Certified

INTERNATIONAL RISK MANAGER PROGRAMME™

UPDATED MANUAL

2023

THE BAHAMAS INSTITUTE OF FINANCIAL SERVICES

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NIKESIA PEMBERTON

Most Outstanding Student

The CIRM program has far exceeded my expectations. The program offers the flexibility of distance learning, which is quite convenient to working financial professionals. We were able to learn from some of the sharpest minds in the industry, who shared a wealth of practical, real-world knowledge and experience and challenged us to think outside the box. The class discussions and assignments were intense! They provided an opportunity to analyse risks relating to current industry events, which ensured that we were always kept abreast with emerging risks.

The modules cover the areas of Enterprise Wide Risk Management, Credit and Operational Risk, Investment and Liquidity Risk, Market Risk and Financial Instruments, Regulations and Compliance Risk, Corporate Governance and Reputational Risk. The completion of the CIRM program has surely equipped me with the relevant analytical skills to make that next career move.

Congratulations

to the team at St Kitts Nevis Anguilla National Bank Limited
on their well-deserved success on the
Certified International Risk Manager Course

CERTIFIED INTERNATIONAL RISK MANAGER 2023

Saturdays: 10am – 12noon | Wednesdays: 6:30pm – 9:30pm | Zoom Learning Platform

Date	Module	Lecturer
Saturday June 17	1: Enterprise-wide Risk Management	Mr. Keith Checkley
Saturday June 24	1: Enterprise-wide Risk Management	Mr. Keith Checkley
Saturday July 1	1: Enterprise-wide Risk Management	Mr. Keith Checkley
	Independence Day Holiday weekend	
Saturday July 15	2: Credit and Operational Risks	Mr. Keith Checkley
Saturday July 29	2: Credit and Operational Risks	Mr. Keith Checkley
Saturday August 5	2: Credit and Operational Risks	Mr. Keith Checkley
Wednesday August 2	3: Investment and Liquidity Risks	Mr. Jermaine Williams
Wednesday August 9	3: Investment and Liquidity Risks	Mr. Jermaine Williams
Wednesday August 16	3: Investment and Liquidity Risks	Mr. Jermaine Williams
Wednesday August 23	4: Market Risk & Financial Instruments	Mr. Jermaine Williams
Wednesday August 30	4: Market Risk & Financial Instruments	Mr. Jermaine Williams
Wednesday Sept 6	4: Market Risk & Financial Instruments	Mr. Jermaine Williams
Wednesday Sept 13	5: Regulations and Compliance Risks	Mrs. Christine Archer
Wednesday Sept 20	5: Regulations and Compliance Risks	Mrs. Christine Archer
Wednesday Sept 27	5: Regulations and Compliance Risks	Mrs. Christine Archer
Friday Sept 29	**Assignment Due**	
Wednesday Oct 4	6: Reputational Risk & Corporate Governance	Mrs. Christine Archer
Wednesday Oct 11	6: Reputational Risk & Corporate Governance	Mrs. Christine Archer
Wednesday Oct 18	6: Reputational Risk & Corporate Governance	Mrs. Christine Archer
Saturday Oct 28	**FINAL EXAM – Computer Base Multiple Choice (60 Questions)**	

Please note that schedule is subject to change

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Certified International Risk Manager Syllabus

Module I
Enterprise wide Risk Management

- Basel II and Guidance for Firm wide governance and Risk Management
- Defining Enterprise wide Risk Management (EwRM)
- Establishing an EwRM Framework with Responsibilities
- Key areas of Risk within the Organisation
- Managing different Strategic Units and Cultural Issues
- Developing Flow Charts for Expected Outputs

Module II
Credit and Operational Risks

- Definitions of Credit Risk and Key Credit Risk management Principles
- Basel II and Credit Risk Gradings
- Managing the Loan Portfolio
- Definition of Operational Risk and Key Risk management principles
- Basel II and Operational Risk Business Lines
- Developing Operational Risk Templates for Expected Outputs

Module III
Investment and Liquidity Risks

- Measuring Investment returns v risk
- Managing/Monitoring and reporting of Investment Portfolio
- Asset classes and the Investment mandate
- Liquidity Risk and the need for Cash Flow
- Basel II and Principles for liquidity Management
- Stress testing liquidity

Module IV
Market Risk & Financial Instruments

- Defining Market Risk and the Basel II overview
- Key components within Market Risk
- Using VAR as a Risk Management tool and its limitations
- The importance of stress testing scenarios
- Setting market risk limits
- Reviewing market risk models

Module V
Regulations and Compliance Risks

- The work of the Basel Committee – setting International Standards
- Principles based Regulation v rules based regulation
- UK FSA approach – US Sarbanes Oxley
- Major Compliance issues and challenges
- Conflicts of Interest/Insider trading and market abuse
- Investigations and Dispute resolutions

Module VI
Reputational Risk & Corporate Governance

- Reputational Risk – what it is and how to manage it
- Working with professionalism and Ethics – some ethical dilemmas
- Corporate Governance – Duties of Board and management
- Independent Directors. Executive and Non Executive Directors
- Relations with Shareholders and other Stakeholders
- Financial Disclosure and Non Financial Disclosure

Module I

Enterprise wide Risk Management

- Basel II & III and Guidance for Firm wide governance and Risk Management
- Defining Enterprise wide Risk Management (EwRM)
- Establishing an EwRM Framework with Responsibilities
- Key areas of Risk within the Organisation
- Managing different Strategic Units and Cultural Issues
- Developing Flow Charts for Expected Outputs

Credit Skills Library

Basel II

A review summary of the challenges facing financial institutions

Chartered Banker

Leading financial professionalism

Published by
The Chartered Institute of Bankers in Scotland
Drumsheugh House
38b Drumsheugh Gardens
Edinburgh EH3 7SW

Senior authors: Keith Checkley FCIB, FCIBS and Keith Dickinson FCIB

Editing and layout by Keystone Business Associates, Glasgow

Basel II

Welcome to the Credit Skills Library.

There have been previous financial crises but this time it is the severity and global impacts that are very different from what we have seen before. Never have banks and lending bankers received greater criticism over the quality of their lending than at the present time.

Media comment suggests that prudent lending principles have been disregarded in the quest in recent years for increased lending volumes and enhanced short term profitability. Analysts suggest that many of the prudential canons of lending have been overlooked and many lending bankers would benefit from a reconsideration and review of well tested and accredited lending principles. It is against this background that the Credit Skills Library has been developed.

The modules in this Library have been prepared to allow you and your colleagues instant access via e-learning and may be accessed as individual topics in which you are interested. We believe that they will also make an excellent basis for discussion with colleagues for mutual benefit.

We do hope that the extensive range will help you in your everyday job and also as someone interested in self development in the important area of Credit Skills.

Keith Checkley FCIBS and Keith Dickinson FCIB
Senior authors

Working with The Chartered Institute of Bankers In Scotland

Basel II

Key learning outcomes

- The purpose and intentions of the revised framework for International Convergence of Capital Measurement and Capital Standards (Basel II).
- The content and objectives of the 3 Pillars: Capital Requirements, Regulatory Review, Market Discipline.
- Assessment and calculation of credit risk, market risk, operational risk.
- Significance of the supervisory review process.
- Principles and extent of disclosure requirements.

International Convergence of Capital Measurement and Capital Standards: a Revised Framework

An extract from press statement – 26 June 2004

> **"Central bank governors and the heads of bank supervisory authorities in the Group of Ten (G10) countries issued a press release and endorsed the publication of *International Convergence of Capital Measurement and Capital Standards: a Revised Framework*, the new capital adequacy framework commonly known as Basel II. The governors and supervisors met at the Bank for International Settlements in Basel, Switzerland, to review the text prepared by the Basel Committee on Banking Supervision."**

The Report

The Basel II Report of June 2004 presents the outcome of the Basel Committee on Banking Supervision's ("the Committee") work over recent years to secure international convergence on revisions to supervisory regulations governing the capital adequacy of internationally active banks.

Following publication of the Committee's first round of proposals for revising the capital adequacy framework in June 1999, an extensive consultative process was set in train in all member countries and the proposals were also circulated to supervisory authorities worldwide. The Committee subsequently released additional proposals for consultation in January 2001 and April 2003. It also conducted three quantitative impact studies relating to its proposals. As a result, many valuable improvements have been made to the original proposals.

The present paper is a statement of the Committee agreed by all its members. It sets out the details of the agreed framework for measuring capital adequacy and the minimum standard to be achieved which the national supervisory authorities represented on the Committee will propose for adoption in their respective framework countries. This framework, and the standard it contains, have been endorsed by the Central Bank Governors and the Heads of Banking Supervision of the Group of Ten Countries. (ref: **www.bis.org/publ/bcbsca.htm**)

The framework was to be available for implementation as of year end 2006. The Committee, however, felt that one further year of impact studies or parallel calculations would be needed for the most advanced approaches, and therefore these were available for implementation as of year end 2007.

The document was circulated to supervisory authorities worldwide, with a view to encouraging them to consider adopting the revised framework at such time as they believed it to be consistent with their broader supervisory priorities. Each national supervisor was to consider carefully the benefits of the revised framework in the context of its domestic banking system when developing a timetable and approach to implementation.

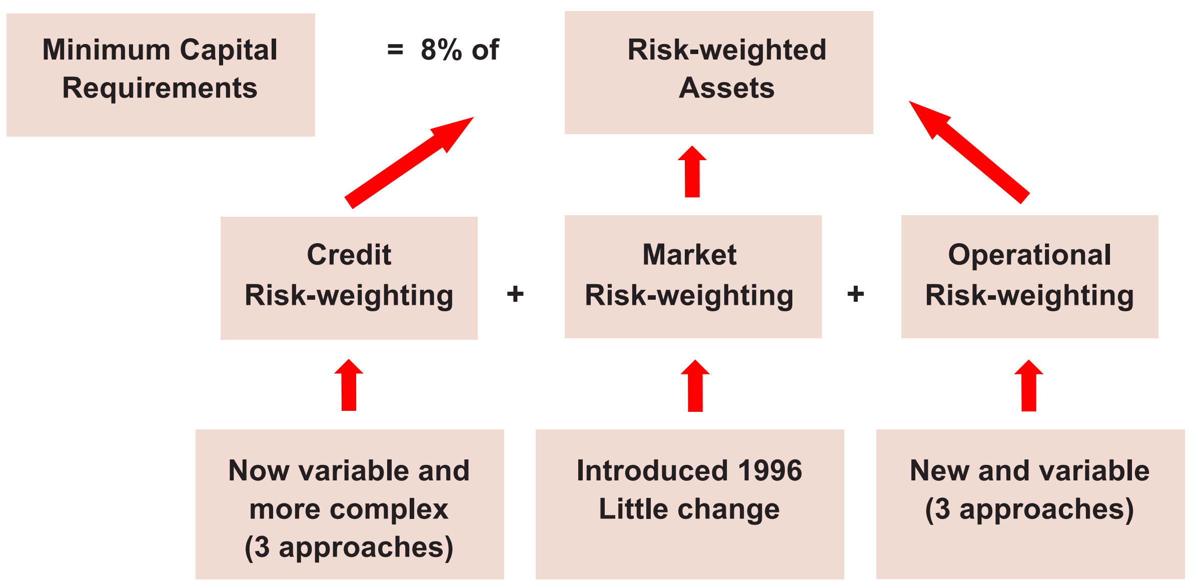
The fundamental objective of the Committee's work to revise the 1988 Accord has been to develop a framework that would further strengthen the soundness and stability of the international banking system while also maintaining sufficient consistency that capital adequacy regulation will not be a significant source of competitive inequality among internationally active banks.

The Committee believes that the framework will promote the adoption of stronger risk management practices by the banking industry and views this as one of its major benefits. The Committee notes that, in their comments on the proposals, banks and other interested parties have welcomed the concept and rationale of the three pillars approach – minimum capital requirements, supervisory review and market discipline – on which the revised framework is based.

In developing the revised framework, the Committee also retained key elements of the 1988 capital adequacy framework, including:

- the general requirement for banks to hold total capital equivalent to at least 8% of their risk-weighted assets
- the basic structure of the 1996 Market Risk Amendment regarding the treatment of market risk
- the definition of eligible capital.

A significant innovation of the revised framework is the greater use of the assessments of risk provided by the banks' internal systems as inputs to capital calculations. In taking this step, the Committee was also putting forward a detailed set of minimum requirements designed to ensure the integrity of these internal risk assessments. It was not the Committee's intention to dictate the form or operational detail of a bank's risk management policies and practices. Each supervisor was to develop a set of review procedures for ensuring that the bank's systems and controls are adequate to serve as the basis for the capital calculations. Supervisors will need to exercise sound judgements when determining a bank's state of readiness, particularly during the implementation process. The Committee expects national supervisors will focus on compliance with the minimum requirements as a means of ensuring the overall integrity of a bank's ability to provide prudential inputs to the capital calculations and not as an end itself.



The revised framework provides a range of options for determining the capital requirements for credit risk and operational risk to allow banks and supervisors to select approaches that are most appropriate for their operations and their financial market infrastructure. In addition, the framework allows for a limited degree of national discretion in the way in which each of these options may be applied to adapt the standards to different conditions of national markets. These features, however, will necessitate substantial efforts by national authorities to ensure sufficient consistency in application.

The Committee also recognised that home country supervisors have an important role in leading the enhanced cooperation between home and host country supervisors that will be required for effective implementation.

It should be stressed that the revised framework is designed to establish minimum levels of capital for internationally active banks. As under the 1988 Accord, national authorities are free to adopt arrangements that set higher levels of minimum capital. Moreover, they are free to put in place supplementary measures of capital adequacy for the banking organisations they charter. National authorities may use a supplementary capital measure as a way to address, for example, the potential uncertainties in the accuracy of the measure of risk exposures inherent in any capital rule or to constrain the extent to which an organisation may fund itself with debt. Where a jurisdiction employs a supplementary capital measure (such as a leverage ratio or a large exposure limit) in conjunction with the measure set forth in this framework, in some instances the capital required under the supplementary measure may be more binding. More generally, under the second pillar, supervisors should expect banks to operate above minimum regulatory capital levels.

The revised framework is more risk sensitive than the 1988 Accord, but countries where risks in the local banking market are relatively high, nonetheless need to consider if banks should be required to hold additional capital over and above the Basel minimum. This is particularly the case with the more broad brush standardised approach, but, even in the case of the internal ratings-based (IRB) approach, the risk of major loss events may be higher than allowed for in this framework.

The Committee also wishes to highlight the need for banks and supervisors to give appropriate attention to the second (supervisory review) and third (market discipline) pillars of the revised framework. It is critical that the minimum capital requirements of the first pillar be accompanied by a robust implementation of the second, including efforts by banks to assess their capital adequacy and by supervisors to review such assessments. In addition, the disclosures provided under the third pillar will be essential in ensuring that market discipline is an effective complement to the other two pillars.

The Committee is aware that interactions between regulatory and accounting approaches at both national and international level can have significant consequences for the comparability of the resulting measures of capital adequacy and for the costs associated with the implementation of these approaches. The Committee believes that its decisions with respect to unexpected and expected losses represent a major step forward in this regard. The Committee and its members intend to continue playing a proactive role in the dialogue with accounting authorities in an effort to reduce, wherever possible, inappropriate disparities between regulatory and accounting standards.

The revised framework reflects several significant changes relative to the Committee's consultative proposal in April 2003. A number of these changes was described in the Committee's press statements of October 2003, January 2004 and May 2004. These include the changes in the approach to the treatment of expected losses (EL) and unexpected losses (UL) and to the treatment of securitisation exposures. In addition to these, changes in the treatments of credit risk mitigation and qualifying revolving retail exposures, among others, have also been incorporated. The Committee has also sought to clarify its expectations regarding the need for banks using the advanced IRB approach to incorporate the effects arising from economic downturns into their loss-given-default (LGD) parameters.

The Committee believes it is important to reiterate its objectives regarding the overall level of minimum capital requirements which are to broadly maintain the aggregate level of such requirements, while also providing incentives to adopt the more advanced risk-sensitive approaches of the revised framework.

The Committee has designed the revised framework to be a more forward-looking approach to capital adequacy supervision, one that has the capacity to evolve with time which is necessary to ensure that the framework keeps pace with market developments and advances in risk management practices.

The Committee also seeks to continue to engage the banking industry in a discussion of prevailing risk management practices, including those practices aiming to produce quantified measures or risk and economic capital. Over the last decade, a number of banking organisations have invested resources in modelling the credit risk arising from their significant business operations. Such models are intended to assist banks in quantifying, aggregating and managing credit risk across geographic and product lines. While the framework stops short of allowing the results of such credit risk models to be used for regulatory capital purposes, the Committee recognises the importance of continuing active dialogue regarding both the performance of such models and their comparability across banks.

Moreover, the Committee believes that a successful implementation of the revised framework will provide banks and supervisors with the critical experience necessary to address such challenges. The Committee understands that the IRB approach represents a point on the continuum between purely regulatory measures of credit risk and an approach that builds more fully on internal credit risk models.

In principle, further movements along that continuum are foreseeable, subject to an ability to address adequately concerns about reliability, comparability, validation and competitive equity. In the meantime, the Committee believes that additional attention to the results of internal credit risk models in the supervisory review process and in banks' disclosures will be highly beneficial for the accumulation of information on the relevant issues.

A comparison between Basel I and II

Basel I	**Basel II**
Focus on a single risk measure	More emphasis on banks' own internal methodologies, supervisory review, and market discipline
One size fits all	Flexibility, menu of approaches, incentives for better risk management
Broad brush structure	More risk sensitivity
Capital Calculation Capital Ratio = $\frac{\text{Total Capital}}{\text{Credit Risk (RWA banking book)}}$	Capital Ratio = $\frac{\text{Total Capital}}{\text{Credit Risk + Market Risk + Operational Risk (Trading book)}}$

The First Pillar – Choices in calculation

	Basic	Intermediate	Advanced
Credit Risk	'Standardised' Successor to the 1988 Accord with some additional sensitivities	'Foundation' – internal rating based approach Portfolio split by category of exposure – input from institution and regulator	'Advanced' – internal rating-based approach As for Foundation but all parameters calculated by institution.
Market Risk	No major change in current approach		
Operational Risk*	'Basic Indicator Approach' Capital charge based on single risk indicator	'Standardised Approach' Capital charge based on sum of 8 Business Line risk indicators, each calculated by defined industry standards	'Advanced Measurement Approach' Capital charge by Business Line, internally calculated and variable on level of risk

* Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This definition includes legal risk, but excludes strategic and reputational risk.

