MILLIMAN BRIEFING NOTE

10 years of ORSA: Is it adding value to your business?

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Introduction

The Own Risk and Solvency Assessment (ORSA) has become an integral part of the insurance industry's landscape since the introduction of Solvency II eight years ago. Before Solvency II came into effect (re)insurers got familiar with the ORSA process through the Forward-Looking Assessment of Own Risk (FLAOR), which was introduced by the European Insurance and Occupational Pensions Authority (EIOPA) two years before Solvency II and served as a precursor to the ORSA. Therefore, 2024 will be the year that many (re)insurers run their ORSA process for the 10th time.

In recognition of this milestone, we ask the questions, is the ORSA delivering on its original aim to be “at the heart of Solvency II" and is the annual process adding value to Irish (re)insurers? If the ORSA process is “at the heart of Solvency II” we expect that (re)insurers derive meaningful output from the ORSA and gain valuable business insights from the process to enhance strategic decision-making.

This briefing note highlights areas of best practice that have emerged in recent years, as well as opportunities for improvement to increase the value-add from the annual ORSA process.

Best practice

Over the past 10 years, we have worked with many companies, supporting them at different stages of ORSA development. Our experience includes designing, integrating and reviewing ORSAs, as well as performing annual ORSAs for our ongoing clients. Over this period, ORSAs have evolved from best efforts to sophisticated processes and are now firmly embedded in (re)insurers’ risk management practices.

This section highlights some of the key areas of best practice that have emerged in the Irish market, based on our experience. They include the following:

- Providing challenge to the business plan
- Better scenario design and calibration
- Moving towards an annual process
- Use in strategic decision-making

It is important to note that the ORSA is not a one-size-fits-all process, and best practice should be evaluated based on the specific characteristics and circumstances of each company, including nature, scale and complexity.

PROVIDING CHALLENGE TO THE BUSINESS PLAN

When Solvency II was first introduced, companies’ strategic business plans (i.e., the ORSA base case) were generally taken as a given in the ORSA process, with limited discussion about the feasibility of the business plan or how it could be achieved. This discussion was generally held outside of the ORSA process. In recent years, best practice has emerged whereby review and challenge of the business plan is considered at the early stages of the ORSA process. This can include an appraisal of assumptions underlying the base case, in addition to how the company plans to achieve its financial and strategic goals—providing insights into implementation, actions and resources required. Under the Central Bank of Ireland’s (CBI) Domestic Actuarial Regime, the Head of Actuarial Function (HoAF) is required to opine on *“the appropriateness of the financial projections included in the ORSA”*—this is likely to have been the catalyst to increased discussion of the base case at board and committee meetings.

While the HoAF opinion may have been the catalyst, reviewing and challenging the base case as part of the ORSA process can help identify potential risk exposures to a company’s business plan and future strategy. This provides input to the ORSA scenarios and as a result some (re)insurers have started to consider ORSA scenarios focusing on risk exposures to the company’s business model and not just solvency position. Meaningful insights can be drawn from analysing the impact of risk exposures on projected revenue and sales targets, for example, instead of focusing purely on the solvency impact.

Mature risk functions have started to project other key metrics, such as dividend potential, profitability, liquidity and even operational impacts in the ORSA scenarios. This approach enhances the company’s resilience by allowing for the proactive identification and mitigation of strategic risks. This is an emerging area of best practice and something that adds significant value to the risk function, senior management and the board.

BETTER SCENARIO DESIGN AND CALIBRATION

Scenario analysis is a key feature of the ORSA. For the results to be meaningful, the scenarios need to be carefully considered to ensure that both the input and output remain relevant. Running the same scenarios year-on-year is no longer providing the right insights to key stakeholders and we have seen a general trend towards companies reviewing and recalibrating scenarios on an annual basis, including introducing new scenarios reflecting current hot topics.

Most companies review the narrative and calibration of ORSA scenarios each year based on the company's current risk profile, the operating environment and expectations regarding emerging risks. The events of the past few years have highlighted the importance of assessing emerging risks in the ORSA, following the COVID-19 pandemic, the rise of geopolitical tensions, inflation and changes to the interest rate environment. We have seen (re)insurers introduce new scenarios, both quantitative and qualitative, to measure exposures to emerging risks. Having a clear understanding of how an emerging risk might affect the company allows for better risk management and may also give rise to new opportunities.

