initial assessment should be understood as a first step of the process and not yet as a formal proposal.

**Quote:** *This is an important aspect in light of future work in the context of the Solvency II review.*

# Macroprudential Tools - Identified

## Additional tools and measures under consideration

Tool	Type of tool	Proposed for further consideration
<b>Enhanced reporting and monitoring</b>		
Leverage ratio	Capital and reserving-based	Yes
Enhanced monitoring against market-wide under-reserving	Capital and reserving-based	Yes
Additional reporting on liquidity risk	Liquidity-based	Yes
Liquidity risk ratios	Liquidity-based	Yes
Enhancement of Prudent Person Principle	Exposure-based	Yes
Enhancement of own risk and solvency assessment (ORSA)	Exposure-based	Yes
Recovery plans	Pre-emptive planning	Yes
Resolution plans	Pre-emptive planning	Yes
Liquidity Risk Management Plans (LRMP)	Pre-emptive planning	Yes
Systemic Risk Management Plans (SRMP)	Pre-emptive planning	Yes
<b>Intervention powers</b>		
Counter-cyclical capital buffer	Capital and reserving-based	No
Capital surcharge for systemic risk	Capital and reserving-based	Yes
Liquidity requirements	Liquidity-based	No
Temporary freeze on redemption rights	Liquidity-based	Yes
Concentration thresholds	Exposure-based	Yes

# Macroprudential Tools - Structure

Process considering 6 issues:

- i. Identification of potential new instruments/measures, 4 blocks
- ii. How the tools in each block contribute to achieving one or more of the operational objectives
- iii. **Interaction with Solvency II.**
- iv. Individual description of all identified tools, considering the classification:
  - Enhanced reporting and monitoring tools and measures. They provide supervisors and other authorities with additional relevant information about potential risks and vulnerabilities that are or could be building up in the system.
  - Intervention powers. These are currently not available as macroprudential tools. They are more intrusive and intervene more severely in the management of the companies. Examples: additional buffers, limits or restrictions. Only justified where the existing measures may not suffice to address the sources of systemic risk identified.
- v. Preliminary analysis per tool.
- vi. Preliminary conclusion.

