



2015

ORSA OUTLOOK

Deloitte.



Table of contents

Introduction.....	1
ORSA within the business	2
Industry’s view of its ORSA preparedness.....	4
Maturity state of ORSA.....	6
Internal models and risk assessment.....	8
Cost of ORSA.....	12
Objective review and quality ORSA practices.....	14
ORSA outlook.....	16
ORSA enhancement considerations.....	17

Introduction

Own Risk and Solvency Assessment (ORSA)

ORSA is an ongoing internal process whereby an insurer assesses the adequacy of its enterprise risk management (ERM) framework and the capital it is required to hold for its risks to remain solvent under normal and severe stress scenarios.

Canadian insurers recently completed their first management report covering their ORSA, as required by the Office of the Superintendent of Financial Institutions (OSFI). OSFI's E-19 ORSA Guideline came into effect on January 1, 2014 and we suspect that the industry's ORSA implementation activities were likely much smoother for some than others, depending upon the robustness of their existing Enterprise Risk Management (ERM) and capital management practices.

The ORSA report, required by OSFI to have been prepared by all federally regulated insurers by December 31, 2014, is documentation capturing and messaging the insurer's processes to self-assess its risks and the management, mitigation and governance of those risks. It also documents the capital processes to determine the regulatory required own internal capital levels to be held in respect of the insurer's self-assessed risks. The production of the first ORSA reports should have involved extracting, collating and summarizing existing process information of ERM and internal capital target determinations. This management report ought to message the insurer's ORSA practices to allow management and the Board to review, assess and challenge the adequacy of the organization's ORSA practices and its own internal capital target levels. The management report could also be used by OSFI in its supervisory assessment of the insurer.

While OSFI issued its ORSA and Regulatory Capital and Internal Capital Targets Guidelines to be effective from January 1, 2014, it does recognize that the industry would need a few years during which to achieve full compliance with these guidelines¹. As the industry heads into the second year under ORSA, insurers should continue to evolve and embed their ORSA-aligned processes and practices into their "business as usual" activities.

ORSA should be a dynamic process that is frequently reviewed to keep it relevant and suitable to inform decision-making.

To learn how Canadian insurers found their first year under ORSA, Deloitte conducted a survey in late 2014. A number of industry insights have been drawn from the survey responses and are discussed in this 2015 ORSA Outlook, which highlights Deloitte's view of the insurance industry's way forward to achieving alignment with the ORSA principles encapsulated in the OSFI ORSA Guideline, as well as how ORSA can deliver tangible business benefits.

Deloitte Year One into ORSA Survey:

24 P&C and 17 Life insurers in Canada, constituting 53% of P&C net written premiums and 81% of Life net written premiums, responded to Deloitte's survey of 38 questions covering a number of key ORSA themes. Insights from some of the responses are included in this 2015 ORSA Outlook. The full survey results are available upon request from ehultz@deloitte.ca.



ORSA within the business

ORSA principles require risk-taking by insurers to be inextricably linked to capital. It's a forward-looking process whereby insurers set aside capital to support current and future strategic plans over their respective planning horizons. In this regard, insurers need to establish internal capital targets to cover both short term and longer term business goals, such as allowing for change in capital needs over time as risk profiles change in response to anticipated growth or acquisition / disinvestment. These internal capital targets should inform and be consistent with the insurer's own risk appetite, risk limits and tolerances. In this way, ORSA practices become integral to the decision-making process at all levels of the organization. Ultimately, a robust ORSA process, incorporating feedback into business activities, operations and planning, helps an insurer make optimal risk-based decisions.

To aid the business decision-making process, capital should be allocated at more granular levels. Insurers with fully calibrated stochastic models can use an approach based on simulated outcomes, (for example, calculating tail variance at an appropriate percentile). Insurers using a deterministic approach can still achieve some form of capital allocation at granular levels, using approximate methods to determine the risk inherent in each product or business line. The process should be forward looking, so insurers with lines of business in run-off or those with growing lines of business need to ensure they have adequate amounts of capital allotted to these areas to avoid potential future capital shortfalls.

With allocation of capital at more detailed levels, insurers are able to calculate return on capital to assess the risk-adjusted return and underwriting performance of lines of business. While it can be said that there may be

an element of luck involved in how well an insurance portfolio performs, (for example, a higher frequency of claim-triggering events or catastrophes occurring than would typically be anticipated), a portfolio that consistently under or over performs on a risk-adjusted basis should trigger closer scrutiny and management action.

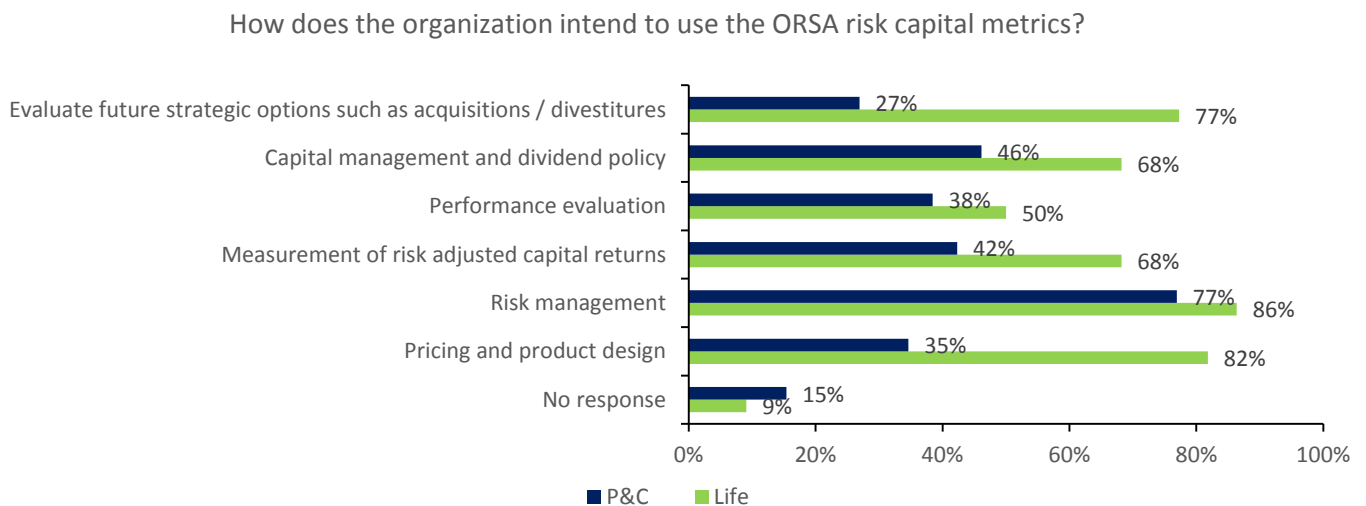
Notional allocation of capital to lines of business can also aid pricing decisions by ensuring that pricing assumptions include suitable returns on capital relative to the riskiness associated with the product. In addition, capital allocations can be used to enhance risk-based decision-making when assessing which lines of business to expand, enter or exit, or when assessing which exposures to reduce and risks to cede.