The Second Pillar – Supervisory process

The second pillar has two objectives:

- compliance with the higher approaches to capital calculations
- sound integrated risk management systems and controls.

All regulated organisations must develop:

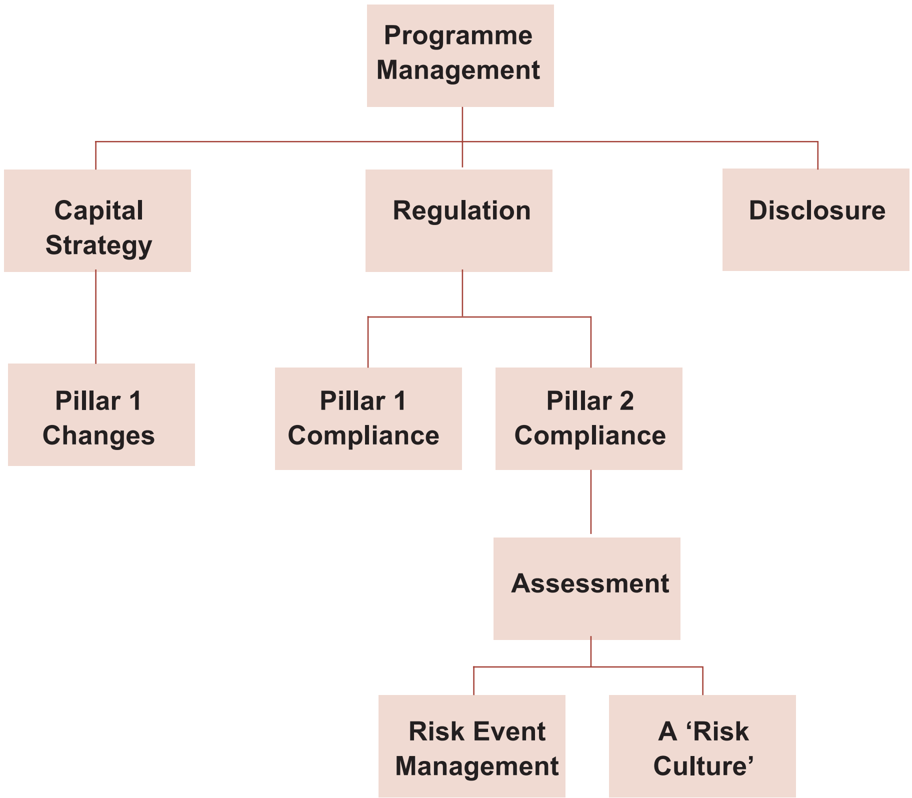
- an appropriate risk management environment
- risk identification, assessment, monitoring and mitigation/control
- regular independent evaluation of policies, procedures and practices
- make sufficient public disclosure to allow the market to assess their approach to operational risk management.

The basic approaches to capital adequacy calculation do not exclude new requirements:

- a risk assessment culture must be created
- credit and operational risks must be monitored

- risk events must be recorded
- a risk data base must be created
- risk actions must be disclosed.

All financial institutes will need a coordinated programme:



Importance of the supervisory review

The supervisory review process of the framework is intended not only to ensure that banks have adequate capital to support all the risk in their business, but also to encourage banks to develop and use better risk management techniques in monitoring and managing their risks.

The supervisory review process recognises the responsibility of bank management in developing an internal capital assessment process and setting capital targets that are commensurate with the bank's risk profile and control environment.

In the framework, bank management continues to bear responsibility for ensuring that the bank has adequate capital to support its risks beyond the core minimum requirements.

Supervisors are expected to evaluate how well banks are assessing their capital needs relative to their risks and to intervene, where appropriate. This interaction is intended to foster an active dialogue between banks and supervisors, such that when deficiencies are identified, prompt and decisive action can be taken to reduce risk or restore capital. Accordingly supervisors may wish to adopt an approach to focus more intensely on those banks with risk profiles or operational experience that warrants such attention.

The Committee recognises the relationship that exists between the amount of capital held by the bank against its risks and the strength and effectiveness of the bank's risk management and internal control processes.

Increased capital should not be viewed as the only option for addressing increased risks confronting the bank. Other means for addressing risk, such as strengthening risk management, applying internal limits, strengthening the level of provisions and reserves and improving internal controls, must also be considered. Furthermore, capital should not be regarded as a substitute for addressing fundamentally inadequate control or risk management processes.

Particular focus can be directed towards risks that are not fully captured by the Pillar 1 process (such as credit concentration risk), those factors not taken into account by the Pillar 1 process (such as interest rate risk in the banking book, business and strategic risk) and factors external to the bank (such as business cycle effects).

The assessment of compliance is also vital, with the minimum standards and disclosure requirements of the more advanced methods in Pillar 1, in particular the IRB framework for credit risk and the Advanced Measurement Approaches for operational risk.

Four key principles of supervisory review

Principle 1: Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.

Principle 2: Supervisors should review and evaluate banks' internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with regulatory capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the result of this process.

Principle 3: Supervisors should expect banks to operate above the minimum capital ratios and should have the ability to require banks to hold capital in excess of the minimum.

Principle 4: Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored.

The Third Pillar – Market discipline

Disclosure requirements

The Committee believes that the rationale for Pillar 3 is sufficiently strong to warrant the introduction of disclosure requirements for banks using the framework. Supervisors have an array of measures that they can use to require banks to make such disclosures. Some of these disclosures will be qualifying criteria for the use of particular methodologies or the recognition of particular instruments and transactions.

Guiding principles

The purpose of Pillar 3 – market discipline – is to complement the minimum capital requirements (Pillar 1) and the supervisory review process (Pillar 2).

The Committee aims to encourage market discipline by developing a set of disclosure requirements which will allow market participants to assess key pieces of information on the scope of application, capital, risk exposures, risk assessment processes, and hence the capital adequacy of the institution.

The Committee believes that such disclosures have particular relevance under the framework, where reliance on internal methodologies gives banks more discretion in assessing capital requirements.

In principle, banks disclosures should be consistent with how senior management and the board of directors assess and manage the risks of the bank. Under Pillar 1, banks use specified approaches/methodologies for measuring the various risks they face and the resulting capital requirements. The Committee believes that providing disclosures that are based on this common framework is an effective means of informing the market about a bank's exposure to those risks and provides a consistent and understandable disclosure framework that enhances comparability.

Disclosure requirements

- **General disclosure principle**

The Committee is aware that supervisors have different powers available to them to achieve the disclosure requirements. Market discipline can contribute to a safe and sound banking environment, and supervisors require firms to operate in a safe and sound manner. Under safety and soundness grounds, supervisors could require banks to disclose information. Alternatively, supervisors have the authority to require banks to provide information in regulatory report which could be made publicly available.

A number of mechanisms exist by which supervisors may enforce requirements. These vary from country to country and range from moral suasion through dialogue with the bank's management, to reprimands or financial penalties. The nature of the exact measures used will depend on the legal powers of the supervisor and the seriousness of the disclosure deficiency.

The Committee recognises the need for a Pillar 3 disclosure framework, covering bank capital adequacy, that does not conflict with requirements under accounting standards, which are broader in scope. The Committee intends to maintain an ongoing relationship with accounting authorities and will consider future modifications for the disclosures required in Pillar 3.

Banks should have a formal disclosure policy approved by the board of directors that addresses the bank's approach for determining what disclosures it will make and the internal controls over the disclosure process.

In addition, banks should implement a process for assessing the appropriateness of their disclosures, including validation and frequency.

Banks should explain material differences between the accounting or other disclosure and the supervisory basis of disclosure.

For disclosures that are not mandatory under accounting or other requirements, management may choose to provide Pillar 3 information through other means consistent with requirements of national supervisory authorities. Institutions are encouraged to provide all related information in one location.

A bank should decide which disclosures are relevant based on the materiality concept. Information would be regarded as material if its omission or misstatement could change or influence the assessment or decision of a user relying on that information for the purpose of making economic decisions. This definition is consistent with International Accounting Standards and with many national accounting frameworks. The Committee recognises the need for qualitative judgement of whether a user of financial information would consider the item to be material (user test). Specific thresholds for disclosure have not been set as these can be open to manipulation and are difficult to determine. It is believed that the user test is a useful benchmark for achieving sufficient disclosure.

A precis of disclosure requirements

Scope of Application – Table 1	
Qualitative Disclosures	The name of the top corporate entity in the group, to which the framework applies.
Quantitative Disclosures	• The aggregate amount of surplus capital of insurance subsidiaries (whether deducted or subjected to an alternative method) included in the capital of the consolidated group. • The aggregate amount of capital deficiencies in all subsidiaries not included in the consolidation. • The aggregate amounts (eg current book value) of the firm's total interests in insurance entities which are risk weighted.

Capital Structure – Table 2	
Qualitative Disclosures	Summary information on the terms and conditions of the main features of all capital instruments, especially in the case of innovative, complex or hybrid capital instruments.
Quantitative Disclosures	• The amount of Tier 1 capital, with separate disclosure of make-up • The total amount of Tier 2 and Tier 3 capital • Other deductions from capital • Total eligible capital

Capital Adequacy – Table 3	
Qualitative Disclosures	A summary discussion of the bank's approach to assessing the adequacy of its capital to support current and future activities.
Quantitative Disclosures	• Capital requirements for credit risk and make-up • Capital requirements for equity exposures in the IRB approach • Capital requirements for market risk • Capital requirements for operational risk • Total and Tier 1 capital ratio

Credit Risk: General Disclosures for all Banks – Table 4	
Qualitative Disclosures	The general qualitative disclosure requirement with respect to credit risk.
Quantitative Disclosures	• Total gross credit risk exposures, broken down by major types of credit exposure. • Geographic distribution of exposures, broken down in significant areas by major types of credit exposure.

Credit Risk: Disclosures for Portfolios subject to the Standardised Approach and Supervisory Risk Weights in the IRB Approaches – Table 5	
Qualitative Disclosures	For portfolios under the standardised approach: • Names of ECAIs and ECAs used • Types of exposure for which agency is used • The alignment of the alphanumerical scale of each agency used with risk buckets.
Quantitative Disclosures	• For exposure amounts after risk mitigation subject to the standardised approach, amount of a bank's outstandings (rated and unrated) in each risk bucket as well as those that are deducted • For exposures subject to the supervisory risk weights in IRB, the aggregate amount of a bank's oustandings in each risk bucket.

Credit Risk: Disclosures for Portfolio Subject to IRB Approaches – Table 6	
Qualitative Disclosures	Supervisor's acceptance of approach/supervisory approved transition Explanation and review of the: • Structure of internal rating systems and relation between internal and external ratings· • Use of internal estimates other than for IRB capital purposes • Control mechanisms for the rating system Description of the internal ratings process, provided separately for five distinct portfolios: • Corporate (including SMEs, specialised lending and purchased corporate receivables), sovereign and bank • Equities • Residential mortgages • Qualifying revolving retail • Other retail
Quantitative Disclosures for Risk Assessment	For each portfolio except retail, present the following information across a sufficient number of PD grades (including default) to allow for a meaningful differentiation of credit risk: • Total exposures (for corporate, sovereign and bank, outstanding loans and EAD on undrawn commitments • For banks on the IRB advanced approach, exposure-weighted average LGD (percentage) • Exposure weighted-average risk-weight • For banks on the IRB advanced approach, amount of undrawn commitments and exposure-weighted average EAD for each portfolio.
Historical Results	Actual losses (eg charge-offs and specific provisions) in the preceding period for each portfolio and how this differs from past experience.

Credit Risk Mitigation: Disclosure for Standardised and IRB Approaches – Table 7

Qualitative Disclosures	The general qualitative disclosure requirement with respect to credit risk mitigation including: • Policies and processes for, and an indication of the extent to which the bank makes use of, on and off balance sheet netting • Policies and processes for collateral valuation and management • A description of the main types of collateral taken by the bank • The main types of guarantor/credit derivative counterparty and their creditworthiness • Information about (market or credit) risk concentrations within the mitigation taken.
Quantitative Disclosures	For each separately disclosed credit risk portfolio under the standardised and/or foundation IRB approach, the total exposure (after, where applicable, on or off balance sheet netting) that is covered by: • Eligible financial collateral • Other eligible IRB collateral after the application of haircuts.

Securitisation: Disclosure for Standardised and IRB Approaches – Table 8

Qualitative Disclosures	The general qualitative disclosure requirement with respect to securitisation, including a discussion of: • The bank's objectives in relation to securitisation activity, including the extent to which these activities transfer credit risk of the underlying securitised exposures away from the bank to the other entities • The roles played by the bank in the securitisation process and an indication of the extent of the bank's involvement in each of them.
Quantitative Disclosures	The total outstanding exposures securitised by the bank and subject to the securitisation framework, by exposure type.

Market Risk: Disclosures for Banks using the Standardised Approach – Table 9

Qualitative Disclosures	The general qualitative disclosure requirement for market risk, including the portfolios covered by the standardised approach.
Quantitative Disclosures	The capital requirements for: • Interest rate risk • Equity position risk • Foreign exchange risk • Commodity risk.

Market Risk: Disclosures for Banks using the Internal Models Approach (IMA) for Trading Portfolios – Table 10

Qualitative Disclosures	The general qualitative disclosure requirement for market risk, including the portfolios covered by the IMA. For each portfolio, covered by the IMA: • The characteristics of the models used • A description of stress testing applied to the portfolio • A description of the approach used for backtesting/ validation of the accuracy and consistency of the internal models and modelling processes.
Quantitative Disclosures	For trading portfolios under the IMA: • The high, mean and low VaR values over the reporting period and period end • A comparison of VaR estimates with actual gains/losses experienced by the bank.

Operational Risk – Table 11

Qualitative Disclosures	In addition to the general qualitative disclosure requirement, the approach(es) for operational risk capital assessment for which the bank qualifies. Description of the AMA, if used by the bank, including a discussion of relevant internal and external factors considered in the bank's measurement approach. In the case of partial use, the scope and coverage of the different approaches used. For banks using the AMA, a description of the use of insurance for the purpose of mitigating operational risk.

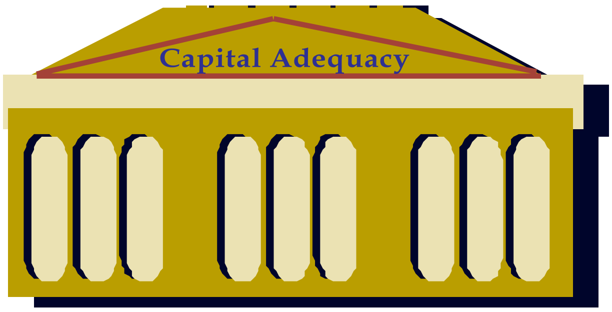
Equities: Disclosures for Banking Book Positions – Table 12

Qualitative Disclosures	The general qualitative disclosure requirement with respect to equity risk, including: • Differentiation between holdings on which capital gains are expected and those taken under other objectives including for relationship and strategic reasons • Discussion of important policies covering the valuation and accounting of equity holdings in the banking book.
Quantitative Disclosures	Value disclosed in the balance sheet of investments, as well as the fair value of those investments; for quoted securities, a comparison to publicly quoted share values, where the share price is materially different from fair value.

Interest Rate Risk in the Banking Book – Table 13

Qualitative Disclosures	The general qualitative disclosure requirement, including the nature of the IRB and key assumptions, including assumptions regarding loan prepayments and behaviour of non-maturity deposits, and frequency of IRB measurement.
Quantitative Disclosures	The increase (decline) in earnings or economic value (or relevant measure used by management) for upward and downward rate shocks according to management's method for measuring IRB, broken down by currency (as relevant).

Basel II Summary – The Three Pillars



Pillar	1	2	3
	Capital Requirements	Regulatory Review Process	Disclosure and Market Discipline

Implications on, and requirements for, systems, processes and people

Calculated based on credit, market and operational risk	Operational control and compliance with Pillar 1 requirements	Capital adequacy and risk control will be disclosed
Many options on approach to calculation	Only varies on Pillar 1 approach, otherwise must comply with all	Requirements are common to all regulated firms

Appendix 1

Basel II – Credit Risk: Standard Approach

Establishes fixed risk weights, corresponding to each supervisory category and makes use of external credit assessments to enhance risk sensitivity compared to Basel I. Separate treatment of claims:

- Corporates
- Sovereigns
- Banks
- Others (residential mortgages, commercial real estate, public sector entities, etc)

Disadvantage of Basel I	Improvement under Basel II
• Lack of risk differentiation – Corporates: 100% risk weight all the same • Inadequate recognition of credit risk mitigation techniques	• Use of external credit ratings to determine risk weights • More risk differentiation • More recognition of credit risk mitigation techniques

Why external credit assessment?

- Relatively simple and provides better risk differentiation
- Historic high correlation between risk grades and default rates
- Currently no alternative approach that strikes a good balance between risk sensitivity and complexity

Using external credit assessment institutions (ECAIs)

- National supervisors need to recognize external credit assessment institutions
- Supervisory agencies map external credit assessments into risk weights

An ECAI must satisfy the following six criteria:

• Objectivity	The methodology must be rigorous, systematic, and subject to validation.
• Independence	An ECAI should be independent and not be subject to political, economic pressures.
• International access/transparency	The assessment should be available to both domestic and foreign institutions.
• Disclosure	An ECAI should disclose methodologies, time horizon, meaning or rating, default rates and transitions matrix.
• Resources	An ECAI should have sufficient resources to carry the high quality assessment.
• Credibility	Derived from the above.

Appendix 2

Example

Treatment of Corporate Claims

Credit Rating	AAA to AA-	A+ to A-	BBB+ to BB-	<BB-	Unrated
Basel I Risk Weight	100%	100%	100%	100%	100%
Basel II Risk Weight	20%	50%	100%	150%	100%

Observations: Standardised approach

Many banks are likely to follow the standardised approach, at least initially due to balance between risk sensitivity and complexity. Some banks may move toward IRB due to limitations of the standardised approach. IRB reflects emerging best practices.

