EIOPA's Insurance Stress Test Exercise 2018

June 2018

Milliman

Overview

On 14 May 2018, the European Insurance and Occupational Pensions Authority ("**EIOPA**") launched its fourth (previously in 2011, 2014 and 2016) stress test exercise[1] for the 42 largest insurance groups in the European insurance sector. EIOPA develops these regular EU-wide stress tests to support the stability and transparency of the financial system.

The 2018 EIOPA stress test exercise aims to assess the vulnerability of the EU insurance sector, and comprises of three specific hypothetical adverse scenarios which are informed by current market conditions, the risk climate and their potential impact on the insurance sector. In addition to these stress tests, EIOPA have included, for the first time, a cyber risk questionnaire, asking firms for information on their exposure to, and management of, cyber risk. A separate Milliman paper[2] provides an analysis of the cyber risk questionnaire, and discusses the disclosure requirements and why firms outside of EIOPA's target group might be interested in the questionnaire.

Although only the largest European insurance groups are required to participate, other non-participating insurers may find the 2018 stress tests and the results of interest, for example:

- To gain an understanding the European regulator's concerns;
- To inform the choice and calibration of their own scenarios assessed in the Own Risk and Solvency Assessment ("ORSA"); and
- For employing the stress scenarios and benchmarking the results to the participating insurance groups.

Participating insurance groups

Forty-two of the largest EU insurance groups (based on size, EU-wide market coverage and conducted business lines, both life and non-life) have been selected to participate in the 2018 stress test exercise. These insurance groups represent almost 78% (based on consolidated Solvency II group assets) of the European market and therefore collectively have a significant influence on European financial stability. This sample includes the top 30 groups plus 12 additional groups supervised by different National Competent Authorities ("**NCAs**").

The names of the participating UK insurance groups are listed in the following table.

Company
Aviva plc
Legal and General plc
Prudential plc
Standard Life Aberdeen plc
Scottish Widows/LBGI
The Royal London Mutual Insurance Society Limited
Phoenix Group Holdings
ReAssure Limited
RSA Insurance Group plc

A full list of the participating insurance groups is provided in Appendix A.

Motivation

EIOPA's previous stress test exercise in 2016 covered two scenarios:

- A prolonged low yield scenario; and
- A double-hit scenario: an abrupt increase in risk premia combined with a prolonged low yield.

EIOPA subsequently provided a number of recommendations[3] to NCAs, including for them to encourage firms to assess the risk of prolonged low interest rates.

The 2018 stress tests follow up on a complex set of risks that were not tested in the 2016 exercise and aim to reflect the changes in macroeconomics and market conditions that have occurred over the past two years. EIOPA has stated that the key objectives of the 2018 exercise are:

- To assess the vulnerability of the European insurance sector to specific adverse scenarios which could trigger systemic risk across financial sectors and threaten the stability of European financial markets;

[1] EIOPA's 2018 Stress Test Exercise
[2] EIOPA's 2018 Stress Tests: Cyber Risk Questionnaire paper
[3] EIOPA's Insurance Stress Test 2016 Recommendations

- To raise awareness of potential threats of the European insurance sector to European market stability;
- To assess whether the European insurance sector can withstand the challenges within the tested scenarios;
- To test the impact of adverse scenarios at group level (the 2016 stress test exercise was tested at solo level); and
- To enhance the transparency of the European insurance industry towards the market and policyholders (voluntary disclosure of individual post-stress balance sheet and capital position will be requested by EIOPA).

Stress scenarios

The three adverse scenarios (Yield Curve Up, Yield Curve Down and Natural Catastrophe) to be tested in the 2018 exercise have been chosen because they have the potential to produce a significant negative impact on European financial markets and the wider economy, while retaining plausibility. The scenarios were composed to encompass a wide range of risks, including a combination of market and insurance specific risks.

The **Yield Curve Up** scenario includes:

- A sudden significant increase in risk-free rate curves;
- Instantaneous market shocks to swap rates, government bonds, corporate bonds, Residential Mortgage Backed Securities, Equities, Stock prices, real-estate and other assets;
- A significant increase in lapse rates;
- An increase in claim provisions deficiency; and
- A significant increase in inflationary pressures.

