Proposed ERM Actuarial Standards of Practice

David Ingram, CERA, FRM, PRM, MAAA
Kevin M Madigan, PhD, ACAS, MAAA

May 2012

- David Ingram
  - EVP, Willis Re
  - Chair, ERM Task Force of the Actuarial Standards Board
  - Chair, Enterprise and Financial Risks Committee (IAA)
- Kevin Madigan
  - Director, PricewaterhouseCoopers LLP
  - Member, ERM Task Force of the Actuarial Standards Board
  - Member, Two ERM committees of the AAA

2

Draft Actuarial Standard of Practice

Risk Evaluation in Enterprise Risk Management
Released for Comment April, 2012
Comment period ends June 2012

Risk Treatment in Enterprise Risk Management
To be released for Comment
3rd Quarter, 2012

ERM Task Force of the ASB

David Ingram, Chairperson, Maryellen Coggins, Eugene Connell, Wayne Fisher, Kevin Madigan, Clause Metzner, David Rogers, Max Rudolph, Dave Sandberg, John Stark

3

Topics

A) Introduction to Actuarial Standards
B) ASB ERM Task Force
C) Enterprise Risk Management
D) ORSA
E) Proposed Standards for Risk Evaluation and Risk Treatment

4

Actuarial Standards of Practice

- Standards & Code of Conduct are true signs of a profession
- Defines what can be considered true actuarial professional work
  - Code of Conduct addresses expected Professional Behavior Expectations of the individual actuary
  - Standards address work of the individual actuary

5

Actuarial Standards of Practice

- Provide Guidance to Actuaries and Employers of Actuaries
- Basis for Professional Opinions
  - Tied to regulatory requirements in some situations
  - Provides a way for actuaries to communicate when they are being asked to deviate from normal practices
- Basis for Disciplinary Process

6

ERM is Actuarial Work And is Already Covered by SOPs

Code of Conduct: Standards of Practice

- **PRECEPT 3.** An Actuary shall ensure that Actuarial Services performed by or under the direction of the Actuary satisfy applicable standards of practice.
- ANNOTATION 3-3. When an Actuary uses procedures that depart materially from those set forth in an applicable standard of practice, the Actuary must be prepared to justify the use of such procedures.

Introduction to Standards of Practice

- 3.1.6 The ASB recognizes that actuarial practice involves the identification, measurement, and management of contingent future events in environments that rarely, if ever, emerge exactly as projected.

7

Standards that Apply to ERM Work

7. Analysis of Life, Health or Property Casualty Cash Flows

23. Data Quality

38. Using Models Outside The Actuary's Area of Expertise (Property and Casualty)

41. Actuarial Communications

8

ASB Appoints ERM Task Force

- 2005 – decided field was not yet ready
- 2010 – reported back with recommendation to create ERM SOP
- 2011 – Exposed Discussion Drafts on Risk Evaluation and Risk Treatment
  - Spent the last half of 2011 revising and reacting to comments
- 2012 – Presented proposed SOP on Risk Evaluation and Risk Treatment to ASB
  - April Released Risk Evaluation
  - Summer – will take up Risk Treatment

9

Important ERM Topics that were not included

- Culture
- Organization
- Governance

These will be considered at a later date.

10

Quick Overview of an ERM System

Risk Control Cycles

- Enterprise Level
- Risk / Business Unit Level

Management Systems

- CRO, Risk Committee
- Risk Owners
- Engagement with
  - entire organization
  - Board of Directors

11

Elements of Risk Control Cycle

- Identify Risks
- Assess Starting point
  - Evaluate retained risks from prior activities
  - Evaluate capacity to survive losses
- Evaluate Plans
  - Risk Acceptance
  - Risk Treatment
  - Expected Return, volatility, extreme loss potential and correlation with other plans
- Choose types and amounts of risks
- Implement Plans
- Monitor
- Adapt to variations from plan
- Report on Results and Restart Cycle

