

# Low interest rate environment: Position papers of AAE and new challenges

Nils Dennstedt, Wilhelm Schneemeier, Siegbert Baldauf

Lisbon, 12 April 2018

- 1) Position papers of AAE and achievement
- 2) Work in progress on low interest rate positions
- 3) New Challenges: e.g. macroprudential approaches
- 4) How will IC cope with these requirements?

1) AAE – negative interest rates \_ FINAL 161216

([https://actuary.eu/reports/negative-interest-rates/aae-negative-interest-rates\\_final-161216/](https://actuary.eu/reports/negative-interest-rates/aae-negative-interest-rates_final-161216/))

2) AAE Survey of the low interest rate environment – 16 August 2016 published

([https://actuary.eu/wp-content/uploads/2017/11/2016-08\\_01\\_low\\_interest\\_rates\\_web.pdf](https://actuary.eu/wp-content/uploads/2017/11/2016-08_01_low_interest_rates_web.pdf))

3) Rationale for a Lower Bound in Interest Rate Models

**Number 1) and 2): Documents have been approved by AAE**

**Number 3): Slides presented to EIOPA to demonstrate the AAE position**

# AAE achieved alteration of EIOPA Proposal to Commission!



Thoughts and techniques presented in the position paper can be found in EIOPA's second set of advice to Commission.

EIOPA advises to model the interest rate risk with a relative shift approach.

The idea of a lower bound and a shift approach was already described in the presentation Rationale for a Lower Bound in Interest Rate Models

EIOPA now proposes to implement the shift approach in the Delegated Regulation, although initially this had not been an option in the Consultation Paper → AAE played an active role as stakeholder advisor

# Work in progress: Increasing interest rates



Negative Interest Rate/Impact Of Low Interest Rate  
Environment – presented in Copenhagen September 2017

Objective: Assess the consequences an increase in interest rates  
(first results presented in Copenhagen).

The risk was discussed in several academic papers, e.g.

Lethal lapses - how a positive interest rate shock might stress  
German life insurers

Feodoria, M. and Förstemann, T. (2015).

([https://www.bundesbank.de/Redaktion/EN/Downloads/Publications/Discussion\\_Paper\\_1/2015/2015\\_06\\_22\\_dkp\\_12.pdf?\\_\\_blob=publicationFile](https://www.bundesbank.de/Redaktion/EN/Downloads/Publications/Discussion_Paper_1/2015/2015_06_22_dkp_12.pdf?__blob=publicationFile))

The authors concluded that:

At the end of 2013 German life insurers in aggregate would have been at  
risk of a policyholder run if interest rates had risen abruptly by 2.1  
percentage points.

## Assessment:

- The models and the publication are analysing a real risk for the life insurance undertakings.
- They are too simple to model management actions, portfolio structure and policyholder behaviour. This leads to an overestimation of the risk exposure of undertakings.
- But: Results are quoted in financial stability report.

We need further investigation concerning this issue.  
Result has to be a strong and understandable position

New aspects: Discussion on systemic risk from insurance sector

- Sufficient tools need to be in place. Authorities should be equipped with sufficient tools to address the different sources of systemic risk. This implies the need to assess the already existing tools. For example in the EU and as stressed by EIOPA (2016a), although Solvency II was not designed as a macroprudential framework, it contains elements that may have a macroprudential and financial stability impact. (The second paper of this series will specifically address those elements)
- In terms of instruments for the insurance sector, it should be noted that although the regulatory regime in force for the European insurance and reinsurance sector — Solvency II — was not designed as a macroprudential framework, some of its elements may have macroprudential features or may act as macroprudential instruments. The second topic of this series of papers is devoted to these elements, which cannot be overlooked or underestimated when considering the development of a macroprudential framework for the insurance sector, and could be seen as a starting point for setting macroprudential instruments. In addition, some tools and measures have also been developed at national level, which could provide useful information as well.
- Once these elements have been identified and their contribution to the achievement of the operational objectives adequately accounted for, additional tools may be considered in case not all potential sources of systemic risk have been properly addressed. This will be further developed in the third topic of this series of papers.

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

According to Article 77f Commission shall submit a report to EU parliament and Council by 1 January 2021 concerning long-term guarantee measures, especially:

77a	Extrapolation of the risk-free interest rates
77b, 77c	Matching adjustment
77d	Volatility adjustment
308c	Transitional on the risk-free rate
308d	Transitional on technical provisions

Macroprudential and systemic risk issues might need consideration:

More generally risks to financial stability will create a degree of uncertainty that could impact on regulatory developments and may need to be considered within the framework of the review of Solvency II, leading the discussions on how to enhance the solvency regime by embedding the appropriate macro prudential tools into it.

Source: European Insurance and Occupational Pensions Authority Revised Single Programming Document 2017-2019 (AWP 2018)



**A sharp and unexpected rise in interest rates triggered by a shift in risk premia could, however, have a detrimental impact on insurers.**

Such an abrupt repricing could stem from political uncertainty leading to higher credit risk premia. In such a scenario, widening credit spreads and mass rating migration could force some insurers to liquidate parts of their portfolios. The reason is that widening credit spreads and falling bond prices would reduce the value of insurers' assets and thus their available operating capital. At the same time, credit rating downgrades would increase the required solvency capital. Hence, in order to restore their solvency capital ratios, insurers would be forced to sell assets with a deteriorating credit quality. Moreover, defaults – should they occur – would trigger actual losses on insurers' balance sheets. The LTG measures under Solvency II, particularly the volatility and matching adjustments, were designed to mitigate the impact of widening credit spreads and, more generally, of short-term price movements on insurers' assets, especially if those are unrelated to default. However, their effectiveness under adverse market and economic shocks is yet to be tested in practice

# How do we want to proceed?



Shall we consider these aforementioned expected changes (SCR-Review, LTG – review, Discussion on systemic risk) and how should this be done

