14 December 2018

2018 Insurance Stress Test
Frequently Asked Questions & Answers[1]

1. What is a stress test?

A stress test is an important risk management and supervisory tool used by financial institutions, micro-prudential and macro-prudential supervisors to explore vulnerabilities and to assess the resilience of financial institutions (e.g. banks, insurers) and the entire financial systems (e.g. the banking sector, the insurance sector) to severe but plausible shocks, such as sudden interest rate increase. Stress tests assess adverse outcomes under a variety of risks. They provide an indication of the impact and potential distresses in the capital and liquidity position of institutions against the materialization of these risks, and help to indicate areas where further supervisory actions are needed.

2. What are the objectives of this year's insurance stress test?

The objectives of the fourth EIOPA Insurance Stress Test are:

- **To assess vulnerabilities of the European insurance sector** to severe but plausible scenarios with potential negative implications for the European insurance sector and the real economy
- **To increase transparency by requesting the voluntary disclosure of a list of individual stress test indicators by the participating groups** to ensure a level playing field and to enhance market discipline

3. What is the market coverage of the participating groups included in the stress test?

The target sample is composed of 42 (re)insurance groups and results in a European Economic Area-wide market coverage of around 75% based on total consolidated assets.

4. Why does this stress test focus on these specific insurance groups and not on solo undertakings as in case of the previous stress test in 2016?

The participating groups in 2018 were selected primarily based on size, European-wide market coverage from a financial stability perspective, business lines (life and non-life business) and involvement of a sufficient number of local jurisdictions. In the selection, the local market coverage was taken into account in a second stage.
This year EIOPA - in coordination with the national competent authorities - addressed the biggest European insurance groups, covering all the insurance businesses impacted by the prescribed scenarios.

[1] Update of the version published on 14 May 2018

In 2014, the stress test addressed solo undertakings as well as insurance groups, while in 2016 it addressed only solo undertakings. In both cases, the aim of including solos was to allow investigating at country level vulnerabilities posed by the persistent low yield environment on the specific firms' carrying long-term business as the type of business most typically exposed to that risk.
Given the need for a less demanding and more focused exercise in 2016, due to circumstances such as the first year of Solvency II implementation and the need to continue investigating on the effects of the low yield environment on the most exposed market segment, the exercise addressed solo undertakings only.

5. Who selects the participants for EIOPA's stress tests?

EIOPA in coordination with the national competent authorities selected the 42 participants, which encompass the top 30 European Economic Area (re)insurance groups in terms of total consolidated assets plus 12 additional (re) insurance groups and considering their relevance for financial stability. The 12 additional (re)insurance groups were selected to ensure sufficient coverage of the insurance businesses and to extend the representation of group supervisors and jurisdictions.

6. What are the scenarios tested in this year's stress test?

The Insurance Stress Test 2018 comprises the following three scenarios:

- **A yield curve up shock** combined with lapse and provisions deficiency shocks**,** which means there is a sudden and sizeable repricing of risk premia and a significant increase in claims inflation.
- **A yield curve down shock** combined with longevity stress, which means there is a protracted period of extremely low interest rates accompanied by an increase in the life expectancy.
- **A series of natural catastrophes** where European countries are hit in a quick succession of four windstorms, two floods and two earthquakes.

7. What is the reference date for the Stress Test 2018?

31 December 2017.

8. How are the results of the stress test disclosed?

A report based on European Economic Area aggregated results will be published on the EIOPA website.
Furthermore, the participating groups were requested to provide their consent for the disclosure of a list of individual stress test indicators based on their post-stress balance sheet position. For the participating groups which have given consent to the individual disclosure, the information is published on the respective Group websites according to pre-defined templates and republished on EIOPA's website.

9. **Which results were the participating groups requested to disclose individually?**

The groups are requested to publish the impact of the scenarios on the Solvency II group balance sheet including the excess of assets over liabilities with the impact of the long-term guarantee (LTG) and transitional measures.

10. **Which results will be disclosed by EIOPA?**

EIOPA's stress test report will analyse and disclose results on an aggregated level. The report will elaborate on the impact of the prescribed shocks on the balance sheet and capital position of the participating groups with and without the application of Long-Term-Guarantee and transitional measures.
Furthermore, EIOPA will republish the individual results of those groups which have given consent.

11. **Will the disclosure of the stress test results at individual participant level be compulsory?**

For EIOPA increased transparency is key to ensure a level playing field and enhance market discipline among the stress test participating groups.
By its Regulation EIOPA is not empowered to request the disclosure of individual stress test results. Therefore, participating groups were asked for their consent to the publication of a list of individual stress test indicators.

