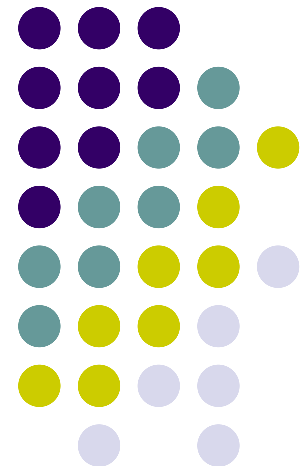
Corporate Governance and Risk Management
Enterprise-Wide Risk Management Seminar
June, 2008



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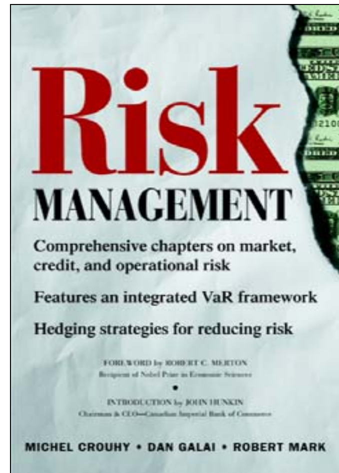
Risk Reference

CGM have co-authored a leading Risk Management book. This book is considered the Risk Management benchmark for technical and practical Risk Management strategies.

ANNOUNCING



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Risk Management

Michel Crouhy, Dan Galai, and Robert Mark

The All-in-One Banker's and Financial Manager's Guide for Implementing — and Using — an Effective Risk Management Program

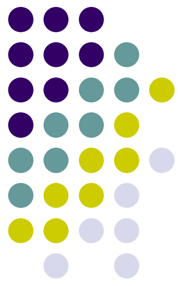
In today's world of multibillion-dollar credit losses and bailouts, it has become increasingly imperative for corporate and banking leaders to monitor and manage risk—on all fronts. ***Risk Management*** introduces and explores the latest financial and hedging techniques in use around the world, and provides the foundation for creating an integrated, consistent, and effective risk management strategy.

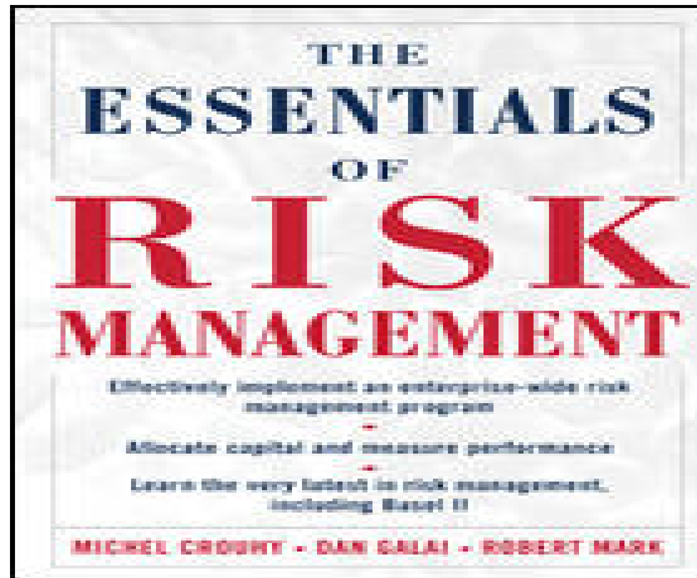
Risk Management presents a straightforward, no-nonsense examination of the modern risk management function — and is today's best risk management resource for bankers and financial managers. Its tested and comprehensive analyses and insights will give you all the information you need for:

- **Risk Management Overview** — From the history of risk management to the new regulatory and trading environment, a look at risk management past and present
- **Risk Management Program Design** — Techniques to organize the risk management function, and design a system to cover your organization's many risk exposures
- **Risk Management Implementation** — How to use the myriad systems and products—value at risk (VaR), stress-testing, derivatives, and more—for measuring and hedging risk in today's marketplace

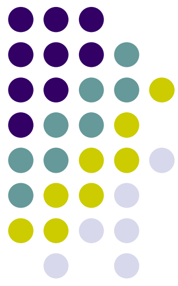
In the financial world, the need for a dedicated risk management framework is a relatively recent phenomenon. But as the recent crises attest, lack of up-to-date knowledge concerning its many components can be devastating. For financial managers in both the banking and business environments, ***Risk Management*** will introduce and illustrate the many aspects of modern risk management—and strengthen every financial risk management program.