The **Yield Curve Down** scenario includes:

- A prolonged low interest rate environment (via an instantaneous change of the relevant risk-free interest rate term structure, including an adjustment of the ultimate forward rate);
- Instantaneous market shocks to swap rates, government bonds, corporate bonds, Residential Mortgage Backed Securities, Equities, Stock prices, real-estate and other assets; and
- An increase in longevity.

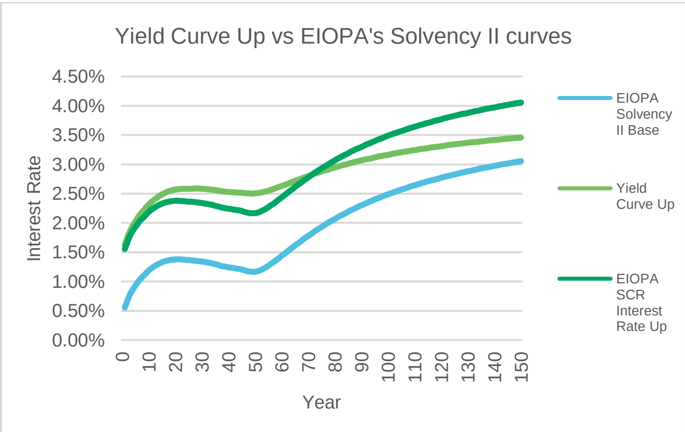
The **Natural Catastrophe** includes a series of natural catastrophes in a short time-frame:

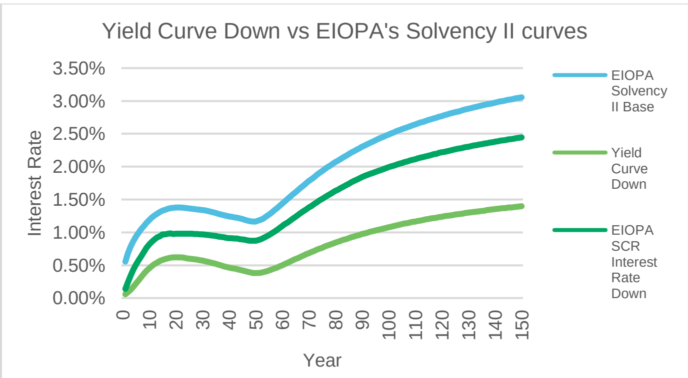
- 4 windstorms;
- 2 central and eastern European floods; and
- 2 Italian earthquakes.

The two charts below provide a comparison of the risk-free curves in the Yield Curve Up and Yield Curve Down scenarios to EIOPA's base risk-free curves used for the calculation of the Solvency II Technical Provisions, and the Interest Rate Up and Interest Rate Down curves used for the calculation of the Solvency II Solvency Capital Requirement ("**SCR**"). The curves shown are those for Pound Sterling, as at 31 December 2017, and do not include allowance for the Solvency II Volatility Adjustment.

To summarise:

- The Yield Curve Up curve is lower than the Solvency II SCR Interest Rate Up curve (i.e. a lower up stress than that required for the calculation of the SCR) until approximately the 75 year term, and higher after this point (i.e. a more onerous stress).
- The Yield Curve Down curve is lower than the SCR Interest Rate Down curve for the entire curve duration, implying a more onerous down stress than that required for the calculation of the SCR (i.e. less probable than a 1 in 200 event).





Methodology

The 2018 stress test exercise is a bottom up exercise and insurers must calculate the impact of the 3 scenarios on their group balance sheet, own funds and SCR (recalculation of the capital position was not required for the 2016 exercise). In addition, the participating groups are asked to explain the main drivers of the impact of the scenarios on their balance sheets and solvency position. The key points in respect of methodology are listed below:

- The reference date for the scenarios is 31 December 2017;
- The base scenario is the pre-stressed group position at the reference date, and must be aligned to the group's 2017 Solvency II reporting;
- The shocks in each scenario must be applied to the entire in-force business at the reference date and should be assumed to occur instantaneously and permanently;
- A static balance sheet should be assumed, not allowing for second order effects or future management actions (although firms may separately want to consider the management actions available in these scenarios);
- The prescribed stresses should be applied to the group's solo entities and aggregated accordingly;
- The look-through approach should be applied when calculating the impact of the scenarios; and
- Since the SCR recalculation is likely to involve significant operational and methodological challenges, proxy model simplifications are allowed.

