Session 97 PD, Practical Guidance for Creating ORSA Reports

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Annual Meeting & Exhibit

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Session 97: Panel Discussion
Practical Guidance for Creating ORSA Reports
October 13, 2015
Thomas Callahan, FSA, MAAA
Associate Actuary
Independence Blue Cross

Health Practice Area
Agenda

• Introduction to Own Risk and Solvency Assessment (ORSA)
• My Perspective
• Challenges
• Practical Advice
Introduction to ORSA
The origins of ORSA
Goals of ORSA

• Foster effective ERM

• Group-level assessment of capital

• Prospective identification and management of material risks

• Risk identification is not prescriptive.

Source: http://www.naic.org/cipr_topics/topic_own_risk_solvency_assessment.htm
ORSA Summary Report

The ORSA Summary Report summarizes the risk assessments performed by the insurer within its Enterprise Risk Management (ERM) framework. The report should include three main sections:

Section 1 - Description of the insurer's risk management framework

Section 2 - Insurer's assessment of risk exposures - qualitative and quantitative assessment of risk exposures in normal and stressed environments

Section 3 - Group assessment of risk capital and solvency - assessment of capital adequacy in relation to the insurer’s risks under normal and stressed conditions
My Perspective
My Perspective

• My work has focused on section 3 of the ORSA
  • Group assessment of risk capital and solvency
  • Financial forecasting

• I helped develop the capital model and assumptions that Independence currently uses
• Practical, hands-on view.
Challenges
Challenges

• Cross-Functional project

• Correlating Assumptions

• Model validation
Cross-Functional Project

“The amount of meetings I've been in - people would be shocked. But that's how you gain experience, how you can gain knowledge, being in meetings and participating. You learn and grow.”

Tiger Woods
Cross-Functional Challenges

• Need support from other teams
  • ORSA should be practical; not projecting “doomsday.”

• Buy-in and support
  • Is ERM a passing fad?
  • Does ORSA really matter?

• Communication
  • Actuaries are bi-lingual
Cross-Functional Challenges
How to ease them

• Need support from the Chief Risk Officer and leadership

• Think from other people’s perspective
  • What do they want?
  • What are they hearing?
Correlating Assumptions

“Truth is ever to be found in simplicity, and not in the multiplicity and confusion of things.”

Isaac Newton
Correlations - Challenges

• Defining Correlation
  • Linkages between income statement items
  • Correlations between stress events
  • Correlations between risk drivers

• Complexity

• Ensuring that “fixed” items do not have high volatility

• Historic correlations can break down in a stress scenario
Correlations
Lessons Learned

• Follow the 80/20 rule, do not get bogged down

• Simplicity 😊

• Review and approve the results
Model Validation

“The one great flaw with VaR [Value at Risk] was its insistence on putting heavy emphasis on recent volatility. This meant that if a security did not have a history of volatility, it would irrevocably be marked as riskless despite the fact that it currently gazed into the abyss. VaR was a prisoner of its own guidelines.”

A Colossal Failure of Common Sense
written by Lawrence McDonald with Patrick Robinson
© 2009
Model Validation

• Does the past represent the future?
  • New laws (e.g., PPACA)
  • Change in competition (e.g., mergers)

• Accounting for regulations
  • Minimum Medical Loss Ratios

• Corrective actions
  • Would we allow a loss ratio to reach 150%?
Model Validation

Lessons Learned

• All decisions must be rooted in analysis and sound methodology

• Peer review

• Rigorous documentation
  • Intentions, flaws, limitations
  • Data inputs and critical assumptions

• Communication
  • How to interpret 3% odds of another “Great Recession”?
Practical Advice
Practical Advice

• Be ready to communicate to a diverse audience, most of whom are not actuaries.

• ORSA modeling is a very technical process, but also very human.

• Appropriate care must be taken to correlate assumptions – balancing rigor with simplicity.

• The model must be understood, documented, and approved.
Mark Mennemeyer, FSA, MAAA
Senior Consultant
Towers Watson
Life Practice Area
Agenda

• Industry Perspectives
• Common Challenges
• Practical Advice
Industry Perspectives
### ERM is expected to enhance business performance in several ways

**Q.5 How strongly do you agree or disagree with the following statements about the ways in which your ERM capabilities might be expected to add value to your business?**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoidance of large unexpected losses that threaten the viability of the organization</td>
<td>27%</td>
<td>46%</td>
<td>15%</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>Increased shareholder value through enhanced risk/return decision making</td>
<td>27%</td>
<td>43%</td>
<td>20%</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>Reduced capital requirements through improved understanding of the risk profile of the business</td>
<td>17%</td>
<td>40%</td>
<td>25%</td>
<td>12%</td>
<td>6%</td>
</tr>
<tr>
<td>Greater risk taking through enhanced ability to manage risks</td>
<td>14%</td>
<td>47%</td>
<td>23%</td>
<td>12%</td>
<td>4%</td>
</tr>
<tr>
<td>Reduced impact of day-to-day risk losses</td>
<td>10%</td>
<td>40%</td>
<td>34%</td>
<td>13%</td>
<td>3%</td>
</tr>
<tr>
<td>Reduced cost of capital, or haircuts to valuation, through enhanced stakeholder perceptions of the business</td>
<td>8%</td>
<td>33%</td>
<td>40%</td>
<td>14%</td>
<td>5%</td>
</tr>
<tr>
<td>Reduced ongoing costs of risk management due to more efficient and effective processes</td>
<td>7%</td>
<td>33%</td>
<td>37%</td>
<td>20%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Base: Those giving a valid answer (percentages exclude non-respondents) n = 390-395.
While ERM is well integrated in some core business processes, further work is expected in all areas.