Credit risk: IRB approach

Primary goal is to use banks' internal assessment of borrower risk to:

- align capital with underlying risks
- enhance risk management system.

Exposure classifications:

- Wholesale: Corporates, Banks, Sovereigns
- Retail
- Equity

Credit risk components:

Probability of Default (PD) – Likelihood of a default, expressed as a %

Loss Given Default (LGD) – Magnitude of loss, expressed as a %

Exposure at Default (EAD) – Bank's exposure amount in dollar terms

Maturity (M)

Credit Risk: IRB Advanced vs Foundation

	Foundation	Advanced
Rating	Bank	Bank
Probability of Default (PD)	Bank	Bank
Loss Given Default (LGD)	Standard supervisory estimates	Bank
Exposure at Default (EAD)	Standard supervisory estimates	Bank
Maturity (M)	Standard supervisory estimates	Bank

IRB – Challenges

- Rating system design
- Data requirements – data warehouse/upfront costs
- Corporate governance – good control mechanisms to ensure ratings integrity
- Costs/Benefits

Example (provided by BIS)

Minimum capital for $100 commercial loan	AAA Credit risk	BBB- Credit risk	B Credit risk
Basel I	$8	$8	$8
Basel II Standardised	$1.81	$8.21	$12.21
Basel II Advanced IRB (LGD = 10%)	$0.37	$1.01	$3.97

Appendix 3

Operational Risk – Basel II Definition

Definition

The risk of loss resulting from inadequate or failed internal processes, people and systems or from external events – includes legal risks but excludes reputational and strategic risks.

Operational risk: examples

- Fraud – insider trading, misappropriation of assets
- Natural disasters – earthquake, terrorism
- System related failures – power down, technical breakdowns

Operational risk: advantages

- Basel I covers in terms of credit risk
- Potential operational risks significant and rising (Toronto blackout)
- Pillar 1 requirement, operation risk has been a major contributor to depletion of capital and failure of banks
- The work on operational risk is in a developmental stage
- Operational risk should be an important component of firm-wide risk

Operation risk: capital requirement

Basic Indicator Approach	15% of gross income
Standardised Approach	Different percentages (12-18%) applied to eight different business segments
Advanced Measurement Approach (AMA)	Generated by bank's own operational risk measurement systems (subject to satisfying minimum supervisory standards)

Appendix 4

Guidance related to the Supervisory Review Process

(Published by the Basel Committee on Banking Supervision)

1	Part B of the Amendment to the Capital Accord to Incorporate Market Risks	January 1996, Final
2	Core Principles for Effective Banking Supervision	September 1997, Final
3	The Core Principles Methodology	October 1999, Final
4	Risk Management Guidelines for Derivatives	July 1994, Final
5	Management of Interest Rate Risk	September 1997, Final
6	Risk Management for Electronic Banking	March 1998, Final
7	Framework for Internal Controls	September 1998, Final
8	Sound Practices for Banks' Interactions with Highly Leveraged Institutions	January 1999, Final
9	Enhancing Corporate Governance	August 1999, Final
10	Sound Practices for Managing Liquidity	February 2000, Final
11	Principles for the Management of Credit Risk	September 2000, Final
12	Supervisory Guidance for Managing Settlement Risk in Foreign Exchange Transactions	September 2000, Final
13	Principles for the Management and Supervision of Interest Rate Risk	January 2001, For Comment
14	Risk Management Principles for Electronic Banking	May 2001, For Comment
15	Internal Audit in Banks and the Supervisor's Relationship with Auditors	August 2001, Final
16	Customer Due Diligence for Banks	October 2001, Final
17	The Relationship between Banking Supervisors and Banks' External Auditors	January 2002, Final
18	Supervisory Guidance for Dealing with Weak Banks	March 2002, Final
19	Management and Supervision of Cross-border Electronic Banking Activities	October 2002, For Comment
20	Sound Practices for the Management and Supervision of Operational Risk	February 2003, Final

Note: The papers are available from the BIS website [**www.bis.org/bcbs/publ/index.htm**]

Appendix 5

Abbreviations

ABCP	Asset-backed commercial paper
ADC	Acquisition, development and construction
AMA	Advanced measurement approaches
ASA	Alternative standardised approach
CCF	Credit conversion factor
CDR	Cumulative default rate
CF	Commodities finance
CRM	Credit risk mitigation
EAD	Exposure of default
ECA	Export Credit Agency
ECAI	External credit assessment institution
EL	Expected loss
FMI	Future margin income
HVCRE	High volatility commercial real estate
IAA	Internal assessment approach
IPRE	Income-producing real estate
I/O	Interest-only strips
IRB approach	Internal ratings-based approach
LGD	Loss given default
M	Effective maturity
MDB	Multilateral development bank
NIF	Note issuance facility
OF	Object finance
PD	Probability of default
PF	Project finance
PSE	Public sector entity
QRRE	Qualifying revolving retail exposures
RBA	Ratings-based approach
RUF	Revolving underwriting facility
SF	Supervisory formula
SL	Specialised lending
SME	Small and medium sized facility
SPE	Special purpose entity
UCITS	Undertakings for collective investments in transferable securities
UL	Unexpected loss

Basel II

Review

The main points introduced here are:

- "International Convergence of Capital Measurement and Capital Standards: a Revised Framework" is a statement of the Basel Committee on Banking Supervision agreed by all its members, setting out the details of the agreed framework for measuring capital adequacy and the minimum standard to be achieved in the framework countries.
- A significant innovation of the revised framework is the greater use of the assessments of risk provided by the banks' internal systems as inputs to capital calculations.
- The revised framework (Basel II) provides a range of options for determining the capital requirements for credit risk and operational risk to allow banks and supervisors to select approaches that are most appropriate for their operations and their financial market infrastructure.
- There are 3 Pillars:
  1 Capital Requirements
  2 Regulatory Review Process
  3 Disclosure and Market Discipline
- Pillar 1 provides for choices in calculation of credit risk, market risk and operational risk.
- Pillar 2 has two objectives: compliance with the higher approaches to capital calculations and sound integrated risk management systems and controls.
- Pillar 3 concentrates on market discipline through a set of disclosure requirements which will allow market participants to assess key pieces of information on the scope of application, capital, risk exposures, risk assessment processes and capital adequacy.

Credit Skills Library

This is one in a series of topics about credit, designed for easy access by banking professionals with a special interest in this field

Further information on the Credit Skills Library:
www.ciobs.org.uk

Press release

Press enquiries: +41 61 280 8188
press@bis.org
www.bis.org

Ref no: 35/2010

12 September 2010

Group of Governors and Heads of Supervision announces higher global minimum capital standards

At its 12 September 2010 meeting, the Group of Governors and Heads of Supervision, the oversight body of the Basel Committee on Banking Supervision, announced a substantial strengthening of existing capital requirements and fully endorsed the agreements it reached on 26 July 2010. These capital reforms, together with the introduction of a global liquidity standard, deliver on the core of the global financial reform agenda and will be presented to the Seoul G20 Leaders summit in November.

The Committee's package of reforms will increase the minimum common equity requirement from 2% to 4.5%. In addition, banks will be required to hold a capital conservation buffer of 2.5% to withstand future periods of stress bringing the total common equity requirements to 7%. This reinforces the stronger definition of capital agreed by Governors and Heads of Supervision in July and the higher capital requirements for trading, derivative and securitisation activities to be introduced at the end of 2011.

Mr Jean-Claude Trichet, President of the European Central Bank and Chairman of the Group of Governors and Heads of Supervision, said that "the agreements reached today are a fundamental strengthening of global capital standards." He added that "their contribution to long term financial stability and growth will be substantial. The transition arrangements will enable banks to meet the new standards while supporting the economic recovery." Mr Nout Wellink, Chairman of the Basel Committee on Banking Supervision and President of the Netherlands Bank, added that "the combination of a much stronger definition of capital, higher minimum requirements and the introduction of new capital buffers will ensure that banks are better able to withstand periods of economic and financial stress, therefore supporting economic growth."

Increased capital requirements

Under the agreements reached today, the minimum requirement for common equity, the highest form of loss absorbing capital, will be raised from the current

2% level, before the application of regulatory adjustments, to 4.5% after the application of stricter adjustments. This will be phased in by 1 January 2015. The Tier 1 capital requirement, which includes common equity and other qualifying financial instruments based on stricter criteria, will increase from 4% to 6% over the same period. (Annex 1 summarises the new capital requirements.)

The Group of Governors and Heads of Supervision also agreed that the capital conservation buffer above the regulatory minimum requirement be calibrated at 2.5% and be met with common equity, after the application of deductions. The purpose of the conservation buffer is to ensure that banks maintain a buffer of capital that can be used to absorb losses during periods of financial and economic stress. While banks are allowed to draw on the buffer during such periods of stress, the closer their regulatory capital ratios approach the minimum requirement, the greater the constraints on earnings distributions. This framework will reinforce the objective of sound supervision and bank governance and address the collective action problem that has prevented some banks from curtailing distributions such as discretionary bonuses and high dividends, even in the face of deteriorating capital positions.

A countercyclical buffer within a range of 0% – 2.5% of common equity or other fully loss absorbing capital will be implemented according to national circumstances. The purpose of the countercyclical buffer is to achieve the broader macroprudential goal of protecting the banking sector from periods of excess aggregate credit growth. For any given country, this buffer will only be in effect when there is excess credit growth that is resulting in a system wide build up of risk. The countercyclical buffer, when in effect, would be introduced as an extension of the conservation buffer range.

These capital requirements are supplemented by a non-risk-based leverage ratio that will serve as a backstop to the risk-based measures described above. In July, Governors and Heads of Supervision agreed to test a minimum Tier 1 leverage ratio of 3% during the parallel run period. Based on the results of the parallel run period, any final adjustments would be carried out in the first half of 2017 with a view to migrating to a Pillar 1 treatment on 1 January 2018 based on appropriate review and calibration.

Systemically important banks should have loss absorbing capacity beyond the standards announced today and work continues on this issue in the Financial Stability Board and relevant Basel Committee work streams. The Basel Committee and the FSB are developing a well integrated approach to systemically important financial institutions which could include combinations of capital surcharges, contingent capital and bail-in debt. In addition, work is continuing to strengthen resolution regimes. The Basel Committee also recently issued a consultative document *Proposal to ensure the loss absorbency of regulatory capital at the point of non-viability*. Governors and Heads of Supervision endorse the aim to strengthen the loss absorbency of non-common Tier 1 and Tier 2 capital instruments.

Transition arrangements

Since the onset of the crisis, banks have already undertaken substantial efforts to raise their capital levels. However, preliminary results of the Committee's comprehensive quantitative impact study show that as of the end of 2009, large banks will need, in the aggregate, a significant amount of additional capital to meet these new requirements. Smaller banks, which are particularly important for lending to the SME sector, for the most part already meet these higher standards.

The Governors and Heads of Supervision also agreed on transitional arrangements for implementing the new standards. These will help ensure that the banking sector can meet the higher capital standards through reasonable earnings retention and capital raising, while still supporting lending to the economy. The transitional arrangements, which are summarised in Annex 2, include:

- National implementation by member countries will begin on 1 January 2013. Member countries must translate the rules into national laws and regulations before this date. As of 1 January 2013, banks will be required to meet the following new minimum requirements in relation to risk-weighted assets (RWAs):
  - 3.5% common equity/RWAs;
  - 4.5% Tier 1 capital/RWAs, and
  - 8.0% total capital/RWAs.

  The minimum common equity and Tier 1 requirements will be phased in between 1 January 2013 and 1 January 2015. On 1 January 2013, the minimum common equity requirement will rise from the current 2% level to 3.5%. The Tier 1 capital requirement will rise from 4% to 4.5%. On 1 January 2014, banks will have to meet a 4% minimum common equity requirement and a Tier 1 requirement of 5.5%. On 1 January 2015, banks will have to meet the 4.5% common equity and the 6% Tier 1 requirements. The total capital requirement remains at the existing level of 8.0% and so does not need to be phased in. The difference between the total capital requirement of 8.0% and the Tier 1 requirement can be met with Tier 2 and higher forms of capital.
- The regulatory adjustments (ie deductions and prudential filters), including amounts above the aggregate 15% limit for investments in financial institutions, mortgage servicing rights, and deferred tax assets from timing differences, would be fully deducted from common equity by 1 January 2018.
- In particular, the regulatory adjustments will begin at 20% of the required deductions from common equity on 1 January 2014, 40% on 1 January 2015, 60% on 1 January 2016, 80% on 1 January 2017, and reach 100% on 1 January 2018. During this transition period, the remainder not deducted from common equity will continue to be subject to existing national treatments.
- The capital conservation buffer will be phased in between 1 January 2016 and year end 2018 becoming fully effective on 1 January 2019. It will begin at 0.625% of RWAs on 1 January 2016 and increase each subsequent year by an additional 0.625 percentage points, to reach its final level of 2.5% of RWAs on 1 January 2019. Countries that experience excessive credit growth should consider accelerating the build up of the capital conservation buffer and the countercyclical buffer. National authorities have the discretion to impose shorter transition periods and should do so where appropriate.
- Banks that already meet the minimum ratio requirement during the transition period but remain below the 7% common equity target

(minimum plus conservation buffer) should maintain prudent earnings retention policies with a view to meeting the conservation buffer as soon as reasonably possible.

- Existing public sector capital injections will be grandfathered until 1 January 2018. Capital instruments that no longer qualify as non-common equity Tier 1 capital or Tier 2 capital will be phased out over a 10 year horizon beginning 1 January 2013. Fixing the base at the nominal amount of such instruments outstanding on 1 January 2013, their recognition will be capped at 90% from 1 January 2013, with the cap reducing by 10 percentage points in each subsequent year. In addition, instruments with an incentive to be redeemed will be phased out at their effective maturity date.
- Capital instruments that do not meet the criteria for inclusion in common equity Tier 1 will be excluded from common equity Tier 1 as of 1 January 2013. However, instruments meeting the following three conditions will be phased out over the same horizon described in the previous bullet point: (1) they are issued by a non-joint stock company[1]; (2) they are treated as equity under the prevailing accounting standards; and (3) they receive unlimited recognition as part of Tier 1 capital under current national banking law.
- Only those instruments issued before the date of this press release should qualify for the above transition arrangements.

Phase-in arrangements for the leverage ratio were announced in the 26 July 2010 press release of the Group of Governors and Heads of Supervision. That is, the supervisory monitoring period will commence 1 January 2011; the parallel run period will commence 1 January 2013 and run until 1 January 2017; and disclosure of the leverage ratio and its components will start 1 January 2015. Based on the results of the parallel run period, any final adjustments will be carried out in the first half of 2017 with a view to migrating to a Pillar 1 treatment on 1 January 2018 based on appropriate review and calibration.

After an observation period beginning in 2011, the liquidity coverage ratio (LCR) will be introduced on 1 January 2015. The revised net stable funding ratio (NSFR) will move to a minimum standard by 1 January 2018. The Committee will put in place rigorous reporting processes to monitor the ratios during the transition period and will continue to review the implications of these standards for financial markets, credit extension and economic growth, addressing unintended consequences as necessary.

The **Basel Committee on Banking Supervision** provides a forum for regular cooperation on banking supervisory matters. It seeks to promote and strengthen supervisory and risk management practices globally. The Committee comprises representatives from Argentina, Australia, Belgium, Brazil, Canada, China, France, Germany, Hong Kong SAR, India, Indonesia, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, Russia, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

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[1] Non-joint stock companies were not addressed in the Basel Committee's 1998 agreement on instruments eligible for inclusion in Tier 1 capital as they do not issue voting common shares.

The **Group of Central Bank Governors and Heads of Supervision** is the governing body of the Basel Committee and is comprised of central bank governors and (non-central bank) heads of supervision from member countries. The Committee's Secretariat is based at the Bank for International Settlements in Basel, Switzerland.

Annex 1

Calibration of the Capital Framework Capital requirements and buffers (all numbers in percent)			
	Common Equity (after deductions)	**Tier 1 Capital**	**Total Capital**
Minimum	4.5	6.0	8.0
Conservation buffer	2.5		
Minimum plus conservation buffer	7.0	8.5	10.5
Countercyclical buffer range*	0 – 2.5		

* Common equity or other fully loss absorbing capital

Annex 2: Phase-in arrangements (shading indicates transition periods)

(all dates are as of 1 January)

	2011	2012	2013	2014	2015	2016	2017	2018	As of 1 January 2019
Leverage Ratio	Supervisory monitoring		Parallel run 1 Jan 2013 – 1 Jan 2017 Disclosure starts 1 Jan 2015					Migration to Pillar 1	
Minimum Common Equity Capital Ratio			3.5%	4.0%	4.5%	4.5%	4.5%	4.5%	4.5%
Capital Conservation Buffer						0.625%	1.25%	1.875%	2.50%
Minimum common equity plus capital conservation buffer			3.5%	4.0%	4.5%	5.125%	5.75%	6.375%	7.0%
Phase-in of deductions from CET1 (including amounts exceeding the limit for DTAs, MSRs and financials)				20%	40%	60%	80%	100%	100%
Minimum Tier 1 Capital			4.5%	5.5%	6.0%	6.0%	6.0%	6.0%	6.0%
Minimum Total Capital			8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Minimum Total Capital plus conservation buffer			8.0%	8.0%	8.0%	8.625%	9.25%	9.875%	10.5%
Capital instruments that no longer qualify as non-core Tier 1 capital or Tier 2 capital			Phased out over 10 year horizon beginning 2013						

	2011	2012	2013	2014	2015	2016	2017	2018	As of 1 January 2019
Liquidity coverage ratio	Observation period begins				Introduce minimum standard				
Net stable funding ratio		Observation period begins						Introduce minimum standard	

Executive Overview

Firm-wide Risk Management & Managing the Risk of Financial Crime

Keith Checkley FCIB
Chartered Banker

1

Breaking News…..February 2019

"European Commission adopts new list of third countries with weak anti-money laundering and terrorist financing regimes "

- Today, the Commission has adopted its new list of 23 third countries with strategic deficiencies in their anti-money laundering and counter-terrorist financing frameworks.
- The aim of this list is to protect the EU financial system by better preventing money laundering and terrorist financing risks.
- As a result of the listing, banks and other entities covered by EU anti-money laundering rules will be required to apply increased checks (due diligence) on financial operations involving customers and financial institutions from these high-risk third countries to better identify any suspicious money flows.
- On the basis of a new methodology, which reflects the stricter criteria of the 5th anti-money laundering directive in force since July 2018, the list has been established following an in-depth analysis.

