

ERM Fundamentals and Implementation

Apex Discussion Series

February 17, 2011

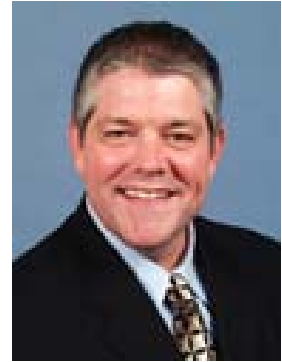
Kevin M Madigan, PhD, ACAS, MAAA

ERM Fundamentals and Implementation

About the Speaker

Kevin Madigan PhD, ACAS, MAAA

Mr. Madigan is a consulting actuary in Pinnacle's Saratoga Springs, NY office. He holds a PhD and an MA in Mathematics from the University at Albany, SUNY, and a BS in Mathematics from Auburn University. He has worked in the insurance industry since 1995. He currently chairs the Joint CAS/SOA Committee for the ERM Symposium and is a member of the ERM Task Force of the Actuarial Standards Board.



What is ERM?

- **RIMS:** A strategic business discipline that supports the achievement of an organization's objectives by addressing the full spectrum of its risks and managing the combined impact of those risks as an interrelated risk portfolio.
- **CAS:** The discipline by which an organization in any industry assesses, controls, exploits, finances, and monitors risks from all sources for the purpose of increasing the organization's short- and long-term value to its stakeholders.
- **COSO:** A process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.
- **IAIS:** The process of identifying, assessing, measuring, monitoring, controlling and mitigating risks.
- **ISO 31000** defines risk as “effect of uncertainty on objectives”

What is ERM?

COMMONALITIES

full spectrum

interrelated risk portfolio

risks from all sources

increasing value to stakeholders

strategy setting

across the enterprise

reasonable assurance of achieving objectives

Uncertainty and objectives

What is ERM? Is it GRC?

Governance, Risk, & Compliance

"ERM is the R in GRC if GRC processes (and supporting technologies) are done right. That is the simple truth of it. "

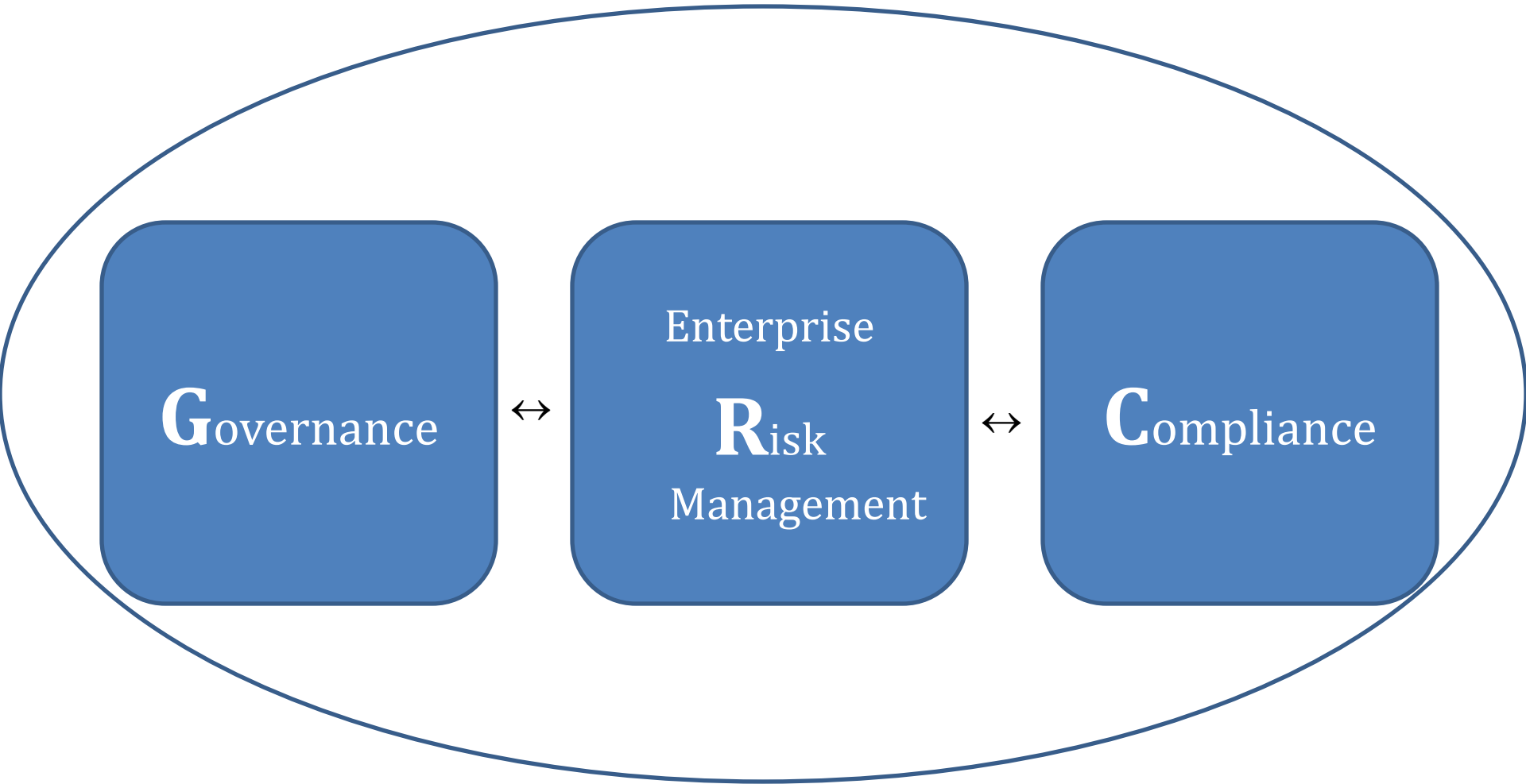
- Michael Rasmussen, Corporate Integrity, LLC