It is also important to ensure that the board and Risk Committee are allocated sufficient time to discuss and consider the proposed scenarios. This should ultimately lead to a more appropriate set of scenarios in the ORSA. Best practice in this area is for companies to have a specific ORSA workshop on scenario calibration. This can include a review of current and emerging risk exposures in addition to key assumptions underlying the base case.

A key challenge when calibrating scenarios is in ensuring that sufficient detail has been given to key regulatory hot topics, such as climate change risk or digitalisation. We have found that these topics are best analysed and reviewed via targeted "deep dives" that focus on specific risk exposures and include detailed qualitative reviews of the exposures, current mitigants and proposals on how to manage and monitor the risks going forward. Quantitative scenario analysis may only be required in the case of material risk exposures. The "materiality assessment" approach used for climate change risk is a good example of how to carry out an initial qualitative assessment of a risk exposure. This can be replicated in the future for new and emerging risks.

Multivariate scenarios (where more than one variable is shocked) offer the most insight and are most valuable for companies. Multivariate scenarios are generally more aligned with real-world developments and can provide excellent insight into developing risk exposures and mitigating actions when combined with management actions. This allows (re)insurers to better gauge the impact of any corrective actions and it also has an overlap with recovery planning in the case of extremely adverse scenarios. In addition, multivariate scenarios allow for companies to take more holistic approaches to scenario design, as they can be used to understand the potential impact of a number of risk events occurring at the same time.

Many insurers focus in-depth analysis in the ORSA on a small number of multivariate scenarios (circa three to five multivariate scenarios each year) updated to reflect the current operating environment and the expected risk exposure over the business planning period. Focusing on a smaller number of scenarios can lead to a more comprehensive understanding of key risk exposures, rather than spending additional time and resources analysing a larger number of scenarios that capture similar, or less relevant, risks. This provides a more robust and reliable basis for decision-making. Less material risk exposures can be assessed via sensitivity tests or high-level scenario analysis. In the past, single factor stress tests would have been a key part of the ORSA. But we have seen many of the larger insurers reduce the focus on single stress tests, as the risks are generally well understood—this is one of the key successes of the ORSA process.

Reverse stress tests are also important, particularly when considering new and emerging risk. For reverse stress tests, instead of considering what could go wrong, analysts consider how bad things need to get to materially impact the company. This can be particularly useful when there is a lot of uncertainty. Most Irish insurers focus on solvency coverage in reverse stress tests, but focusing on impacts on the income statement or sales targets can provide valuable strategic insights.

In addition to scenario design, being able to articulate the probability of specific scenarios occurring is becoming increasingly important. Some risk teams benchmark this against the standard formula and can define the probability of occurrence in terms of a 1-in-x-year event—this works better for more severe scenarios. As risk exposures become more interlinked and complex, being able to articulate the probability of occurrence will become increasingly important.

MOVING TOWARDS AN ANNUAL PROCESS

The ORSA process works best when it is a continuous process, run over a number of months. Most (re)insurers split the process into a number of key touchpoints via board or committee meetings and/or ORSA workshops, over a three- to six-month period on average. For example, the process might include touchpoints such as:

- Discussion of the base case, including challenge to the business plan, key assumptions and uncertainties.
- Workshops to discuss key risks and potential ORSA scenarios, including consideration of various modelling approaches and scenario calibration.
- Deep dives into key risks or themes, including regulatory "hot topics" at Risk Committee meetings that form part of the overall ORSA process.
- Presenting key components of the ORSA, including the assessment of overall solvency needs, assessment of standard formula appropriateness and assessment of continuous compliance at different meetings.
- Embedding the review of other elements of the risk management system into the ORSA process, where appropriate, such as the recovery plan or capital management plan.
- Presenting an executive summary on the key ORSA findings and overall solvency needs assessment at the end of the ORSA process.
- Providing updates on ongoing ORSA actions throughout the year, including updates on actions where relevant.

