Own Risk and Solvency Assessment

- Originated in the UK about 10 years ago
  - Now a global insurance regulatory ideal
- Turns the tables on Solvency
  - Instead of regulator telling you if you are solvent
  - Management must provide their reasons why they are solvent
- Includes assessment of Own Risk Management
  - Instead of some broad presumption
RMORSA Model Law - Sep 2012

To be effective by 2015
• Requires Risk Management Framework
• Requires ORSA process
• Requires ORSA summary report
  – that must be shown to board
  – To be filed with insurance department annually
• Required of Insurers with greater than $500 M of Premiums (or groups with greater than $1 Billion)
  – Smaller insurers exempt BUT, commissioner can ask any insurer for an ORSA report

NAIC Guidance Manual (March 2012)

**ORSA Summary Report** - Statement from Management that the company has the level of financial resources needed to manage its current business over the next three years along with a summary of the work done to reach that conclusion.

Three sections of ORSA Summary Report:
1. Description of Risk Management Framework
2. Assessment of Risk Exposures
3. Prospective Solvency Assessment

**ORSA will be used by regulator in developing supervisory plan**
(No penalties are currently envisioned for insurers that do not prepare an adequate ORSA report)
Eligibility

- First ORSA reports due in 2015
- Exemption:
  - Companies with less than $500M premiums and in groups with less than $1B of premiums are exempt
- Commissioner can request ORSA from any insurer
- Some insurers have plans to grow premiums to $500M or more
  - Will soon become eligible for ORSA requirement

ORSA update

- September 2013: California adopted ORSA model law
- October 2013: Pennsylvania adopted ORSA model law
- November 2013: 7 states adopting the law; 5 making progress to adopt it
- December 2013: NAIC accepted a report from the 2013 Pilot Project
- January 2014: New York adopts ERM and ORSA regulation
Description of ERM Framework

Focus on the actions that the insurer takes to ensure that the risks that they retain are what is intended individually and in aggregate. The intentions and means that the insurer applies to control and exploit risk.

Assessment of Risk Exposures

Tells how the insurer identifies material risks as well as risk assessment practices for normal and stressed environments. Describe the process for model validation, including factors considered and model Calibration.

Prospective Solvency Assessment

- Accounting Regime
- Business Included
- Time Horizon
- Risks Modeled
- Quantification Method
- Assumptions
- Risk Capital Metric
- Security Standard
- Risk Aggregation approach

NAIC ORSA – ERM components

- Risk Culture and Governance — Governance structure that clearly defines and articulates roles, responsibilities and accountabilities; and a risk culture that supports accountability in risk-based decision making.
- Risk Identification and Prioritization — Risk identification and prioritization process that is key to the organization; ownership of this activity is clear; the risk management function is responsible for ensuring that the process is appropriate and functioning properly at all organizational levels.
- Risk Appetite, Tolerances and Limits — A formal risk appetite statement, and associated risk tolerances and limits are foundational elements of risk management for an insurer; Board understanding of the risk appetite statement ensures alignment with risk strategy.
- Risk Management and Controls — Managing risk is an ongoing enterprise risk management activity, operating at many levels within the organization.
- Risk Reporting and Communication — Provides key constituents with transparency into the risk management processes and facilitate active, informal decisions on risk taking and management.
Willis 20 ERM Practices
14 are needed for ORSA

Key Practices
- Risk Identification
- Stress Testing
- Risk Limits and Controls
- Risk Capital
- Risk Measurement
- Risk Appetite and Tolerance
- ERM Policies and Standards
- Risk Reporting
- Risk Organization
- Risk Management Governance

Enhanced Practices
- Risk Management Culture
- Risk Optimization
- Risk Learning
- Risk-Adjusted Performance Measurement
- Change Risk
- Risk-Adjusted Compensation
- Risk Disclosure
- Model Validation
- Risk Strategy
- Emerging Risks

Risk Evaluation
- Identify each material risk category
  - reporting results in both normal and stressed conditions
- Communicate Risk Profile
  - Ranking of Risk Significance
- Consider the risk combinations that could cause the insurer to fail.
  - Avoid undue reliance on historical experience with regard to combinations of risks
- Show the impact of stresses on capital
  - risk capital requirements, available capital, as well as regulatory, economic, rating agency and/or other views of capital requirement
ORSA scenario tests

1. Normal environment
   - Project the company’s plan experience for 3 years or more
   - Show that the company meets capital adequacy test for each future year