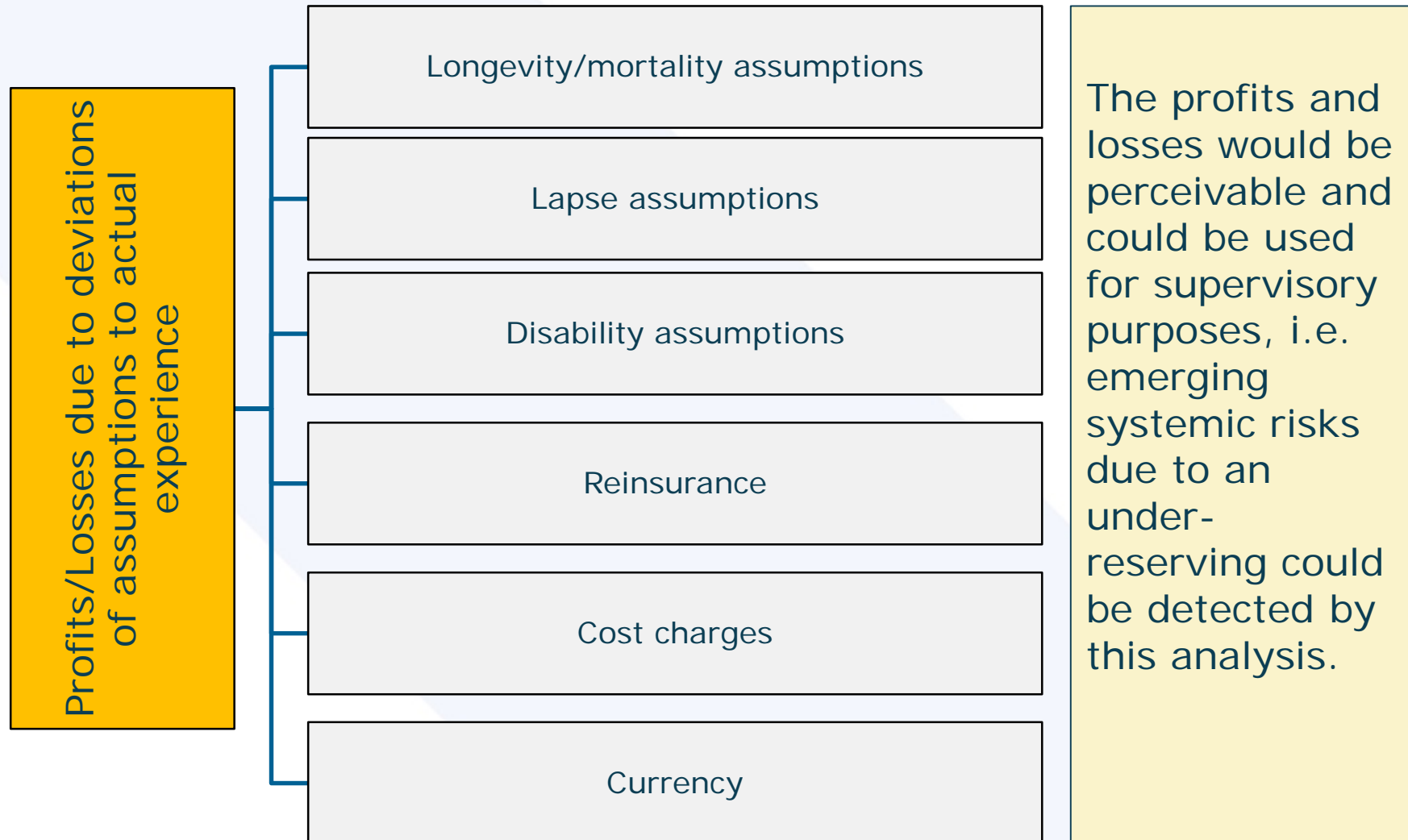
# Macroprudential Tools - Example

<b>Capital and reserving-based tool</b>	Enhanced monitoring against market-wide under-reserving
<b>Main source(s) of systemic risk:</b>	<p>Deterioration of the solvency position leading to: Failure of a G-SII, D-SII Collective failures of non-systemically important institutions as a result of exposures to common shocks Inappropriate exposures on the liabilities side (e.g. as a result of competitive dynamics)</p>
<b>Operational objective(s)</b>	Ensuring sufficient loss absorbency capacity and reserving

*Under-reserving may occur on a market-wide base where assumptions used in the valuation of technical provisions are insufficient, or where input data used is of insufficient quality.*

*In a first step, data should be collected, on a market-wide basis, by reviewing the insurers' essential actuarial assumptions (e.g. lapse rates, cost charges, biometric tables) against the actual experience by decomposing the realised annual profits/ losses into their sources.*

# Macroprudential Tools - Example



# Macroprudential Tools - Example

## Preliminary analysis:

- A market-wide under-reserving can only be detected by collecting data at market level on the development of profits and losses and by decomposing them according to their sources.
- In order to address the macroprudential risk of under-reserving the comparison of assumptions to actual experience is required.
- **The actuarial function** already has to determine these deviations in order to assess the assumptions made in the best estimate of the technical provisions. Therefore, the data should already be available without becoming an unbearable additional burden for companies.
- This instrument would require data at a micro-level basis (e.g. profits/losses from mortality tables or cost charges used in the calculation).

In summary, this tool has a clear benefit in terms of supplementing the microprudential supervision by providing additional macroprudential information about the quality of the assumptions made in order to calculate the technical provisions.

Given that this information should already be available, the additional resources needed seem limited.

# Macroprudential Tools - Example

## Preliminary conclusion:

- Supervisors would use the additional data not only for microprudential purposes, but for macroprudential analyses as well. The link between the macro- and microprudential use need to be carefully examined.
- Decomposing of profits and losses can explain the variation of the technical provisions from one year to another.
- A better comparability and transparency could possibly prevent situations of under-reserving at market wide level.
- This instrument **deserves to be further considered** in order to address the risk of under-reserving. A purely qualitative assessment of this risk may not be sufficient
- The contribution of particular assumptions made in the technical provisions to profits or losses could yield evidence on the appropriateness of these best estimate assumptions.
- This could indicate a possible market-wide under-reserving.

