

# EIOPA Opinion:

## Use of climate change risk scenarios in ORSA

May 2021



The European Insurance and Occupational Pensions Authority (EIOPA) has published its opinion<sup>1</sup> on the supervision of the use of climate change risk scenarios in ORSA. This follows a consultation paper<sup>2</sup> that was issued on the 5<sup>th</sup> of October 2020. The consultation period ended on the 5<sup>th</sup> of January 2021. Below we have provided a summary of the EIOPA opinion.

### Overview

The opinion is addressed to national competent authorities<sup>3</sup> (CAs) operating within the European Union. EIOPA expects CAs to supervise the integration of climate change risk (sometimes referred to as climate-related risk) to the ORSA process by insurers, with the intention of enhancing supervisory convergence across Europe.

EIOPA will begin to monitor the application of the opinion by CAs two years after publication, from April 2023. Therefore, it is likely that European (re)insurers will come under pressure from CA's to integrate climate change risk into the ORSA process in 2021 and 2022.

In particular, under the opinion, supervisors should require insurers to identify material climate change risks to their business, and apply these to a minimum of two long-term climate scenarios. The opinion also outlines some practical guidance on the selection and implementation of scenarios.

The main areas covered in the opinion are:

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

The opinion is broadly consistent with the draft consultation paper. The main change is the addition of the section "Lower precision and frequency of long-term scenario analyses". In the remainder of this paper we first define climate change risk, and then provide a summary of each of the areas below.

### What are climate change risks?

Firms will be asked to take a broad view of climate change risk. Like any risk exposure, climate change risks can be split into risk sub-modules. Figure 1 includes a list of the different types of risks associated with climate change.

FIGURE 1: GLOSSARY OF CLIMATE RISK SUB-MODULES

RISK	DEFINITION
Physical risk	Physical risks are risks that arise from the physical effects of climate change. Physical risks can be divided into two further categories, acute and chronic. Acute physical risks are those which arise from particular events, especially weather-related events such as storms, floods, fires or heatwaves. Chronic physical risks are those which arise from longer-term shifts in climate patterns such as temperature changes, rising sea levels, and biodiversity loss.
Transition risk	Transition risks are those that arise from the transition to a low-carbon and climate resilient economy. This transition could result in large changes in value of certain assets or higher costs of doing business. Transition risks can be sub-divided into policy, legal, technology, market and reputation.

These climate change risks can be translated into traditional prudential risk categories: underwriting risk, market risk, credit and counterparty risk, operational risk, reputational risk and strategic risk. A more detailed mapping is provided in Annexes 3 (Non-Life) and 4 (Life including health) of the opinion.

We have included some examples in the table below of how climate change risks can be mapped to traditional prudential risks for Life Insurers.

<sup>1</sup> <https://www.eiopa.europa.eu/sites/default/files/publications/opinions/opinion-on-climate-change-risk-scenarios-in-orsa.pdf>

<sup>2</sup> [https://www.eiopa.europa.eu/sites/default/files/publications/consultations/eiopa-bos-20-561-cp\\_draft\\_opinion\\_climate\\_scenarios\\_in\\_orsa.pdf](https://www.eiopa.europa.eu/sites/default/files/publications/consultations/eiopa-bos-20-561-cp_draft_opinion_climate_scenarios_in_orsa.pdf)

<sup>3</sup> National supervisors

**FIGURE 2: EXAMPLES OF MAPPING OF CLIMATE RISKS TO LIFE PRUDENTIAL RISKS**

RISK	MAPPING
Physical risk Acute	<b>Underwriting risk:</b> Higher rates of morbidity and mortality due to a climate related rise in air pollution, leading to higher life and health insurance claims.
Physical risk Chronic	<b>Underwriting risk:</b> Chronic rise in temperatures and humidity are breeding grounds for vector-borne diseases, increasing the likelihood and severity of epidemics and pandemics causing higher life and health insurance claims.
Transition risk Policy	<b>Strategic risk:</b> Transition to a low-carbon economy reduces demand for life insurance products where the firm's customer base, or target market, is heavily exposed to conventional carbon-intensive industries. This could impact on future sales and / or withdrawals.
Transition risk Policy	<b>Market risk:</b> Transition to low-carbon economy results in higher spreads on government bonds from countries that are economically dependent on oil and gas exploration, coal mining or carbon intensive industries.

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

The opinion states that CAs should require firms to integrate climate change risks in their system of governance, risk-management system and ORSA. This means updating current risk management policies to consider climate change risk exposures.

There is strong evidence that climate change is already affecting the frequency, severity and distribution of extreme weather events and natural disasters. Both transition and physical risk should be assessed over the business planning period 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 strategy. Time horizons could be longer than those currently considered in ORSAs. In contrast to the usual expectation of short-term, mid-term and long-term time horizons in the ORSA, time horizons from a climate change perspective tend to be considerably longer:

- Current climate change: “up to today” records of the impact of climate change
- Short-term climate change: projected view of climate change for the next 5-10 years

- Mid-term climate change: projected view of climate change for the next 30 years (by mid-century)
- Long-term climate change: projected view of climate change for the next 80 years (by end of century)

## 2. Materiality assessment of climate change risks

CAs should expect firms to identify material climate change risks for their business. In the Solvency II context, risks are considered to be material where ignoring the risk could influence the decision-making or the judgement of an insurer's administrative, management or supervisory body and its relevant staff.