Recommended (unbiased) Value Added Risk References





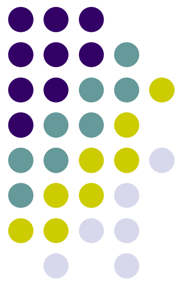
- **Comprehensive description of Risk Management**
- **No Math**
- **The essentials of risk management**



Topics covered include

- The new focus on governance
- SOX
- Governance and risk management

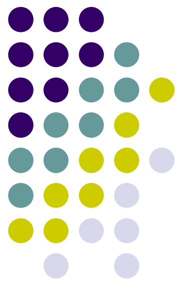
What is Corporate Governance?



Corporate governance refers to how a corporation is directed, and the laws and customs affecting that direction.

It includes the laws governing the formation of firms, the bylaws established by the firm itself, and the structure of the firm.

What is Corporate Governance?

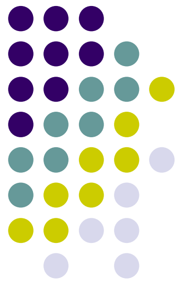


The corporate governance structure specifies the relations, and the distribution of rights and responsibilities, among primarily three groups of participants: the board of directors, managers and shareholders.

However, there are many non-shareholder entities.

Corporate governance is extended to all stakeholders and claimants of the corporation—society at large.

Balancing the Desires of Various Stakeholders



Superior Corporate Governance works to Balance the Desires of Various Stakeholders

Bank Management

Risk and Capital

Risk vs. Return

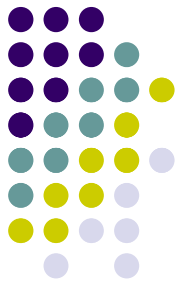
Safety

- Debt Holders
- Deposit Holders
- Counterparties on Derivatives
- Transactions
- Regulators
- Deposits Insurance Company
- Rating Agencies

Profitability

- Shareholders
- Analysts

Superior Corporate Governance works to understand the strategic choices and the associated risks as expressed in say a Typical Strategic Grid

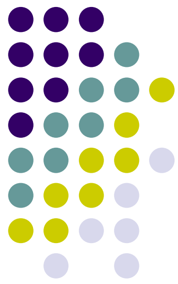


Quality of Earnings: Strategic Importance/Long-Term Growth Potential

	Low	High
High	Investment	Growth
Low	Fix, Reduce, Exit	Managed Growth

Quality of Earnings: RAROC Return

Superior Corporate Governance includes benchmarking the performance of each business (e.g. Utilizing Say The Efficient Frontier of Markowitz)



Expected return

Efficient frontier

M

P

E

F

D

C

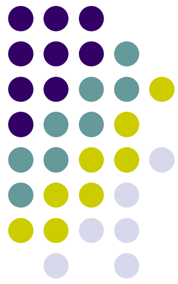
A

B

Risk

(standard deviation)

Superior Corporate Governance includes harmonizing the value added marketing initiatives with risk management activities



Corporate Governance

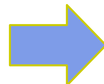
Customer Marketing

- Marketing Strategies
- Detailed analytics
- Integration of structural market factors
- Micro-market targeting

Risk Management

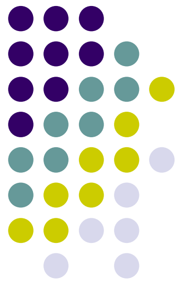
- Business Strategies
- Risk Analytics
- Planning
- Portfolio management
- Regulators