12

Elements of Risk Control Cycle

- Identify Risks
- Assess Starting point
  - **Evaluate** retained risks from prior activities
  - **Evaluate** capacity to survive losses
- **Evaluate** Plans
  - Risk Acceptance
  - Risk Treatment
  - **Expected Return, volatility, extreme loss potential and correlation with other plans**
- Choose types and amounts of risks
- Implement Plans
- Monitor (**Evaluate** positions and report)
- Adapt to variations from plan
- Report on Results (**Evaluate**) and Restart Cycle

13

Elements of Risk Control Cycle

- Identify Risks
- Assess Starting point
  - Evaluate retained risks from prior activities
  - Evaluate capacity to survive losses
- Evaluate Plans
  - Risk Acceptance
  - **Risk Treatment**
  - Expected Return, volatility, extreme loss potential and correlation with other plans
- Choose types and amounts of risks
- Implement Plans (**Risk Treatment**)
- Monitor (Evaluate positions and report)
- Adapt to variations from plan (**Risk Treatment**)
- Report on Results and Restart Cycle

14

Contents of Draft ERM Standards

- Scope
  - Discussion of tasks performed
  - Tells when to apply standard
- Recommended Practices
- Communication
- Disclosures

15

Own Risk and Solvency Assessment (ORSA) – a global trend in insurance supervision

- In late 2011, the NAIC preliminarily adopted a US Own Risk and Solvency Assessment (ORSA) requirement. ORSA requirements are also being introduced in many other territories, including Europe, Bermuda and Canada. In general, these are consistent with one another.
- The IMF assesses financial supervisory regimes against a common set of international core principles, one of which contains an ORSA requirement.
- The next IMF review of the US is scheduled for 2014; the NAIC expects to implement the ORSA requirement in advance of that review

16

Own Risk and Solvency Assessment (ORSA)

"An insurer…will be expected to regularly conduct an ORSA to assess the adequacy of its risk management and current, and likely future, solvency position, internally document the process and results, and provide a high-level summary report annually to the domiciliary regulator, if requested"

- NAIC Own Risk and Solvency Assessment (ORSA) Guidance Manual

- The ORSA Guidance Manual was adopted in November 2011 after a period of intense industry comment and engagement
- A pilot exercise will run in 2012, from which the NAIC plans to issue public feedback on a no-names basis
- Model Law currently being drafted – an exposure draft has been released
- The NAIC's guidance exempts those with annual premium of less than $500M at the company level or $1Bn at the group level

17

Regulators expect the US ORSA to play a significant role in US insurance supervision

"The ORSA Summary Report may help determine the scope, depth and minimum timing of risk-focused analysis and examination procedures…Insurers with ERM frameworks deemed to be robust for their relative risk may not require the same scope or depth of review, or minimum timing for a risk-focused surveillance as those with less robust ERM functions."

NAIC Own Risk and Solvency Assessment (ORSA) Guidance Manual

- **Risk management** – The ORSA will be a tool to help supervisors understand the risks insurers are exposed to, and how adept insurers are at managing those risks. Regulators plan to assess ERM capability, and to use it to guide their supervisory strategy
- **Group capital assessment** – Examiners and NAIC analysts will use the ORSA to assess groups' own assessment and management of their capital at group level. While the ORSA will not set a group capital requirement, it will provide information to regulators that will help guide supervisory action
- **Encouraging ERM** – The NAIC expects the ORSA to help foster effective ERM practices at all insurers

18

The ORSA guidance manual requires a 3-section structure for the ORSA summary report

Section 1 – Description of the insurer's risk management framework
- Summary of the risk management framework and policies; appropriate to the nature, scale, and complexity of company's risks

Section 2 – Insurer's assessment of risk exposures
- Management's quantitative and/or qualitative assessment of risk exposures in normal and stressed environments
- Should reflect how business is managed in practice

Section 3 – Group risk capital and prospective solvency assessment
- Discuss how risk assessment is used to determine required financial resources - under both normal and stressed conditions
- Demonstrate sufficient capital to execute multi-year business plan, even under adverse scenarios
- Should detail management actions taken (or to be taken) if inadequate capital

19

Risk Evaluation

Section 3. Analysis of Issues and Recommended Practices
- 3.1 Risk Evaluation – General Considerations
- 3.2 Considerations Related to Risk Evaluation Models
- 3.3 Economic Capital
- 3.4 Stress and Scenario Tests
- 3.5 Emerging Risks
- 3.6 Other Risk Evaluations
- 3.7 Specific Circumstances
- 3.8 Reliance on Data or Other Information Supplied by Others

20

Risk Evaluation
General Considerations

- information about the financial strength and risk context of the organization
- information about the organization's own risk management system
- the current and long-term risk environments.