In Deloitte's survey, many insurers reported an intention to use ORSA capital metrics more widely than within the context of risk management, as reflected in Diagram 1. We note in Diagram 1 that the Life insurance industry appears to be ahead of P&C insurers in their assessment of their use of these metrics. This may partly be attributable to Life insurance liabilities being longer term, with Life insurers typically having spent more time addressing asset liability management and therefore perhaps being better prepared to manage this particular risk. Life insurers using a percentage of the Minimum Continuing Capital and Surplus Requirements (MCCSR) as a common pricing practice could also have contributed to this response result. Furthermore, Life insurers have been determining regulatory capital levels by risk category for far longer than has been required of the P&C insurance industry.

Only 50% of Life and 38% of P&C insurers use the ORSA risk-based capital metrics in performance evaluation. More of the industry should be doing this to assist in aligning required behaviours across the organization.

With implementing processes to achieve business-as-usual ORSA practices, management faces the challenge of changing behaviours within the business. One example could be changing the way incentives are structured so as to encourage performance to align with ORSA expectations and business practices. Moving to this mode of operating requires a significant cultural shift throughout the organization, and to be successful it needs to be led from the top.

Diagram 1: Intended use of ORSA capital metrics



Focus on cultural change, not just figures.

“It is not just about capital. It is a change of behaviour. This is the most difficult part of the model. It is much easier to develop the complex mathematical part than to change the way of thinking of various levels of people in an insurance organization.” Thomas Steffen, chairman of the CEIOPS²



Industry's view of its ORSA preparedness

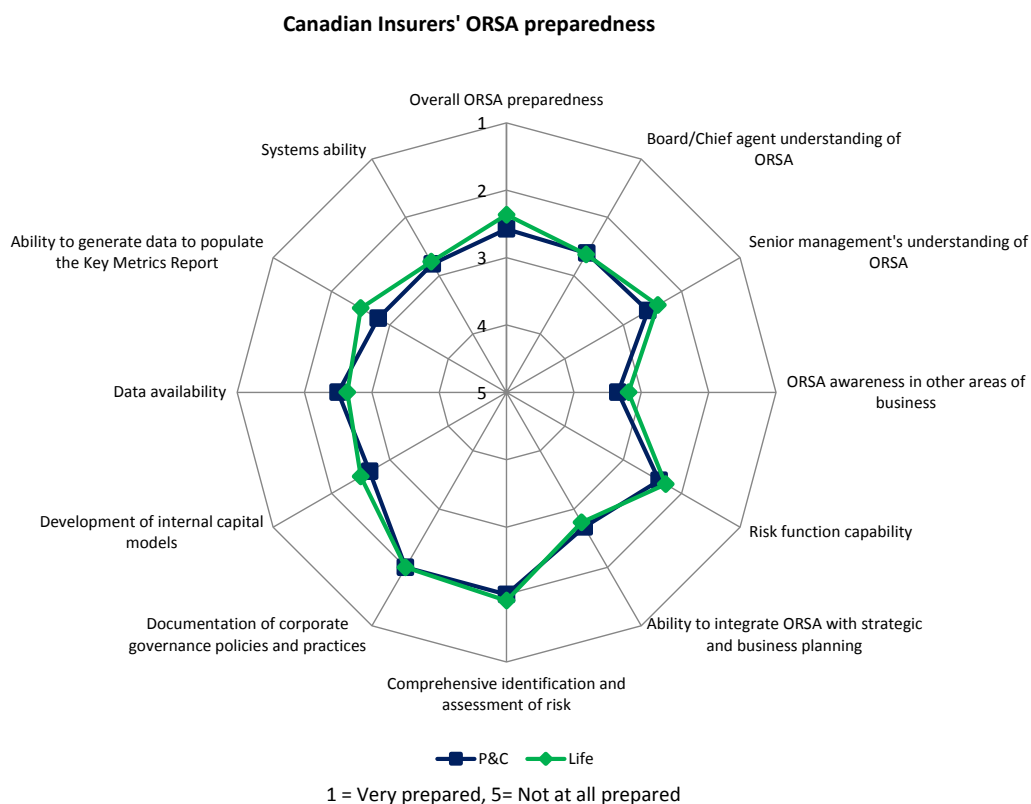
A year after OSFI released its ORSA Guideline, insurers' responses to Deloitte's survey reveal that all insurers need to enhance and further develop aspects of their ORSA practices. The industry's self-assessment is illustrated in Diagram 2, which shows Life insurers assessing their ORSA preparedness higher than the P&C insurers rated their own preparedness.

Most insurers felt they had a high degree of preparedness in the areas of comprehensive identification and assessment of risk and documentation of corporate governance policies. This was expected, given existing regulatory and standards of actuarial practice requirements for Corporate Governance, Dynamic Capital

Adequacy Testing (DCAT) and Stress Testing, which have been in effect since January 2013, January 2003 and December 2009 respectively.

Insurers appear to be least prepared in embedding their ORSA activities into business-as-usual practices. They assessed their ability to integrate ORSA with strategic and business planning, and ORSA awareness and involvement in other business areas (outside of the risk function) as being the least prepared.

Diagram 2: Canadian Insurers' ORSA Preparedness





Insurers appear to be least prepared in embedding their ORSA activities into “business as usual” practices and in communicating ORSA outside of the risk management and actuarial functions