- Policy
- Methodology
- Infrastructure



Critical Executive challenge :
Integration of stakeholder interests

Superior Corporate governance includes examining what happens to the Corporation in extreme markets (e.g. Utilizing Say a Stress Envelope Approach)



Interest Rate

Foreign Exchange

Vega

Scenario XX

Equity

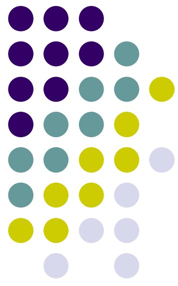
Swap Spreads

Commodity

Credit Spreads

%

Superior Corporate Governance has become increasingly driven by integrated demands (e.g. Regulatory, Rating Agency & SOX)



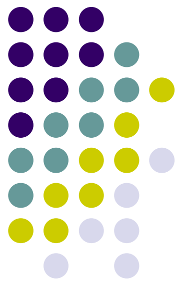
Three Basic Pillars

Minimum Capital Requirement

Supervisory Review Process

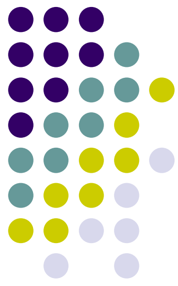
Market Discipline Requirements

Sarbanes-Oxley (SOX)



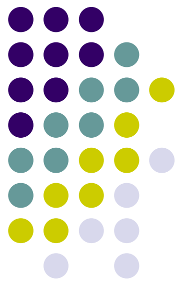
- **In response to the series of accounting and management scandals that surfaced soon after the millennium, the U.S. Congress passed the Sarbanes-Oxley Act of 2002 (SOX).**
- **The act creates a more rigorous legal environment for the board, the management committee, internal and external auditors, and the CRO (chief risk officer).**
- **SOX places primary responsibility on the chief executive officer and the chief financial officer of a publicly traded corporation for ensuring the accuracy of company reports filed with the Securities and Exchange Commission.**
- **SOX requires these senior corporate officers to report on the completeness and accuracy of the information contained in the reports, as well as on the effectiveness of the underlying controls.**

Sarbanes-Oxley (SOX)



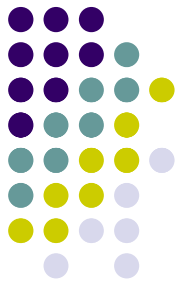
- Specifically, SOX calls for the CEO and CFO to certify quarterly and annually that the report field with the Securities and Exchange Commission does not contain any untrue statements or omit any material facts.
- Senior officers must certify that the financial statements fairly present (in all material respects) the results of the corporation's operations and cash flows.
- They also must take responsibility for designing, establishing, and maintaining disclosure controls and procedures.

Sarbanes-Oxley (SOX)



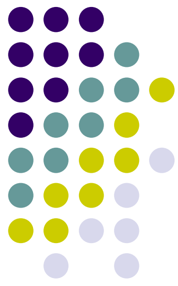
- **The CEO and CFO must also disclose to the audit committee and to the company's external auditors any deficiencies and material weaknesses in internal controls, as well as any fraud (material or not) involving anyone with a significant role in internal control.**
- **The act requires that senior management annually assess the effectiveness of the corporations internal control structure and procedures for financial reporting.**

Sarbanes-Oxley (SOX)



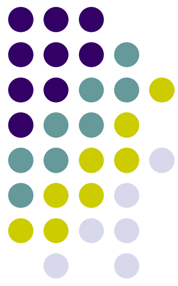
- The act also seeks to make sure that the board of the company includes some members who are experts in understanding financial reports.
- Companies are now compelled to disclose the number and names of persons serving on the critical audit committee whom the board has determined to be "financial experts".
- A financial expert is someone with an understanding of generally accepted accounting principles and financial statements, and should also have experience with internal accounting controls and an understanding of the function of the audit committee.