Actuary should reflect inconsistencies between the above in the risk evaluation.

21

Risk Evaluation

– 3.3 Economic Capital
  - 3.3.1 Considerations Relating to an Economic Capital Model
  - 3.3.2 Reliance on Accounting Framework
  - 3.3.3 Methods
  - 3.3.4 Assumptions
  - 3.3.5 Validation of Economic Capital

22

Risk Evaluation

- 3.4 Stress and Scenario Testing
  – 3.4.1 Considerations Relating to Stress and Scenario Tests
  – 3.4.2 Methods
  – 3.4.3 Assumptions for Stress Tests
  – 3.4.4 Constructing Scenarios

23

Risk Evaluation

- 3.5 Emerging Risks
- 3.6 Other Risk Evaluations
  – ALM
  – Hedging
  – Reinsurance

24

Risk Treatment
Risk Appetite, Tolerance and Risk Limits

Considerations—In addition to General Considerations

- concentration of the risks
- the relationships between the risk appetite, risk tolerance and risk limits.
- the opportunities to mitigate breaches of risk limits and risk tolerances, the cost and effectiveness of mitigation;
- regulatory or accounting constraints which may affect the risk environment, limits, risk targets and risk tolerances; and
- the historical volatility in light of the risk profile.
- the impact of ceasing to accept particular risks

25

Risk Treatment
Risk Mitigation

Consider aspects of the organization:

- the organization's risk appetite; stated or implicit in actual operations and the amount of risk actually retained;
- the resilience of the organization under duress caused by common fluctuations as well as from extreme adverse external environmental issues;
- the operational capabilities of the organization to perform the tasks needed to implement the risk mitigation process;
- the potential risk to the organization's reputation of both the gross risk and the risk mitigation method.
- The potential impact of other risks as well as other separate entities in an affiliated group on the organization's reputation.

26

Risk Treatment
Risk Mitigation

Consider the potential effectiveness of or constraints upon risk mitigation activities.

- the availability of risk mitigation instruments both in the current and future environments;
- the counterparty credit risk, and corresponding concentrations thereof, inherent in the risk mitigation programs
- the basis risk that is inherent in the risk mitigation programs;
- the degree of confidence that the risk mitigation process can be maintained or repeated over the entire time horizon of the organization's plans for holding the inherent (gross) risk.

27

Risk Treatment
Risk Mitigation

Additional Considerations:

- the current and potential future inherent (gross) and residual (net) risk positions of the organization
- the accounting and regulatory treatment of the gross risk positions and the risk mitigation program and the degree of actual risk transfer/offset that is accomplished by the program
- granularity of modeling needed to capture the effects of the risk mitigation alternatives as well as the practicalities of achieving that granularity.

28

Conclusion

ERM Standards mean that actuaries expect to perform their work with a full review of the context in mind.

The actuarial profession is taking the important first step in the process of creating ERM standards of practice.

- The process of getting to great ERM standards is similar to the process of getting to a great ERM system for a company
- Taking a first step is even more important than exactly what that first step is.

29

Postscript

- There is a desire at the International Actuarial Association to produce a set of International Actuarial Standards of Practice
  - Demand from smaller associations who would rather rely upon international standards than try to create their own
- The IAA has formed a committee to start to create a small set of standards
  - An ERM Task Force has been formed to consider an ERM standard
  - A Statement of Intent will be proposed to the Executive Committee and is in process of preparation
  - Expected/possible timing = 2 – 4 years

30