

EIOPA Consultation Paper: Use of climate change risk scenarios in ORSA

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Introduction

We recently published a [COVID-19 ORSA risk guide](#) offering insights into how events like the pandemic could be considered within Own Risk and Solvency Assessment (ORSA) scenarios. This latest consultation from the European Insurance and Occupational Pensions Authority (EIOPA) builds on work started by the Bank of England (BoE), requiring firms to consider climate change risks in the Insurance Stress Test 2019¹ exercise and in the upcoming 2021 biennial exploratory scenario on financial risks from climate change.² In a forthcoming paper we will provide some guidance about how to include climate change within the ORSA, but in the meantime, this paper provides a brief summary of the EIOPA consultation.

Overview

On 5 October 2020, EIOPA published a Consultation Paper (CP) inviting stakeholders to provide their views on the draft Opinion on the supervision of the use of climate change risk scenarios in ORSA³ by 5 January 2021. This consultation is a follow-up to EIOPA's Opinion on Sustainability within Solvency II⁴ which recommended that (re)insurers consider climate risks beyond the one-year time horizon through their governance practices, risk-management system, and their ORSA.

The draft Opinion details how EIOPA expects national competent authorities (CAs) to supervise the integration of climate change risk scenarios by insurers in their ORSA, with the intention to enhance supervisory convergence across Europe. The approach used should be risk-based and proportionate. In particular, supervisors should require insurers to apply material climate change risks to a minimum of two long-term climate scenarios which are detailed in Section 3 of this paper. The draft Opinion also outlines some practical guidance on the selection and implementation of scenarios.

EIOPA expects to publish the final Opinion in the spring of 2021 along with a feedback statement on the consultation process. The Opinion is addressed to national CAs operating within the European Union and EIOPA will then begin to monitor the application of the Opinion by CAs two years after publication.

The main areas covered in the CP are:

- Integration of climate change risk in ORSA in the short and long term
- Materiality assessment of climate change risks
- Range of climate change risk scenarios
- Evolution of climate change risk analyses
- Supervisory reporting and consistent disclosure

We provide a summary of these key areas in this briefing note.

1. Integration of climate change risk in ORSA in the short and long term

Firms will be asked to take a broad view of climate change risk, classified as physical risk or transition risk. Physical risks can be acute or chronic with acute physical risks being those which arise from specific events such as fires, floods, or heatwaves and chronic physical risks being those arising from longer-term changes in climate such as temperature changes, rising sea levels, and biodiversity loss. Transition risks are those risks arising from the transition to a low-carbon and climate resilient economy. Drivers of climate change risk can be mapped to traditional risk categories such as underwriting risk, market risk, credit and counterparty risk, operational risk, reputational risk, and strategic risk. For example, the acute physical risk posed by the increased frequency of extreme weather events could be viewed as an underwriting risk as this would result in higher life, health, and property insurance claims. Likewise, advances in clean energy technology (an example of technological transition risk) could be viewed as a market risk since it can result in stranded assets of companies involved in oil and gas exploration and carbon-based power generation. A more detailed mapping is provided in Annexes 3 and 4 of the CP.

¹ See our publication on the 2019 IST here: <https://uk.milliman.com/en-GB/insight/life-insurance-stress-test-2019-what-does-it-mean-for-uk-life-insurers>

² BoE, 2021 Biennial Exploratory Scenario, December 2019: <https://www.bankofengland.co.uk/paper/2019/biennial-exploratory-scenario-climate-change-discussion-paper>

³ EIOPA, Draft Opinion on the supervision of the use of climate change risk scenarios in ORSA, October 2020: https://www.eiopa.europa.eu/content/consultation-draft-opinion-supervision-use-climate-change-risk-scenarios-orsa_en

⁴ EIOPA, Opinion on Sustainability within Solvency II, EIOPA-BoS-19/24, 30 September 2019: https://www.eiopa.europa.eu/sites/default/files/publications/opinions/2019-09-30_opinionsustainabilitywithinsolvencyii.pdf

Both transition and physical climate change risk should be assessed in the short term as both can arise over a relatively short horizon. The long-term risks of climate change should be assessed using scenario analysis to inform strategic planning and business planning. Time horizons longer than those currently used in the ORSA could be considered, e.g., an outlook over decades may be suitable.

In the years and decades ahead, climate change may provide strategic opportunities for insurers, but it could also pose significant challenges for their long-term risk profile and solvency. Physical risks, such as an increased number of extreme weather events and natural disasters, may raise demand for insurance coverage. However, increased costs or restrictive terms and conditions may constrain insurance business. This could put further pressure on business continuity and risk management by limiting the availability of reinsurance. Transition risk may put pressure on carbon-oriented investment strategies when assets become stranded as the economy shifts toward becoming green, or when value adjustments are made in anticipation of assets becoming stranded. This will render carbon-intensive sectors unviable while also creating opportunities for innovative insurance products targeted at emerging economic sectors.

2. Materiality assessment of climate change risks

In the Solvency II context, risks are deemed to be material where they could have an impact on the decision-making or judgement of an insurer's administrative, management or supervisory body and its relevant staff. Companies should identify the materiality of exposure to climate change risks by employing both quantitative and qualitative analyses.

