



Risk Management & Decision Making A Chief Risk Officer's Perspective

Dr. Ruth Whaley

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12:00 – 13:00

Agenda

- Culture
- An expanding world of information
- Decision-making approaches
- Chief Risk Officer role
- Risk Management responsibilities
- Conclusion

Culture

- Tone set at the top
- Transparency
- Joint risk ownership between business & risk units
- CRO leads risk debate

A World of Information

- “A desk is a dangerous place from which to watch the world”

John Le Carre, ‘The Honorable Schoolboy’



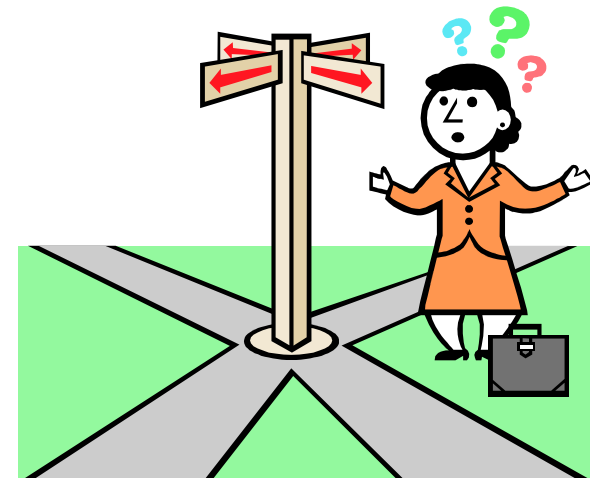
- Multiple information sources

- Databases, subscription research, websites/blogs, media
- Analysts, companies, research firms, government agencies
- Consultants, expert witnesses, lawyers, academic studies

- Diverse independent perspectives in analysis

Decision Making

- Uncertainty of long term outcomes
- Benefits of group decisions
- Risk Committee guidelines
- Feedback mechanisms, periodic review of decision process



The Chief Risk Officer's Role

Management

- Risk appetite & strategy
- Risk infrastructure of exposure systems
- Framework of qualitative/quantitative assessment
- Manage & mitigate risk

Leadership

- Fiduciary
- Risk spokesperson
- Independent + Partner
- Tough calls
- Hire and train right staff

Management Responsibilities

- Governance
- Assessing and measuring risk
- Managing firm-wide risks
- Reporting and Monitoring



Governance

- Board oversight
 - Risk tolerance approval
- Management committees
- Formal policies, criteria and procedures
- Coordination with compliance, internal audit, reporting, disclosure

Assessing Credit Risk -- Qualitative Approaches

Strategy Risk

- Evaluate context, market players, competitive variables
- Does strategy fit risk tolerance?
- What additional risk management is needed?
- Eg. Entry to an emerging market

Deal Risk

- Economic & legal environment, assets, counterparties, deal structure, variability of cash flows
- How remediate problems?
- Eg. Infrastructure financings

Measuring Risk -- Necessary but Imperfect Models

■ Models provide key indicators, use with caution

- Estimates of potential risk exposure
- Depend on past data to predict unknown future, insufficient data for rare but extreme events
- Test assumptions and model structure, periodic independent model review/backtesting
- Don't rely on single model -- consider results from several
- Probability analysis is only first step -- possibility analysis explores consequences

■ Benefits expand qualitative analysis

- Common language compares risk across products/businesses
- Risk-adjusted economic capital returns used in strategy, pricing, link to ROE

Typical Credit Models

■ Deals

- Monte Carlo simulation & scenario cash flows
- Derivative valuation models

■ Credit Portfolios

- Credit value at risk economic capital model

■ Investment assets

- Mark to market pricing, valuation models
- Interest rate, credit spread shocks
- Liquidity modelling of asset/liabilities, gap exposure, counterparty, settlement risk

■ Enterprise wide

- Catastrophic firm-wide scenario testing of credit, market, liquidity risk on firm and markets

Managing Risk Firm-wide

- Enterprise risk review
 - Aggregate exposures
 - Vulnerabilities, emerging risks
 - Operational, legal, reputation risk
- Stress testing for resilience in crisis
 - Funding flexibility = capital, liquidity, market confidence
- Concentrations can kill -- aggregate exposure limits set by quantitative results and judgment
 - Asset, counterparty, geography, cross-asset factors (e.g. liquidity, vintage)
- Risk Transfer
 - Insurance/reinsurance, securitization, credit derivatives

Reporting and Monitoring

■ Transparency

- Potential severity
- Early warning signals, real-time alerts
- No surprises!

■ Board

- Succinct dashboard w/consistent, analytic view of firm's risk profile
- Strategic review on major risk issues
- Compliance

■ Management

- Dashboard, formal reviews

■ Business/risk units

- Dashboard preparation/analysis, daily/weekly reports

■ Stakeholders

- Disclosure, non-jargon, key risks

Conclusion

- Effective risk management requires versatility
 - Technical/analytical skills & skeptical exploration
 - Governance for transparency, consistency, controls
 - Influence, communication
- Post crisis scrutiny
 - Model assumptions and interpretations
 - Inter-linkages across risks
 - Vulnerabilities, emerging risks
 - Resilience buffer for extreme stress
- Culture is critical to firm-wide risk awareness and management