ORSA Implementation Survey

Deterministic ORSA modelling a case study

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Agenda

• Introduction
• ORSA survey
• Case study
Introduction

• ORSA process implementation for internal stakeholders

• The ORSA quickly becoming a global regulatory requirement for insurance undertakings.

• Numerous insurance regulators around the world are introducing ORSA requirements in their jurisdictions.

• Stems from the International Association of Insurance Supervisors (IAIS), which requires an ORSA as part of Insurance Core Principle 16 (ICP 16) on ERM, which was adopted in October 2010 => worldwide requirement
**Introduction**

- The Joint Risk Management Section of SOA, CAS, and CIA issued a request for proposals to address ORSA process implementation for internal stakeholders.

- Milliman was selected to perform this research and this report documents the work we have undertaken. A two-phase approach was proposed, with the first phase being a cross-discipline survey undertaken on a global basis. The second phase was the analysis and reporting of the findings from the survey results.

**Profile of Respondents**

- 141 respondents

- In most jurisdictions, participating companies generally ranged on a spectrum from midsize insurance companies to large multinationals.
Survey Main Headings

- Stress and scenario development processes
- Incentives, governance, and other behavioral aspects
- Evaluating the impact of the ORSA on a company’s overall results
- Evaluating the level of buy-in of the ORSA within an organization
- Board involvement
- Implementation
- Challenges faced by companies in the ORSA process

Live Poll
STRESS TEST AND SCENARIO
Derivation

![Bar chart showing the derivation of stress test and scenario]

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STRESS TEST AND SCENARIO
Role of CRO

![Bar chart showing the role of CRO]

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Live Poll

STRESS TEST AND SCENARIO
Number of Stresses

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STRESS TEST AND SCENARIO

Timing of Application

Management Actions
STRESS TEST AND SCENARIO
Group Influence

Live Poll
INCENTIVES AND GOVERNANCE

Motivation for ORSA

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INCENTIVES AND GOVERNANCE

Review of Process

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INCENTIVES AND GOVERNANCE
Incentivization of Staff

EVALUATING IMPACT OF ORSA
Who measured impact

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EVALUATING IMPACT OF ORSA

Metrics Used

![Pie chart showing metrics used for impact evaluation.]

- Amount and frequency of board level discussion: 22%
- Formal use of ORSA in strategic decision-making: 10%
- Financial cost of the process: 19%
- Risk mitigation by way of implementing the ORSA process: 17%
- Stakeholder feedback: 6%
- Other: 26%

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EVALUATING IMPACT OF ORSA

Benefits expected

![Bar chart showing benefits expected.]

- Yes: 10%
- No: 10%
- Too early to say: 80%

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EVALUATING IMPACT OF ORSA
Costs of ORSA

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EVALUATING IMPACT OF ORSA
Changes before fit for purpose

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EVALUATING IMPACT OF ORSA
Capital Measure used in ORSA
EVALUATING LEVEL OF BUY-IN
Attitude of Board / Senior Management

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EVALUATING LEVEL OF BUY-IN
Awareness of ORSA key employees

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EVALUATING LEVEL OF BUY-IN
Use in key decisions

EVALUATING LEVEL OF BUY-IN
Processes where used

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Live Poll

EVALUATING LEVEL OF BUY-IN
Number of person months for Risk Function
EVALUATING LEVEL OF BUY-IN
Departments involved

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EVALUATING LEVEL OF BUY-IN
Assessing Risk Culture

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EVALUATING LEVEL OF BUY-IN
Indicators of effective Risk Culture

BOARD INVOLVEMENT

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BOARD INVOLVEMENT
Ways in which Board is involved

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BOARD INVOLVEMENT
Does your Board have a Risk Committee

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BOARDS INVOLVEMENT
Board has technical ORSA expert

BOARDS INVOLVEMENT
Board has INED responsible for ERM
BOARD INVOLVEMENT
CROs role in Board

IMPLEMENTATION
State of Implementation
IMPLEMENTATION
State of ORSA Documentation

IMPLEMENTATION
Filed ORSA with Regulator
IMPLEMENTATION
Industrialization

Live Poll
IMPLEMENTATION
Projection Horizon

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CHALLENGES
Most challenging - Input

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CHALLENGES
Most challenging - Modelling

- Addressing the forward looking aspect of calculating capital requirements
- Model run time
- Level of capital in respect of operational risk
- Demonstrating continuous compliance with the solvency capital requirements
- Reverse stress testing (i.e. identifying the events or combinations of events that would make the company insolvent)
- Mitigating model risk
- Other

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CHALLENGES
Most challenging - Output

- Consolidation of results across legal entities
- Documentation
- Communication with non-actuarial functional areas
- Communication with regulators
- Embedding the ORSA in the risk culture
- Other

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- ORSA survey
  - Case study
Risk profile assessment

• Identifying the risks
• Classifying the risks
  – Material vs Non material
  – Quantifiable vs Non quantifiable
• Managing the risks

Overall solvency needs assessment

• Reflect all material risks
• Reflect undertaking’s management practices, systems and controls
• Include scenarios and stresses
• Connected to business planning
• Include management actions
Board engagement – Top down approach

Case Study Model
Relevant NSA Feedback

- Many NSAs criticized companies for ignoring risks not covered by the SCR, as well as future exposures / emerging risks
- E.g. extrapolation of yield curve, contract boundaries, is the 1:200 over 1 year appropriate to your risk profile
- Is standard formula shock in yield curve appropriate given experience in last year
- Dutch regulator criticised the severity of stresses, and requested considering “impossible” shocks in future
- Liquidity, not a capital solution – open a line of credit

Relevant NSA Feedback

- Many NSAs criticised absence of management actions. DNB asked for stresses before and after management actions
- Appropriateness of SF – consider risk exposures that are overstated as well as those that are understated – otherwise one-way street
- The ORSA should not result in an obligatory capital add-on
Conclusion

- We hope found this useful
- Huge amount of detail in two papers referenced – literally just touched on then
- If you would like to talk to Lamia about her model, very pleased to hear from you

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