**This information is currently not yet available.**

# Macroprudential Tools - Example

- Tool: Capital and Reserving-based tool
- Scope: all insurers and reinsurers
- Origin and nature: micro- and macroprudential and proactive

Conclusions and observations:

Gathering additional data on the actuarial assumptions of insurers and monitoring them with the actual developments to identify structural deviations is very relevant to avoid market-wide under-reserving.

*Main implementing challenge(s):*

- The identification by supervisors of the precise data to be requested to undertakings.
- Considerations on how to allocate the profits/losses by decomposing the annual result to its sources. This should be done in cooperation with the supervisors.



# Agenda

- 1) Solvency II Working Group: structure and tasks
- 2) SCR - Review
- 3) LTG – Review
- 4) Systemic risk and macroprudential policy
- 5) Recovery and Resolution**
- 6) Stress Test 2018

# Recovery and Resolution (1)

## **DISCUSSION PAPER ON POTENTIAL HARMONISATION OF RECOVERY AND RESOLUTION FRAMEWORKS FOR INSURERS** (EIOPA-CP-16/009 2 December 2016)

AAE has commented on this paper. Insurance guarantee schemes out of scope.

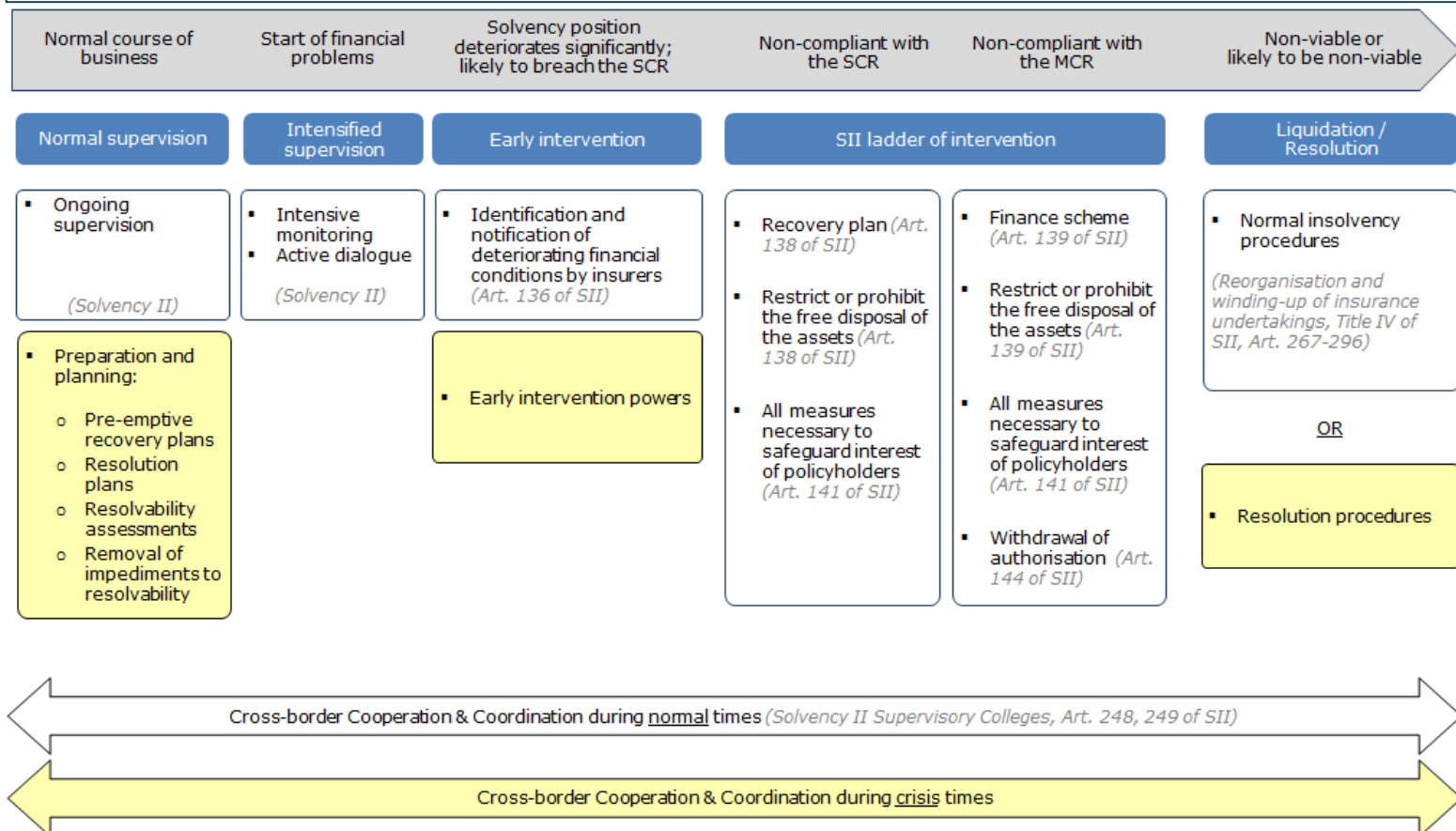
EIOPA published an opinion in July 2017

## **OPINION TO INSTITUTIONS OF THE EUROPEAN UNION ON THE HARMONISATION OF RECOVERY AND RESOLUTION FRAMEWORKS FOR (RE)INSURERS ACROSS THE MEMBER STATES** (EIOPA-BoS/17-148 5 July 2017)

In this Opinion EIOPA calls for the establishment of a minimum harmonised and comprehensive framework in the area of recovery and resolution of insurers and reinsurers (hereinafter collectively referred to as “insurers”). Crisis Management Flow next slide

# Recovery and Resolution: Funding and IGS

Chart 1: Crisis management flow



\* The articles listed here refer to articles in the Solvency II Directive (2009/138/EC).

# Recovery and Resolution: Funding and IGS

**Proposed building blocks of a harmonized recovery and resolution framework**

Building blocks	Sub-building blocks
<b>Preparation and planning</b>	1) Pre-emptive recovery planning
	2) Pre-emptive resolution planning
	3) Resolvability assessment
<b>Early intervention/ Recovery</b>	4) Early intervention conditions