Engaging with the board and senior management at key touchpoints results in the ORSA being presented in digestible segments, which allows for better consideration, understanding, challenge and discussion. It also allows companies to be more reactive or dynamic in the ORSA process to reflect new and emerging developments, either in terms of risk exposures or new opportunities for the company.

USE IN DECISION-MAKING

A key use test of the ORSA process is whether or not it is used in decision-making across the organisation. Based on our experience, it is clear that the ORSA is embedded as a key tool in decision-making across the risk control cycle. However, it is not fully clear whether the ORSA is fully integrated in strategic decision-making. This is partly due to the fact that the primary focus of the ORSA tends to be on risk exposures that could threaten the company's solvency, rather than on opportunities.

For the risk control cycle, the ORSA is integral to identifying, measuring, monitoring and reporting on risk exposures. As it's an iterative, annual process, it is supplementary to the risk control cycle. Over the past 10 years, most companies have increased monitoring of a specific risk exposure or investigated risk mitigation techniques as a result of the ORSA process. Many companies have entered into reinsurance arrangements or implemented other capital management techniques as a result of the ORSA process. This highlights the direct use of the ORSA in the decision-making process with regard to risk exposures.

However, fewer companies have made strategic decisions as a direct result of the ORSA process. Of course, expected dividend payments are generally modelled as part of the ORSA, but how many companies can say that they launched a new product or entered a new territory as a direct result of the ORSA process? The ORSA tends to be used as an input to decision-making, rather than as a driver for key strategic decisions.

While the link between decision-making within the risk management framework is clear, the link between the ORSA and the wider strategic decision-making is not always evident. This is likely to evolve in the future if companies start to consider more strategic risk exposures in the ORSA process and try to get as much value-add as possible from the ORSA.

Areas for further improvement

The following section highlights areas for further improvement. Some of these areas are consistent with the feedback given by the CBI as part of its thematic review of the ORSA in 2021.[1] In addition to strategic decision-making, which we have noted above, the key areas for improvement identified are as follows:

- Modelling efficiency
- Back-testing
- Operational risk
- Communication and reporting

MODELLING EFFICIENCY

Since the ORSA was introduced, European (re)insurers have significantly improved their stress and scenario testing capabilities. Continued advancement in technology is allowing (re)insurers to produce output quicker and with greater flexibility. This has enabled (re)insurers to run more complex and multivariate scenarios in their ORSAs over time.

[1] CBI (December 2021). Insurance Newsletter. Retrieved 11 April 2024 from https://www.centralbank.ie/docs/default-source/regulation/industry-market-sectors/insurance-reinsurance/solvency-ii/communications/insurance-quarterly-news/the-insurance-quarterly-december-2021.pdf.

However, many Irish insurers are still using dated modelling techniques to run financial projections and ORSA scenarios. The original models developed when Solvency II was introduced are still used by some (re)insurers. These models tend to be primarily spreadsheet-based, using combined inputs from various models. In some cases they are run by different teams across an organisation (e.g., finance, risk and actuarial). For some insurers the models are adapted from financial statement profit and loss (P&L) projection models, with Solvency II layered on top. It may take a lot of time and resources to update and run the scenarios, resulting in the ORSA process being a drain on limited actuarial and finance capabilities. The demand for quicker, more streamlined dynamic ORSA models has become an increased area of focus for some of our clients.

The use of simplifications has also increased over time as business models have evolved over the past 10 years, for example due to changes in the asset allocation, risk mitigation techniques or product design. The use of simplifications needs to be reviewed periodically to ensure that they are still appropriate for the current economic environment, and also that they produce reliable output in stressed scenarios. While simplifications are generally introduced to save time, they can reduce modelling efficiency over the medium term as the operating environment changes.

There are two main ways to improve modelling efficiency:

a) Redesign the ORSA modelling process.
b) Create a simplified ORSA model (proxy model) to perform a range of shocks.

Redesigning the ORSA process to make it more streamlined can be a large undertaking involving significant resources, depending on the level of complexity of the business model and the current ORSA model. In some cases, it may be better to build a new model using modern modelling tools and techniques. Whichever approach is taken, it is likely to be a case of high effort/high reward, as improved modelled capability is likely to have significant benefits across the company, both from an ORSA and a business planning perspective.