Reporting templates

The reporting templates are based on the Solvency II QRT reporting templates and are grouped into four main sections:

- Baseline scenario (**Base**);
- Yield curve up scenario (**YCup**);
- Yield curve down scenario (**YCdown**); and
- Nat-Cat scenario (**Nat-Cat**).

The templates contain information to be used for analysis, such as balance sheet and capital position, as well as information to be used for validation purposes, such as cashflows at solo or model point level.

Individual disclosure

As one of the aims is to increase transparency, the information collected under the baseline and the stress scenarios will be partly individually disclosed, upon the consent of the participating groups, and partly reported at aggregated level. The individual disclosure will cover the impact of the scenarios on the group balance sheet, including the impacts on the Solvency II long-term guarantees measures such as the Volatility Adjustment, the Matching Adjustment and the Transitional Measures. This is a key change to EIOPA's previous stress test exercises, and we expect participating insurance groups to think carefully about this approach, particularly if the scenarios result in a breach of SCR, given that the public may interpret this to be a sign of weakness. The results of those participating groups which do not consent for the public disclosure of their results will be incorporated in the aggregated figures to the extent that they cannot be individually identified.

Timeline

The timeline for the 2018 insurance stress test exercise is as follows:

- **Mid-May – 3rd week of June 2018**: Q&A process (the deadline for questions to EIOPA was 14 June 2018).
- **Mid-August 2018**: Submission of results to NCAs on 16 August 2018.
- **Mid-August to end-October 2018**: Local and central quality assurance.
- **January 2019**: Publication of the 2018 stress test report.

Summary

EIOPA's 2018 insurance stress test exercise applies to the 42 largest European insurance groups and encompasses 3 stress scenarios which aim to reflect current market conditions. These scenarios combine both market and insurance specific risks, and EIOPA will request consent from the insurance groups to partly disclose the results of these at an individual level. The participating groups are expected to submit results of the stress scenarios to their NCAs on 16 August 2018, and EIOPA expects to publish the final report in January 2019.

Appendix A: Participating insurance groups

Company	Country
Vienna Insurance Group AG	Austria
Ageas SA/NV	Belgium
KBC Group NV	Belgium
PFA Holding A/S	Denmark
Danica Pension	Denmark
Sampo plc	Finland
AXA	France
CNP Assurances	France
Crédit Agricole Assurances	France
BNP Paribas Cardif	France
Sogecap	France
Covéa	France
Groupe des Assurances du Crédit Mutuel	France
Groupama S.A.	France
Natixis Assurances	France
Allianz SE	Germany
Munich Re	Germany
HDI V.a.G.	Germany
R+V Versicherung	Germany
HUK-COBURG Versicherungsgruppe	Germany
Assicurazioni Generali S.p.A	Italy
Intesa Sanpaolo Vita SpA	Italy
Poste Vita SpA	Italy
Unipol Gruppo Finanziario S.p.A	Italy
Aegon N.V	Netherlands
NN Group N.V.	Netherlands
Achmea BV	Netherlands
Storebrand ASA	Norway
Gjensidige Forsikring ASA	Norway
VidaCaixa, S.A.U de Seguros y Reaseguros	Spain
MAPFRE S.A.	Spain
Nordea Life Group	Sweden
Skandia	Sweden
Aviva plc	UK
Legal & General Group Plc	UK
Prudential plc	UK
Standard Life Aberdeen plc	UK
Scottish Widows/LBGI	UK
The Royal London Mutual Insurance Society Limited	UK
Phoenix Group Holdings	UK
ReAssure Limited	UK
RSA Insurance Group plc	UK

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