12. **Which positive side effects are expected from the individual disclosure of the stress test results?**

One of EIOPA's core responsibilities is to support the transparency of markets. Therefore, increased transparency in disclosing the results is key to ensure a level playing field and enhance market discipline among the stress test participating groups. In addition to an overall better understanding of the resilience of different groups to adverse market developments, 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).

13. To what extent is the stress test based on the Solvency II harmonised reporting requirements?

The stress test templates reproduce to the extent possible the Solvency II regular templates used for the supervisory reporting purposes. The stress test templates and specifications explicitly identify the information additionally required for the purpose of the stress test. Information, which is required for the supervisory reporting purposes, is either simplified or not required for the stress test in order to simplify the exercise.

14. Why do the stress test technical specifications - with regard to the reconstruction of the balance sheets after the stresses – not exactly reproduce the Solvency II framework?

EIOPA's stress test is not a pass-or-fail exercise. Its focus is assessing vulnerabilities and the potential systemic impact of shocks to the financial and economic environment. As such, given the different focus, some scenarios may diverge from the regulatory framework for capital adequacy purposes but may be relevant for financial stability analysis purposes (e.g. different UFR).

15. How exactly did the European Systemic Risk Board (ESRB) contribute to the EIOPA Insurance Stress Test 2018?

EIOPA discussed with the ESRB potential stress scenarios for the insurance sector based on their risk outlook. As a result, the market component of the yield curve up and yield curve down scenarios were agreed – *see also question 6*. These market shocks have been calibrated using the European Central Bank's (ECB) financial shock simulator and consist of a set of prices' shocks for a large spectrum of assets triggered by simultaneous events.

16. Why does the EIOPA exercise test a scenario based on an upward in interest rates?

The risks of a sudden repricing of risk premia are highly discussed and identified as being key for the insurance undertakings. If interest rates were to return suddenly to higher levels, many insurance undertakings could be negatively impacted with a scissor's effect: market values of assets could be reduced and higher inflation may increase the long-term value of claims faster than expected which could potentially increase the value of the liabilities. In this regard, EIOPA needs to assess the potential outcome of such a scenario and the vulnerability of the participating insurance groups, should this risk materialize. Calibration of the different shock levels was performed in close cooperation with the ESRB.

17. Why does the EIOPA exercise test a scenario based on a downward of the yield curve?

The prolonged low-yield environment is still a major concern for the European insurance sector. This kind of scenario was already tested in the 2014 and 2016 EIOPA stress tests and it is still viewed as one of the major threat in the insurance industry. In 2018 EIOPA aims at assessing resilience of highly diversified groups against the prolonged period of low interest rates. Low-yields are damaging the profitability of some insurance undertakings and their ability to deliver certain level of guaranteed rates. All those concerns are well documented. Again, the calibration has been done in close cooperation with ESRB. A scenario-specific level of the Ultimate Forward Rate (UFR) has been set up to reinforce the consequences of such a scenario for the financial stability. However, the scenario does not pre-empt any changes in the regulation or the methodology to determine the UFR.

18. What is the rationale behind the natural catastrophe scenario chosen by EIOPA?

Climate change is identified as a potential cause of reinforcing frequency and severity of weather-driven catastrophes. The focus of this year's scenario is on the Europe and the different natural perils to which it is exposed, such as multiple catastrophes events for windstorm, earthquake and floods perils. The levels for those catastrophes have been calibrated on an historical basis and the aggregate insured losses across all the events are within the range that could be expected from natural perils across Europe in an extreme year. In addition to this narrative, general insurers may also suffer from exhaustion of their reinsurance treaties.

19. Why does the stress test require information on the impact of long-term guarantee (LTG) and transitional measures from participants?

Separate reporting of the impact of the LTG and transitional measures is key for assessing the economic impact of the stress scenarios. This separated information is also part of the regular annual reporting. It is especially relevant under the prescribed stress scenarios to correctly identify the sectoral vulnerabilities beyond the regulatory requirements. The use of the LTG measures has to be taken into account for the post-stress estimations provided that they have been already approved by national competent authorities and are used for the baseline (pre-stress) situation.

20. Does the stress test fully reproduce the Solvency II framework?

Participants are requested to compute their post-stress balance sheet position and to estimate their capital positions using the approved model they apply for the regular Solvency II reporting. Simplifications were allowed.

However, in line with the non-pass-fail nature and the technical framework (e.g. instantaneous shocks and fixed balance sheet) of the exercise some restrictions on the Transitional Measure on Technical Provisions were applied.

Furthermore, it is relevant to use a different assumption for the ultimate forward rate (UFR) in the Yield Curve down scenario in assessing potential vulnerabilities at the European level.