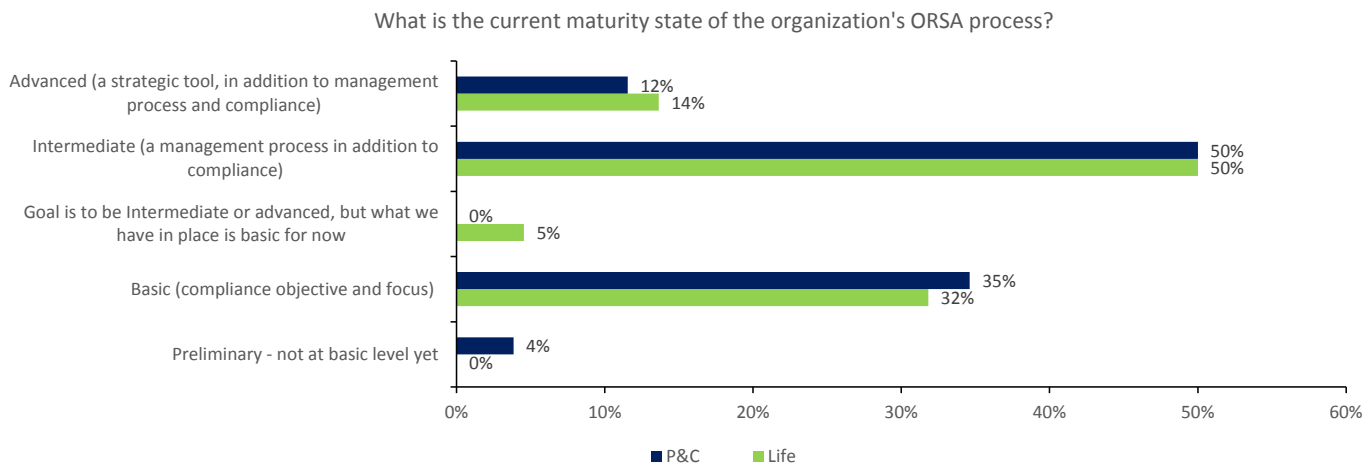


Maturity state of ORSA

The Deloitte survey measured the maturity state of an insurer's ORSA practices by the extent to which Canadian insurers have aligned their practices with OSFI's ORSA principles. These maturity assessments highlight some of the areas insurers are to consider in 2015 and beyond - not only to achieve alignment with the OSFI ORSA principles, but ultimately, to glean the benefits from ORSA.

As shown in Diagram 3, the industry's assessment of its ORSA maturity state reveals over one third of survey respondents reported a "basic" ORSA process. Only 12% of P&C insurers and 14% of Life insurers reported using ORSA as a strategic tool, which is considered an "advanced" ORSA state. The P&C industry's self-assessment is at odds with its responses regarding its use of capital metrics and its overall ORSA preparedness, as revealed in Diagrams 1 and 2. This suggests the P&C industry may need to gain further understanding of ORSA maturity states, or perhaps the Life insurers have been conservative in their self-assessments, producing the overall preparedness and ORSA maturity state results of the two insurance sectors.

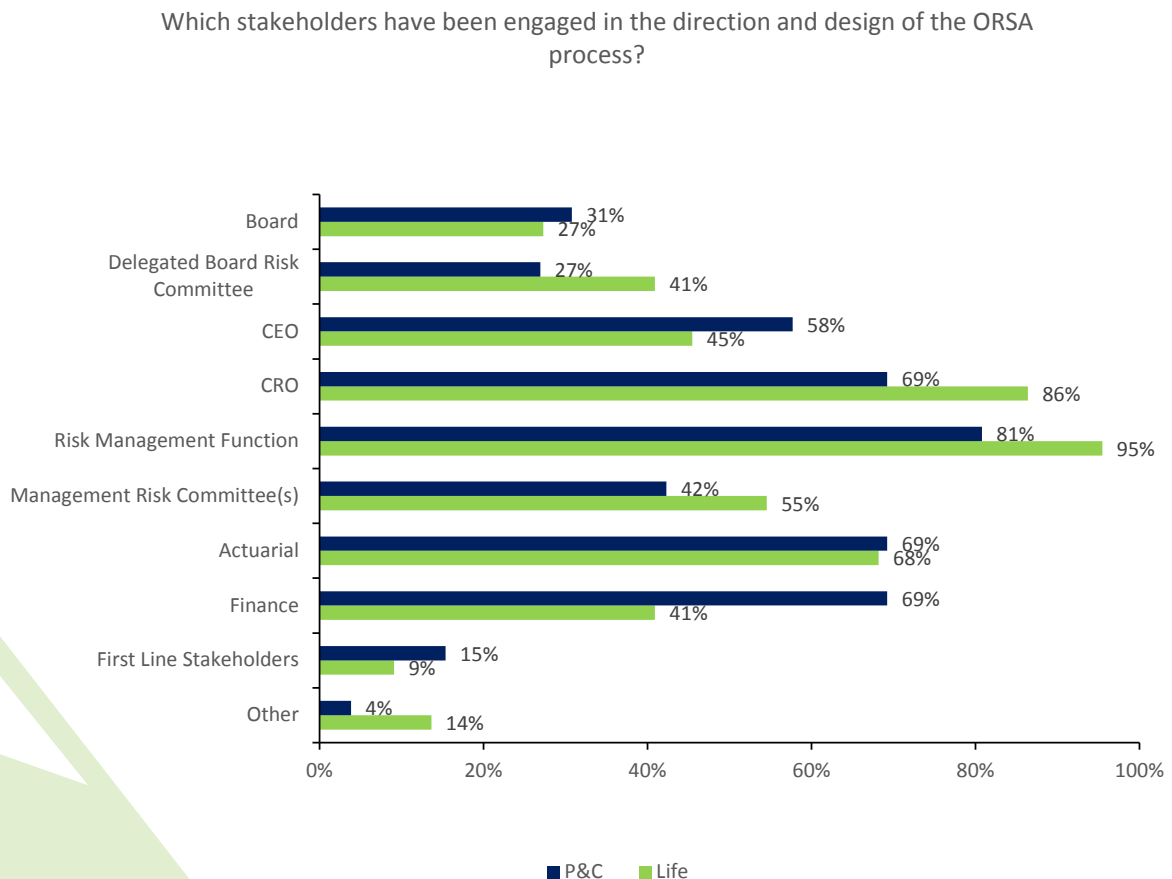
Diagram 3: ORSA Maturity State



Stakeholder involvement in the design and direction of an insurer's ORSA processes, as shown in Diagram 4, also provides somewhat of an indication of the ORSA maturity state of the industry. While there has been heavy involvement of risk and actuarial management functions, in the direction and design of the ORSA process, only 19% and 23% of the P&C and Life insurance survey respondents, respectively, indicated engagement of first-line and other stakeholders.

Insurers operating their ORSA at a basic level, with little engagement from operational and first-line stakeholders, could suggest that their ORSA processes are completed merely as a regulatory compliance exercise. Conducting an ORSA process in this manner defeats the very objective of the OSFI ORSA Guideline principles and limits the value insurers can expect to derive from an effective and integrated ORSA process. Those organizations operating at an advanced ORSA level have not only positioned themselves to conduct comprehensive assessments of risk, with related capital allocations, but are also able to make risk-based decisions throughout their organization.