<http://corp-integrity.blogspot.com/2010/04/erm-vs-grc-response-to-steven-minskys.html>

GRC approaches to risk frequently focus on mitigation and avoidance, with *reactive* risk management

What about “opportunity risks”?

What is ERM? GRC View



What is ERM? GRC View

Fundamental Misunderstanding?

Differing attitude towards risk?

What is ERM?

- ERM
 - comprehensive
 - holistic
 - prospective
 - includes 'G' and 'C'
- Many firms *seek* risk in hopes of reward

Actuarial / Traditional RM view

- At times, optimum outcome = mitigation & avoidance

ERM ≠ GRC

- "We're very conservative in governance and compliance, but risk-takers in the business model area. ERM is not about being compliance-driven or regulatory-driven. [ERM and GRC] are two different things."
-Christina Kite, Cisco Systems ¹
- "If you think of your SOX and internal audit teams as GRC, then they're the ones that catch the fish and we're the ones that clean them. We're given risks to evaluate and measure, and we have to come up with solutions. ... We don't want a turf war. We'll advocate for them when they carry the water to senior management." – Lance J. Ewing, ARM, CRM, ERMP ¹

¹ <http://www.treasuryandrisk.com/Issues/2007/June%202007/Pages/Is-ERM-GRC-Or-Vice-Versa-.aspx>

GOOD NEWS!

Most organizations are already “doing” ERM

Organizations were managed before *Management* became a subject of study

ERM label does not *create* something new

Does bring focus, richness, depth, adds light

Enhances, grows, integrates

Promises to improve management of organizations

Where to Start?

- Traditional Risk Management
 - Identify
 - Assess
 - Evaluate
 - Mitigate
 - Monitor
- Holistically

Necessary Ingredients

- Risk Appetite, Preferences, Policies and Standards
- Risk Identification and Measurement
- Risk Targets and Tolerances
- Risk Limits / Controls / Governance
- Risk Language
- Culture
- Environment Encouraging Learning

Risk Appetite and Preferences

Risk Appetite

Maximum risk
organization chooses to
take during a defined time
period in pursuit of its
objectives

Which risks do you *want*?

Which risks do you *shun*?

Which can you live with if you must?

What are you? What do you want to be?

Risk Preferences

Which tradeoffs will be
made, which
combinations are
acceptable?

Policies and Standards

Write this down and publish

Identification and Measurement

- Systematically identify, classify and understand key risks
- Measure and evaluate risk in a consistent way across the organization
- Is Economic Capital model necessary for ERM?
 - That depends...

Risk Targets and Tolerances

- Targets
 - Given appetite, preferences, ID and metrics, develop optimal level of risk desired in pursuit of stated (and agreed upon) objectives
- Tolerances
 - In pursuit of targets, what are tolerable levels of risk?
 - Usually Tolerance > Appetite (not always)
- Write these down and publish

Limits, Controls & Governance

- Limits
 - Thresholds designed to help stay within tolerances
- Controls and Governance
 - Authority levels
 - Track, report, enforce limits
 - Method for resolving breaches
- Write down and publish

Language

- Explicitly strive for clarity in all risk related vocabulary used in organization
- Avoid the use of different words for the same ideas OR same words for different ideas
 - Even in seemingly inconsequential matters
- Communication is essential, hence semantics
 - Take care not to stifle creativity / innovation

Culture

- ERM woven into fabric - and consistent with existing culture - of the organization
- What is “M” in “ERM”?
 - M ≠ Modeling
 - M ≠ Compliance
 - M = Management
 - Management of organization *never* “done”
 - Nor is ERM ever “done” – it ends when the org does
 - Commitment is essential

Culture

- Resources and focus required at highest levels
- Commitment from all members of the senior management
- ERM “champion” for design, implementation, oversight
 - This is crucial – If everyone is responsible then no one is responsible
 - Identified
 - Accountable
 - Authority
 - Chief Risk Officer?
 - Dedicated ERM staff?