	5) Early intervention powers
	6) Resolution authority
<b>Resolution</b>	7) Objectives
	8) Conditions
	9) Powers
	10) Safeguards
<b>Cooperation and coordination</b>	11) Cooperation and coordination between national authorities and with third country authorities

EIOPA believes that a harmonised recovery and resolution framework should include those building blocks.

# Recovery and Resolution: Funding and IGS

30 July 2018: EIOPA published a discussion paper

**“On Resolution Funding and National Insurance Guarantee Schemes”** (Deadline for comments 26 October 2018)

*The aim of this Discussion paper is **to gather feedback from stakeholders** on the analysis presented in this paper. As such, the Discussion paper, which **does not constitute a formal proposal** by EIOPA, will be used to further develop its stance on two distinct but related topics – **resolution funding and national insurance guarantee schemes (IGSs)**.*

EIOPA has asked 26 questions in this paper which are not directly related to Solvency II or the work of actuaries.

Schemes that cover exclusively motor third party liabilities (MTPL) under circumstances set out in Article 10 of the Motor Insurance Directive (MID) are excluded from this paper.

# Recovery and Resolution: IGS

Definition: *“IGSs provide protection to [policyholders] when insurers are unable to fulfil their contractual commitments [...] either by paying compensation to policyholders for their claims, or by securing the continuation of their insurance contract”* (European Commission, 2010)

EIOPA assessed the potential advantage of three options:

**(I) Maintaining the status quo:** The current fragmented landscape where some Member States have set up IGSs while others have not and with no common set of elements at European level is maintained.

**(II) Establishing a European network of national IGSs:** A European network of national IGSs which are adequately funded and sufficiently harmonised is created (minimum harmonisation).

**(III) Establishing a single EU-wide IGS:** A single EU-wide IGS is created (maximum harmonisation). ⇒ **considered out of scope**

# Recovery and Resolution: IGS

Table 2: Overview of arguments...