2. Stressed environment
   - For future scenario that is significantly more adverse than plan environment
   - Project the company plan experience for 3 years or more
   - Show that the company meets capital adequacy test for each future year
   - If not, show what management actions will be taken to remain in business

Solvency Assessment

- Discussion of Solvency Assessment process
  - Accounting Regime, Business Included, Time Horizon, Risks Modeled, Quantification Method, Assumptions, Risk Capital Metric, Security Standard, Risk Aggregation approach

- Description of management actions that are needed to maintain sufficient capital
  - Impact of contingencies including management actions

- Summary of other considerations such as diversification, contagion, emerging risks and liquidity
Feedback to industry from pilot project

- Prepared for lengthy walk through discussion with regulator
- Reporting consistent with BOD
- Control flows within the organization
- Use of attachments that illustrate rigor
- Detail on actual risk limits
- Heat maps/risk ranking
- Combined stress testing & reverse stress testing
- Discussion of increasing risks and planning
- Discussion of risk mitigation
- Current data for available and required capital
- Comparative view of data over years
- Diversification benefit discussion
- Detailed compensation in supplemental exhibit
- Reasons for changing limits and tolerances

Source: NAIC Presentation

Conclusion

- ORSA is *really* coming in 2015 for about 160 US insurers
- Most companies will need to do significant preparation for first ORSA report
- Initially, regulators will be reviewing ORSA reports at fairly high level
  - Not expecting to do detailed technical review
  - They are looking for an ORSA report that will make it easy for them to understand what you are doing and why
  - Keeping important information out of the report is likely to make your ORSA review take longer
  - Management needs to get comfortable with this level of disclosure

They expect to learn how each insurer thinks about risk and solvency
OWN RISK AND
SOLVENCY ASSESSMENT

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Rating Agencies and ERM

- S&P – Added ERM to rating process in 2005
  - Level 2 ERM reviews added in 2006
    - Deep dive into risk control of key risks
  - Level 3 in 2012
    - Review of Economic Capital Models
- AM Best – added ERM review in 2008
  - SRQ questions on ERM
  - Slow but steady increase in emphasis
ERM Evaluation Components S&P

Strategic Risk Management
- Risk Control Processes
- Emerging Risks Mgmt
- Risk & Economic Capital Models

Risk Management Culture

ERM Scores – S&P

Process Improvements And Regulation Drive ERM Of North American And Bermudian Insurers Forward
Strategic Risk Management

Why does S&P make SRM so important?

- There are some companies with Superior Risk Management that S&P will then be judging to be Adequate?!?
  - Companies with Superior Risk Management (Controls) will have volatility of earnings and incidence of losses within their tolerances
  - Companies with Strong/Excellent ERM will have low volatility of earnings, low incidence of losses AND will maximize their risk/return relationship!

- Strategic Risk Management is the U**P**SIDE of Risk Management

Strategic Risk Management

For Non-Life (P&C) Insurers:

- Strategic Trade-offs among insurance coverages AND investments
  - based on long term view of risk adjusted return
  - Recognizing significance of investment risk to total risk profile
  - Recognizing ceded reinsurance credit risk
  - Selecting which risks to write and which to retain over the long term

- Some Insurers have 40% or more of their total capital tied to Investment risks
  - An Insurer with Strategic Risk Management will be able to say why they chose to take that much Investment risk
    - Including discussing relative risk reward of Insurance choices and Investments
      - Average risk reward vs. marginal risk reward
      - With consideration of diversification impact of Insurance vs. Investments

- For Multi-line insurers/reinsurers
  - Trade-offs between all investment & Insurance risks
  - Trade-offs between Life & non-life
Capacity / Capital Management vs. Strategic Risk Mgt.

- Many Insurers & Reinsurers practice Capacity / Capital Mgt
  - Make plans for writing all of the profitable business they can write
  - Then Assess whether they have exceeded their Capacity
    - Based on S&P, AM Best or RBC Capital Target
  - Use Reinsurance to bring retained risk back into line with Capacity

*This is not Strategic Risk Management!*

- S&P, other rating agency/regulatory RBC Capital formulas are not measures of company specific risks
- Strategic Risk Management uses company specific risk measure
  - May be Economic Capital or Earnings at Risk or other risk measure

*We are not saying that Capacity / Capital Mgt is bad*

- It is just not Strategic Risk Management

S&P Level 2 and Level 3 ERM Reviews

- Both Level 2 and Level 3 reviews are for larger, more complex, more risky firms
- Level 2 Review
  - Deep dive into risk control for major risk
  - Will rotate over several years
- Level 3 Review
  - Expecting rated insurers to have economic capital models
  - Review of company internal economic capital model
  - Review results in credibility score
    - Used to weight internal capital calculation with S&P model
ERM is ingrained in A.M. Best ratings

- A.M. Best is drilling down into management’s ability to identify, manage and measure risk across the enterprise.
- Agency wants to know how companies’ risk management process provides stable results than can sustain risks to solvency.
- A perceived weakness in these areas can affect rating in terms of Best’s view on ERM and potentially rating position.