Learning

- Culture must allow for learning and improvement at all levels
- Avoid rigid compartmentalization as appropriate
- Encourage employees to see “big picture”
- Silo mentality to be avoided across enterprise; foster integration of people, ideas

Other considerations

- Perceptions of Fairness
- Human Interactions
- Organizational Behaviors
- Remember Traditional Risk Mgmt
 - Identify
 - Assess
 - Evaluate
 - Mitigate
 - Monitor

ERM Fundamentals and Implementation

- Start with what you know and are already doing - build on that
- Fill in “holes” based on what you have learned from what you already do well coupled with new knowledge and data
- Iterative, learning, never ending
 - Just like life

ERM Fundamentals and Implementation

- ERM details are never “One Size Fits All”
- Each organization is unique
- Bedrock commonalities inform all ERM
- ERM must be appropriate to the size, scale and complexity of risks faced by organization
- Some risks bring opportunity; others do not and never will
- There is no such thing as “the one, true path”

ERM Fundamentals and Implementation

- Sounds easy - right?
 - Documentation
 - Communication
 - Measurement
 - Accountability
 - Authority
 - Commitment

Necessary Ingredients Summarized

- You have and understand your Appetite, which informs your Preferences and allows for enunciation of Targets and Tolerances.
- Institute Limits and Controls in effort to stay w/in Tolerances with goal of attaining Targets
- Use common Language and Measurement to monitor and govern Identified risks and build a Culture of Risk Management and Learning that helps you achieve your objectives.

Spectrum of Risk Attitude

Recent work of Ingram and Underwood

“(R)isk perspectives fall into four broad groups with almost wholly incompatible views—and only one of those four perspectives is totally compatible with the current paradigm of Enterprise Risk Management (ERM). If proponents of ERM do not offer approaches that make sense for each of the four risk perspectives, ERM can and will fall out of management favor as it had in many firms during the recent boom.”

The Full Spectrum of Risk Attitude
Alice Underwood and David Ingram
The Actuary, Aug / Sept 2010

Spectrum of Risk Attitude

The Four Basic Perspectives

- Managers
- Maximizers
- Conservators
- Pragmatists
- All are valid and each is well suited to particular environments
- Most orgs have all four in senior positions

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Spectrum of Risk Attitude

- Managers
 - Mildly risk averse
 - Carefully balance risk and reward
 - Reliance on complicated models
 - Well suited for risk steering and times of moderate economic growth
 - Sustains damage in uncertain times and recessions
 - Passes on opportunities during booms
 - Some view risk steering as the “only true” ERM

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Spectrum of Risk Attitude

- Maximizers
 - Not risk averse – seek large risks for large gains
 - Believe risk is mean reverting
 - Focus on pricing risk “correctly”
 - Well suited for risk trading during economic booms
 - Dangerous when boom is ending / bubble bursting
 - View ‘ERM’ as impediment to profit
 - “Cowboys”

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Spectrum of Risk Attitude

- Conservators
 - Very risk averse
 - World is extremely dangerous
 - Caution and loss avoidance required at all times
 - Well suited for loss controlling and recessions
 - 'ERM' gives license to the cowboys
 - Misses significant opportunities, focused on survival

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Spectrum of Risk Attitude

- Pragmatists
 - Future unpredictable
 - Highly valued:
 - Flexibility
 - Freedom
 - Limited downside
 - Avoid commitments
 - Strategic planning, risk analysis, and 'ERM' not valued
 - Don't manage risk; diversify it
 - Well suited for uncertain times

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Spectrum of Risk Attitude

- Rational Adaptability is required
- Give voice to all four
- Closely monitor risk environment
- Align RM strategy with environment

RISK ATTITUDE	Maximizer	Conservator	Pragmatist	Manager
Risk Environment	Boom	Recession	Uncertain	Moderate
RM Strategy	Risk Trading	Loss Controlling	Diversification	Risk Steering

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Sampling of ERM Current Events

- IAIS issues ICP 16
The supervisory regime establishes enterprise risk management requirements for solvency purposes that require insurers to address all relevant and material risks
- NAIC to require Internal Risk Management Assessment (IRMA)?
- Rating agency focus – new AM Best ERM SRQ
- ASB Task Force drafting ERM SOPs

Our Next Discussion

March Apex Discussion Series

Vehicle Rating Using Predictive Modeling Techniques

March 17, 2011

As companies have adopted the use of predictive modeling for the development of their primary classifications and tiering plans, many companies have extended the application of these techniques towards development of preferred rating plans for their personal and commercial auto vehicle rating systems. This can be accomplished by identifying vehicle characteristics which can be used in the development of a vehicle rating plan which either can replace or supplement traditional “symbol” rating systems.

Pinnacle will describe the process involved, together with a discussion of the problems and solutions which would be faced in the development of a new rating plan using HLDI and other available information.



LeRoy Boison, FCAS, MAAA,

and

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Thank You for Your Attention

Visit us at www.pinnacleactuaries.com

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