Consequently, the balance sheet after the scenarios and the reported capital position, which is important from a financial stability perspective, is not aimed at assessing the need for enforcing the strengthening of the capital position under Solvency II.

21. How are the reactions of the participating groups taken into account in the stress test? Are these reactions treated different from the regular Solvency II framework?

EIOPA stress market scenarios consist of instantaneous shocks to the regulatory balance sheet and related reported figures, such as the composition of assets and liabilities.

This instantaneous shock approach entails a few important assumptions, which need to be taken into account when interpreting the stress test results:

i. Stresses are applied to the asset and liability portfolios effectively held by participants at the reference date, i.e. on 31 December 2017. When calculating the instantaneous stress impacts, participating insurance groups cannot assume new insurance business or alter their post-stress asset structure. Future premiums on insurance business can be taken into account to the extent they fall within the Solvency II contract boundaries.
ii. EIOPA exercise is not a multi-period stress test exercise and, as such, does not include future rollover of the insurer's balance sheet.
iii. All future profits following the current asset and liability portfolios are taken into account when stressing the balance sheet as Solvency II values both assets and liabilities on a forward looking market-consistent basis. As the difference between the market value of the assets and the liabilities constitutes a material part of the own funds of the insurance undertakings, the actual impact of a particular stress scenario can - in this set-up - be better assessed by investigating the impact of the stresses on the assets, liabilities and own funds of the insurance groups.
iv. For the recalculation of the Solvency Capital Requirements (SCR) post-stress, not allowing future management actions in the 12 months projection is a common practice introduced in the context of the stress test for the sake of comparability (i.e. allowing extracting conclusions on comparable grounds). EIOPA acknowledges that the calibration of the standard formula or internal models might not fit such extreme situations as the ones assessed in the stress test. Therefore, this aspect should be acknowledged when interpreting the results.

22. What is the probability of the EIOPA scenarios?

In line with the communicated objectives of EIOPA's stress test, which aims at assessing vulnerabilities against severe but plausible circumstances rather than being a recapitalisation exercise, the probability of the scenarios is deemed less relevant and not disclosed.

23. Can the probability of the market scenarios be reliably estimated?

The probability of each market scenario is the joint probability of the encompassed shocks. EIOPA does not compute the probability of market scenarios (YCU and YCD) due to the significant shortcomings and the approximations required, which would affect the reliability of any estimation. The EIOPA market stress scenarios are the outcome of different simulations based on different sample of financial variables and selected triggering events. These selections as well as their probability levels have been chosen to reflect the main risks for the financial stability of the insurance sector and according to the general objective of the exercise as well as the methodology used. It should be noted that the probability of the triggering events (i.e. the originators of specific market distresses) does not necessarily coincide with the probability of the shocks to the other variables (i.e. those variables affected by the spill-overs of the triggers).

The joint probability of the triggering events cannot be considered as the probability of the scenario. Additionally to the market shocks, EIOPA includes some insurance specific shocks like the lapse or the provisions deficiency stresses in the yield curve up scenario or the longevity shock in the yield curve down scenario, for which a combined probability is not derived.

24. Is the severity of EIOPA market scenarios comparable to the stress scenarios used by the European Banking Authority (EBA)?

Further to the answer above, the severity of EIOPA's scenarios cannot be directly compared with the one of the EBA exercises, because the narrative is different and the shocks are differently applied. For example, while in the EBA methodology the total effects are cumulated over 3 years, according to the EIOPA methodology, the effects are immediate.

The current calibration takes into account the fact that shocks are applied as one-off shocks in the EIOPA methodology. Therefore, these shocks have to be more severe to compensate for the methodological differences. The sample used for the calibration and the percentile associated with the triggering event have been chosen to satisfy the higher severity.

25. Did EIOPA consult external stakeholders in the process of designing the Insurance Stress Test 2018? To what extent were suggestions taken into account?

Relevant stakeholders, representing the stress test participants and the actuarial profession, have been consulted during the preparation of the stress test specifications.

This time, given the complexity of the exercise, EIOPA engaged with the stakeholders at an earlier stage and more extensively compared to previous stress tests, with the special focus on key elements like the individual disclosure of results and the post-stress calculation of the capital position.

As an independent authority and to preserve the reliability of the exercise EIOPA does not discuss the severity of the scenarios or the level of the proposed shocks with the stakeholders but with the national competent authorities in cooperation with the ESRB.