Another solution is to develop a simplified ORSA model (i.e., a proxy model). The main advantage of the simplified model is the ease of setup and run (post-development) and the almost instantaneous calculation time. The resources involved to develop such a model will depend on the company's business model, data availability and the choice of modelling techniques. A simplified model should allow results to be updated regularly, providing the board with almost real-time information. It also allows the company to be highly reactive based on the emergence of new information and risk exposures.
The trade-off with the simplified model is that some of the precision is sacrificed.

We are entering an age of increased uncertainty, with advances in technology and digitalisation and uncertainty associated with climate change and geopolitical risks, amongst other things. Risk exposures are more connected than before, and traditional modelling techniques are not capable of accurately modelling these risk exposures. Having a robust model to quickly understand the impact of emerging risks and feed it into strategic decision-making will be a powerful tool for navigating the insurance industry of the future. It may need to be coupled with a deeper understanding of the risk drivers underlying risk exposures and how they evolve and adapt over time. Many legacy models have not been updated because of lack of time and resources within actuarial departments—as the link between scenario analysis and strategic business decisions grows, we expect that the more successful companies will be the ones that invested in their modelling capabilities.

BACK-TESTING

Following its thematic review of the ORSA in 2021, the CBI noted that "few undertakings reflect on the reliability of past projections with no evidence of or commentary on an analysis of the actual versus expected" than solvency coverage. In light of this, the CBI undertook a review to back-test the actual Solvency Capital Requirement (SCR) and Own Funds versus the base case projected in previous ORSAs for a sample of companies. The CBI found that undertakings had a tendency to overestimate the future SCR and underestimate future Own Funds. It noted that this may be due to companies overestimating business volumes and underestimating profitability margins, which may be more prudent (from a capital planning perspective).

Our experience is consistent with the CBI findings. We have seen very few (re)insurers back-test the actual results compared to previous ORSAs. This can be difficult to do, as the reasons for differences in the actual balance sheet and SCR results compared to projections are nuanced and varied. However, a reconciliation of the figures is perhaps less important than taking a step back and learning from past events to adapt for the future. The COVID-19 pandemic is a good example of this. Before 2020, most insurers' pandemic scenarios were not calibrated to reflect the operational impacts of COVID 19, including distribution challenges resulting in poorer sales or the impacts of working from home. Now, most pandemic scenarios have been updated to reflect what happened during the 2020-2022 period. However, a future pandemic may be more severe than COVID-19 and could play out very differently. Therefore, it is important that (re)insurers adapt their calibrations to reflect future expectations and not just past experience. This applies to all risks, not just pandemic risk.

When risk events occur that were not anticipated in the ORSA, it is useful to understand whether there are any gaps in the ORSA or risk management processes that need to be updated to avoid this reoccurring. This is the sort of analysis that provides real value-add from a back-testing exercise, rather than a detailed financial reconciliation.

However, it is important to note that, if there are concerns about the accuracy of the ORSA model, if it is producing materially different projections year-on-year compared to actual results, then a more detailed model review or financial reconciliation may be necessary. Particularly where proxy models are being used for ORSA projections, a proper analysis of actual versus expected should be carried out regularly to ensure the model remains appropriate. The same could be said for more sophisticated models that allow for some approximations and simplifications.

OPERATIONAL RISKS

Operational risks remain difficult to model under ORSA scenarios, as they are inherently difficult to quantify based on their diverse and often unpredictable nature. Many companies consider a balance sheet shock—including a combination of a large expense cost, a reduction in new sales and a reduction in retention—to reflect an operational event that results in some financial loss and reputational damage. This isn't very meaningful for most companies, but it can provide some comfort regarding the company's ability to withstand such a shock from a solvency perspective.

The Loss Distribution Approach based on past events is sometimes used to predict future losses. However, it can be naïve to rely on past data given the evolving nature of operational risks, particularly increased cyber risk threats. Qualitative analysis can generally provide more useful insight, where operational risk scenarios are "war-gamed" to better understand whether there are any material gaps in controls and their impacts on business operations, including the timeline involved in rectifying operational incidents.