**Q.6 Within which business processes is risk management well integrated?**

<table>
<thead>
<tr>
<th>Process / Strategy</th>
<th>Well integrated</th>
<th>Integration planned or in progress</th>
<th>No integration required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset/investment strategy</td>
<td>56%</td>
<td>39%</td>
<td>5%</td>
</tr>
<tr>
<td>Capital adequacy assessment/management/allocation</td>
<td>52%</td>
<td>43%</td>
<td>5%</td>
</tr>
<tr>
<td>Risk transfer (e.g., reinsurance, securitization, hedging)</td>
<td>50%</td>
<td>43%</td>
<td>7%</td>
</tr>
<tr>
<td>Regulatory and financial reporting disclosures</td>
<td>40%</td>
<td>49%</td>
<td>11%</td>
</tr>
<tr>
<td>Product design and pricing</td>
<td>40%</td>
<td>48%</td>
<td>12%</td>
</tr>
<tr>
<td>Mergers and acquisitions, and divestitures</td>
<td>36%</td>
<td>46%</td>
<td>18%</td>
</tr>
<tr>
<td>Annual business planning</td>
<td>35%</td>
<td>61%</td>
<td>4%</td>
</tr>
<tr>
<td>Strategic planning</td>
<td>30%</td>
<td>65%</td>
<td>5%</td>
</tr>
<tr>
<td>Bonus/crediting rate strategy</td>
<td>29%</td>
<td>38%</td>
<td>33%</td>
</tr>
<tr>
<td>Performance management</td>
<td>22%</td>
<td>59%</td>
<td>19%</td>
</tr>
<tr>
<td>Incentive compensation</td>
<td>21%</td>
<td>51%</td>
<td>28%</td>
</tr>
<tr>
<td>Outsourcing</td>
<td>20%</td>
<td>48%</td>
<td>32%</td>
</tr>
<tr>
<td>Distribution</td>
<td>13%</td>
<td>49%</td>
<td>38%</td>
</tr>
</tbody>
</table>

Base: Those giving a valid answer (percentages exclude non-respondents and ‘we do not have this business process’) n = 382-394.

Respondents were asked to select one in each row.
Regulatory capital risk appetite metrics have grown, and increased use of economic measures is planned

Which of the following measures of risk are currently in use or are planned for use in your risk appetite/tolerance statement(s)? Please select one in each row.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Currently use this measure</th>
<th>Plan to introduce this measure in the next 24 months</th>
<th>No plans to introduce this measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory capital threshold</td>
<td>83%</td>
<td>7%</td>
<td>10%</td>
</tr>
<tr>
<td>Risk of breach of regulatory capital threshold</td>
<td>67%</td>
<td>13%</td>
<td>20%</td>
</tr>
<tr>
<td>Economic capital threshold</td>
<td>53%</td>
<td>28%</td>
<td>19%</td>
</tr>
<tr>
<td>Rating agency capital threshold</td>
<td>42%</td>
<td>10%</td>
<td>48%</td>
</tr>
<tr>
<td>Risk of rating agency downgrade</td>
<td>35%</td>
<td>13%</td>
<td>52%</td>
</tr>
<tr>
<td>Risk of loss of embedded value or economic value</td>
<td>34%</td>
<td>22%</td>
<td>44%</td>
</tr>
<tr>
<td>Risk of loss of GAAP or International Financial Reporting Standards (IFRS) equity</td>
<td>33%</td>
<td>13%</td>
<td>54%</td>
</tr>
<tr>
<td>Capital to support specified corporate debt rating</td>
<td>21%</td>
<td>8%</td>
<td>71%</td>
</tr>
</tbody>
</table>

Base: Those having documented risk appetite/tolerance statement(s) in place and giving a valid answer (percentages exclude non-respondents) n = 322-330.
Common Challenges
Finding the right level of detail

- Who is the audience?
- Must demonstrate that documented ERM process are actually being followed
- Especially challenging for the more technical aspects of risk and solvency assessment
Engaging stakeholders throughout the organization

• Risk owners
• Business units
• Modeling teams
• Audit
• Board
• CRO
Linking the analysis to risk appetite

Solvency Assessment → Risk Appetite → Risk Assessment → Risk Limits → Solvency Assessment
Projecting capital

• Technical challenges
  • Identifying the right scenarios
  • Computational run time

• Methodology challenges
  • New business
  • Management actions
  • Policyholder behavior