U.S. Exchanges Tighten up the Rules



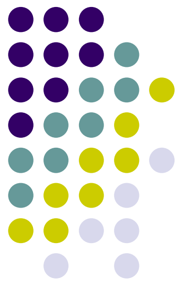
- In January 2003 the U.S. Securities and Exchange Commission issued a rule--as directed by the Sarbanes-Oxley Act—that requires U.S. national securities exchanges and national securities association (i.e., the NYSE, Amex and NASDAQ) to make sure that their securities listing standards conform to the existing and evolving SEC rules.
- These standards cover a number of areas that are critical to corporate governance and risk management
- ◆ Composition of the board of directors, e.g., the board must have a majority of independent directors

U.S. Exchanges Tighten up the Rules



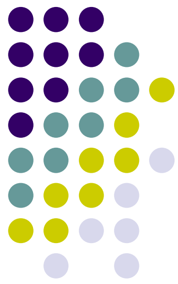
- Establishment of a corporate governance committee with duties such as the development of broad corporate governance principles and oversight of the evaluation of the board and management
- Duties of the compensation committee, e.g., it should make sure that CEO compensation is aligned with corporate objectives
- Activities of the audit committee, e.g., to review external auditors' reports describing the quality of internal control procedures, and to adopt and disclose corporate governance guidelines and codes of business conduct

Governance & Risk Management ERM and Directors' Duties



- ERM takes a complete, or holistic, view of all risks entailed by the enterprise, be they operational, financial, or of the natural hazard variety. By so, doing, ERM is a critical approach to governance (at the Board level) and is a necessity for management (at the managerial level)
- Directors have a 'global' responsibility for monitoring management and their prudent custody and deployment of the company's resources. This without exception, includes ensuring that these resources are safeguarded and used to maximize shareholders wealth or stakeholders benefit.

Typical Board roles include:



Effective Board Engagement

Remain Knowledgeable

Corporate Risk Management

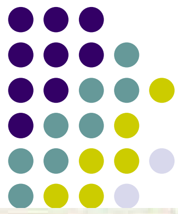
Roles of the Board

Oversees executive Succession Planning

Board and CEO Evaluation & Compensation

Review & Guide Corporate Strategy

The board and senior management are highly aware of their accountability

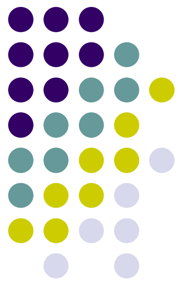


- "I was not aware..." "I did not believe..."
- "I did not have any knowledge..." "I don't recall."

The board and senior management are well aware that it can not claim it is unaware of risk, or be in a position where they don't act as they see materially significant events unfold

Dynamic Risk Management Strategies Can Go Badly Wrong – the MGRM Example

What you have done if you were on the board?



- **In 1993, MGRM (MG Refining & Marketing), the U.S. subsidiary of Metallgesellschaft (MG), entered into contracts to supply end-user customers with 150 million barrels of oil products (gasoline and heating oil) over a period of 10 years, at fixed prices.**
- **MGRM's fixed-price forward delivery contracts exposed it to the risk of rising energy prices.**
- **In the absence of a liquid market for long-term futures contracts, MGRM hedged this risk with both short-dated energy futures contracts on the New York Mercantile Exchange (NYMEX) and over-the-counter (OTC) swaps.**

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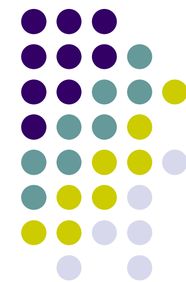

- The derivative positions were concentrated in short-dated futures and swaps, which had to be rolled forward monthly as they matured.
- Each month, the size of the derivatives position was reduced by the amount of product delivered that month, with the intention of preserving a one-to-one hedge.
- According to Culp and Miller (1995),[1] "such a strategy is neither inherently unprofitable nor fatally flawed, provided top management understands the program and the long-term funding commitments necessary to make it work."