Diagram 4: Stakeholders engaged in direction and design of ORSA process



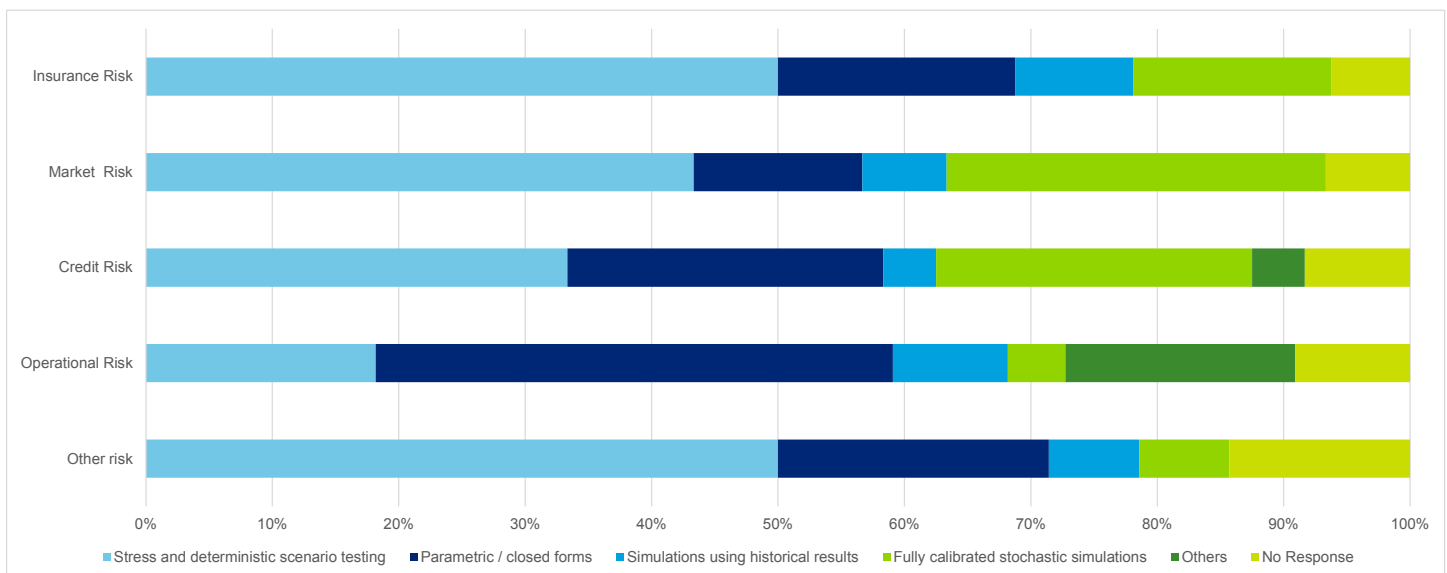


Internal models and risk assessment

An insurer's ORSA should identify, define and measure all material and reasonably foreseeable risks both in normal and stressed situations. Importantly, this should capture all material risks, whether they are included in the current regulatory capital framework or not. For quantifiable risks, most insurers have naturally built upon the MCCR or Minimum Capital Test, ("MCT"), which is a similar approach adopted by many European insurers in implementing Solvency II. However, the OSFI ORSA Guideline does refer to insurers needing to perform their own capital assessments and are not to rely on the regulatory capital measurements in doing so. A better practice would be to use the regulatory requirements as a constraint and not as the main determinant.

In Europe, many insurers seem to be struggling to convincingly describe risks not covered by the existing capital framework. The types of models used by Canadian insurers to assess capital requirements, as per Diagrams 5 and 6, suggest that perhaps there is a lack of maturity for Canadian insurers in quantifying capital levels for operational, strategic and possibly other risks such as reputational risk. While OSFI recognizes that a variety of methods, models and tools are available to assess capital requirements, insurers should adopt more conservative approaches to setting their capital levels for material and complex risks in instances where they are using simpler, less refined models.

Diagram 5: Life insurance: What types of internal models is the organization using to assess internal capital requirements ?



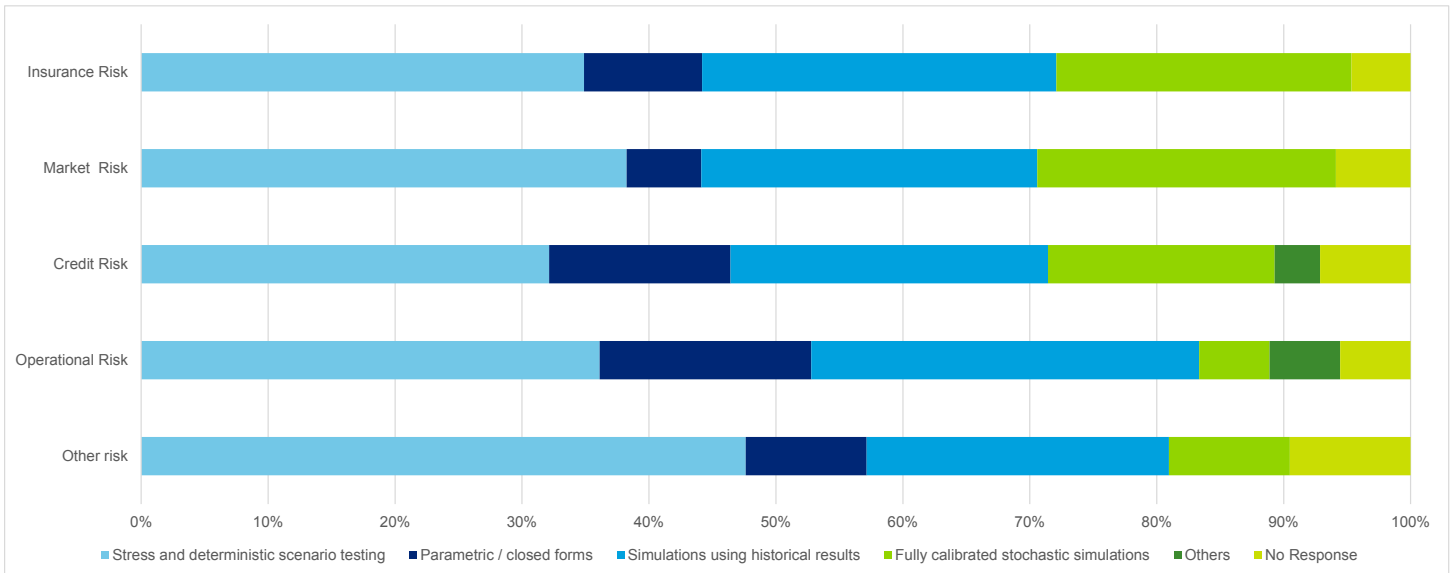
Diagrams 5 and 6 illustrate that relatively few Life and P&C insurers have developed advanced approaches such as stochastic or parametric (i.e. formula based risk-metric) approaches for insurance and credit risks. Rather, stress and scenario testing is being used, which relies more on expert judgment and can often fail to allow for extreme tail events.