Emerging best practice globally is for companies to develop more detailed models to understand the behavioural aspects of operational events. This not only provides more insight into the financial loss, but also into the causes of operational events. When considering new risks or risk drivers, like climate and cyber, it is very hard to learn much of use from purely statistical models. It is understood that the drivers of these risks adapt and evolve over time, making past data increasingly unreliable. Using causal modelling approaches enables the model to include your understanding of those evolving factors and identify a stronger sense of which combinations of events could lead to particular outcomes. For fast-moving risks like geopolitical events and cyber it is important to be able to spot the onset of risks as quickly as possible, so that you have time to act. The increasing complexity and interconnectedness of the world makes this ability to anticipate and react increasingly important, as tipping points can happen extremely quickly.

COMMUNICATION AND REPORTING

Since the introduction of Solvency II, board packs have increased significantly in size, and the ORSA report is no exception. It can be a challenge to ensure a sufficient level of detail is provided in the ORSA report from a board, senior management and regulatory perspective, while at the same time maintaining focus on the key risks and balancing the desire for more streamlined reporting.

While it may not be always possible to strike the correct balance, we have seen areas of best practice emerge from a reporting perspective:

- Many companies have switched the ORSA report from a more traditional word document to a slide deck format to enhance readability. Companies using a slide deck format typically use more charts and tables, making it easier for stakeholders to understand the output.
- Some insurers present different sections of the ORSA at various workshops and meetings throughout the year. As noted above, this results in the ORSA being presented in shorter and more digestible sections, rather than presenting the full report in one meeting. This also allows a greater degree of communication and challenge throughout the ORSA process.
- Some (re)insurers have moved to including less important information in supplementary appendices, with the main body of the ORSA report only focusing on the most critical information. This approach ensures that the key insights are readily accessible to the board while providing additional detail in the appendices for other stakeholders.
- Many insurers include an executive summary, or Chief Risk Officer (CRO) insights section, setting out the key findings from the ORSA process and any decisions or actions following the ORSA process.

Communication and reporting remain a challenge for all companies, big and small. Our experience is that companies are adapting the communication and reporting approach to best suit stakeholder needs and that there is not a one-size-fits-all approach for the ORSA report.

How to know if your ORSA is adding sufficient value

Finally, as is often the case, it can be difficult to take a step back and assess whether the annual ORSA process is adding sufficient value to your business. Some points to consider include:

- **Use in decision-making:** This is a very simple one to consider. What are the key actions or decisions that have come as a direct output from recent ORSAs? If the ORSA is not resulting in actions or decisions, then it is likely that the process has become somewhat stale, and it is no longer adding value to the company. This will be a real concern if a lot of time and resources are being assigned to the annual ORSA process.
- **Views of Independent Non-Executive Directors (INEDs):** INEDs will typically have insights into how other insurers run their ORSA processes. They will be able to provide thoughts on new and emerging risks to consider, types of scenarios to run and what works well in the processes of other companies, from reporting to embedding the ORSA in decision-making.
- **Internal audit:** Many internal audit departments will review the ORSA process. However, the scope of internal audit is focused on compliance with the requirements under Solvency II. A compliance review is useful to ensure there are no gaps in the ORSA process, but it will not capture areas where the ORSA could add more value to key stakeholders.
- **Regulatory feedback**: The CBI reviews ORSAs from a regulatory perspective and typically provides informal feedback to companies where there are areas that could be strengthened or new risks that should be considered.
- **Independent review:** Independent review is something to consider to ensure that the ORSA remains in line with regulatory expectations and industry standards and that it is adding value and insights to key stakeholders. Some (re)insurers will be able to rely on support from within their groups to review the ORSA. Otherwise, independent review could be provided by an independent consultancy. We have provided independent ORSA reviews to a number of (re)insurers in the Irish market in the past. Independent review can provide detail on areas for improvement, in addition to reassurance that the current process is fit for purpose.

Conclusion

The ORSA has significantly changed the risk management environment of European (re)insurers and it is “at the heart” of Solvency II for many (re)insurers in the Irish market, based on our experience. Since its introduction 10 years ago, the process has evolved to become more sophisticated and tailored at entity levels. There are still areas for improvement, and we look forward to seeing what the ORSA process looks like in 2034. No doubt, it will continue to evolve and develop over the next 10 years with further advances in technology and increased maturity of risk management systems.

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