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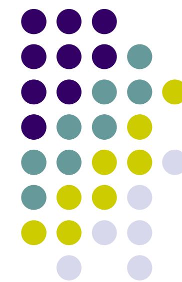

- This rolling hedge strategy can be profitable when markets are in a state known as "backwardation" (oil for immediate delivery commands a higher price than does oil for future delivery), but when markets are in "contango" (the reverse relationship), it can result in losses.
- This is because when a company is rolling the hedge position in a backwardated market, the contract near expiration is sold at a higher price than the replacement contract, which has a longer delivery date, resulting in a rollover profit.
- The contrary applies when the market is in contango.

Dynamic Risk Management Strategies Can Go Badly Wrong – the MGRM Example
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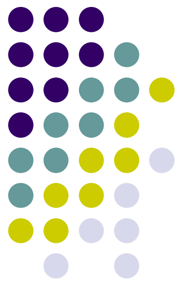
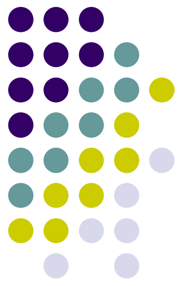


- This meant that MGRM was exposed to curve risk (backwardation versus contango) and to basis risk, which is the risk that short-term oil prices might temporarily deviate from long-term prices.
- Over 1993, cash prices fell from close to $20 a barrel in June to less than $15 a barrel in December, leading to $1.3 billion of margin calls that MGRM had to meet in cash.
- The problem was further compounded by the change in the shape of the price curve, which moved from backwardation to contango.
- MGRM's German parent reacted in December 1993 by liquidating the hedge, and thus turned paper losses into realized losses.

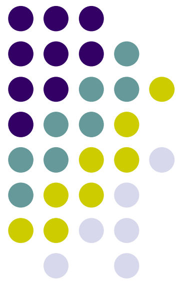
Dynamic Risk Management Strategies Can Go Badly Wrong – the MGRM Example
What you have done if you were on the board?



- **Whether or not the cash drain from the negative marked-to-market value of the futures positions was sustainable, the decision by the supervisory board to liquidate the hedge might not have been the optimal one.**
- **According to Culp and Miller, at least three viable alternatives should have been contemplated to avoid the price impact of unwinding the hedges in the marketplace: securing additional financing and continuing the program intact, selling the program to another firm, or unwinding the contracts with the original customers.**

1. C. Culp and M. miller, "Blame Mismanagement, Not Speculation, for Metall's Woes", *European Wall Street Journal*, Apr. 25, 1995.

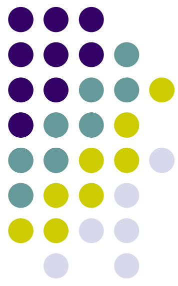
What Might a Risk Advisory Director Do?



Such a director should review, analyze, and become familiar with:

- **Risk management policies, methodologies, and infrastructure**
- **Daily and weekly risk management reports**
- **The overall business portfolio and how it drives risk**
- **Business strategies and changes that shape risk**
- **Internal controls to mitigate key market, credit , operational, and business risks**

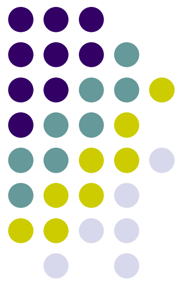
What Might a Risk Advisory Director Do?



Such a director should review, analyze, and become familiar with:

- **Financial statements, critical accounting principles, significant accounting judgments, material accounting estimates, and off-balance-sheet financings**
- **Financial information and disclosures that are provided in support of securities filings**
- **Internal audit and external audit reports and associated management letters**
- **Interplay between the company and its affiliates, including intercompany pricing issues, related-party transactions, and interrelationship of the external auditors selected for each of the enterprises**

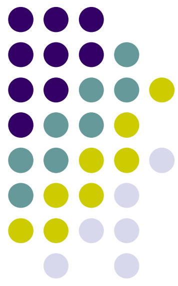
What Might a Risk Advisory Director Do?