2

Breaking News…..February 2019

"European Commission adopts new list of third countries with weak anti-money laundering and terrorist financing regimes "

- Věra **Jourová**, Commissioner for Justice, Consumers and Gender Equality said: "*We have established the strongest anti-money laundering standards in the world, but we have to make sure that dirty money from other countries does not find its way to our financial system.*
- *Dirty money is the lifeblood of organised crime and terrorism. I invite the countries listed to remedy their deficiencies swiftly.*
- *The Commission stands ready to work closely with them to address these issues in our mutual interest. "*

3

Breaking News…..February 2019

"European Commission adopts new list of third countries with weak anti-money laundering and terrorist financing regimes "

The 23 Jurisdictions are:

- Afghanistan,
- American Samoa,
- The Bahamas,
- Botswana,
- Democratic People's Republic of Korea,
- Ethiopia,
- Ghana,
- Guam,
- Iran,
- Iraq,
- Libya,
- Nigeria,
- Pakistan,
- Panama,
- Puerto Rico,
- Samoa,
- Saudi Arabia,
- Sri Lanka,
- Syria,
- Trinidad and Tobago,
- Tunisia,
- US Virgin Islands,
- Yemen.

4

What is Money Laundering?

- The goal of a large number of criminal acts is to generate a profit for the individual or group that carries out the act.
- Money laundering is the processing of these criminal proceeds to disguise their illegal origin. This process is of critical importance, as it enables the criminal to enjoy these profits without jeopardising their source.
- Illegal arms sales, smuggling, and the activities of organised crime, including for example drug trafficking and prostitution rings, can generate huge amounts of proceeds. Embezzlement, insider trading, bribery and computer fraud schemes can also produce large profits and create the incentive to “legitimise” the ill-gotten gains through money laundering.

5

What is Money Laundering?

- When a criminal activity generates substantial profits, the individual or group involved must find a way to control the funds without attracting attention to the underlying activity or the persons involved. Criminals do this by disguising the sources, changing the form, or moving the funds to a place where they are less likely to attract attention.
- In response to mounting concern over money laundering, the Financial Action Task Force on money laundering (FATF) was established by the G-7 Summit in Paris in 1989 to develop a co-ordinated international response. One of the first tasks of the FATF was to develop Recommendations, 40 in all, which set out the measures national governments should take to implement effective anti-money laundering programmes.

6

Europol – why cash is still king

- For many years, Europol has highlighted the criminal preference for using cash. This culminated in the release of a comprehensive strategic report on the use of cash as a facilitator for money laundering in July 2015 ‘Why is cash still king?’, published on Europol’s website.

- To effectively address the issue of the criminal use of cash requires a comprehensive series of measures. These go beyond the EUR 500 note. There is a need to implement cash payment thresholds, extend powers for cash controls to other assets equally used to transport values across borders (gold, precious stones), as well as providing Competent Authorities with powers for Intra-EU cash control.

7

The Role of The Board

- In 1998, the Basel Committee issued its *Statement on Prevention of Criminal Use of the Banking System for the Purpose of Money Laundering* (commonly known as Statement on Prevention). This outlines basic policies and procedures that bank management should ensure are in place to assist in suppressing money laundering through the banking system, both domestically and internationally. The BCBS notes that the most important safeguard against money laundering is:
- *‘the integrity of bank’s managements and their vigilant determination to prevent their institutions from becoming associated with criminals or being used as a channel for money laundering’*.

8

The Role of The Board

There are essentially four principles contained in the Statement on Prevention:

- **proper customer identification** – banks are advised to make reasonable efforts to determine and verify the true identity of all customers and as part of a bank's policies specific procedures for customer identification should be adopted

- **high ethical standards and compliance with laws** – banks should ensure that business is conducted in conformity with high ethical standards and that banks should adhere to laws and regulations pertaining to financial transactions

- **cooperation with law enforcement authorities** – banks should cooperate fully with national law enforcement authorities to the extent permitted by local laws or regulations relating to customer confidentiality

9

The Role of The Board

- **policies and procedures to adhere to the statement** – banks should adopt formal policies consistent with the Statement on Prevention.

- Furthermore, banks should ensure that all staff members are aware of its policies and given proper training in matters covered by the bank's policies. Finally, the internal audit function within the institution should establish an effective means of testing for compliance and providing assurance to the board or governing body.

10

The Joint Forum

Initiatives by the BCBS, IAIS and IOSCO to combat money laundering and the financing of terrorism:

- This joint note from the Basel Committee on Banking Supervision (BCBS), International Association of Insurance Supervisors (IAIS) and International Organization of Securities Commissions (IOSCO) provides a record of the initiatives taken by each sector to combat money laundering and the financing of terrorism.
- The AML/CFT elements common to all three financial sectors are essentially prescribed by the FATF's 40 Recommendations and its subsequent eight special recommendations.
- The 40 Recommendations are currently under review and will lead to further changes in the standards prescribed. Just recently the FATF has worked with the IMF and World Bank to develop a "Methodology for Assessing Compliance with Anti-Money Laundering and Combating the Financing of Terrorism Standards" (the Methodology).
- The BCBS, IAIS and IOSCO were consulted at several stages in the development of this document,

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The Joint Forum

The FATF standards and the Methodology encompass the following aspects of AML/CFT:

- customer identification;
- ongoing monitoring of accounts and transactions;
- record-keeping and reporting of suspicious transactions;
- internal controls and audit;
- integrity standards; and
- cooperation between supervisors and other competent authorities.

12

Financial Action Task Force (FATF)

What is the FATF?

The Financial Action Task Force (FATF) is an inter-governmental body established in 1989 by the Ministers of its Member jurisdictions.

The objectives of the FATF are to set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system.

FATF Leadership News

- **Xiangmin Liu** of the People's Republic of China assumed the position of President of the FATF. on July 1 2019.
- He succeeded Marshall Billingslea of the United States.

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Financial Action Task Force (FATF)

GUIDANCE FOR A RISK-BASED APPROACH:

The FATF Recommendations are recognised as the global anti-money laundering (AML) and counter-terrorist financing (CFT) standard.

Citing reference:

- FATF (2019), *Guidance for a Risk-Based Approach for Trust & Company Service Providers (TSCPs),* FATF, Paris, www.fatf-gafi.org/publications/documents/rba-trust-company-service-providers.html

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Financial Action Task Force (FATF)

An effective system to combat money laundering and terrorist financing (source: Financial Action Task Force)

The purpose of implementing anti-money laundering and counter-terrorist financing (AML/CFT) measures is to protect the financial system from abuse. A country's efforts in developing sound laws and regulations and implementing and enforcing them should focus on one goal, the high-level objective of an effective AML/CFT framework:

High-Level Objective

Financial systems and the broader economy are protected from the threats of money laundering and the financing of terrorism and proliferation, thereby strengthening **financial sector integrity** and contributing to **safety and security**.

This objective can only be achieved if the components of a country's AML/CFT framework are operating well together. The intermediate outcomes on the next slide represent the thematic goals of an AML/CFT system that is effectively protecting financial sector integrity and contributing to safety and security.

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Financial Action Task Force (FATF)

An effective system to combat money laundering and terrorist financing continued (source: Financial Action Task Force)

Intermediate Outcomes

To achieve these intermediate outcomes, the FATF has identified 11 key goals that an effective AML/CFT framework should achieve. These key goals or 'immediate outcomes' are organised by thematic goal. During its mutual evaluations, the FATF will assess the effectiveness of a country's efforts against each of these 11 immediate outcomes.

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Financial Action Task Force (FATF)

An effective system to combat money laundering and terrorist financing continued (source: [Financial Action Task Force]())

Intermediate Outcomes

The extent to which a country implements the technical requirements of each of the FATF Recommendations remains important, they are after all the building blocks for an effective framework to protect the financial system.

But, adopting compliant laws and regulations is not sufficient. Each country must enforce these measures, and ensure that the operational, law enforcement and legal components of an AML/CFT system work together effectively to deliver results: the 11 immediate outcomes.

During an assessment, the FATF will look for evidence that demonstrates how well all these components are working together in the context of the risks that the country is exposed to.

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Financial Action Task Force (FATF)

An effective system to combat money laundering and terrorist financing continued (source: [Financial Action Task Force]())

Intermediate Outcomes

18

Financial Action Task Force (FATF)

An effective system to combat money laundering and terrorist financing continued (source: [Financial Action Task Force]())

Intermediate Outcomes

6 | Financial intelligence
Financial intelligence and all other relevant information are appropriately used by competent authorities for money laundering and terrorist financing investigations.

7 | Money laundering investigation & prosecution
Money laundering offences and activities are investigated and offenders are prosecuted and subject to effective, proportionate and dissuasive sanctions.

8 | Confiscation
Proceeds and instrumentalities of crime are confiscated.

9 | Terrorist financing investigation & prosecution
Terrorist financing offences and activities are investigated and persons who finance terrorism are prosecuted and subject to effective, proportionate and dissuasive sanctions.

10 | Terrorist financing preventive measures & financial sanctions
Terrorists, terrorist organisations and terrorist financiers are prevented from raising, moving and using funds, and from abusing the NPO sector.

11 | Proliferation financial sanctions
Persons and entities involved in the proliferation of weapons of mass destruction are prevented from raising, moving and using funds, consistent with the relevant UNSCRs.

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Breaking News…..May 2015

" HSBC to pay £28m after money laundering investigation"

- The bank will pay the money – a record sum for the prosecutor – to close the investigation into "suspected aggravated money laundering" without any admission of wrongdoing.
- **Authorities in Geneva raided offices in February**, after several media organisations published details of how HSBC's private bank in Switzerland aided wealthy clients avoid paying tax and helped drug and weapons smugglers launder money.
- "HSBC Private Bank [in Switzerland] has acknowledged that the compliance culture and standards of due diligence in place in the Bank in the past were not as robust as they are today," the bank said in a statement.

https://youtu.be/7kS0-yKLgjk?t=8

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Seminar Discussion

- Anti Money Laundering Model Challenges and Cost Effectiveness

21

Global Regulation Risk Management

Keith Checkley FCBI
Chartered Banker

1

Workshop Objectives:

- *"…* Participants will gain an advanced knowledge and critical understanding of the principles and practices of modern international Enterprise Risk Management.
- They will explore, recognize and appreciate the *complexity inherent in managerial decisions relevant to risk within business portfolios*.*"*

2

ERM Defined:

"… a process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risks to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives."

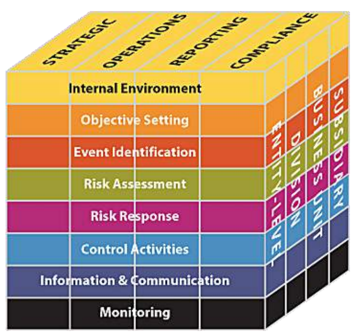
Source: COSO Enterprise Risk Management – Integrated Framework. 2004. COSO.

3

The ERM Framework

Entity objectives can be viewed in the context of four categories:

- Strategic
- Operations
- Reporting
- Compliance



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The ERM Framework

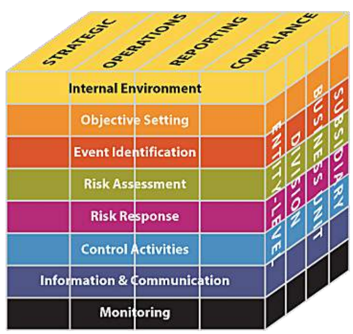
ERM considers activities at all levels of the organization:

- Enterprise-level
- Division
- Business unit processes
- or Subsidiary

5

The ERM Framework

The eight components of the framework are interrelated …



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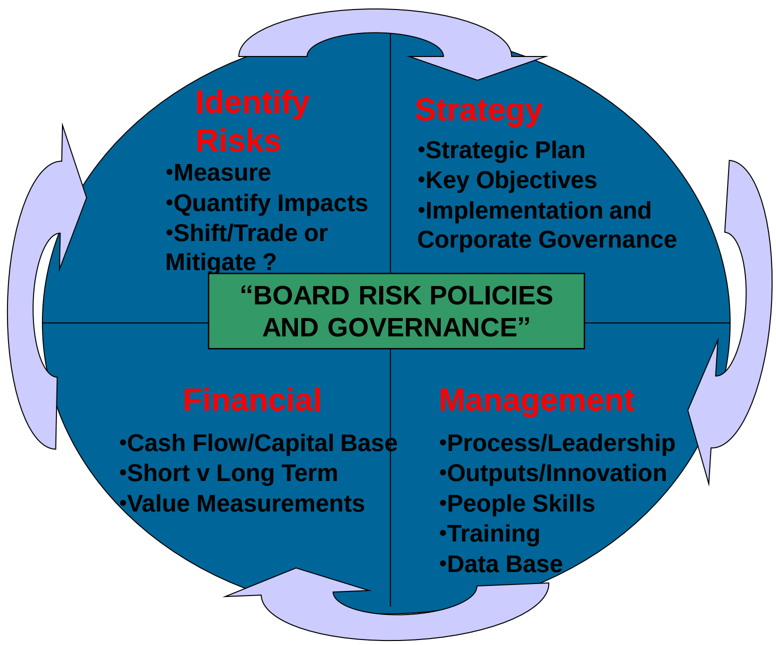

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Executive Overview

Basel II and III
- New Challenges

Keith Checkley FCIB
Chartered Banker

September 2023

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Basel III - Strengthening the global capital framework

- The Basel Committee is raising the resilience of the banking sector by strengthening the regulatory capital framework, *building on the three pillars of the Basel II framework*.
- The reforms raise both the quality and quantity of the regulatory capital base and also enhances firms liquidity management and risk coverage of the capital framework.
- They are underpinned by a leverage ratio that serves as a backstop to the risk-based capital measures, which is intended to constrain excess leverage in the banking system and provide an extra layer of protection against model risk and measurement error.

9

Challenges of Basel II and III

- Basel II and III are complex topics and mean challenges to the way in which we manage Financial Institutions.
- Different countries and regions will face some unique difficulties in adoption and implementation; depending on economic and structural issues
- However; Basel II and III provide frameworks for Firm wide Risk Management; to include all the risks facing the business ??

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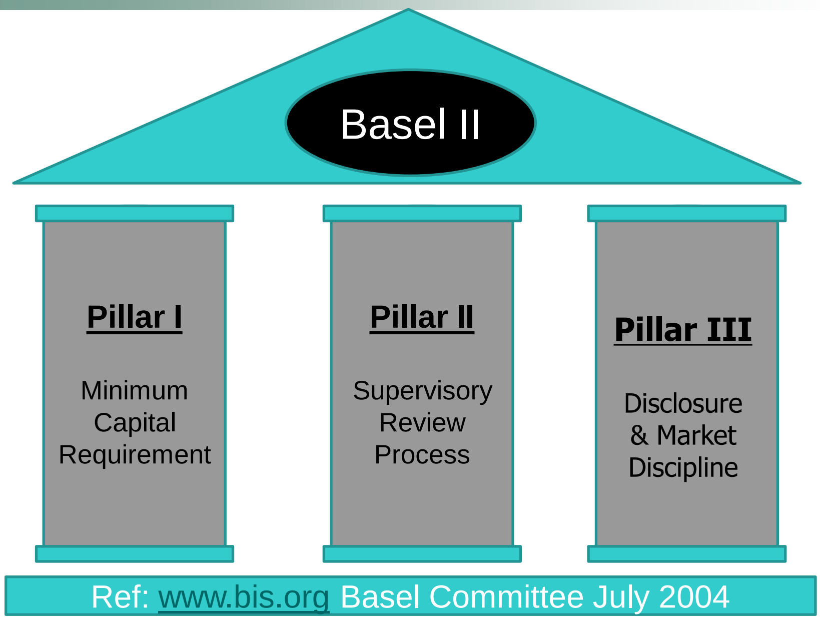

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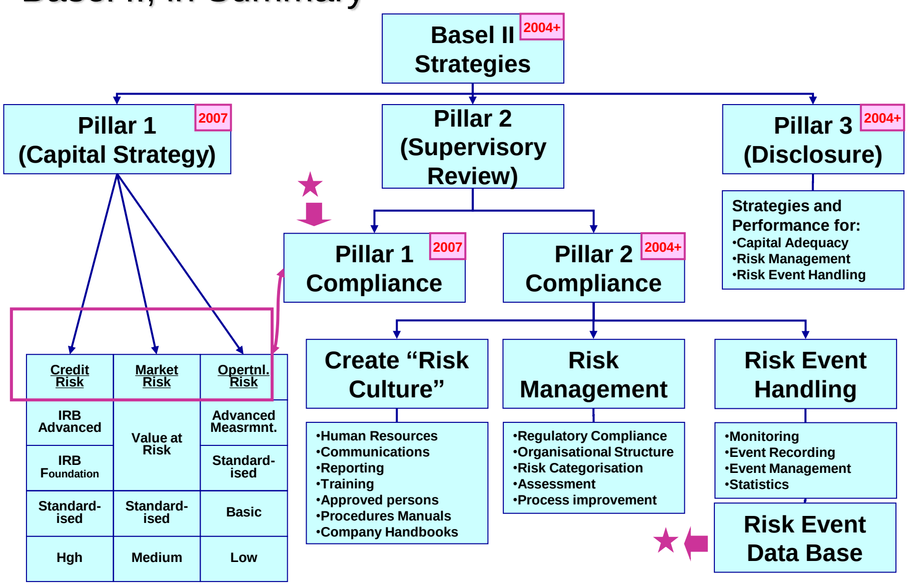
Basel II, in Summary