The materiality of exposures to climate change risk should be identified using a combination of qualitative and quantitative analyses.

CAs should expect undertakings which conclude that climate change is not a material risk to provide an explanation as to how that conclusion has been reached.

## 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. A clear view of the risks and uncertainties to which the firm is exposed allows management to discuss and decide on actions to mitigate excessive risks and anticipate future management actions contingent on certain future events unfolding.

CAs should expect firms to subject material climate change risks to at least two long-term climate scenarios, where appropriate:

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

The use of two scenarios would also allow undertakings to define a reference scenario against which the other scenario could be compared.

The aim of the scenario analysis is to assess and discuss the resilience and robustness of the firm's business strategies under different developments of climate change risks over time. Therefore, it is important that within the two scenarios, there is a sufficiently wide range of transition and physical risks considered, depending on the firm's exposure.

## 4. Lower precision and frequency of long-term scenario analysis

This section is a new section added to the opinion that was not included in the original consultation paper. This section states that CAs should expect that quantitative analyses of long-term climate change scenarios aim for a lower level of precision of balance sheet projections and are conducted at a lower frequency than short-term risk assessments in ORSA.

EIOPA recognises that making long-term, multi-period scenario projections of a firm's balance sheet and income statement, introduces challenges. As a result, the long-term scenario analysis can use more simplified approaches and assumptions compared to the short-term risk analysis.

Long-term climate scenarios with a wide range of physical and transition risks may also be less susceptible to short-term developments and as a result the opinion states that long-term climate scenarios may be updated less frequently (i.e. not annually), if properly justified by an absence of new material risk exposures.

## 5. Evolution of climate change risk analyses

As firms gain more experience and modelling approaches advance, CAs should expect the scope, depth and methodologies of climate change scenario analysis to evolve.

Although important progress has been made in recent years in the development of scenarios, methodologies and guidance, challenges remain in conducting scenario analysis of climate change risks. There will be a reliance on modelling expertise and expert judgement to estimate the impact of transition risks and physical risks.

Only a minority of firms have already started analysing the effects of climate changes risk in the ORSA, which means that firms will have to build adequate capacity and gain experience.

## 6. Supervisory reporting and consistent disclosure

CAs should expect firms to explain in the ORSA Report the analysis of short and long-term climate change risks, including:

- an overview of all material exposures to climate change risks, an explanation how the firm assessed the materiality and, where relevant, an explanation if the firm concluded that climate change risk is not material

- the methods and main assumptions used in the firm's risk assessment of material exposures, including the long-term scenario analysis
- the quantitative and qualitative outcomes of the scenario analyses and the conclusions drawn from the results.

The information on climate change risk that is presented in the ORSA Report should be consistent with the firm's public disclosure under the non-financial reporting directive (NFRD)<sup>4</sup>.

## Conclusion

The opinion is broadly consistent with the draft consultation paper, with the addition of some additional comments on the expectations for reduced precision and frequency of long-term scenario analysis. This is likely to be welcomed by firms, as long-term scenario analysis is considered to be one of the more complex areas of integrating climate change into risks assessments.

European re(insurers) can expect that CA's will begin engagement over 2021 and 2022 in relation to integrating climate change risk into the ORSA. This work will need to be carried out in advance of EIOPA beginning to monitor the application of the opinion from April 2023.

This latest opinion demonstrates the growing expectations of regulators in relation to insurers' approaches to managing climate change risk. The next steps for companies are to familiarise themselves on the requirements and begin to assess potential climate change risk exposures. Individual CA's may publish guidelines or specific requirements in some countries.

Companies that do not have a large climate change risk exposure will still need to carry out some qualitative, and possibly some quantitative analysis, to confirm that climate change risk exposure is not material.

Some insurers may have considerable work to do to enhance their ability to effectively analyse their exposure to climate change risk. Key challenges will be scenario analysis due to the high level of uncertainty, the long-term nature of climate change risk and the limitations around historical data.

<sup>4</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014L0095>

## Further Reading

We have produced a number of papers on this topic, including a detailed briefing note on the requirements set out in the consultation paper.

To read our first note from October 2020 when EIOPA released the draft consultation paper of this opinion, click [here](#).

For more guidance about how to include climate change within the ORSA, you can read our detailed paper [here](#).

For information on risk metrics to use for climate change risk monitoring, you can read out detailed paper [here](#).

To read our note on why regulators are talking about climate change and what Irish insurers can do about it, click [here](#).

## How Milliman can help?

Milliman can assist you with various aspects of your climate change risk management, including advice on:

- Assessing climate change risk exposure
- Incorporating climate change risk into your risk management system
- Climate change risk reporting and KRI's
- Incorporating climate change risk into your ORSA
- Best practice in relation to climate change risk financial disclosures
- Climate change risk modelling

For further information, please contact your usual Milliman consultant or those below.

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