Casualty Actuaries of New England
2010 Spring Meeting

ERM in the Aftermath of the Financial Crisis

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Objectives / Agenda

- Recap of 2007/2008
  - "Calamitous 18 months"
- Lessons learned from financial crisis
  - Governance, risk appetite, capital management
- Essential ingredients of a successful program
  - Wide array of tools and proper culture
  - Strategy
- Near term versus long term ERM goals
- Concluding Thoughts

Recap of 2007 / 2008

- Began with credit crisis which affected asset values and reserves for professional lines
  - Mark to market values on RMBS and CMBS
    - Industry experienced 3 “one in ten thousand year” events in 48 hours
  - 2007 accident year loss pick
- Carried into 2008
  - OTTI charges through the income statement
  - Continued rate softening for US casualty risks
  - Equity values declining, unrealized losses in abundance
  - Further punch by Hurricanes Ike and Gustav
- Cost of capital (if any) went through the roof
  - Many household names were struggling for survival
    - Insurers and other financial services firms
    - Industry lost 40% of its capital
- Where was ERM?

Lessons Learned from Financial Crisis

- ERM requires a special balance of cultural behaviors as well as strong analytical modeling
  - Knowing and understanding the risk versus reward tradeoff is critical.
  - Having a mission statement or set of guiding principles can be helpful.
  - Without full support from CEO & Board of Directors guarantees sub-optimal performance.
- Lesson Learned from 2008/2009
  - ERM continues to matter;
  - Processes and Disciplines that are central to a strong ERM culture served you well in the past 18 months;
  - The true benefit of ERM is not only seeing and feeling the interaction and combination of risks facing the organization, but collaborating to proactively mitigate the effects of such risks which is very powerful;
  - You don't know what you don't know – so plan accordingly
- ERM is a continuous process
  - Reflection of a culture of anticipating, stress testing and scenario planning for extreme events (i.e. strong Operational and Emerging Risk Management)

Lessons Learned from Financial Crisis (con't)

- Governance
  - By whom (board, management, regulators, rating agencies)
    - Board of Directors – ERM session at quarterly meetings
    - Management – Risk Committee
    - Regulators – Solvency II, RBC/ICA, required capital
    - Rating Agencies – BCAR, S&P CAR, Fitch, Moody's
  - Timely reporting of the various risks confronted by an organization to a wide audience can only enhance the process.
    - The key consideration from a board and management perspective is the continued debate over compliance versus true tactical and strategic discussions.
  - The risks must be pitched at the appropriate level to get optimal discussion,
    - Too granular results in discussion in the weeds, too broad results in areas being glossed over;
    - Risk reporting process and subsequent discussion over changes in risk profile
  - Governance is not about compliance.
    - Best served if discussion is open and honest, even if news is bad.

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Lessons Learned from Financial Crisis (con't)

- Risk Appetite
  - Contemplate, Calibrate, and Communicate how much you are willing to forfeit under a variety of metrics
    - Calendar year /quarter income; capital; cash
  - Consider risk versus reward tradeoff
    - Are we being compensated to take additional risk
  - Model Tail Value at Risk along with Value at Risk
    - Sensitivity test various results to better understand drivers of adverse results
    - Scenario plan for extreme events beyond modeled output
  - Create additional tolerance levels beyond that which are contemplated in models.
    - Consider time horizon and reserving impact;
    - Premium based, occurrence limits for property exposed; total limits for sub class of casualty risks
      - TIVs in location, reinsurance limit in wind exposed area, product/segment number of risks, etc
    - Monitor progress and address outliers/deviations
  - Consistently discuss results with business unit leaders and hold accountable for deviations to target
    - Transparency is key to success

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Lessons Learned from Financial Crisis (con't)

- Capital Management
  - Are we deploying capital to the right businesses
    - Sending capital to under-performing units
    - Reflecting the costs of future writings
    - Considering the costs associated with poor results
  - Do we have the right data, analytics, and processes in place to measure success and failure
    - ROE studies, strategic planning discussions, operational efficiencies
    - Data reviewed, discussed, and acted upon
  - What is our plan for excess capital (dividend/return, deploy, hold)
    - Are we reflecting appropriate options and cost of replenishing capital
    - What is the cost versus other hedges