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Basel II, in Summary

The First Pillar – Choices in calculation

	Basic	Intermediate	Advanced
Credit Risk	'Standardised' Successor to the 1988 Accord with some additional sensitivities	'Foundation' – internal rating based approach Portfolio split by category of exposure – input from institution and regulator	'Advanced' – internal rating-based approach As for Foundation but all parameters calculated by institution.
Market Risk	No major change in current approach		
Operational Risk*	'Basic Indicator Approach' Capital charge based on single risk indicator	'Standardised Approach' Capital charge based on sum of 8 Business Line risk indicators, each calculated by defined industry standards	'Advanced Measurement Approach' Capital charge by Business Line, internally calculated and variable on level of risk

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Towards Basel III

BASEL COMMITTEE ON BANKING SUPERVISION

BANK FOR INTERNATIONAL SETTLEMENTS

Press release

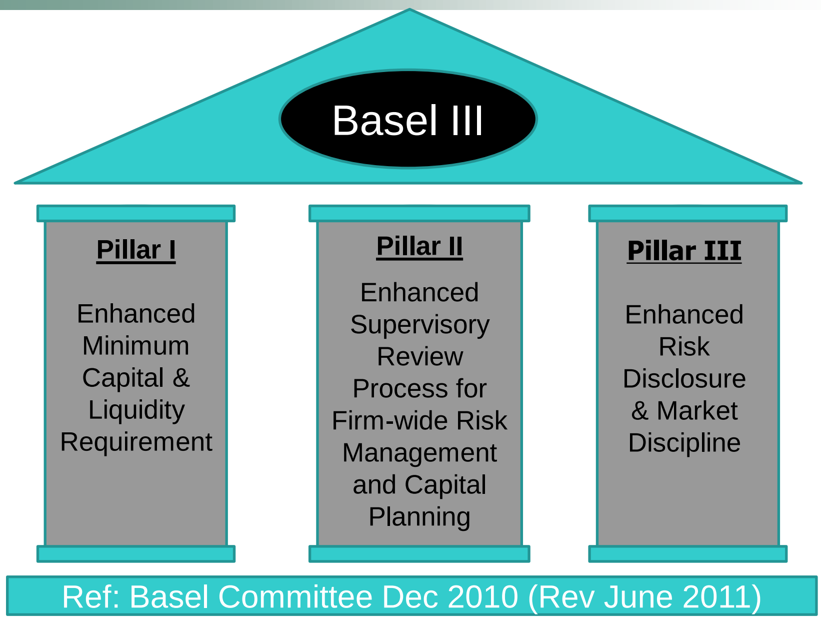
Press enquiries: +41 61 280 8188
press@bis.org
www.bis.org

Ref no: 35/2010

12 September 2010

Group of Governors and Heads of Supervision announces higher global minimum capital standards

14



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BASEL COMMITTEE ON BANKING SUPERVISION

BANK FOR INTERNATIONAL SETTLEMENTS

Annex 2: Phase-in arrangements (shading indicates transition periods)
(all dates are as of 1 January)

	2011	2012	2013	2014	2015	2016	2017	2018	As of 1 January 2019
Leverage Ratio	Supervisory monitoring		Parallel run 1 Jan 2013 – 1 Jan 2017 Disclosure starts 1 Jan 2015					Migration to Pillar 1	
Minimum Common Equity Capital Ratio			3.5%	4.0%	4.5%	4.5%	4.5%	4.5%	4.5%
Capital Conservation Buffer						0.625%	1.25%	1.875%	2.50%
Minimum common equity plus capital conservation buffer			3.5%	4.0%	4.5%	5.125%	5.75%	6.375%	7.0%
Phase-in of deductions from CET1 (including amounts exceeding the limit for DTAs, MSRs and financials)				20%	40%	60%	80%	100%	100%
Minimum Tier 1 Capital			4.5%	5.5%	6.0%	6.0%	6.0%	6.0%	6.0%
Minimum Total Capital			8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Minimum Total Capital plus conservation buffer			8.0%	8.0%	8.0%	8.625%	9.25%	9.875%	10.5%
Capital instruments that no longer qualify as non-core Tier 1 capital or Tier 2 capital			Phased out over 10 year horizon beginning 2013						
Liquidity coverage ratio	Observation period begins				Introduce minimum standard				
Net stable funding ratio		Observation period begins						Introduce minimum standard	

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DTAs – Deferred Tax Assets
MSRs – Mortgage Servicing Rights

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Extract from: Basel III A global regulatory framework for more resilient banks and banking *

- This document, together with the document Basel III: International framework for liquidity risk measurement standards and monitoring; *presents the Basel Committee's reforms to strengthen global capital and liquidity rules with the goal of promoting a more resilient banking sector.*
- The objective of the reforms is to improve the banking sector's ability to absorb shocks arising from financial and economic stress, whatever the source, thus reducing the risk of spillover from the financial sector to the real economy.
- * Ref: BIS December 2010 (revised June 2011). Available at http://www.bis.org/ publ/bcbs189.pdf.

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Continued

- The Committee's comprehensive reform package addresses the lessons of the financial crisis.
- Through its reform package, the Committee also aims to improve risk management and governance as well as strengthen banks' transparency and disclosures.
- Moreover, the reform package includes the Committee's efforts to strengthen the resolution of systemically significant cross-border banks. (SIFI's)

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Continued

- A strong and resilient banking system is the foundation for sustainable economic growth, as banks are at the centre of the credit intermediation process between savers and investors.
- Moreover, banks provide critical services to consumers, small and medium-sized enterprises, large corporate firms and governments who rely on them to conduct their daily business, both at a domestic and international level.

Continued

- One of the main reasons the economic and financial crisis, which began in 2007, became so severe was that the banking sectors of many countries had built up excessive on- and off-balance sheet leverage.
- This was accompanied by a gradual erosion of the level and quality of the capital base. At the same time, many banks were holding insufficient liquidity buffers.
- The banking system therefore was not able to absorb the resulting systemic trading and credit losses nor could it cope with the reintermediation of large off-balance sheet exposures that had built up in the shadow banking system.

Continued

- During the most severe episode of the crisis, the market lost confidence in the solvency and liquidity of many banking institutions.
- The weaknesses in the banking sector were rapidly transmitted to the rest of the financial system and the real economy, resulting in a massive contraction of liquidity and credit availability.
- Ultimately the public sector had to step in with unprecedented injections of liquidity, capital support and guarantees, exposing taxpayers to large losses.

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Continued

- To address the market failures revealed by the crisis, the Committee is introducing a number of fundamental reforms to the international regulatory framework.
- The reforms strengthen bank-level, or microprudential, regulation, which will help raise the resilience of individual banking institutions to periods of stress.
- The reforms also have a macroprudential focus, addressing system-wide risks that can build up across the banking sector as well as the procyclical amplification of these risks over time.
- Clearly these micro and macroprudential approaches to supervision are interrelated, as greater resilience at the individual bank level reduces the risk of system-wide shocks.

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Breaking News…..December 2021

- National Westminster Bank Plc (NatWest) was today fined £264,772,619.95 following convictions for three offences of failing to comply with money laundering regulations.

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Breaking News…..November 2022

- FTX and Alameda, Binance, and CoinDesk report
- Binance FTT sale, sell-off, and withdrawn rescue bid
- bankruptcy and unauthorized transactions
- Lawsuits and legal involvement
- Following the collapse of FTX, the Royal Bahamas Police Force launched a criminal investigation into the company

Module 4 will discuss

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Breaking News…..September 2011

- City rogue trader Kweku Adoboli arrested over $2bn UBS loss
- Kweku Adoboli, a 31-year old trader at UBS, has been arrested by City of London police in connection with rogue trading that has cost the Swiss banking giant an estimated $2bn (£1.3bn). The Telegraph – 15 Sep 2011
- The bank said in a statement: "UBS has discovered a loss due to unauthorized trading by a trader in its Investment bank. "The matter is still being investigated, but UBS's current estimate of the loss on the trades is in the range of $2bn."

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Breaking News…..January 2012

- Stanford's billionaire lifestyle funded by years of "lying, theft and bribery" – investors cash used for Ponzi scheme, trial told
- In a dramatic opening to the trial in Houston, the prosecution claimed that Mr. Stanford had practised deceit for more than two decades
- His Antigua based Bank collapsed and more than 20,000 investors have received nothing since his arrest in June 2009

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Breaking News…..June 2012

- Stanford handed 110 year sentence
- Orchestrated a Ponzi scheme that defrauded Investors of more than £7bn.
- US authorities described Stanford as a ruthless predator
- Stanford's fall from grace for a man who was listed in Forbes magazine as the 605th richest man in the world and was worth an estimated $2bn by 2008
- Stanford promised investors handsome returns if they bought certificates from SIB based in Antigua
- Source of discomfort in English Cricket board due to promotion of games between WI and England

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Breaking News…..June 2012

- Gupta convicted of Insider Trading
- Former Goldman Sachs Director and ex-head of McKinsey & Co convicted of conspiracy and securities fraud; related to trading in Goldman stock by Raj Rajaratnam's Galleon Hedge fund
- Rajaratnam, who was convicted of 14 counts of insider trading at a trial last year is now serving an 11 year prison sentence
- Gupta is scheduled to be sentenced in October.

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Breaking News…..July 2012

"Diamond and senior aide forced to quit"

- Bob Diamond, Chief Executive of Barclays, and one of his most senior lieutenants were forced to resign after the bank came under pressure to remove senior executives over Libor rigging
- Barclays were fined the previous week a total of £290m to settle with US and the British regulators

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Breaking News…..July 2012

July 26th:

- Barclays fourth major resignation –

Alison Carnwarth, Head of Remuneration Committee; who outraged shareholders by approving Bob Diamond £17m pay package; is leaving to devote time to other interests.

- http://www.telegraph.co.uk/finance

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Breaking News…..February 2013

"interest Rate fix shakes three continents"

- London - RBS fined £390m over Libor
- Frankfurt – Deutsche Bank suspends 5 traders
- Tokyo – Claims of cartel involvement in Japan rate

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Breaking News…..April 2013

"Former HBOS chief gives up his knighthood"

- Former HBOS chief is to give up his knighthood and a third of his pension after a scathing report into the Bank's collapse
- Sir James Crosby was chief executive of HBOS from 2001 until 2006
- HBOS collapsed in 2008 forcing a £20.5billion taxpayer bailout

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Case Study: Balance sheet summary

Table 1

	2001 (£bn)	2008 (£bn)
Group		
Customer Loans	201.0	435.2
Customer Deposits	140.5	222.3
Total Assets	274.7	630.9
Tangible Shareholders Equity (£m)	9,823	17,792
Loans/Deposits Ratio (%)	143	196
Wholesale funding < 1 year	89.8	119.4
Leverage (Assets/TSE) (x)	28	35
Retail		
Customer Loans	132.1	255.3
Customer Deposits	102.0	143.7
Corporate (including Business Banking in 2001)		
Customer Loans	55.1	123.0
Customer Deposits	22.2	38.5
International		
Customer Loans	14.4	61.0
Customer Deposits	3.7	6.6
Treasury		
Deposits	12.6	33.5

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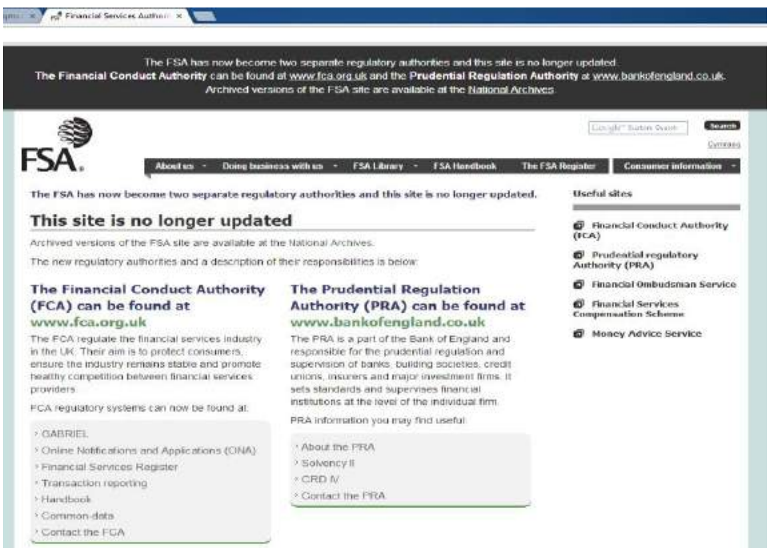
Breaking News….. 2013



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Breaking News…..May 2013

"Co-op Bank bosses face possible clawback of bonuses"

- The move follows a six-notch downgrade of the Bank by Moody's
- In March the Co-op Bank reported a surprise loss of £634m after seeing it's impairment losses on bad debts more than treble to £469m
- CEO of the Bank resigned in the wake of the downgrade
- Review underway as to sustainability of the banking business

35

Breaking News…..May 2015

" HSBC to pay £28m after money laundering investigation"

- The bank will pay the money – a record sum for the prosecutor – to close the investigation into "suspected aggravated money laundering" without any admission of wrongdoing.
- **Authorities in Geneva raided offices in February**, after several media organisations published details of how HSBC's private bank in Switzerland aided wealthy clients avoid paying tax and helped drug and weapons smugglers launder money.
- "HSBC Private Bank [in Switzerland] has acknowledged that the compliance culture and standards of due diligence in place in the Bank in the past were not as robust as they are today," the bank said in a statement.

https://youtu.be/7kS0-yKLgjk?t=8

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Breaking News…..June 2016

“ Libor-rigging trial: ex-Barclays traders jailed for two to six years”

- The sentences come four years after Barclays became the first of 11 banks and brokerages to be slapped with hefty fines for their role in the rate-fixing scandal, prompting a political backlash that forced out former chief executive Bob Diamond, an overhaul of Libor rules and the criminal inquiry.
- The men had faced sentences of up to 10 years after they were each charged with one count of conspiracy to defraud by plotting to rig Libor (London interbank offered rate), a benchmark for rates on around $450tn of financial contracts and loans, between June 2005 and September 2007.

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Breaking News…..June 2016

“ Former trader Jérôme Kerviel wins unfair dismissal case”

- A French tribunal has ordered Société Générale to pay €450,000 in damages for unfairly firing the rogue trader Jérôme Kerviel, whose unauthorised trades spiraled into massive losses in 2007 and 2008 and almost bankrupted one of Europe’s biggest banks.
- SocGen said it would appeal

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Breaking News….2018

- *"*Danske Bank money laundering 'is biggest scandal in Europe'
- The European commission has described the €200bn (£178bn) money-laundering case at Denmark's largest bank as "the biggest scandal" in Europe.
- Věra Jourová, the European commissioner for justice, said she would summon ministers from Denmark and Estonia to explain how Danske Bank executives and regulators missed the scandal.

Breaking News….2018

***"*Wells Fargo customers are fed up. They could yank billions of dollars in deposits**

- An industry-high 30% of Wells Fargo's (WFC) customers are at risk of dumping the scandal-ridden bank, according to a report published on Wednesday by consulting firm cg42.
- The report, based on an online survey of 4,000 Americans, projected that Wells Fargo could lose $93 billion in deposits over the next year. That would represent about 7% of the bank's total deposits.
- Cg42 found that a growing number of Wells Fargo customers are fed up with the nation's third-largest lender. Their top complaint is that their bank was engaged in "dishonest, unethical or illegal practices." Others bemoaned that Wells Fargo is trying to sell them products they don't want or need.

Breaking News….November 2018

"Deutsche Bank raided in money-laundering inquiry" – Friday 30th November, The Times

- Police raided six Deutsche Bank offices in and around Frankfurt yesterday as part of an investigation into money-laundering allegations linked to the Panama Papers.
- Prosecutors allege that two un-named employees helped clients to set up offshore firms to launder money
- Deutsche is the biggest Bank in Germany and the 17th biggest in the world
- In September BaFin - the German financial watchdog, ordered Deutsche to do more to prevent money laundering and terrorist financing.
- Last year the bank was fined almost $700m for allowing monet laundering through artificial trades between Moscow, London and New York.

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Breaking News….June 2019

- *"Basel - Overview of Pillar 2 supervisory review practices and approaches"*

https://www.bis.org/bcbs/publ/d465.htm

- The Overview of Pillar 2 supervisory review practices and approaches describes key concepts of Pillar 2 and supervisory review practices in use across Basel Committee member jurisdictions.
- The Pillar 2 supervisory review process is an integral part of the Basel Framework. When the Committee introduced the Basel II framework in 2004, a fundamental objective of the Committee's work was to reinforce the minimum capital requirements of the first pillar with a robust implementation of the second pillar.
- The report covers key areas of the Pillar 2 supervisory review process, including the risk assessment process, risk appetites, board and senior management roles and supervisory practices adopted to enhance transparency, and bank disclosure practices.
- The report further describes a number of selected Pillar 2 risks, including business risk and interest rate risk in the banking book.

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Business Dashboard:

- Eurozone: Dead end ……….

……….or crossroads ?

Strengthening the global capital framework

□Pillar 1 key aspects:

- Raise capital quality and quantity
- Plus – capital conservation buffer
- Plus – countercyclical capital buffer
- Plus – leverage ratio
- Plus – liquidity standards and ratios
- *Plus Systemically Important Financial Institutions – additional considerations*

Raising the quality, consistency and transparency of the capital base

- It is critical that banks' risk exposures are backed by a high quality capital base. The crisis demonstrated that credit losses and write downs come out of retained earnings, which is part of banks' tangible common equity base.
- It also revealed the inconsistency in the definition of capital across jurisdictions and the lack of disclosure that would have enabled the market to fully assess and compare the quality of capital between institutions.
- To this end, the predominant form of Tier 1 capital must be common shares and retained earnings.

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Capital conservation buffer

- A capital conservation buffer of 2.5%, comprised of Common Equity Tier 1, is established above the regulatory minimum capital requirement.
- Capital distribution constraints will be imposed on a bank when capital levels fall within this range.
- Banks will be able to conduct business as normal when their capital levels fall into the conservation range as they experience losses.
- The constraints imposed only relate to distributions, not the operation of the bank.