We further note from the survey results that Life insurers indicated that they are using parametric model approaches for operational risk. However, insurers most likely use a percentage of some exposure metric to quantify operational risks, which is not in fact, a parametric approach - it could

be that respondents misinterpreted the meaning of parametric model when providing survey responses for operational risk.

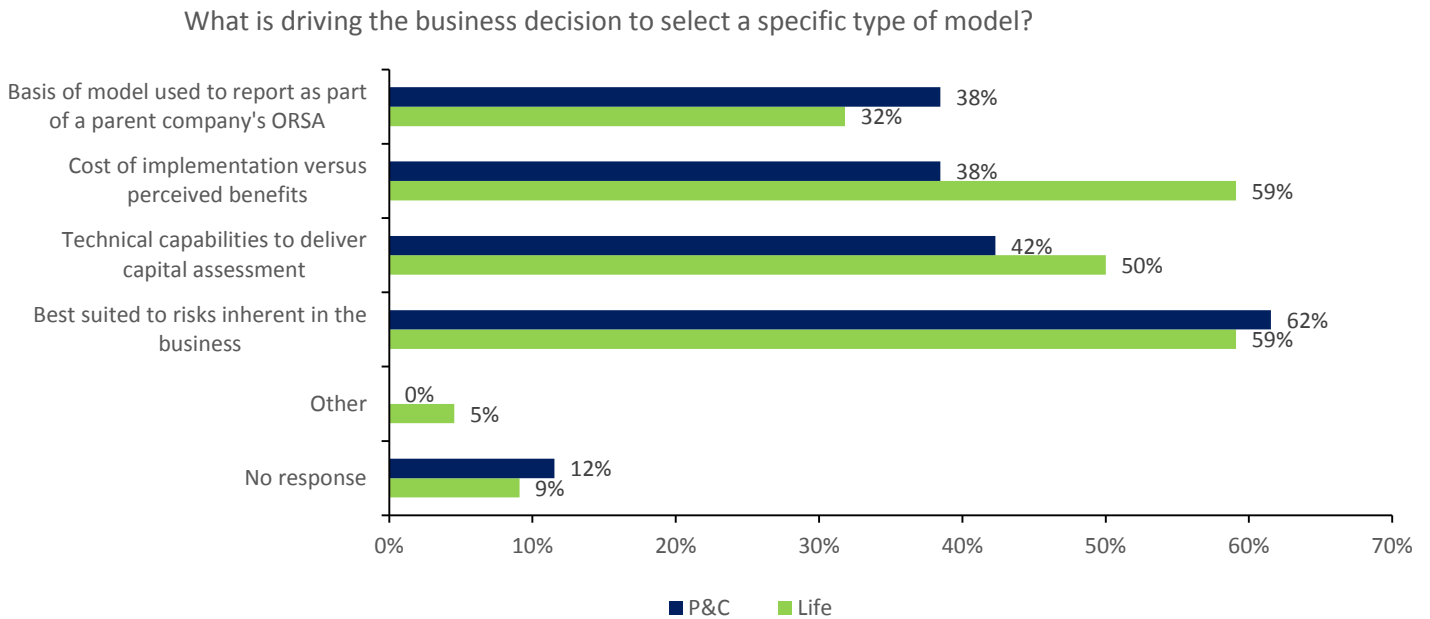
Diagram 5 also shows that approximately 30% of Life insurers are using stochastic models for market risk, possibly indicating that most of those writing segregated funds business are either using the factor-based approach permitted under MCCR or are using stochastic simulations.

Diagram 6: P&C insurance: What types of internal models is the organization using to assess internal capital requirements?



It is not surprising, as illustrated in Diagram 7, that 59% of Life insurers cited cost versus perceived benefits as a key driver for model choice and 50% of Life and 42% of P&C insurers selected model types based on technical capabilities to deliver capital assessment.

Diagram 7: What is driving the business decision to select a particular type of model?

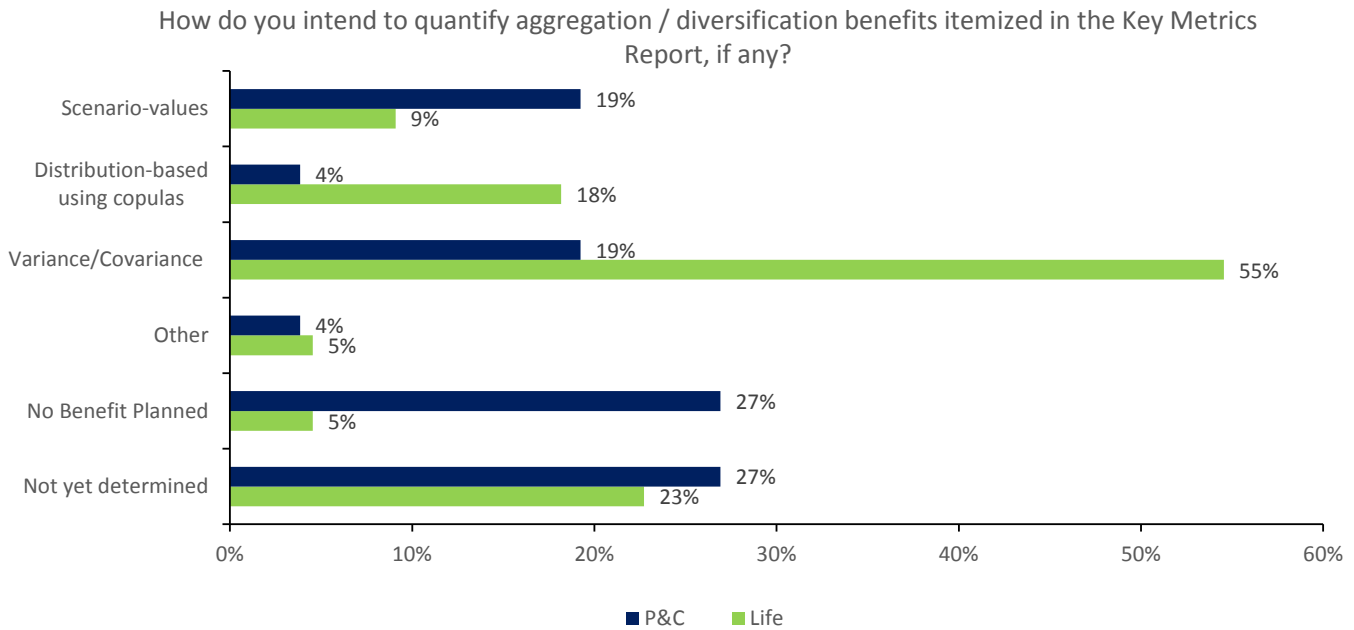


Meanwhile, Diagram 8 shows that for risk aggregation, 55% of Life insurers and less than 20% of P&C insurers use a variance / covariance approach to aggregate risks and quantify diversification benefits.

