

Implementation of AMA Within Business Line Risk Management

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Risk Management Objectives

Prevent or Minimize

- Errors or service delivery failures with visible impact on customers
- Financial losses
- Compliance breaches
- Reputation damage



Risk Committee of The Board

PURPOSE

The Risk Committee is appointed by the Board of Directors to assist the Board in fulfilling its oversight responsibilities in respect of:

- Risks inherent in the businesses of the Company and the control processes with respect to such risks, including reputation risk
- Risk profile of the Company
- Risk management, compliance and control activities of the Company, including review of operational audit findings
- Integrity of the Company's systems of operational controls regarding legal and regulatory compliance
- Compliance with legal and regulatory requirements, including without limitation, with respect to the conduct of the Company's businesses



Tone From the Top

- CEO support of risk management sends a message that protecting Mellon's reputation is a key goal;
- Frequent reinforcement to the business lines of the message that tackling their major risks keeps reputational harm at bay and losses down



Management Responsibilities for Risk

Business Line:

- Owns risks of the business
- Business Line Risk Management:
 - Owns responsibility to identify, monitor and ensure management of risk within business
 - Responsible to and accountable for developing and implementing: standards, policies, programs and processes to identify, communicate, monitor and mitigate the risks within the business
- Corporate Risk Management:
 - Provides oversight and support to Chairman/CEO and LOB management
 - Establishes overall policy and process framework
 - Provides indirect supervision of LOB Risk Managers to ensure risks are properly identified and managed
 - Independently approves credit risk, market risk policies and limits

Mellon

Coordinates cross line-of-business operational risk management training

Risk Management Oversight Model

Business Line Vice Chairman/Head

Chief Risk & Compliance Officer T. P. Robison

Business Line
Operational Risk
Manager

Business Line
Risk & Compliance
Manager

Business Line Compliance Manager

Operational Reconcilement Monitoring

Internal Controls,
Operational Losses,
KRI's Monitoring

Contract/ Vendor/Business Acceptance Tie-In to SOX 404 & Business Line Finance

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Risk Management Execution Priorities

- Instituted indirect reporting line to Risk Management for Sector Risk Managers in December 2003
- Prescribed core functions to be performed by Sector Risk Management in Risk Management Policy
- Monthly one-on-one's with Sector Risk Managers:
 - New or Emerging Risks/Products/Process Changes
 - Key Risk Indicators Implications and Actions
 - Losses Root Cause and Actions
 - Operational Reconcilements
 - Status of Current Risk Management initiatives
- Created Group of 12 Senior Corporate and Business Line Risk Manager working group – to prioritize and coordinate Risk Management activities across the Enterprise Mellon

Continuous Risk Management Process

- Identify and Understand key business processes and inherent risks
- Design and Document appropriate and cost effective controls, including policies, procedures, tools and training to mitigate all material risks
- Execute the controls at the business process and operational level
- Monitor key risk and performance indicators against standards
- **Elevate**, in a transparent manner, key indicator performance, aged reconcilement items, errors, losses and near misses
- Analyze key risk indicators that have breached standards, aged reconcilement items, errors, losses and near misses and determine their root cause
- Strengthen controls to minimize the impact of the item going forward
- **Reassess** the impact on risk and controls of any business process changes, new or modified products and update appropriately



Continuous Risk Management Process

Change Equals Risk X 10

- Be <u>aware</u> of all business process changes, new products and system conversions in your business
- Get in the flow and assess the risk and control implications of the changes
- Ensure new risks or comprising of existing controls are identified, elevated and mitigated
- Develop tracking of risk mitigation actions to ensure completion
- Raise your voice if you have to!



Culture & Tone from Chief Risk Officer

- Enterprise Focus in everything we do
- Creation of Shareholder Value Focus
- Process is Important know when 80/20 is good enough
- Consistency and Intensity are More Important
- Good Judgment and Results are Most Important!



Risk Management Value Proposition

Operational Losses \$24mm

Profit Margin 30%

New Revenue Equivalent \$80mm

New Revenue Equivalent per \$5 million in error reduction \$16mm



Operational Risk Modeling

- Model is a hybrid between a Loss Distribution Approach and a Scorecard Approach:
 - External data to model large losses
 - Internal data to model small losses
 - Scorecards to assess internal risk environment
 - Actual information on insurance coverage to measure mitigation
 - Monte Carlo simulation is used to develop a loss distribution
 - Capital is allocated to business sectors and risk categories and then to business units via scorecards
 - No scenario analysis at this time



Operational Risk Modeling

- Subsequent model runs revised business units' capital based on scorecard changes
 - Results will be rolled up as opposed to allocated down
 - Encourages business units to lower risk
 - Scorecards validated by independent reviewer
 - High-level loss distribution run updated to validate consolidated results



Operational Risk Modeling

Relevant Regulatory Issues

- Tax NOL Carryback position should be recognized as a deduction from capital for all Risk categories
- Expected loss should be deducted from Operational Risk capital
- Insurance mitigation inconsistent with credit risk mitigation
 - 20% cap arbitrary and should be eliminated
 - Recovery of valid claims beyond 1 year should be permitted