• Don’t forget available capital!
Validating assumptions and models

• Does the model do what it was designed to do?
• Was the model designed to do the right thing?
• What controls are in place?
• Are assumptions still appropriate?
• Has testing been documented?
Practical Advice
Treat the ORSA summary report as a cohesive narrative

- Logical progression from each section to the next
- One voice
- Support your conclusion
Recycle....carefully

• Tell what you do rather than reinventing everything
• Appendices are useful
• However, make sure it fits
Identify strengths and weaknesses

• Highlight areas where ERM is strong
• Acknowledge planned improvements—don’t leave the Board or regulator guessing
Use models effectively

- Show that you have performed a thorough analysis
- Defend the methodology and assumptions
- Validate
Fred Kilbourne, FSA, FCA, FCAS, FCIA, MAAA
Independent Actuary
The Kilbourne Company

Health and General Insurance Practice Areas
Agenda

• Practical experience in the actual preparation of ORSA reports

• Origins of Own Risk and Solvency Assessment (ORSA) and Enterprise Risk Management (ERM)
Practical experience in the actual preparation of ORSA reports
OUR ORSA-SPECIFIC EXPERIENCE

• None (yet) concerning life, property, casualty, or US health insurance.

• We did contribute to one ORSA report for a Canadian affiliate of a very large (75 million covered, $4 billion revenue) health insurer, for whom we have provided actuarial services for over 45 years.

• We contributed substantially to last year’s ORSA report, which being new for all parties turned out to be more work than we had expected. We also prepared the DCAT report, and delivered it to the client’s Board of Directors (a glossary of ORSA-pertinent acronyms will be presented below).

• Since an AA has been required by the regulators, our actuarial services have consisted mostly of helping clients comply with regulations concerning rates and reserves, and of preparing associated reports (AAR, DCAT, SAO, AOS...).

• It has been said that ORSA requirements are a means by which regulators may facilitate oversight of an insurer’s ERM process.
GLOSSARY OF ORSA-RELATED ACRONYMS

• AA: Appointed Actuary
• AAR: Appointed Actuary’s Report
• ASB: Actuarial Standards Board
• CAR: Capital Adequacy Requirement
• CPD: Continuing Professional Development
• DCAT: Dynamic Capital Adequacy Testing
• ERM: Enterprise Risk Management
• IAIS: Intern’l Assn of Insurance Supervisors
• ICP: Insurance Core Principles
GLOSSARY OF ACRONYMS (CONTINUED)

• KMR: Key Metrics Report
• LCM: Legislative Compliance Manual
• MCCSR: Min Cont Cap & Surp Requirements
• ORSA: Own Risk and Solvency Assessment.
• OSFI: Office of Super of Financial Institutions
• RBC: Risk Based Capital
• RRS: Regulatory Reporting System
• SMI: Solvency Modernization Initiative
• TAAM: Test of Adequacy of Assets and Margin
TOP TEN ORSA PITFALLS (per Jeff Fitch, FSA)

1. Don’t make the report overly complex.
2. But also don’t be too broad or vague.
3. Avoid using a prescriptive approach.
4. Don’t procrastinate in process or report.
5. Coordinate the ORSA and ERM functions.
7. Look beyond the statutes and regulations.
8. Don’t produce the report in a vacuum.
9. Don’t force the ORSA process into a silo.
10. Don’t simply project past experience.
Origins of ORSA and ERM
ORSA AND ERM CONNECTION

• ORSA originated in 2010 as an expansion of the ICP’s of the IAIS, and will eventually be required of all insurers in all countries.

• The ORSA report is intended to flow naturally from the insurer’s own ongoing ERM process, subject to specific ORSA regulations.

• The following slides take a look at the origins of ERM from the perspective of one (perhaps among many) of the participants in that process.
ERM AND THE ACTUARIAL AUDIT

• CCA proposed a letter to the AAA saying that, rather than accountants, actuaries should be the primary professionals for ERM (2003).

• Contingencies published my article “An Actuarial Audit would have Prevented the Enron Disaster” (2002).

• The first CAS panel on ERM, shortly after the 9/11 attack, was entitled “Enterprise Risk Management and Disaster Recovery” (2002).
WHAT IS AN ACTUARY?

• Mercer renamed our practice, which we had sold to them as Future Cost Analysts, “Enterprise Risk Management” (1990).

• AAA published my article “Quo Vadis, Actuary?”, in which I asserted that the work of the actuary is to analyze the quantity QVA, where Q is the probability of a contingent event, V reflects the time value of money, and A is the cost of the event (1987).

• CFO International published my article “Using the Actuary to Improve Corporate Profits” (1986).
MORE ABOUT THE ACTUARIAL AUDIT

• At a keynote panel of a joint meeting (!) of the SOA and CAS I defined the actuary as “one who is trained in evaluating the current financial implications of contingent events” (1978).

• As the head of actuarial services for a major management consulting firm I offered “actuarial audits” to prospective clients, and prepared a proposal for a major travel industry client (1975).

• The term “actuarial audit” was not original with me, but was first used by one of my partners at Milliman & Robertson (1967).
Questions?