Across Europe, it is not uncommon for diversification benefits to reduce capital requirements by up to 50%. However, where once these European insurers used similar variance / covariance approaches as currently reported as being used by their Canadian counterparts, most medium to large European

insurers now use more sophisticated distribution-based copulas to justify the level of diversification benefits. Where Canadian insurers are not currently allowing for such benefits, they ought to develop the ability to do so or they will continue to run the risk of unnecessarily tying up capital.

Diagram 8: How do you intend to quantify aggregation / diversification benefits itemized in the Key Metrics Report, if any?



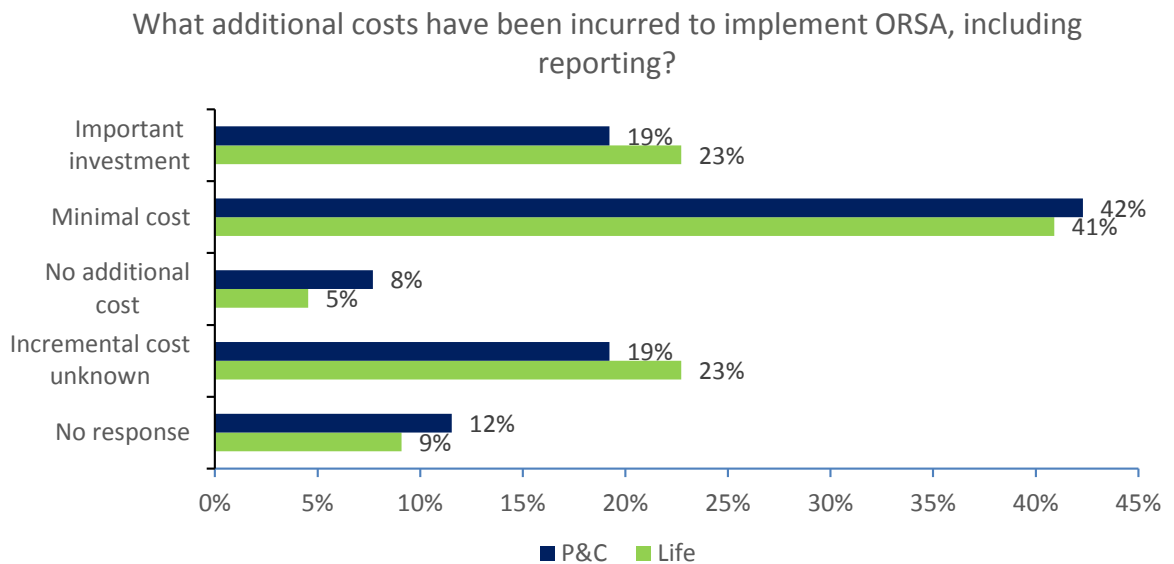


Cost of ORSA

The majority of insurers reported in the Deloitte survey that their ORSA activities did not require significant additional costs. This may indicate insurers believe they already had well-established ERM practices and documentation on which they could establish their ORSA practices and from which they could compile their first ORSA reports. The soundness of their views is expected to emerge once insurers have objective reviews performed over their ORSA processes.

More than half of the Canadian insurers responding to Deloitte's survey (see Diagram 9) found the compliance costs of ORSA to be minimal or non-existent; less than a fifth of P&C insurers and less than a quarter of Life insurers reported such costs to be an important investment. By contrast, European surveys conducted during 2014 reported that three-quarters of the 77 senior executive respondents considered the costs of the Solvency II regime to be disproportionate, with only 6% finding the costs to implement the new regulation reasonable³.

Diagram 9: What additional costs have been incurred to implement ORSA, including reporting?



The factors likely to be driving these cost differentials are the prescriptive requirements of the Solvency II regulations versus the principles based OSFI approach. In addition, there are different regulatory internal capital determination requirements in the two regions. European insurers can either (i) perform an internal assessment of capital or (ii) use the Solvency II regulatory formulaic approach to capital assessment. Given that European regulators consider insurers' appeals to use their own internal models to set their required capital levels, those

insurers granted their request, face high degrees of regulatory scrutiny and require significant efforts and documentation to support their capital determinations. Many have built partial and fully calibrated stochastic models to perform their internal economic capital assessments to determine their capital requirements specific to their risks, as opposed to using the non-insurer specific regulatory formulaic approach.

A key challenge for European insurers seeking approval to use their internal models under Solvency II is being able to demonstrate compliance with the “Use Test” requirements. This is not straightforward given the subjective nature of the regulations, and it involves insurers having to provide evidence that risk and capital decision-making is embedded into their business activities from an early stage.

Through its various supervisory assessment criteria, the European regulator can impose capital add-ons, requiring an insurer to hold more capital than the latter has determined. European insurers are therefore motivated to conduct thorough risk assessments, with robust management and mitigation, to assess and manage the ultimate levels of capital they are required to hold. In addition, one of the principles of Solvency II is that if it is not documented, it does not exist (“prove me” instead of “trust me”)⁴. Hence, European insurers are required to produce and maintain a significant amount of supporting documentation.

We believe it is these costs to establish capital models integrated with risk management frameworks and the evidential requirements that are contributing to the higher costs of implementing ORSA regimes reported by European insurers. It would seem they can justify the higher spend when their internal models and processes support lower capital requirements than when using the regulatory formulaic approach.

By contrast, Canadian insurers’ regulatory capital levels are currently mostly being determined using OSFI’s MCCSR or MCT formulae (with potential capital add-ons imposed if OSFI deems appropriate). For some, performing their own assessments of internal capital targets in compliance with the OSFI ORSA Guideline, may have produced lower required capital levels than those determined by the regulatory formulaic approach. However, while ORSA is based on an insurer’s own assessment of risk, the OSFI ORSA Guideline requires internal capital targets to be higher than its supervisory capital levels. Since Canadian insurers do not yet have the option to obtain regulatory approval to use their internal models, some insurers do not see the benefits of establishing their own robust ORSA models and processes and consider the costs as outweighing the benefits.