A.M. Best Rating Evaluation

Source: A.M. Best
AMB ERM Evolution and Importance

January 2008
• Whitepaper on ERM and Ratings

2008 – 2009
• Discussions with companies

2010
• ERM SRQ Questions added

2011
• ERM Required for insurers to regain rating

2012
• ERM questioned for any insurer with negative experience

2013
• Emerging risks, capability characteristics, and risk management findings on ratings report

Which Companies Need ERM?

Low Risk

Business Profile

High Risk

Riskiness of investments
Premium and Reserve leverage
Complexity of products
Financial Flexibility
Competitive market
Sophisticated ERM

Traditional Risk Management

Risk Management Capability

Source: A.M. Best
Recommended topics to cover

- Provide the company’s **risk tolerance and appetite** statement
  - Show evidence of widespread knowledge in the company
- Identify and quantify **top 5-10 risks** for the company
- Use **stress tests** and show the impact on the balance sheet
- Calculate and analyze **correlation** of risks

Adhere to limits, but update statements over time to new profile, regulatory changes etc.

Question 56b in the prior SRQ is an example of stress tests

Examples of Key Risk Management Terms

- Management engaged in/ responsible for RM
- Established formal ERM Program
- Dedicated Risk Officer
- Economic Capital / DFA Model
- ERM Awareness throughout organization
- Top Risks Identified
- Risk Tolerance / Appetite
- Risk Committee
- Risk Management Policies and Procedures
- Risk Owners
- Board engaged in RM
- Mitigation and Monitoring
- Reinsurance
- Shared Responsibility for Risk Management
- Catastrophe Modeling

Top 15 most frequently found terms
ERM Risk Culture

• Who is Responsible for ERM?
  — Have a Chief Risk Officer or Senior Level Officer (83%)
    • Separate autonomous (11%)

• Do companies have ERM Committees?
  — Have ERM committees (78%)

• Is the company driven by risk return measures?
  — Yes (72%)

Source: Willis Re Survey

ERM Risk Tolerance

At what level do you define risk tolerance?

Source: A.M. Best
Largest Potential Threat to Financial Strength Identified by Management

Average Risk Profile

<table>
<thead>
<tr>
<th>Year</th>
<th>Risk Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>Market Risk</td>
<td>26%</td>
</tr>
<tr>
<td></td>
<td>Credit Risk</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>Underwriting Risk</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>Operational Risk</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>Strategic Risk</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Liquidity Risk</td>
<td>7%</td>
</tr>
<tr>
<td>2011</td>
<td>Market Risk</td>
<td>29%</td>
</tr>
<tr>
<td></td>
<td>Credit Risk</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>Underwriting Risk</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Operational Risk</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>Strategic Risk</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>Liquidity Risk</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: Willis Re Survey

Economic Capital Models

- Most companies did not have Economic Capital Models (89% Willis Re Survey)
  - A.M. Best reported 70% did not have one
  - Companies without one relied on:
    - Modeling, internal standards, and regulatory standards
Key Take-Aways

- Rating agencies raising the bar for ERM
- View ERM as a forward indicator of solvency
- Require risk management aligned with risk profile
  - Looking for a “risk-aware” culture across organization
  - Demonstrate how company identifies, measures, and manages risk
  - Explain own view of risk and solvency
  - Show how risk management drives company

Compliance
All Dealing from the same deck now

Example of Enterprise Risk Management

Enterprise Risk Management

<table>
<thead>
<tr>
<th>Risk Measurement and Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Appetite</td>
</tr>
<tr>
<td>Risk Organization</td>
</tr>
<tr>
<td>Risk Governance</td>
</tr>
<tr>
<td>Risk Capital</td>
</tr>
</tbody>
</table>

- Credit Risk
  - Advisory portfolio monitoring
- Market Risk
  - Investment Policy
- Underwriting Risk
  - Pricing and Reserving policies and procedures
- Operational Risk
  - Business continuity management plan
- Strategic Risk
  - Balance sheet Strength
- Liquidity Risk
  - Investment committee oversight
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