...in favour of maintaining the status quo	(A) Risk of contagion in insurance industry is less pronounced		
	(B) Sufficient protection mechanisms already in place		
	(C) Potential costs of IGSs		
	(D) Moral hazard effects		
...in favour of a European network of national IGSs	(A) More equal and effective policyholder protection		
	(B) Distribution of insurance failure costs to the industry		
	(C) Increase in consumer confidence and choice		
	(D) Level playing field across Member States		

IGSs as defined in this paper do not exist in the following EEA Member States:

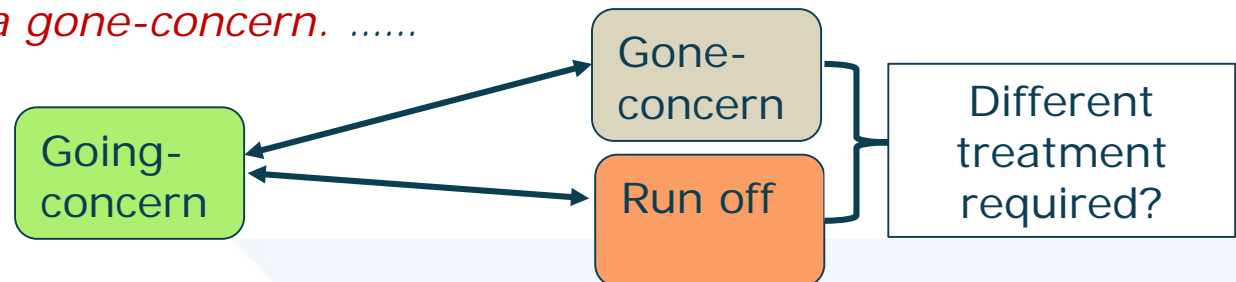
Croatia, Cyprus, Czech Republic, Iceland, Liechtenstein, Lithuania, Luxembourg, Netherlands, Slovakia, Slovenia and Sweden.

# Recovery and Resolution: Gone-concern

With respect to Solvency II the following paragraph in the discussion paper relating to valuation might be of interest:

*29. .... refers to the fact that methodology and assumptions for valuing the assets and liabilities of an insurer under resolution might differ from those used during normal course of business. **The reason for this is that the insurer moves from going-concern to gone-concern**, which might impact on the valuations of the different items. Differences in valuations might be rather large on the liabilities side due to the interest rate term structure used for discounting the liabilities.*

*In Solvency II, hence, in a going concern situation, **the term structure includes the ultimate forward rate towards which the market rates are converging – a concept which might not be relevant to include in the term structure when valuing the liabilities for a gone-concern.** .....*





# Recovery and Resolution: Gone-concern

## Some Questions asked in the discussion paper:

**Q20)** *What are your views regarding the timing of the funding of IGSs, i.e. funding on an ex-ante basis, ex-post basis or a combination of both?*

**Q21)** *What are your views regarding the contributors to the IGSs, i.e. should the IGS be funded by insurers, policyholders or otherwise?*

**Q22)** *What are your views regarding the calculation basis when the IGS is (partially or fully) funded by contributions from insurers, i.e. (gross or net) technical provisions, written premiums or other?*

**Q23)** *What are your views regarding the contribution basis, i.e. fixed, variable or risk-weighted contributions?*

**Q24)** *What are your views regarding the introduction of upper limits to the annual level of contributions from insurers to the IGSs?*

**Q25)** *What are your views regarding the power of IGSs to require additional contributions from insurers or raise additional capital in case of shortfalls?*

# Agenda

- 1) Solvency II Working Group: structure and tasks
- 2) SCR - Review
- 3) LTG – Review
- 4) Systemic risk and macroprudential policy
- 5) Recovery and Resolution
- 6) Stress Test 2018

# Agenda

- 1) Solvency II Working Group: structure and tasks
- 2) SCR - Review
- 3) LTG – Review
- 4) Systemic risk and macroprudential policy
- 5) Recovery and Resolution
- 6) Stress Test 2018**

# Insurance stress test 2018

## Stresstest 2018

**Participants:** 42 insurance groups, including the top 30 groups plus 12 additional groups supervised by different NCAs, with total EU-wide market coverage close to 78% based on total consolidated group assets in the Solvency II reporting.

**Objective:** The overall objective is assessing the resilience of the European insurance industry against adverse market developments.

