SOA - ERM Mini-Seminar

Operational Risk Management

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Operational Risk Management

- Enterprise Risk Management Framework at MetLife
- The Risk Management Organization
- Risk Measurement, Economic Capital
- Operational Risk
  - Converging Forces - Basel II, Sarbanes-Oxley
  - Challenges - Measurement, Tools, Considerations
- The Future
Enterprise Risk Management

- Liquidity
- Predominant Risk Testing
- Extreme Scenarios
- Board and CEO
- Audit Committee
- Internal Audit
- Controllers

Risk

- Planning
- Economic Capital
- Diversified Risks
- Rating and Reg. Capital
- Self-Assessment
- Process Mapping
- Compliance

- Scenario Testing
- Returns on Risk Capital
- Operational Risk Control
- Oversight
Risk Management - Organizational View

- Corporate Risk Management Group
  - Chief Risk Officer
    - Risk Transfer, Corporate Insurance
    - Economic Capital
    - Risk Assessment and Monitoring

- Line of Business - Risk Control Officer Positions

- Evolving Into Corporate Function
  - Consistent Models, Pricing Oversight, Risk Policy and Risk Limits
Economic Capital - Solid Foundation

- Comprehensive
  - Over 200 risk elements analyzed and quantified, 87 Product Lines
  - Benefit of diversification of risks across the enterprise is measured.

- Market Value Focus
  - Risk defined in terms of volatility of market value of assets, liabilities, and surplus.

- Operational Risk
  - One of many risk types, currently represents 23% of Economic Capital

- Creates Risk Transparency
  - Identify, measure and aggregate key risk exposures across the Company
• Return on Economic Capital (RAROC) measured for approximately 40 major product lines leading to relative rankings.

• Threshold considered for each product line’s impact on shareholder value - positive or negative

• Link with Strategic Planning and Performance Measurement.
• Consulting firm with External Loss Data
  • Loss data categorized into Interpersonal Relationships, Employee Misdeeds, Control or Compliance Breakdowns, System Issues and External Events
• Evaluated, Filtered Data to “Fit” with MetLife
• Sized Data to MetLife
• Aggregated Results
Operational Risk

• What Is It?

• Converging Forces
  • Basel II
  • Sarbanes-Oxley

• Challenges that We Face

• Where Are We Going?
Operational Risk Defined

• The risk of loss resulting from inadequate or failed processes, people and systems, or from external events.
  • Internal fraud
  • External fraud
  • Employment practices and workplace safety
  • Clients, products and business practices
  • Damage to physical assets
  • Business disruption and system failures
  • Execution, delivery, and process management
Operational Risk Defined

- The risk of loss resulting from inadequate or failed processes, people and systems, or from external events.

- Identifiable losses resulting from specific events
- Unnecessary expenses embedded in budgets
- Costs associated with tainted reputation
• Necessary for Advanced Measurement Approach:
  • Appropriate reporting of operational risk exposure, quarterly
  • Both firm-wide and line of business results
  • Internal loss event data (minimum 5 years)
  • External loss event data
  • Scenario analysis
  • Thresholds established
  • Testing and verification methodology
Sarbanes-Oxley

  - Results in audited opinion of adequacy of controls
  - Risks identified and described
  - For each risk, one or more controls identified and described
  - Ownership, frequency and evidence for each control
  - Opinion as to the effectiveness of each control
  - Documented testing of the effectiveness of each control
  - Remedial action, project plans, follow-up
  - Ongoing
Risk Management Landscape

- Risk Identification, Assessment, and Mitigation
- Risk Monitoring
- Risk Measurement

Risk Framework
Vision, Guiding Principles, Organization Structure, Strategy, Risk Taxonomy

Strategic Risk Assessment
New Business Initiatives/Product/Process Risk Assessment
Tactical Event/Disaster/Continuity Response Processes
On-going Risk and Control Self Assessments (RCSA)

Integrated Process Monitoring
Key Risk Indicators (KRI) Database
Risk Event Database
Risk / Exposure Calculation
Scenario Generator
Risk Based Capital Generator

Validation and Refinement
A Few of the Many Challenges

- Non homogeneous risk...unique to business activities, people, process and technology employed

- Lack of relevant external data---external data is generally not directly relevant to many risks and sufficient reliable internal data will not always be available

- Unstable, internally influenced environment...risk level, loss potential and correlations change with changes in organization, which management directly influences and are constantly changing
• Measurement & Analytical Framework must provide:
  • Incentives for appropriate behavior
  • An enhanced understanding of the complex interaction of risks and controls
  • A method to take qualitative data and incorporate it into an analytical framework
  • A framework to grow and be refined through the development of loss data analysis and management
  • Ability to assess cost effectiveness of controls
  • A way to extend and enhance the value from Risk & Control Self-Assessments and to demonstrate actual monetary risk represented in the assessments
Operational Risk Scorecard

Considers

- Risks → Likelihood and Impact
- Controls → Design and Performance

And Reflects

- Loss without Control and Loss with Control
• Tools Linking Sarbanes-Oxley Quality Documentation and Assessment with Op Risk Measurement

• Key Risk Indicators

• Internal Loss Event Database

• Incident Learning (External Loss Event Data)

• Strengthen Corporate and Line of Business Roles
• RAROC

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\text{After-tax Earnings} \quad \frac{\text{Economic Capital}}{}
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Motivation

- RAROC

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\frac{\text{After-tax Earnings}}{\text{Economic Capital}}
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- Often, increasing earnings means increasing risk, marginal increase in RAROC
• RAROC

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\frac{\text{After-tax Earnings}}{\text{Economic Capital}}
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• But, through Operational Risk Management we have the opportunity of increasing earnings while decreasing the Operational Risk component of Economic Capital, significant increase to RAROC