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Counter-cyclical buffer

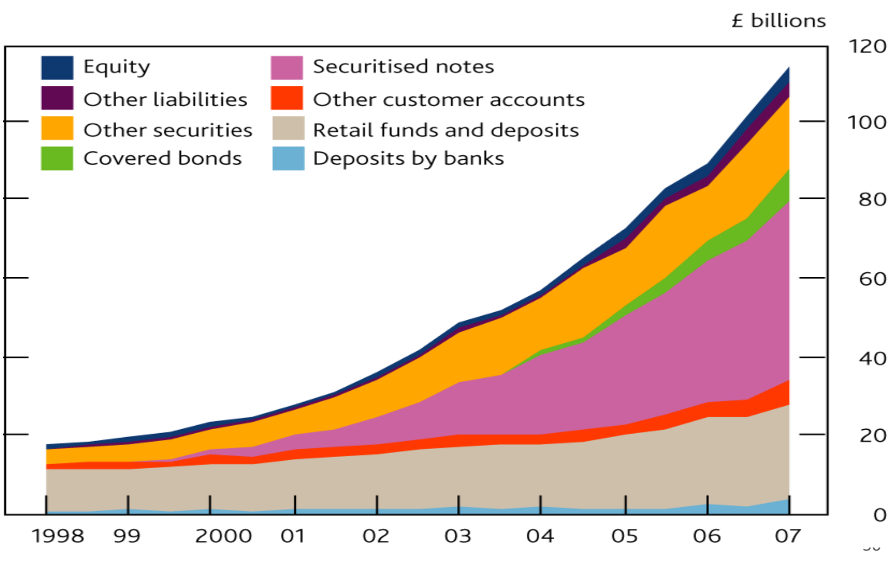
- Losses incurred in the banking sector can be extremely large when a downturn is preceded by a period of excess credit growth.
- These losses can destabilise the banking sector and spark a vicious circle, whereby problems in the financial system can contribute to a downturn in the real economy that then feeds back on to the banking sector.
- These interactions highlight the particular importance of the banking sector building up additional capital defences.

National counter-cyclical buffer requirements

- Each Basel Committee member jurisdiction will identify an authority with the responsibility to make decisions on the size of the countercyclical capital buffer.
- If the relevant national authority judges a period of excess credit growth to be leading to the build up of system-wide risk, they will consider, together with any other macroprudential tools at their disposal, putting in place a countercyclical buffer requirement.
- This will vary between zero and 2.5% of risk weighted assets, depending on their judgment as to the extent of the build up of system-wide risk.

Is a Leverage ratio needed ?

Extract from Northern Rock balance sheet



Supplementing the risk-based capital requirement with a leverage ratio

- One of the underlying features of the crisis was the build up of excessive on- and off-balance sheet leverage in the banking system.
- The build up of leverage also has been a feature of previous financial crises, for example leading up to September 1998.
- During the most severe part of the crisis, the banking sector was forced by the market to reduce its leverage in a manner that amplified downward pressure on asset prices

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Leverage Ratio

The Committee therefore is introducing a leverage ratio requirement that is intended to achieve the following objectives:

- constrain leverage in the banking sector, thus helping to mitigate the risk of the de-stabilising deleveraging processes which can damage the financial system and the economy; and
- introduce additional safeguards against model risk and measurement error by supplementing the risk-based measure with a simple, transparent, independent measure of risk.

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Leverage Ratio

- The leverage ratio is calculated in a comparable manner across jurisdictions, adjusting for any differences in accounting standards.
- The Committee has designed the leverage ratio to be a credible supplementary measure to the risk-based requirement with a view to migrating to a Pillar 1 treatment based on appropriate review and calibration (– see timetable)
- Leverage ratio = Tier 1 Capital / Total Assets

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Introducing a Global Liquidity Standard

- The recent crisis highlighted the importance of prudent liquidity risk management. In response, in 2008 the BCBS published its *Principles for Sound Liquidity Risk Management and Supervision,* to promote stronger governance, risk management, disclosure and robust supervision of banks' liquidity management frameworks.[1]
- To complement these principles, the BCBS proposed, as part of Basel III, two *minimum* quantitative standards for funding liquidity: the Liquidity Coverage Ratio and the Net Stable Funding Ratio.[2]

- [1] BCBS, 2008, *Principles for Sound Liquidity Risk Management and Supervision.* Available at: http://www.bis.org/ publ/bcbs144.pdf.
- [2] BCBS, 2010, *Basel III International Framework for Liquidity Risk Measurement, Standards and Monitoring.* Available at: http://www.bis.org/publ/bcbs188.htm.

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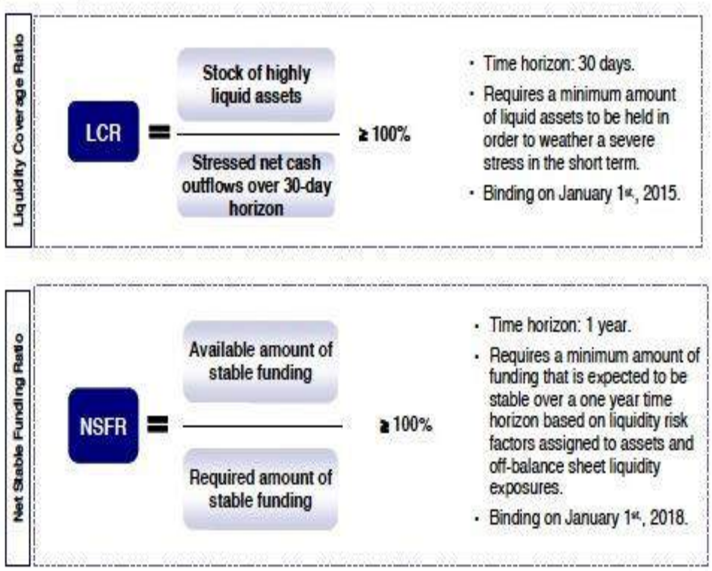
Short description of the two ratios



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Introducing a Global Liquidity Standard

- These standards have been developed to achieve two separate but complementary objectives.
- The first objective is to promote short-term resilience of a bank’s liquidity risk profile by ensuring that it has sufficient high quality liquid resources to survive an acute stress scenario lasting for one month.
- The Committee developed the Liquidity Coverage Ratio (LCR) to achieve this objective.

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Introducing a Global Liquidity Standard

- The second objective is to promote resilience over a longer time horizon by creating additional incentives for a bank to fund its activities with more stable sources of funding on an ongoing structural basis.
- The Net Stable Funding Ratio (NSFR) has a time horizon of one year and has been developed to provide a sustainable maturity structure of assets and liabilities.

Introducing a Global Liquidity Standard

- The NSFR requires a minimum amount of stable sources of funding at a bank relative to the liquidity profiles of the assets, as well as the potential for contingent liquidity needs arising from off-balance sheet commitments, over a one-year horizon.
- The NSFR aims to limit over-reliance on short-term wholesale funding during times of buoyant market liquidity and encourage better assessment of liquidity risk across all on- and off-balance sheet items.

BASEL COMMITTEE ON BANKING SUPERVISION

BANK FOR INTERNATIONAL SETTLEMENTS

Annex 2: Phase-in arrangements (shading indicates transition periods)
(all dates are as of 1 January)

	2011	2012	2013	2014	2015	2016	2017	2018	As of 1 January 2019
Leverage Ratio	Supervisory monitoring		Parallel run 1 Jan 2013 – 1 Jan 2017 Disclosure starts 1 Jan 2015					Migration to Pillar 1	
Minimum Common Equity Capital Ratio			3.5%	4.0%	4.5%	4.5%	4.5%	4.5%	4.5%
Capital Conservation Buffer						0.625%	1.25%	1.875%	2.50%
Minimum common equity plus capital conservation buffer			3.5%	4.0%	4.5%	5.125%	5.75%	6.375%	7.0%
Phase-in of deductions from CET1 (including amounts exceeding the limit for DTAs, MSRs and financials)				20%	40%	60%	80%	100%	100%
Minimum Tier 1 Capital			4.5%	5.5%	6.0%	6.0%	6.0%	6.0%	6.0%
Minimum Total Capital			8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Minimum Total Capital plus conservation buffer			8.0%	8.0%	8.0%	8.625%	9.25%	9.875%	10.5%
Capital instruments that no longer qualify as non-core Tier 1 capital or Tier 2 capital			Phased out over 10 year horizon beginning 2013						
Liquidity coverage ratio	Observation period begins				Introduce minimum standard				
Net stable funding ratio		Observation period begins						Introduce minimum standard	

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DTAs – Deferred Tax Assets
MSRs – Mortgage Servicing Rights

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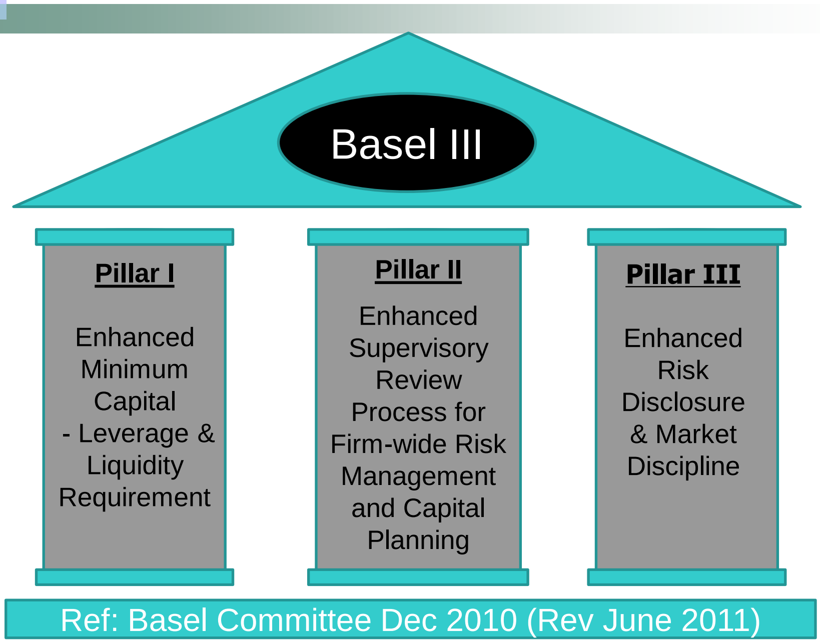

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Ref: CISI.org

Basel Committee on Banking Supervision reforms - Basel III

Strengthens microprudential regulation and supervision, and adds a macroprudential overlay that includes capital buffers.

	Capital				
	Pillar 1			Pillar 2	Pillar 3
	Capital	**Risk coverage**	**Containing leverage**	**Risk management and supervision**	**Market discipline**
All Banks	**Quality and level of capital** Greater focus on common equity. The minimum will be raised to 4.5% of risk-weighted assets, after deductions. **"Gone concern" contingent capital** "gone concern" capital proposal would requires contractual terms of capital instruments to include a clause allowing – at the discretion of the relevant authority – write-off or conversion to common shares if the bank is judged to be non-viable. "Gone concern" contingent capital increases the contribution of the private sector to resolving future banking crises and thereby reduces moral hazard. **Capital conservation buffer** Comprising common equity of 2.5% of risk-weighted assets, bringing the total common equity standard to 7%. Constraint on a bank's discretionary distributions will be imposed when banks fall into the buffer range. **Countercyclical buffer** Imposed within a range of 0-2.5% comprising common equity, when authorities judge credit growth is resulting in an unacceptable build up of systematic risk.	**Securitisations** Strengthens the capital treatment for certain complex securitisations. Requires banks to conduct more rigorous credit analyses of externally rated securitisation exposures. **Trading book** Significantly higher capital for trading and derivatives activities, as well as complex securitisations held in the trading book. Introduction of a stressed value-at-risk framework to help mitigate procyclicality. **Counterparty credit risk** Substantial strengthening of the counterparty credit risk framework. Includes: more stringent requirements for measuring exposure; capital incentives for banks to use central counterparties for derivatives; and higher capital for inter-financial sector exposures.	**Leverage ratio** A non-risk-based leverage ratio that includes off-balance sheet exposures will serve as a backstop to the risk-based capital requirement. Also helps contain system wide build up of leverage.	**Supplemental Pillar 2 requirements.** Address firm-wide governance and risk management; capturing the risk of off-balance sheet exposures and securitisation activities; managing risk concentrations; providing incentives for banks to better manage risk and returns over the long term; sound compensation practices; valuation practices; stress testing; accounting standards for financial instruments; corporate governance; and supervisory colleges.	**Revised Pillar 3 disclosures requirements** The requirements introduced relate to securitisation exposures and sponsorship of off-balance sheet vehicles. Enhanced disclosures on the detail of the components of regulatory capital and their reconciliation to the reported accounts will be required, including a comprehensive explanation of how a bank calculates its regulatory capital ratios.

SIFIs	In addition to meeting the Basel III requirements, global systemically important financial institutions (SIFIs) must have higher loss absorbency capacity to reflect the greater risks that they pose to the financial system. The Committee has developed a methodology that includes both quantitative indicators and qualitative elements to identify global SIFIs. The additional loss absorbency requirements are to be met with a progressive Common Equity Tier 1 (CET1) capital requirement ranging from 1% to 2.5%, depending on a bank's systemic importance. A consultative document was submitted to the Financial Stability Board (FSB), which is coordinating the overall set of measures to reduce the moral hazard posed by global systemically important financial institutions.

Liquidity
Global liquidity standard and supervisory monitoring
Liquidity coverage ratio The liquidity coverage ratio (LCR) will require banks to have sufficient high-quality liquid assets to withstand a 30-day stressed funding scenario that is specified by supervisors. **Net stable funding ratio** The net stable funding ratio (NSFR) is a longer-term structural ratio designed to address liquidity mismatches. It covers the entire balance sheet and provides incentives for banks to use stable sources of funding. **Principles for Sound Liquidity Risk Management and Supervision** The Committee's 2008 guidance entitled Principles takes account of lessons learned during the crisis and are based on a fundamental review of sound practices for managing liquidity risk in banking organisations. **Supervisory monitoring** The liquidity framework includes a common set of monitoring metrics to assist supervisors in identifying and analysing liquidity risk trends at both the bank and system-wide level.

Basel III

Further reading:

- BCBS, 2010(Rev 2011) *Basel III: A global regulatory framework for more resilient banks and banking systems*
  Available at: http://www.bis.org/publ/bcbs189.pdf.
- BCBS, 2011, *Principles for the Sound Management of Operational Risk*
  Available at: http://www.bis.org/publ/bcbs195.pdf.
- BCBS, 2011, *Operational Risk – Supervisory Guidelines for the Advanced Measurement Approaches*
  Available at: http://www.bis.org/publ/bcbs196.pdf.
- BCBS, 2013, *Basel III Liquidity Coverage Ratio and liquidity risk monitoring tools.*
  Available at: http://www.bis.org/publ/bcbs238.pdf.
- BCBS, 2014, *Basel III The Net Stable Funding Ratio.*
  Available at: http://www.bis.org/publ/d295.pdf.

For Later Debate Session

MEDIA RELEASE

OICU-IOSCO

International Organization of Securities Commissions
Organisation internationale des commissions de valeurs
Organização Internacional das Comissões de Valores
Organización Internacional de Comisiones de Valores

IOSCO/MR08/2012

Beijing, 16 May 2012

IOSCO Prepares for the Regulatory and Financial Challenges Ahead

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➢ IOSCO Principles and Standards

- Although IOSCO was created in 1983, the financial crisis has served to bring new focus to international regulatory standards and co-operation.
- IOSCO's 30 principles of securities regulation have received support from the G20 group of countries and the Financial Stability Board.
- These principles are based on three objectives of securities regulation which are:
  1. the protection of investors;
  2. ensuring that markets are fair, efficient and transparent;
  3. the reduction of systemic risk.

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G20 Summit Meeting

FSB (Financial Stability Board)

FSB plays a coordination role in addressing cross-sectoral regulatory issues in cooperation with each:

BCBS
(Basel Committee on Banking Supervision)

IOSCO
(International Organization of Securities Commissions)

IAIS
(International Association of Insurance Supervisors)

Masamichi Kono
Chair, IOSCO Technical Committee

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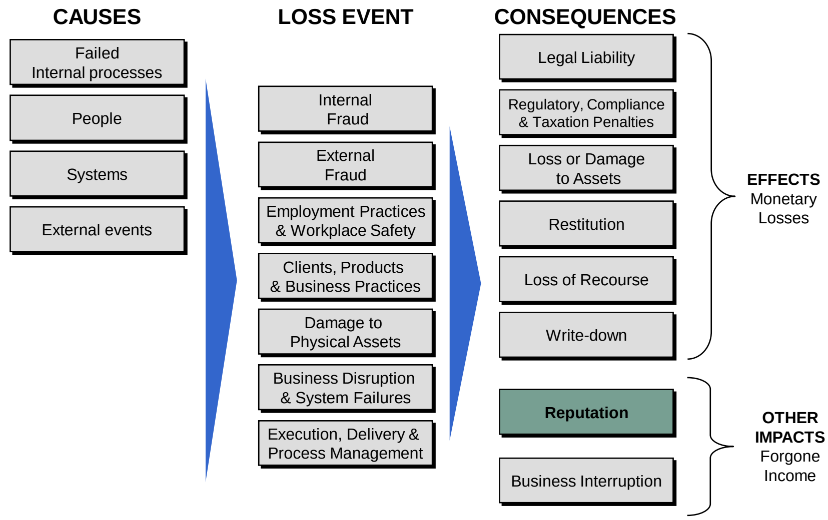
Seminar Discussion

- Risk Management Issues

Barings Bank Case Study

66

The Three Dimensions of OR



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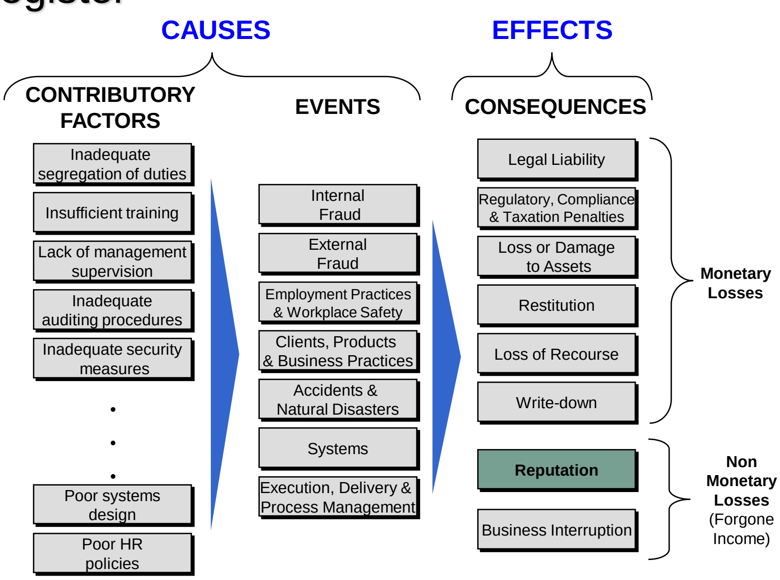
Cause & Effect – Developing a Risk Register



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Turner Report Extract – Market Risk

The Turner Review
Chapter One: What went wrong?