**Timeline:**

- 14 May: Launch of stress test
- May - June: Q&A process
- 16 August: Deadline for submission to NCAs
- End-October: Collection of the consent for public disclosure
- January: Stress Test Report publication

<https://eiopa.europa.eu/Publications/Interviews/InterviewDimitris%20ZafeirisInsiderGR.pdf>

# Insurance stress test 2018

## Stresstest 2018

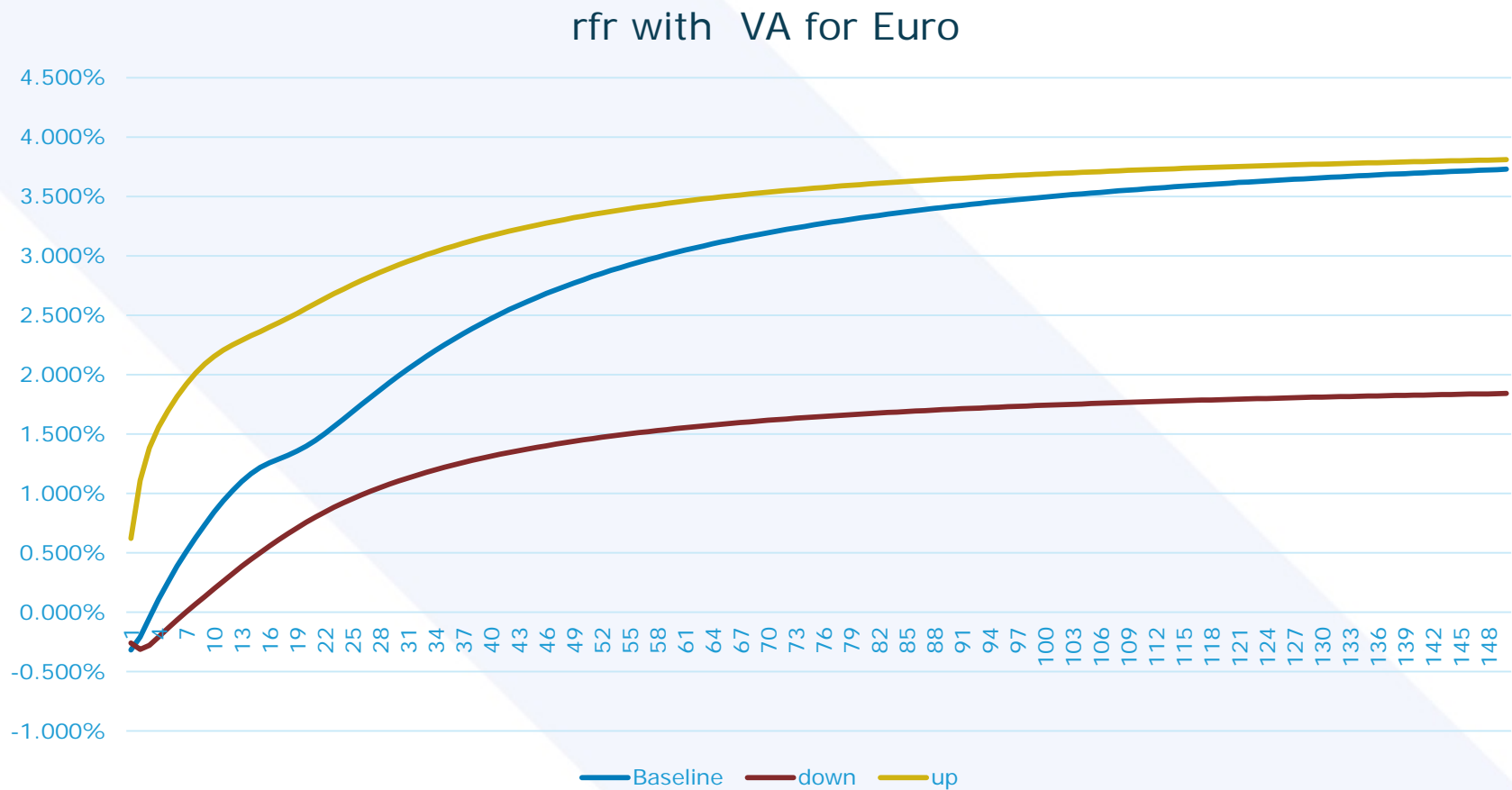
### Three scenarios tested in stress test 2018

- **Yield curve up shock combined with lapse and provisions deficiency stress:** a sharp and sudden rise in interest rates triggered by both an upward shift in risk free rates as well as a significant increase in inflationary pressures.
- **Low yield shock combined with longevity stress:** a protracted period of extremely low interest rates.
- **Natural catastrophe scenario:** A series of natural catastrophes (e.g. storms, earthquakes, flooding) occurring in Europe.

