

To: Solvency II WG
From: Prudential Team
cc:
Date: 21-03-2022
Reference: ECO-SLV-22-141

Subject: Summary of EIOPA yearly study on the modelling of market and credit risk in internal models

Comments

The secretariat has prepared a **high-level summary** of EIOPA's report "**YE2020 Comparative Study on Market and Credit Risk Modelling**" ([here](#)), which contains the results of EIOPA's yearly study on the modelling of market and credit risk **in internal models**. The report is part of an ongoing process of monitoring and comparing Internal Models (IM) for market and credit risk, it includes regular enhancements, and the **results are feeding into the Supervisory Review Process on IM**.

Summary

- Scope:
 - The study considers undertakings with a **significant exposure to assets denominated in EUR**, but it also looks into selected GBP, USD and foreign exchange rate indices.
 - 23 participants from 8 different Member States cover **close to 100% of the EUR investment** held by all **undertakings with an approved internal model covering market and credit risk**.
 - This report is based **on year-end 2020 data**.
 - EIOPA also notes that NSAs and stakeholders need tools, such as this comparative study, in order to be provided with an **overview of model calibrations**, although the results of this report will not be regarded as calibration targets.

- Goals of the study:
 - Ensure a consistent and regular collection of information to carry out **comparative studies on internal model outputs efficiently**, highlighting the causes of the presumed dispersion in the risk charges.
 - Have an up-to-date **overview of the modelling approaches**.
 - Further develop supervisory tools and foster **common supervisory practices**.

- Main findings:
 - For the **combined market and credit risk charges, some results show a sizeable variation between undertakings**, parts of the observed variations can be attributed to risk management preferences, but this also indicates a certain need for continuous supervisory scrutiny.
 - **Credit risk charges for sovereign bonds** across groups of modelling approaches show:
 - relatively **low dispersion** for DE, NL, AT, BE, FR
 - greater dispersion** for IE, PT, ES, IT.
 - For **credit risk charges for corporate bonds, the dispersion becomes higher for bonds with lower credit ratings** (substantial for BB-rated bonds).

- Regarding **equity risk**, undertakings show low dispersion in the risk charges for the major equity indices. However, risk charges applied to the **strategic equity participation show higher dispersion**.
- Risk charges applied to the five real estate investments vary to a larger extent compared to equity. However, model calibrations might be more focused on the risk profile of the actual portfolio than on publicly available indices.
- Participants were asked about the consideration of sustainability in their modelling approach. Of 23 participants in the study, only three explicitly use a taxonomy in their models.

- Follow-up and outlook from EIOPA/NCAs:
 - According to EIOPA, **the findings from this study highlighted the need for continuous supervisory scrutiny**, including at EU level. EIOPA will further develop supervisory tools and **foster the consistency of supervisory approaches**.
 - After each edition of this study, participating NCAs are provided with tailored feedback packages enabling them to **discuss with and challenge the participating undertakings**.
 - In some instances, the results also feed into the respective validation processes and exercises performed by undertakings, **which sometimes led to model changes**. It is also expected to occur in the future and EIOPA will follow up on NCAs' activities
 - Specific topics discussed and challenged by NCAs in this edition include the following:
 - Three participants reported particularly low levels of credit spread risk shocks on sovereign instruments, of which one has immaterial investments in euro-denominated govies, and the two other undertakings performed an ad-hoc liquidity analysis in Pillar II instead.
 - Three participants model only the pure credit spread risk, one of them extended the model scope to migration and default risk, the remaining ones have set up conservative margins to mitigate model deficiency.
 - Discussions have taken place to include certain data missing of single participants in the next study.
 - Interactions with the undertakings comprise aspects of data quality and improvements of the coverage of single submissions. **The undertakings** were additionally asked **to provide written feedback** on the results and their evaluation of these. Furthermore, the **NCAs' feedback** on the setup of the study itself and potential future improvements was collected.

- Next steps
 - EIOPA launched another year-end 2021 survey ([here](#)) on 14 January 2022, the results of which will be published in early 2023. **The next year-end 2021 study will follow as closely as possible, the scope and extent of the last data request.**