We have described a new mechanism of corporate governance, the risk advisory director. Such a director should review, analyze, and become familiar with

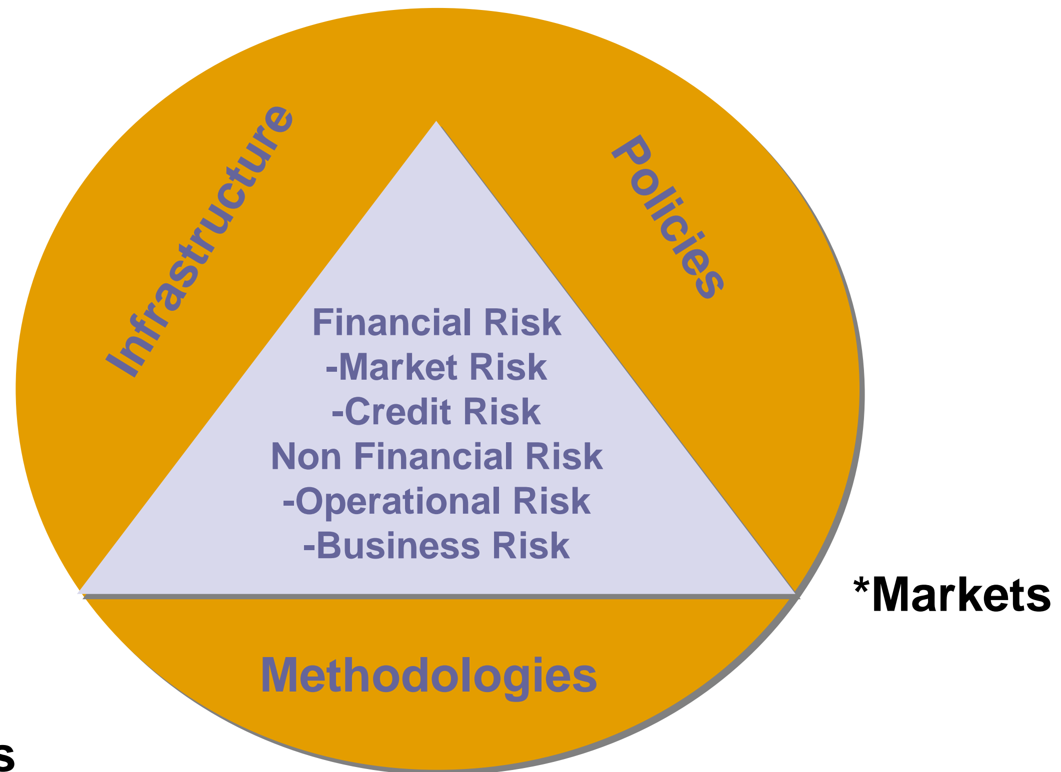
- **Relevant regulatory, accounting profession, industry, rating agency, and stock exchange-based requirements and best practices**
- **Practices of external competition and industry trends in risk management**
- **Industry corporate governance and risk-related forums**

A significant challenge for a CRO is to stay on top of a complex combination of “Characteristics” which are at the “Core of Superior ERM Solutions”



- *The ability to efficiently integrate all the components of risk on a ****portfolio*** *basis as well as to effectively operate in complex ****markets***
- *while serving ****customers*** *as well as satisfying* ****regulators*** *is a direct function of the quality of the policies, methodologies and infrastructure*

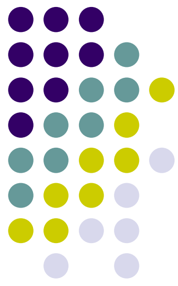
***Customers Investors**



***Markets**

***Regulators Rating Agencies Equity Analysts**

A significant challenge for a CRO is to build a "Superior ERM Solution" in partnership with the C Suite whose "Characteristics" can be benchmarked in terms of:

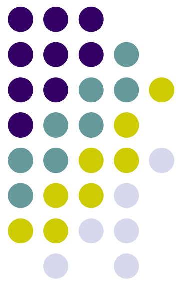


POLICIES

METHODOLOGIES

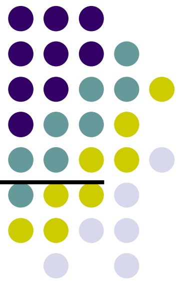
INFRASTRUCTURE

Ups in Risk Management



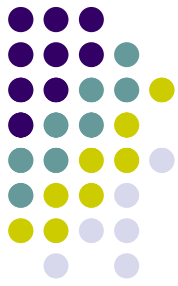
- Dramatic explosion in the adoption of sophisticated risk management processes, driven by an expanding skill base and falling cost of risk technologies
- Increase in the skill levels and associated compensation of risk management personnel as sophisticated risk techniques have been adopted to measure risk exposures
- Birth of new risk management markets in credit, commodities, weather derivatives, and so on that are the most innovative and potentially lucrative financial markets in the world
- Birth of global risk management industry associations as well as a dramatic rise in the number of global risk management personnel
- Extension of the risk measurement frontier out from traditional measured risks such as market risk toward credit and operational risks
- Cross fertilization of risk management techniques across diverse industries from banking to insurance, energy, chemicals, and aerospace
- Ascent of risk managers in the corporate hierarchy to become chief risk officers, and in best-practice organizations to generally become members of the top executive team (e.g., part of the management committee)

Downs in Risk Management



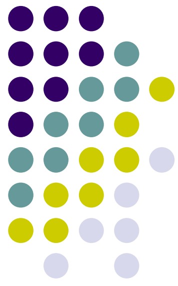
- Risk managers continue to find it a challenge to balance their fiduciary responsibilities against the cost of offending powerful business heads
- Risk managers do not generate revenue and therefore have not yet achieved the same status as the heads of successful revenue-generating businesses
- It's proving difficult to make truly unified measurements of different kinds of risk
- Quantifying risk exposure for the whole organization can be hugely complicated and may descend into a "box ticking" exercise
- The growing power of risk managers could be a negative force in business if risk management is interpreted as risk avoidance: it's possible to be too "risk averse".

Expectations of management include



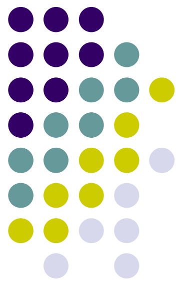
- Understanding your role
- Understanding your relationship with the Board:
  - Understanding the role of the Board
  - Boundaries between the board and senior management
  - What to expect of your Chairman, the Directors and other company authorities

Frequent pitfalls of the board



- Getting involved in the day-to-day running of the business
- Failure to establish clear Rule of Engagement for its members (particularly new board members)

Risk is multidimensional



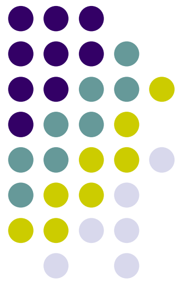
- Example:

Risks

- Market Risk
- Credit Risk
- Operational Risk
- Reputation Risk
- Business Risk
- Strategic Risk

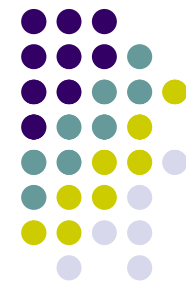
Not included in Basel framework

Examples of Business and Strategic Risk in Banking



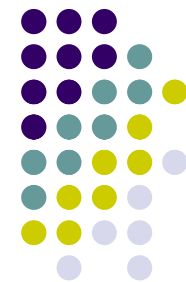
- Retail banking
- **A major acquisition turns out to be much less profitable than forecast.**
- Mortgage banking
- **A sharp rise in interest rates triggers a sharp fall in mortgage origination volumes.**

Examples of Business and Strategic Risk in Banking



- Wealth management
- **Falling or uncertain stock markets lead to lower investment fund sales.**
- Capital market activities
- **The relative size of the bank may limit its ability to win large loan underwritings.**

Examples of Business and Strategic Risk in Banking



- Credit cards
- **Competitors with sophisticated credit risk management systems may begin to steal genuinely profitable market share, leaving competitors that cannot differentiate between customers unwittingly offering business to relatively risky customers.**