In July 2014, OSFI advised the P&C insurance industry that it was working with industry participants to develop an internal capital model approach to be included in its capital framework for P&C insurers. This work started in 2008 and has been conducted through the Minimum Capital Test Advisory Committee (P&C MAC). The guidelines expected from this process will, among other matters, “establish the minimum requirements.”

“Specifically it will define the minimum standards for the design, calibration, validation and internal use of models for which the company seeks approval and the risk(s) an insurer will be permitted to model, such as insurance risk, credit risk, etc., and the extent to which insurers will be able to use partial models.”⁵

OSFI’s solvency modernization initiative for Life insurers has also been evolving over the last few years, resulting in six quantitative impact studies to date (the latest being submitted to OSFI in January 2015). The new framework is moving away from the factor-based approach in MCCSR and towards a shocked cash flow approach, at least on the asset side, where it is a step closer to internal capital modeling. The current development of OSFI guidance on internal capital models for Life insurers has been deferred until OSFI completes the new standard approach for segregated funds.

Regulatory guidelines for insurers to use their own models to determine their capital requirements is at least three years away, with OSFI indicating the final internal capital standards could be expected to be released in 2018. This means, without being able to use their own internal capital models to set their internal capital levels, Canadian insurers cannot yet fully align with the OSFI ORSA Guidelines.

Regulatory guidelines for insurers to use their own models to determine their internal capital requirements are at least three years away.



Objective review and quality ORSA practices

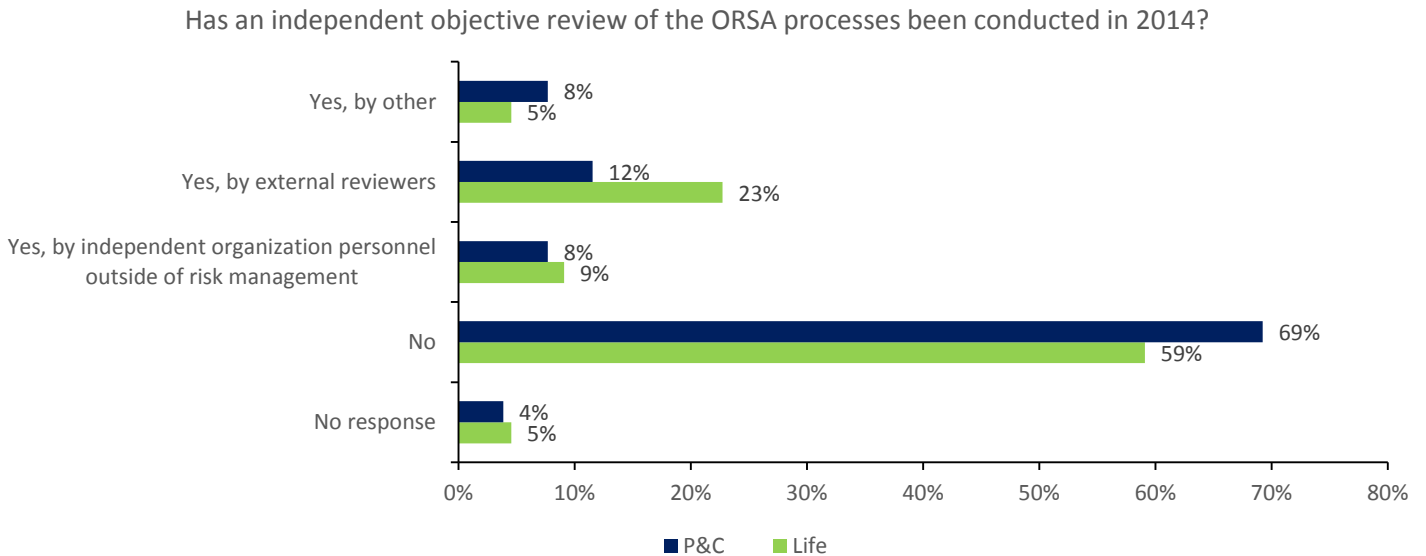
OSFI's ORSA Guideline refers to insurers conducting regular objective reviews of their ORSA processes for integrity, accuracy and reasonableness. It remains to be seen if the insurers' own risk and solvency assessments, which culminated in the preparation of their first ORSA reports, will be corroborated through the performance of objective reviews.

This corroboration of management's self-assessments benefits all stakeholders, including management, the Board and the regulator. During the first effective year of the OSFI ORSA Guideline, most insurers reported that they were yet to have objective reviews performed

over their ORSA practices. Fifty nine percent of the responding Life insurers and 69% of the P&C insurers indicated no objective reviews were conducted in 2014. Of those who have not yet completed such reviews, 15% of P&C insurers and 5% of Life insurers reported that a review was to be done in Q4 of 2014.

At the time of the Deloitte survey, 38% of the P&C insurers and 50% of the Life insurers did not have either plans for, or had not yet determined when, an objective review would be performed.

Diagram 10: Has an independent objective review of the ORSA processes been conducted in 2014?