Notwithstanding this fact, ahead of the launching the stress test exercise, EIOPA engaged in discussions with the stakeholders on the main components to ensure its feasibility and usefulness. EIOPA considered and took on board stakeholders' points, such as on the potential approaches for calculation of the balance sheet figures as well as the capital position post- stress, the complexity of the stress scenarios, the indicators and stress test results to be publicly disclosed, the granularity of the data request, the timeline and the technical specifications.

26. What are the key findings of 2018 Insurance Stress Test?

Overall, the exercise confirms the significant sensitivity to market shocks combined with shocks to other economic parameters relevant for the European insurance sector.

The insurance sector seems to be vulnerable not only to low yields combined with longer longevity expectations but also to a sudden and abrupt reversal of risk premia combined with an instantaneous shock to lapse rates and claims inflation.

Participating groups seem to be adequately capitalised to absorb unexpected adverse shocks, with a baseline aggregated Solvency Capital Requirement ration of 202.4 %.

Only a small impact was reported on the balance sheet and the solvency position from the Natural Catastrophe scenario. The most affected participants are reinsurers and those direct insurers largely involved in reinsurance activities.
This exercise marks an important step in the reassessment of capital requirements under adverse scenarios and provides a valuable basis for continuous dialogue
With the participating groups on the identified vulnerabilities and the preventive measures and potential management actions to address them, should they materialise.

27. What about the impact with or without transitional and long-term guarantee measures?
As expected the results confirm an important stabilising role of the long-term guarantee and transitional measures absorbing a substantial part of the impact on the Eligible Own Funds in stress situations.

28. How does EIOPA assess the impact on the Solvency position of the different scenarios?
As of year-end 2017, the participating groups seem to be adequately capitalised to absorb unexpected adverse shocks. There is a significant decrease in the Eligible Own Funds and a deterioration of their quality in the market scenarios (YCU and YCD) and less remarkable in the natural catastrophe scenario.
It is important to highlight that this exercise is the first occasion where participating groups had to report an approximation of the Solvency Capital Requirement (SCR) post-stress. The results of this reporting have to be taken with care and further work is needed – *see also answer to Question 33.*
Given the operational and methodological challenges related to the recalculation of the group Solvency Capital Requirements, participating groups were allowed to use approximations and simplifications as long as these lead to a fair reflection of the direction and magnitude of the impacts, i.e. not distorting inappropriately the interpretability and comparability of the results. The use of such approximations and simplifications was discussed with the respective group supervisors and EIOPA.
Furthermore, to ensure the required data quality an extensive data validation process has been applied.

29. Furthermore, EIOPA collected information from the insurance groups to assess cyber risk exposure.
Cyber risk is considered as a key emerging risk for insurers and financial stability.
Therefore information on cyber risk management and exposures to cyber risk was collected from the participating groups.
The feedback to the questionnaire will be thoroughly analysed by EIOPA in early 2019 to identify potential risks and vulnerabilities stemming from cyber risk at both micro- and macro-prudential level.

30. Based on the findings what are the next steps?
EIOPA will further analyse the results obtained in order to get a deeper understanding of the risks and vulnerabilities of the sector. Based on that, EIOPA in cooperation with

the National Competent Authorities will follow-up with the respective participating groups and issue recommendations where required.
This important step in the estimation of capital position under adverse scenario provides a valuable basis for follow-up dialogue with the participating groups on the identified vulnerabilities and the preventive measures and potential management actions to address them, should they materialise.
EIOPA will further enhance its approach to insurance stress testing, in particular with regards to the estimation of solvency capital requirements under adverse scenarios and potential second-round effects.

31. Did EIOPA achieve its goal of enhanced transparency in the disclosure of the results?
Indeed, EIOPA wanted step by step to increase the transparency in the disclosure of the stress test results. One of the objectives of this year's exercise was to enhance the transparency of the European insurance sector towards the market and policyholders by disclosing the results not only on an aggregated level but also on an individual group level. Conscious of the complexity of the calculation of the post-stress capital position - requested for the first time in a European-wide exercise - and given the simplifications allowed in its estimation, the request for individual disclosure was limited to the post-stress balance sheet position.
By its Regulation EIOPA is not empowered to request the disclosure of individual stress test results. Therefore, participating groups were asked for their consent to the publication of a list of individual stress test indicators – *see also question 11.*
To date, four of the 42 participating groups provided consent to the publication of the individual results.
EIOPA will continue its step-by-step approach to promote and achieve enhanced transparency in order to not only ensure market discipline but also equal treatment in the disclosure of stress test results of all financial sectors.

32. The next stress test is due in 2020, what scenarios does EIOPA envisage to test?

Looking forward for the coming stress test exercise, EIOPA will to look at the main risks from macro-economic but also from insurance specific perspective and include new risks that are on the horizon including environmental, social and governance risks.