In addition: a questionnaire concerning cyber risk

EIOPA-BoS-18-190 **2018 EIOPA INSURANCE STRESS TEST. Instructions**  
EIOPA-BoS-18-189 **Insurance Stress Test 2018 Technical specifications**

# Insurance stress test 2018



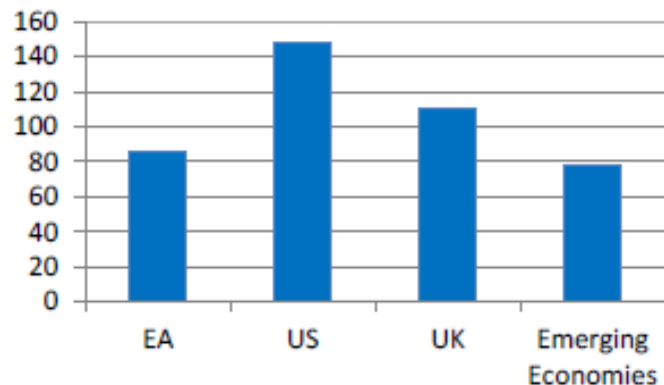
# Insurance stress test 2018

## Stresstest 2018

### Yield curve up shock combined with lapse and provisions deficiency stress

Provisions deficiency stress: 2.24% higher annual claims inflation than assumed for the existing best estimate of liabilities calculations.

Shock to 10-year swap rates (bps):



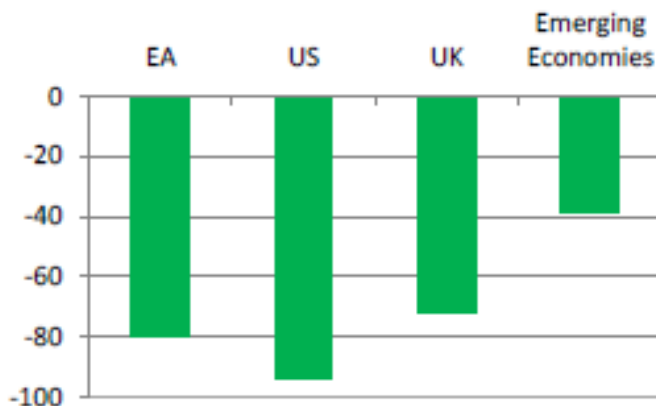
- Overall, 10-year government bond yields in the EU would increase on average by 155 bps with a range between 119 bps and 253 bps under the adverse scenario.
- LLP and UFR unchanged
- Lapse: Instantaneous shock of 20% applied to all product except mandatory insurance.

# Insurance stress test 2018

## Stresstest 2018

### Low yield shock combined with longevity stress

Shock to 10-year swap rates (bps):



- Ten year government bond yields decline by about 36 bps at EU aggregate level, declines at country level reflecting the creditworthiness of the sovereign and spanning from -49 to 17 bps
- LLP and UFR 1-year forward rare
- Longevity: The age-independent stress parameter of 15% for all life insurance products



# Insurance stress test 2018

## Stresstest 2018

### **Natural catastrophe scenario:**

The Nat-Cat scenario aims at assessing the vulnerability of the largest insurers to natural catastrophe risk across Europe, through

- a set of four European windstorms,
- a set of two central and eastern European floods and
- a series of two Italian earthquakes.

In total, the aggregate insured loss from these events sum to EUR 48 billion for the insurance industry over the course of the year.

# Insurance stress test 2018

## Stresstest 2018

EIOPA expects several positive effects through the disclosure of individual stress test results, such as:

- **Improving market discipline** namely to increase the reliability of the analysis and conclusions and to ensure a better quality of the data and results.
- **Supporting the participating groups** in their follow-up to the stress test exercise recommendations and enhancing their abilities to compare their results with those of their peers to a set of common scenarios.
- **Providing participating groups the aggregated picture** presented by EIOPA's stress test report through the idiosyncratic perspective and by disclosing their own assessment of the results (including potential follow-up measures).