Essential Ingredients

- Many feel that ERM is exclusively about economic capital modeling, it is not.
  - Economic capital modeling is one of the many analytic tools that are available to assist management in their ERM process and initiative.
  - Others include: ROE studies; reserve variability; individual risk assessments; liquidity stress testing; scenario planning; capital management; alignment of interest and compensation; and appreciation of model risk
- An excellent ERM process is centered around a culture and mindset that:
  - Appreciates the many risks facing an organization
  - Understands the drivers of those risks; and
  - Strategically reacts to those potential risks by making better decisions regarding capital deployed, opportunities sought; investments made, and business written.
- At the end of the day ERM is about knowledge based decisions with full contemplation of the various risks facing an organization.
  - Communication, transparency, alignment of interests

Essential Ingredients (con't)

- A successful ERM program must have a culture that embraces and fosters:
  - Full transparency of results (RORAC; RAROC) and accountability
    - Improve quality by exposing the truth (per Toyota)
  - Clear understanding of deployed capital to business units and entity as a whole
    - Economic, rating agency, regulatory, and held
  - Open dialogue and communication around risks facing organization
    - Clearly defined risk appetite so that business unit leaders can work in their box
    - Risk versus reward trade-off; reflect investments in future
  - Strong tone from the top regarding allocation of risk
    - CEO and Board of Directors
  - Alignment of interests and compensation system supporting group results
    - Goals and objectives tied to risk appetite and strategic plan
  - Full buy-in to strategic plan and corporate vision
    - Short term results versus long term planning
    - Everything is for the future
  - Scenario planning for emerging / unexpected risks
    - Operational risks; capital planning; etc

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Essential Ingredients - Strategy

- Are we in the right businesses
  - Peter Drucker's Theory of the Business
- Are we charging enough up front to pay for all costs
  - Mismatch between gross and net; corporate overhead; cost of being public
- Have we considered long run business opportunities
  - Part of the planning process
    - How much capital will be deployed
- Have we contemplated other risks - three approaches
  - Contingency planning
    - What we will do if/when this happens
  - Sensitivity analysis
    - Focus on cause and effect – the drivers
  - Scenario analysis
    - More than simulation - Paths under different assumptions (hard vs. soft market)

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Near Term versus Long Term

- The vision of Enterprise Risk Management (short term)
  - Develop ERM strategy
    - consistent with organization's mission statement and values
    - communicate, embrace, and enhance
  - Discuss importance / need full commitment from CEO, executive management, and Board
- Adapt culture to an ERM mindset (short term)
  - Somewhat about change management ; let the business case drive it
- Create reporting mechanism within company and board level (short term)
  - Start small – risks that might be managed in the silos
- Continue to bring silo's together through economic capital modeling (long term)
  - Small wins
- Develop good operational risk management disciplines
  - Emerging risks and scenario planning
  - Identified top risks and appropriate risk owners tied to compliance function.

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Concluding Thoughts

- Eliminate the noise and focus on the signal
  - 2 decimal point accuracy gets you nowhere
- No one process is perfect
  - There are arguments and counter-arguments to every assumption
- Transparency is critical
  - Process, assumptions, and overall results
- Understand stakeholders and ALL users
  - Different needs, angles, and desires
- Consistency is critical
  - No free lunches, be objective
- Focus on root causes, not the symptoms
  - Keep digging, ask “why” 5 times (per Toyota)
- Have thick skin

Lessons from Other Industries

- Toyota
  - Pursue perfection relentlessly (Kaizen)
    - A3 thinking – more than a report format
      - State of mind
    - PDCA – Plan, Do, Check, Act
  - Commit to what matters most
    - Once you buy in to the system, you have to live the life
    - Culture and ethics
    - Maintain a historical perspective; but everything is for the future
    - Favor long-term strategies over short-term fixes
  - Be willing to improve
    - Improve quality by exposing the truth
    - Get to the root cause as opposed to the symptom
    - Ask why 5 times