

# **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

Scenario Testing

- Board and CEO
- Audit Committee
- Internal Audit
- Controllers

Oversight

Risk

- Planning
- Economic Capital
- Diversified Risks
- Rating and Reg. Capital

Returns on Risk Capital

- Self-Assessment
- Process Mapping
- Compliance

Operational Risk Control



- **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

## **Create Value - Strategic Planning**

- **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.**

# **Operational Risk and Economic Capital**

- **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**

- **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**

## **Basel II - The New Basel Capital Accord**

- **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**

- **Required Process Documentation, Risk Assessment and Control Evaluation Ensuring Accurate Financial Reporting**
  - 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

Integrated Process Monitoring

Risk / Exposure Calculation

New Business Initiatives/Product/Process Risk Assessment

Key Risk Indicators (KRI) Database

Scenario Generator

Tactical Event/Disaster/Continuity Response Processes

Risk Event Database

Risk Based Capital Generator

On-going Risk and Control Self Assessments (RCSA)

Validation and Refinement

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**

# **Analytical Value From Risk & Control Assessment**

- **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



## **In Development (now) at MetLife**

- **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**

After-tax Earnings

Economic Capital

- **RAROC**

$$\frac{\text{After-tax Earnings}}{\text{Economic Capital}}$$

- **Often, increasing earnings means increasing risk, marginal increase in RAROC**

- **RAROC**

After-tax Earnings

Economic Capital

- **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**

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