22

1.1 (iv) Misplaced reliance on sophisticated maths

The increasing scale and complexity of the securitised credit market was obvious to individual participants, to regulators and to academic observers. But the predominant assumption was that increased complexity had been matched by the evolution of mathematically sophisticated and effective techniques for measuring and managing the resulting risks. Central to many of the techniques was the concept of Value-at-Risk (VAR), enabling inferences about forward-looking risk to be drawn from the observation of past patterns of price movement. This technique, developed in the early 1990s, was not only accepted as standard across the industry, but adopted by regulators as the basis for calculating trading risk and required capital, (being incorporated for instance within the European Capital Adequacy Directive).

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Cont'd

The Turner Review
Chapter One: What went wrong?

There are, however, fundamental questions about the validity of VAR as a measure of risk (see Section 1.4 (ii) below). And the use of VAR measures based on relatively short periods of historical observation (e.g. 12 months) introduced dangerous procyclicality into the assessment of trading book risk for the reasons set out in Box 1A (deficiencies of VAR).

The very complexity of the mathematics used to measure and manage risk, moreover, made it increasingly difficult for top management and boards to assess and exercise judgement over the risks being taken. Mathematical sophistication ended up not containing risk, but providing false assurance that other prima facie indicators of increasing risk (e.g. rapid credit extension and balance sheet growth) could be safely ignored.

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Minimum Capital Requirements for Market Risk – Jan 2016

- The 2007-08 period of severe market stress exposed weaknesses in the framework for capitalising risks from trading activities. In 2009, the Committee introduced a set of revisions to the Basel II market risk framework to address the most pressing deficiencies.
- **A fundamental review of the trading book** was also initiated to tackle a number of structural flaws in the framework that were not addressed by those revisions.This has led to the revised market risk framework -

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Minimum Capital Requirements for Market Risk – Jan 2016 (cont'd)

- The key features of the revised framework include:
- *A revised boundary between the trading book and banking book*
- *A revised internal models approach for market risk*
- *A revised standardised approach for market risk*
- *A shift from value-at-risk to an expected shortfall measure of risk under stress*
- *Incorporation of the risk of market illiquidity*

The revised market risk framework comes into effect on 1 January 2019.

- BCBS, 2016, Minimum capital requirements for market risk
  Available at: http://www.bis.org/ publ/bcbs

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Annex 2: Phase-in arrangements (shading indicates transition periods)

(all dates are as of 1 January)

	2011	2012	2013	2014	2015	2016	2017	2018	As of 1 January 2019
Leverage Ratio	Supervisory monitoring		Parallel run 1 Jan 2013 – 1 Jan 2017 Disclosure starts 1 Jan 2015					Migration to Pillar 1	
Minimum Common Equity Capital Ratio			3.5%	4.0%	4.5%	4.5%	4.5%	4.5%	4.5%
Capital Conservation Buffer						0.625%	1.25%	1.875%	2.50%
Minimum common equity plus capital conservation buffer			3.5%	4.0%	4.5%	5.125%	5.75%	6.375%	7.0%
Phase-in of deductions from CET1 (including amounts exceeding the limit for DTAs, MSRs and financials)				20%	40%	60%	80%	100%	100%
Minimum Tier 1 Capital			4.5%	5.5%	6.0%	6.0%	6.0%	6.0%	6.0%
Minimum Total Capital			8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Minimum Total Capital plus conservation buffer			8.0%	8.0%	8.0%	8.625%	9.25%	9.875%	10.5%
Capital instruments that no longer qualify as non-core Tier 1 capital or Tier 2 capital			Phased out over 10 year horizon beginning 2013						

Liquidity coverage ratio	Observation period begins				Introduce minimum standard				
Net stable funding ratio		Observation period begins						Introduce minimum standard	

Notes to the financial statements continued

32 Operating segments – additional information continued

Non-current assets other than financial instruments and deferred tax assets

The total of non-current assets other than financial instruments, deferred tax assets, post-employment benefit assets and assets held for sale by location is shown below. This is allocated based on the location of the business units holding the assets.

	2009 US$m	2008 US$m
Non-current assets other than financial instruments and deferred tax assets [(a)]		
Australia	**31,543**	24,080
United Kingdom	**928**	1034
North America [(b)]	**29,486**	32,197
France	**2,298**	2,507
Europe (excluding France)	**2,041**	2,813
South America	**2,419**	1,882
Africa	**1,665**	1,731
Indonesia	**587**	555
Other countries	**1,212**	961
	72,179	67,760
Non-current assets excluded from analysis above:		
Deferred tax assets	**2,231**	1,367
Tax recoverable	**85**	220
Derivative assets	**841**	666
Loans to equity accounted units [(c)]	**1,593**	862
Accounts receivable	**593**	306
Total non-current assets per statement of financial position	**77,522**	71,181

(a) Includes investments in equity accounted units totalling US$5,312 million (2008: US$4,455 million) which represents the Group's share of net assets excluding quasi equity loans shown separately within 'Loans to equity accounted units' above.

(b) The United States of America and Canada have been combined to form the 'North America' geographical segment, having regard to the similarity of economic and political conditions in these countries.

(c) Loans to equity accounted units comprise quasi equity loans of US$1,423 million (2008: US$598 million) included in 'Investments in equity accounted units' on the face of the statement of financial position and non-quasi equity loans of US$170 million (2008: US$264 million) shown separately.

33 Financial risk management

The Group's policies with regard to financial risk management are clearly defined and consistently applied. They are a fundamental part of the Group's long term strategy covering areas such as foreign exchange risk, interest rate risk, commodity price risk, credit risk, liquidity risk and capital management.

Generally, the Group only sells commodities it has produced but also enters into third party direct transactions and physical swaps on Alumina to balance the regional positions and to balance the loading on production facilities. In the long term, natural hedges operate in a number of ways to help protect and stabilise earnings and cash flow.

The Group has a diverse portfolio of commodities and markets, which have varying responses to the economic cycle. The relationship between commodity prices and the currencies of most of the countries in which the Group operates provides further natural protection in the long term. Production of minerals is an important contributor to the Gross Domestic Products of Australia and Canada, countries in which the Group has a large presence. As a consequence, the Australian and Canadian currencies have historically tended to strengthen when commodity prices are high. In addition, the Group's policy of borrowing primarily at floating US dollar interest rates helps to counteract the effect of economic and commodity price cycles. These natural hedges significantly reduce the necessity for using derivatives or other forms of synthetic hedging. Such hedging is therefore undertaken to a strictly limited degree, as described below.

Treasury operates as a service to the business of the Rio Tinto Group and not as a profit centre. Strict limits on the size and type of transaction permitted are laid down by the Rio Tinto board and are subject to rigorous internal controls. Senior management is advised of corporate debt and currency, commodity and interest rate derivatives through a monthly reporting framework.

Rio Tinto does not acquire or issue derivative financial instruments for trading or speculative purposes; nor does it believe that it has material exposure to such trading or speculative holdings through its investments in joint ventures and associates. Derivatives are used to separate funding and cash management decisions from currency exposure and interest rate management. The Group uses interest rate and cross currency interest rate swaps in conjunction with longer term funds raised in the capital markets to achieve a predominantly floating rate obligation which is consistent with the Group's interest and exchange rate policies, ie. primarily US dollar LIBOR. However, the group reserves the right to realise swap positions to take advantage of favourable market conditions and to manage counterparty credit risk. No material exposure is considered to exist by virtue of the possible non performance of the counterparties to financial instruments held by the Group.

Derivative contracts are carried at fair value based on published quotations for the period for which a liquid active market exists. Beyond this period, Rio Tinto's own assumptions are used.

(i) Foreign exchange risk

Rio Tinto's shareholders' equity, earnings and cash flows are influenced by a wide variety of currencies due to the geographic diversity of the Group's sales and the countries in which it operates. The US dollar, however, is the currency in which the great majority of the Group's sales are denominated. Operating costs are influenced by the currencies of those countries where the Group's mines and processing plants are located and also by those currencies in which the costs of imported equipment and services are determined. The Australian and Canadian dollars and the Euro are the most important currencies (apart from the US dollar) influencing costs. In any particular year, currency fluctuations may have a significant impact on Rio Tinto's financial results. A strengthening of the US dollar against the currencies in which the Group's costs are partly determined has a positive effect on Rio Tinto's Underlying earnings.

Given the dominant role of the US currency in the Group's affairs, the US dollar is the currency in which financial results are presented both internally and externally. It is also the most appropriate currency for borrowing and holding surplus cash, although a portion of surplus cash may also be held in other currencies, most notably Australian dollars, Canadian dollars and the Euro. This cash is held in order to meet short term operational and capital commitments and, for the Australian dollar, dividend payments. The Group finances its operations primarily in US dollars, either directly or using cross currency interest rate swaps. A substantial part of the Group's US dollar debt is located in subsidiaries having a US dollar functional currency.

However, certain US dollar debt and other financial assets and liabilities including intragroup balances are not held in the functional currency of the relevant subsidiary. This results in an accounting exposure to exchange gains and losses as the financial assets and liabilities are translated into the functional currency of the subsidiary that accounts for those assets and liabilities. These exchange gains and losses are recorded in the Group's income statement except to the extent that they can be taken to equity under the Group's accounting policy which is explained in note 1(d). Gains and losses on US dollar net debt and on intragroup balances are excluded from Underlying earnings. Other exchange gains and losses are included in Underlying earnings.

As noted above, Rio Tinto hedges interest rate and currency risk on most of its foreign currency borrowings by entering into cross currency interest rate swaps, and/or interest rate swaps when required. These have the economic effect of converting fixed rate foreign currency borrowings to floating rate US dollar borrowings. See section B (d) of note 34 – Financial instruments for the details of currency and interest rate contracts relating to borrowings.

After taking into account relevant swap instruments, almost all of the Group's net debt is either denominated in US dollars or in the functional currency of the entity holding the debt. The table below summarises the net debt by currency.

Net (debt)/funds by currency	2009 US$m	2008 US$m
United States dollar	**(18,466)**	(38,111)
Australian dollar	**(232)**	(351)
South African rand	**60**	52
UK sterling	**(35)**	(34)
Euro	**(140)**	(77)
Canadian dollar	**(137)**	(122)
Other	**89**	(29)
Total	**(18,861)**	(38,672)

Currency hedging

Under normal market conditions, the Group does not generally believe that active currency hedging of transactions would provide long term benefits to shareholders. The Group reviews on a regular basis its exposure and reserves the right to enter into hedges to maintain financial stability. Currency protection measures may be deemed appropriate in specific commercial circumstances and are subject to strict limits laid down by the Rio Tinto board, typically hedging of capital expenditures and other significant financial items such as tax and dividends. There is a legacy of currency forward contracts used to hedge operating cash flow exposures which was acquired with the North companies. Refer to section B ((a) to (d)) of note 34 - Financial instruments for the currency forward and option contracts used to manage the currency risk exposures of the Group at 31 December 2009.

Foreign exchange sensitivity: Risks associated with exposure to financial instruments

The sensitivities below give the estimated effect of a ten per cent strengthening in the full year closing US dollar exchange rate on the value of financial instruments. The impact is expressed in terms of the effect on net earnings, Underlying earnings and equity, assuming that each exchange rate moves in isolation. The sensitivities are based on financial assets and liabilities held at 31 December 2009, where balances are not denominated in the functional currency of the subsidiary and exclude financial assets and liabilities held by equity accounted units (see note b below). They also exclude exchange movements on local currency deferred tax balances and provisions. These balances will not remain constant throughout 2010, and therefore these numbers should be used with care.

Notes to the financial statements continued

33 Financial risk management continued

At 31 December 2009
Gains/(losses) associated with 10% strengthening of the US dollar

Currency Exposure	Closing exchange rate US cents	Effect on net earnings US$m	Of which amount impacting Underlying earnings US$m	Impact directly on equity US$m
Australian dollar [a]	89	178	66	(1)
Canadian dollar	95	5	61	–
South African rand	14	13	2	(42)
Euro	144	252	13	–
New Zealand dollar	73	2	–	–

At 31 December 2008
Gains/(losses) associated with 10% strengthening of the US dollar

Currency Exposure	Closing exchange rate US cents	Effect on net earnings US$m	Of which amount impacting Underlying earnings US$m	Impact directly on equity US$m
Australian dollar [a]	69	(27)	63	3
Canadian dollar	82	53	99	–
South African rand	11	13	19	–
Euro	141	239	18	–
New Zealand dollar	58	21	2	–

(a) The sensitivities show the net sensitivity of US$ exposures in A$ functional currency companies, for example, and A$ exposures in US$ functional currency companies.

(b) The sensitivities presented are on financial assets and liabilities of subsidiaries and proportionally consolidated entities, and do not include non-financial instruments such as provisions or post retirement benefits, or sensitivities arising from financial assets and liabilities within equity accounted units. The impact of reflecting these items primarily impacts the Canadian dollar sensitivity, with a US$69 million reduction in net earnings (2008: US$9 million reduction), a US$67 million reduction in Underlying earnings (2008: US$21 million reduction), and a US$114 million increase recorded directly in equity (2008: US$56 million increase).

(c) Rio Tinto Alcan Inc., which has a US functional currency for accounting purposes, has a significant amount of US dollar denominated external and intragroup debt held in Canada and is taxed on a Canadian currency basis. The above sensitivities as at 31 December 2009 for a 10 per cent strengthening of the US dollar do not include any tax benefit related to this debt because the capital losses generated would not be recognised. If the US dollar weakened below 97 Canadian cents then tax charges would begin to be recognised at 15 per cent.

Similarly at 31 December 2008, the above sensitivities for a 10 per cent strengthening of the US dollar did not include any tax benefit related to this debt because the capital losses generated would not have been recognised. If the US dollar had weakened below 97 Canadian cents then tax charges would have begun to be recognised at 15 per cent.

(ii) Interest rate risk

Interest rate risk refers to the risk that the value of a financial instrument or cash flows associated with the instruments will fluctuate due to changes in market interest rates. Rio Tinto's interest rate management policy is generally to borrow and invest at floating interest rates. This approach is based on historical correlation between interest rates and commodity prices. In some circumstances, an element of fixed rate funding may be considered appropriate. As noted above, Rio Tinto hedges interest rate and currency risk on most of its foreign currency borrowings by entering into cross currency interest rate swaps in order to convert fixed rate foreign currency borrowings to floating rate US dollar borrowings. The market value of these interest rate and cross currency interest rate swaps moves in alignment with the market and at times can act as alternative sources of funding. The Group reviews the positions on a regular basis and may act to either monetise in-the-money value or achieve lower costs of funding. See section B (d) of note 34 – Financial instruments for the details of currency and interest rate contracts relating to borrowings. At the end of 2009, US$8.3 billion (2008: US$10.6 billion) of the Group's debt was at fixed rates after taking into account interest rate swaps and finance leases, making the fixed to floating debt ratio 36 per cent fixed to 64 per cent floating.

A monthly Treasury report is provided to senior management which summarises corporate debt exposed to currency risks and, where applicable, the offsetting derivatives. See section B (d) of note 34 – Financial instruments for the details of currency and interest rate contracts relating to borrowings. See note 22 – Borrowings for the details of debt outstanding at 31 December 2009.

Based on the Group's net debt and other floating rate financial instruments outstanding as at 31 December 2009, the effect on net earnings of a half percentage point increase in US dollar LIBOR interest rates, with all other variables held constant, would be a reduction of US$37 million (2008: US$100 million). These balances will not remain constant throughout 2010, however, and therefore these numbers should be used with care.

(iii) Commodity price risk

The Group's normal policy is to sell its products at prevailing market prices. Exceptions to this rule are subject to strict limits laid down by the Rio Tinto board and to rigid internal controls. Rio Tinto's exposure to commodity prices is diversified by virtue of its broad commodity base and the Group does not generally believe commodity price hedging would provide long term benefit to shareholders. The Group may hedge certain commitments with some of its customers or suppliers. Details of commodity derivatives held at 31 December 2009 are set out in note 34 – B a) to c) Financial instruments.

Metals such as copper and aluminium are generally sold under contract, often long term, at prices determined by reference to prevailing market prices on terminal markets, such as the London Metal Exchange (LME) and COMEX in New York, usually at the time of delivery. Prices fluctuate widely in response to changing levels of supply and demand but, in the long run, prices are related to the marginal cost of supply. Gold is also priced in an active market in which prices respond to daily changes in quantities offered and sought. Newly mined gold is only one source of supply; investment and disinvestment can be important elements of supply and demand. Contract prices for many other natural resource products including iron ore and coal are generally agreed annually or for longer periods with customers, although volume commitments vary by product.

Certain products, predominantly copper concentrate, are 'provisionally priced', ie the selling price is subject to final adjustment at the end of a period normally ranging from 30 to 180 days after delivery to the customer, based on the market price at the relevant quotation point stipulated in the contract. Revenue on provisionally priced sales is recognised based on estimates of fair value of the consideration receivable based on forward market prices. At each reporting date, provisionally priced metal is marked to market based on the forward selling price for the period stipulated in the contract. For this purpose, the selling price can be measured reliably for those products, such as copper for which there exists an active and freely traded commodity market such as the London Metal Exchange and the value of product sold by the Group is directly linked to the form in which it is traded on that market.

The marking to market of provisionally priced sales contracts is recorded as an adjustment to sales revenue.