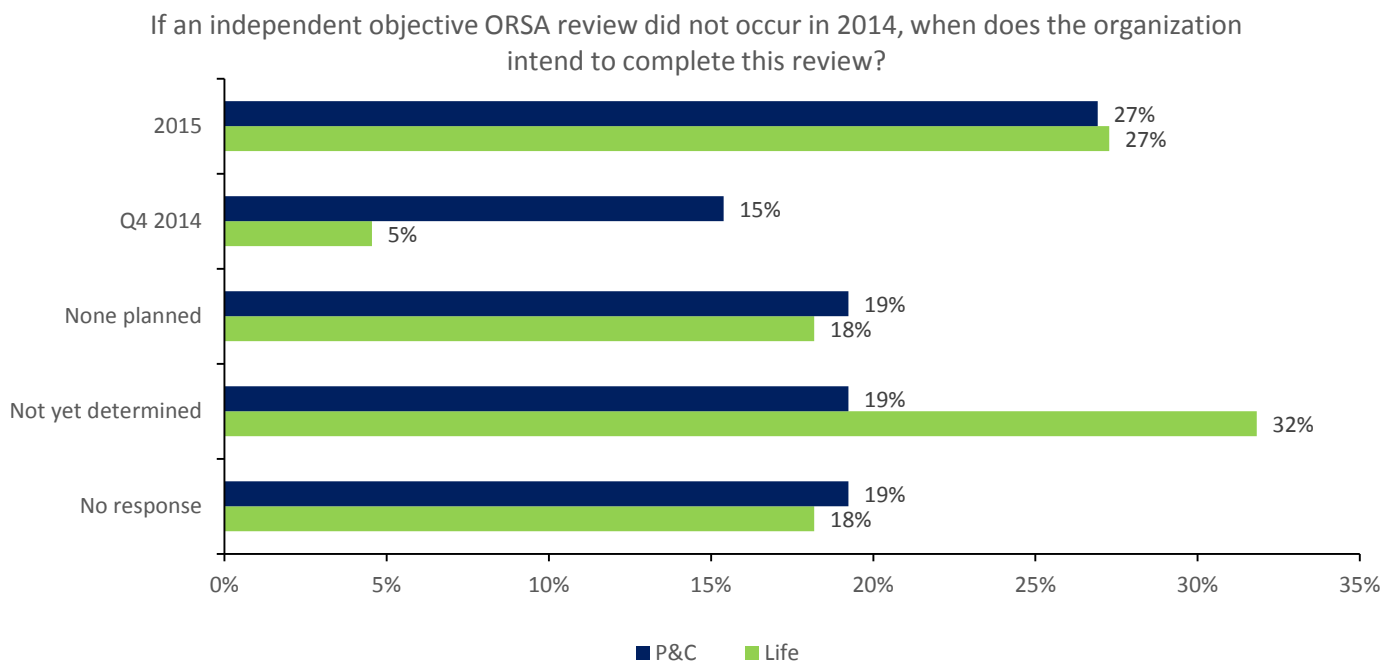
Objective reviews identify the aspects of insurers' ORSA practices that require further development, enhancement and maturation. Given that the majority of the Canadian insurance industry has not yet attained a mature state of ORSA practices within their businesses, we expect insurers to have ongoing enhancement and refinement action plans to progress their practices.

Boards of directors should also step up. Rather than rely only on information supplied by management, Boards should seek other sources for input about the quality and adequacy of its organization's ORSA frameworks and practices. Objective reviews provide Boards and senior management with insights into: (i) ORSA shortcomings, (ii) the actual maturity of the

insurer's ORSA practices, (iii) their compliance with the OSFI ORSA Guideline principles, and (iv) inputs on better practices to enhance and mature the insurer's ORSA.

Irrespective of whether insurers have planned for an objective review, their 2015 outlook and plans should include validation activities to assess the reasonableness of risk assessments conducted as part of their 2014 ORSA cycle. Such activities should include back-testing exercises to assess the reasonability of modelled scenarios and events and should ensure that the internal capital targets included in the ORSA report reconcile to the capital levels included in the Key Metrics Report.

Diagram 11: If an independent objective ORSA review did not occur in 2014, when is it planned to be performed?





ORSA Outlook

Evolving the ORSA journey requires each insurer to continually assess its existing practices and processes against the principles outlined in the OSFI ORSA Guideline. As insurers continue to evolve their ORSA practices during 2015 and beyond, they should be reflecting on and challenging the quality of not only their ORSA processes and ORSA report, but how well ORSA is embedded in business as usual operations. This may require insurers to tackle the practical challenges around communication and awareness training throughout the organization. Embedding ORSA in business-as-usual is about taking something that is very risk- and actuarial-driven and incorporating it into decision-making across the organization.

Key ORSA enhancement areas for consideration are highlighted on page 17. Whilst this list is not exhaustive, answers to the questions outlined may be revealing about gaps between the current ORSA maturity state and the direction an insurer is wanting to take its ORSA.

Completing their first year under the OSFI ORSA principles is only the beginning of Canadian insurers' evolutionary ORSA journeys. As insurers continue their ORSA development and enhancement activities, we strongly encourage the industry to objectively consider the quality of their ERM practices, their solvency assessments and how their ORSA outputs are reported and used in their businesses – this can only generate further benefits and extract value for the organization.

Meanwhile, those charged with governance should continue to expand their own ability to exercise their responsibilities in line with the OSFI ORSA principles.

ORSA enhancement considerations

USE OF ORSA OUTPUTS

- Are the ORSA outputs planned to be used / are they being used in the business, or are these only confined to risk and actuarial functions / activities?
- What ongoing organization wide communications and awareness training does the business require?
- How is the organization supporting the required behaviour changes?
- How are risks that are identified as being outside of Board-approved risk appetites addressed within the organization and at the governance level?
- How is capital allocated across the organization's businesses, products and initiatives?
- Are management and the Board held accountable for risk-adjusted returns?
- Are needs for mitigating actions, as identified through the ORSA process, incorporated into operational and strategic planning activities?

BETTER PRACTICE ORSA GOVERNANCE

- What is the Board's understanding of the ORSA Report, outputs and processes and can this be evidenced?
- How did the Board challenge and endorse ORSA and can this be evidenced?
- How has and will the Board challenge the regular management prepared, and therefore possibly biased, ERM, capital and ORSA information it receives, including the contents of the ORSA report?
- Will the Board require assurances / validation of the management prepared and presented ORSA information through requiring the performance of regular objective reviews?

QUALITY SOLVENCY ASSESSMENT

- Does the solvency / capital determination encompass all risks?
- Is the capital assessment dynamic, to enable regular updates, responding to internal and external changes in the business environment?
- How have low probability / high impact risks, such as binary events or operational risk, been assessed given inherent difficulty in assessing events giving rise to such risks?
- Is the internal capital determination an actuarial assessment only, or are the business and the Board involved in the assessment of the risks and capital inputs and outputs?
- Are advanced data management and model risk management practices applied to ensure integrity and ongoing appropriateness of data and risk and capital models?
- Is there alignment of reporting under various regulations, eg DCAT : ORSA Report : Key Metrics Report (KMR)?
- Is there alignment and consistency between the KMR and the risks and capital discussed and quantified in the ORSA report?

QUALITY ERM

- Is your ERM a robust foundation for the organization and can it be evidenced?
- Does ERM involve facilitated management discussion across the organization and involve the appropriate key stakeholders?
- Is the frontline, who takes the risk, involved in ORSA?

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Endnotes

¹Own Risk and Solvency Assessment Guidance, OSFI, November 11, 2013.

²The Journey towards an approved internal model, Panos Kouvalis and Yiannis Totos, Interamerican, The Solvency II Handbook, Practical

³On-line edition of The Actuary, July 10, 2014.

⁴Managing Model Risk, Tjeerd Degenaar, Delia Lloyd, The Solvency II Handbook, Practical Approaches to Implementation, 2014.

⁵Use of Internal Models by Property and Casualty Insurance Companies for Regulatory Capital, Office of the Superintendent of Financial Institutions, July 28, 2014.

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