A quantitative analysis could be used to assess the exposure of underwriting portfolios or assets to transition risk based on their carbon footprint and physical risk based on geographical location. A qualitative analysis could offer insight into the relevance of the main drivers of climate change risk in terms of traditional prudential risks (market, underwriting, operational, counterparty, reputational, and strategic risk).

A firm must provide an explanation if it concludes that climate change is not a material risk for its business.

⁵ NGFS, Climate scenarios for central banks and supervisors, June 2020: https://www.ngfs.net/sites/default/files/medias/documents/ngfs_climate_scenarios_final.pdf

⁶ TCFD, Technical Supplement – The Use of Scenario Analysis in Disclosure of Climate-Related Risks and Opportunities, June 2017: <https://www.fsb-tcdf.org/publications/final-technical-supplement/>

3. Range of climate change risk scenarios

A forward-looking and risk-based approach to the ORSA requires firms to consider a wide range of stress tests and outcomes. To allow management to adequately discuss and decide on actions to mitigate excessive risks, it is important to have a clear view of the risks to which the firm is exposed. In the case of climate change risk over long-term horizons, there will be a vast number of possible future outcomes that will be affected by external factors such as demographic and economic developments, government policy to curtail carbon emission, technological advancements, and public sentiment. Significant modelling uncertainty exists regarding the impact of these factors on future transition and physical risks.

Material climate change risks should be subject to at least two long-term climate scenarios:

1. A climate change risk scenario where the global temperature increase remains below 2° C, preferably no more than 1.5° C, in line with EU commitments
2. A climate change risk scenario where the global temperature increase exceeds 2° C

Firms should also define a reference scenario against which the above scenarios can be compared.

It is important that the scenarios analysed include a wide range of transition and physical risks so that the resilience of the firm's business strategies under varying developments of climate change risks over time can be adequately assessed. Firms may develop their own internal climate scenarios or build on existing ones to implement the long-term climate scenarios. There are several publicly available climate scenarios that contain mappings for transition and physical risks including a first set of climate scenarios released in June 2020 by the Network for Greening the Financial System⁵ (NGFS).

Annex 5 of the CP highlights the key challenges in developing and applying internal climate risk scenarios such as identification of a suitable range of climate change scenarios, modelling physical and transition risk at a sufficiently granular level, and the use of multi-period projections. Guidance documents on these issues are readily available from the Task Force on Climate-related Financial Disclosures⁶ (TCFD), the Financial Stability Institute (FSI) of the Bank for International Settlements⁷ (BIS), NGFS, and EIOPA.⁸

⁷ BIS, Turning up the heat – climate change assessment in the insurance sector, FSI Insights, No. 20, 6 November 2019: <https://www.bis.org/fsi/publ/insights20.pdf>

⁸ EIOPA, Second Discussion Paper on Methodological principles of insurance stress testing, EIOPA-BoS-20/341, 24 June 2020: https://www.eiopa.europa.eu/sites/default/files/publications/consultations/eiopa-bos-20-341_second-discussion_paper-methodological-principles-for-stress-testing.pdf

4. Evolution of climate change risk analyses

As firms gain more experience and modelling approaches advance, the scope, depth, and methodologies of scenario analyses of climate risk will likely evolve. Already there has been significant progress in recent years but there are still challenges in relation to the substantial modelling expertise and expert judgement required to translate carbon price pathways into transition impacts on assets or to translate temperature pathways into physical impacts.

Short-term climate change risk analysis will require a higher degree of precision to determine solvency needs and compliance with the SCR. Long-term scenario analysis can utilise more simplified approaches to perform the necessary multi-period scenario projections of the firm's balance sheet and income statement.

Firms will have to take the time to build capacity and gain experience in analysing the effect of climate change in the ORSA. This along with the abovementioned challenges will mean that firms must systematically improve the scope and sophistication of quantitative scenario analyses while taking account of ongoing developments in the field of climate change risk analysis.

5. Supervisory reporting and consistent disclosure

The analysis of short- and long-term climate change risks must be explained by firms in their ORSA supervisory report. This should include all material exposures to climate risks, the methods and assumptions used, the outcome of the scenario analyses, and conclusions drawn from the results.

The information on climate change risk that is presented in the ORSA supervisory report should be consistent with the firm's public disclosure under the non-financial reporting directive (NFRD).

Conclusion

This latest CP from EIOPA demonstrates the growing expectations of regulators and supervisors in relation to insurers' approaches to managing climate change risk. It is widely acknowledged that insurers have considerable work to do to enhance their ability to effectively analyse and manage their exposure to climate change risk. However, this CP should provide insurers both with further guidance and the opportunity to seek consultation on areas of uncertainty.

Milliman consultants have considerable experience helping firms to develop their risk management frameworks and enhance their scenario analysis capabilities. We are well-placed to benchmark firms' approaches against the rest of the industry and provide insight and advice that is tailored to your individual circumstances and needs.

We have helped numerous clients to introduce robust processes for identifying and assessing emerging risks, ranging from building up a narrative to the use of new analytical techniques and artificial intelligence.

If you have any questions or comments on this paper, on the subject of climate change, or on any other aspect of your risk management framework, please contact any of the consultants below or your usual Milliman consultant.



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