At the end of 2009, the Group had 267 million pounds of copper sales (2008: 183 million pounds) that were provisionally priced at US 335 cents per pound (2008: US 133 cents per pound). The final price of these sales will be determined during the first half of 2010. A ten per cent change in the price of copper realised on the provisionally priced sales would increase or reduce net earnings by US$55 million (2008: $15 million).

Approximately 27 per cent of Rio Tinto's 2009 Underlying earnings from operating businesses came from products whose prices were terminal market related and the remainder came from products priced by direct negotiation.

Commodity price sensitivity: Risks associated with derivatives

The table below summarises the impact of changes in the market price on the following commodity derivatives including those aluminium forward and option contracts embedded in electricity purchase contracts outstanding at 31 December 2009, but excluding the impact of commodity and embedded derivatives held by equity accounted units (see note a). The impact is expressed in terms of the resulting change in the Group's net earnings for the year or, where applicable, the change in equity. The sensitivities are based on the assumption that the market price increases by ten per cent with all other variables held constant. The Group's 'own use contracts' are excluded from the sensitivity analysis below as they are outside the scope of IAS 39. Such contracts to buy or sell non financial items can be net settled but were entered into and continue to be held for the purpose of the receipt or delivery of the non financial item in accordance with the business unit's expected purchase, sale or usage requirements.

These sensitivities should be used with care. The relationship between currencies and commodity prices is a complex one; changes in exchange rates can influence commodity prices and vice versa.

At 31 December 2009

Gains/(losses) associated with 10% increase from year end price

Products	Effect on net earnings US$m	Effect directly on equity attributable to Rio Tinto US$m
Copper	(1)	(18)
Aluminium	(19)	(24)
Oil	3	–
Total	**(17)**	**(42)**

At 31 December 2008

Gains/(losses) associated with 10% increase from year end price

Products	Effect on net earnings US$m	Effect directly on equity attributable to Rio Tinto US$m
Copper	–	(13)
Coal	–	(8)
Aluminium	21	(16)
Total	21	(37)

(a) The sensitivities presented do not include those arising from balances within equity accounted units. The impact of reflecting equity accounted units primarily relates to the aluminium sensitivity, with a US$55 million reduction in net earnings (2008: US$83 million reduction).

Financial statements

Shareholder information

Module II

Credit and Operational Risks

- Definitions of Credit Risk and Key Credit Risk Management Principles
- Credit Risk Gradings
- Managing the Loan Portfolio
- Definition of Operational Risk and Key Risk management principles
- Operational Risk Business Lines
- Developing Operational Risk Templates for Expected Outputs

Credit Risk Management

Keith Checkley FCBI
Chartered Banker

1

Learning Objectives

- Appreciate that Risk may be defined as the exposure to present or future loss of profits and/or capital.
- Understand that credit risk arises from faulty evaluation of current circumstances or probabilities and future change of a social, commercial, economic or environmental or political nature.

2

Continued

- Understand the principles for borrower rating.
- Appreciate the root causes and the danger signs can be evaluated under four main headings.
- Understand that the sound practices set out in the Basel Committee on Banking Supervision's "Principles for the Management of Credit Risk" represent internationally acceptable standards which should be instilled in all banks' credit risk management processes.

Principles for the Management of Credit Risk

- While financial institutions have faced difficulties over the years for a multitude of reasons, the major cause of serious banking problems continues to be directly related to lax credit standards for borrowers and counterparties.
- Poor portfolio risk management, or a lack of attention to changes in economic or other circumstances that can lead to deterioration in the credit standing of a bank's counterparties.
- This experience is common in both so-called developing and developed countries.

Continued

- The goal of credit risk management is to maximise a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters.
- Banks need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credits or transactions.
- Banks should also consider the relationships between credit risk and other risks.

5

Continued

- The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any banking organisation

6

Overview of credit risk management function

Risk may be defined as:
The exposure to present or future loss of profits and/or capital.

7

Continued

- All banks have a need to spread overall lending risk as widely as possible to reduce exposure to any one trade or industry and thus reduce overall exposure risk and profit volatility.
- Banks reduce portfolio risk by making advances to a wide variety of industries, spreading the risk among a broad client base.
- Being very aware of the risk of over concentration in any one sector, banks usually operate within industry thresholds, limiting credit exposure to achieve the best mix of individual and portfolio safety.

8

Continued

- Probably the most salient consideration in evaluating the character of a bank's loan portfolio is whether there is adequate diversification.
- One generalisation that can be made is that over-concentration brings dangers. Diversification is a key to minimising risk.

Continued

- Over-Concentration by Industry – When too high a percentage of loans is made to a particular industry, the bank becomes vulnerable to a downturn in that industry.
- Over-Concentration by Geography – A high percentage of loans made in a particular region within its franchise area makes a bank vulnerable to an economic downturn or a cataclysm affecting that locale. Depending upon the size of the bank, over-concentration may be in one urban or rural district, city, province or even country.

Continued

- Over-Concentration by Individual Borrower – Too high a percentage of loans made to a single individual or company holds a bank hostage to the fortunes of that borrower. The analyst should also beware of hidden over-concentration achieved through cross holdings and the use of nominee companies.
- Over-Concentration by Size – A small number of large loans is intrinsically more risk than a large number of small loans Substantial lending to cyclical or vulnerable industries or to related parties should be viewed as red flags. Some common warning signals include:

11

Implementing an effective Loan Portfolio Policy

- Each financial institution is unique and this must be reflected in its policy.
- The policy must reflect the collective risk tolerance of senior managers and boards of directors, which may vary from extremely conservative to very aggressive.

12

Continued

- The Credit Risk Committee policy must also address the responsibility for managing the institution's capital position.
- If Credit risk wants to establish strong control of the risk position, it should include a description of its minimum default expectations within the policy.
- When developing controls the Credit Committee will need to set sectorial and business exposure limits to mitigate economic downturn sectorial risks
- Also the frequency that accounts will be monitored and the establishment of credit grade guidelines to manage the mix of lending will enhance portfolio management.

13

Continued

- While most bankers believe that loan portfolio concentration in similar industries should be avoided, others suggest specialisation may promote high-caliber loans by concentrating expertise in a few industries.
- Some banks do assign loans to officers by industry (media, defence, health care, real estate etc) allowing them to become experts in all facets of specific industries.
- This strategy often pays off handsomely, as teams of expert loan originators solicit, analyse and sell off portions of industry portfolios, they do not want.

14

Portfolio Profitability

- Traditionally in measuring risk v return; the profit on individual credit transactions would consist of the interest payable plus any commission for arrangement fees.
- However; a risk management group at Bankers Trust initiated the risk-adjusted return on capital (RAROC) methodology in the late 1970s.

15

Continued

- Today RAROC strategy plans an important role in bank credit risk management, mainly in establishing performance targets and allocating capital resources.
- RAROC systems allocate capital for two reasons (1) risk management and (2) performance evaluation.
- For risk-management purposes, one major objective centres around capital allocation directed to individual business units for performance evaluation.

16

Classification of Loans: case study example

The following charts show the composition of HSBC loan portfolio, applying the Hong Kong Monetary Authority's loan classification system.

17

Continued

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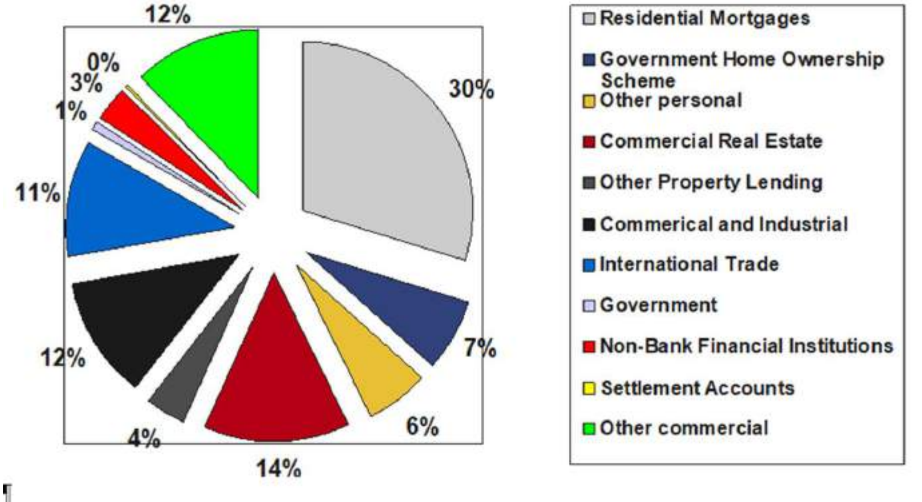

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18

Continued

Example

Five-category Loan Classification

Unit: RMB million, except percentages

Items	As at 31 December 2016 Amount	% of total	As at 31 December 2015 Amount	% of total
Group				
Pass	**9,516,729**	**95.43%**	8,775,798	96.06%
Special-mention	**310,630**	**3.11%**	229,165	2.51%
Substandard	**61,247**	**0.61%**	58,741	0.64%
Doubtful	**36,817**	**0.37%**	41,516	0.45%
Loss	**47,939**	**0.48%**	30,640	0.34%
Total	**9,973,362**	**100.00%**	9,135,860	100.00%
NPLs	**146,003**	**1.46%**	130,897	1.43%
Domestic				
Pass	**7,387,949**	**94.49%**	6,854,159	95.21%
Special-mention	**289,101**	**3.70%**	217,300	3.02%
Substandard	**58,763**	**0.75%**	57,049	0.79%
Doubtful	**35,758**	**0.46%**	40,612	0.56%
Loss	**46,937**	**0.60%**	29,974	0.42%
Total	**7,818,508**	**100.00%**	7,199,094	100.00%
NPLs	**141,458**	**1.81%**	127,635	1.77%

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Key Asset Quality Data and Indicators

The most critical figures to obtain for the periods being examined are:

- Non-Performing Assets/Total Assets
- Loan Loss Reserves/Average Loans
- Loan Loss Provisions/Average Loans
- Loan Loss Provisions/Profit before Provisions and Taxes
- Overdue Loans/Total Loans

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Risk assessment and management

- Risk assessment and management are the key skills of any successful banking operation.
- Most banks have some sort of risk rating system in place and the Basel Committee recommends this.
- The risk management process usually falls into a centralised or decentralised system. Such systems allow banks to evaluate and track risks on an industry, individual, or portfolio basis.

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Continued

The principles underlying a risk rating system include:

- A common framework for assessing risk
- Uniformity throughout the bank
- Compatibility with regulatory requirements
- The ability to identify satisfactory levels of credit risk.

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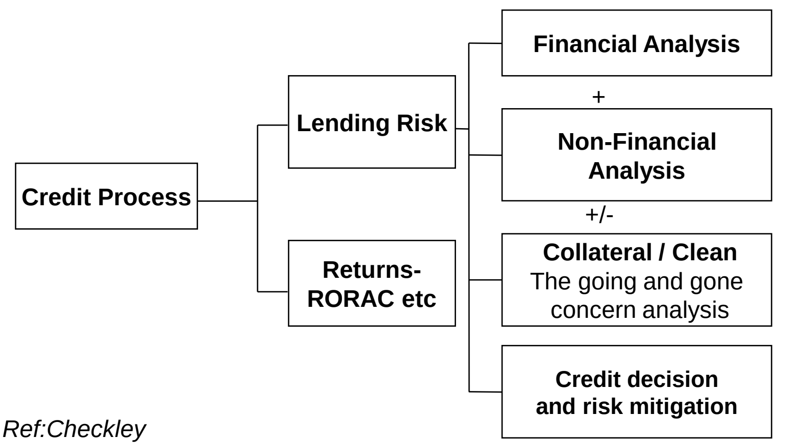
Asset quality

The asset quality of a financial institution is rated based upon, but not limited to, an assessment of the following evaluation factors:

1. The adequacy of underwriting standards, soundness of credit administration practices and appropriateness of risk identification practices. A suitable generic model for credit evaluation is shown below:

Diagnostic Credit Evaluation Model



Ref:Checkley
"Lending"
Published by London CIOB 1997

Management

- The capability of the board of directors and management, in their respective roles, to identify, measure, monitor and control the risks of an institution's activities and to ensure a financial institution's safe, sound and efficient operation in compliance with applicable laws and regulations is reflected in this rating.
- Generally, directors need not be actively involved in day-to-day operations; however, they must provide clear guidance regarding acceptable risk exposure levels and ensure that appropriate policies, procedures and practices have been established.

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Basel II – The Big Picture

- Over-arching goals:

  - ensure the adequate capitalisation of Financial Institutions

  - encourage best-practice risk management
- Key objectives:

  - promote the safety & soundness of the financial system

  - enhance competitive equality

  - apply a more comprehensive approach to risk

  - create a framework of three mutually-reinforcing pillars

Ref: BIS.org July 2004

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Basel II – The Big Picture

- A significant innovation is the greater use of the assessments of risk provided by the institution' internal systems as inputs to capital calculations.
- In taking this step, the Committee is also putting forward a detailed set of minimum requirements designed to ensure the integrity of these internal risk assessments.

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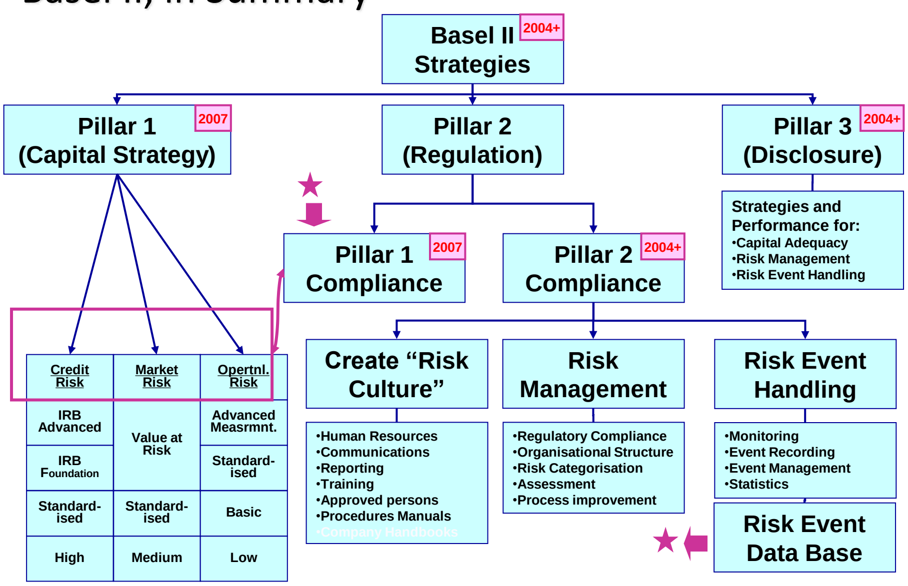
Basel II, in Summary



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Towards Basel III – The Big Picture

- Basel Press release:
  - reference 35/2010 dated 12th September 2010

  to ensure the adequate capitalisation of Financial Institutions
- At its 12 September 2010 meeting, the Group of Governors and Heads of Supervision, the oversight body of the Basel Committee on Banking Supervision, announced a substantial strengthening of existing capital requirements and improving liquidity management.
- See Handout Ref no: 35/2010 12 September 2010

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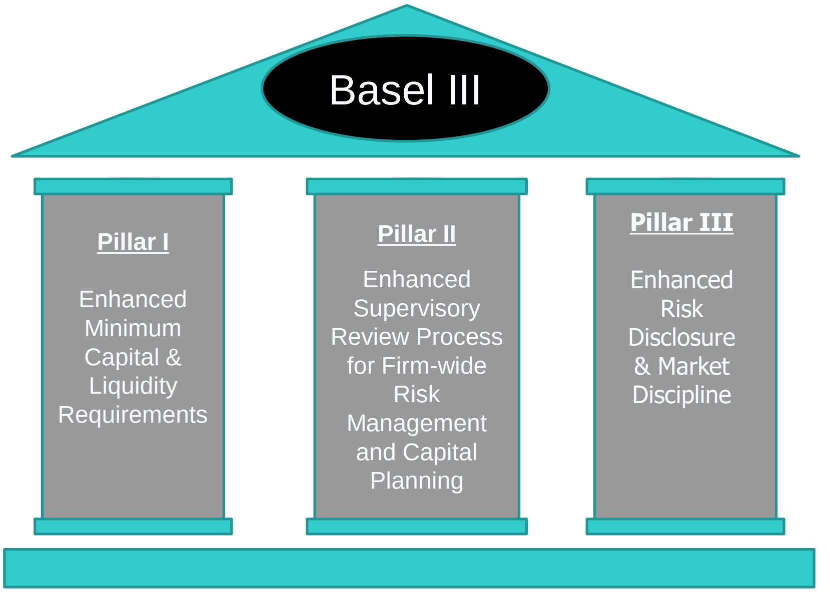

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The BIS Standards

- It's sub-committee, Basle Committee on Banking Supervision, Basle, is one which encourages banking supervisors globally to promote sound practices for managing risk.

- Their consultative document 'Principles for the Management of Credit Risk' discusses principles applicable to the business of lending.----ref

- http://www.bis.org/publ/bcbs75.htm

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BIS Standards-17 Key Principles

Summary –

The main topics of the Basle Paper are:

Establishing an Appropriate Credit Risk Environment

Operating under a Sound Credit Granting Process

Maintaining an Appropriate Credit Administration, Measurement

and Monitoring Process

Ensuring Adequate Controls over Credit Risk

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Document Extract:

- Principle 10: Banks are encouraged to develop and utilise an internal risk rating system in managing credit risk. The rating system should be consistent with the nature, size and complexity of a bank's activities.
- An important tool in monitoring the quality of individual credits, as well as the total portfolio, is the use of an internal risk rating system.
- A well-structured internal risk rating system is a good means of differentiating the degree of credit risk in the different credit exposures of a bank.

Extract: continued

- This will allow more accurate determination of the overall characteristics of the credit portfolio, concentrations, problem credits, and the adequacy of loan loss reserves.
- More detailed and sophisticated internal risk rating systems, used primarily at larger banks, can also be used to determine internal capital allocation, pricing of credits, and profitability of transactions and relationships.

Review

The main points introduced here are:

- Risk may be defined as the exposure to present or future loss of profits and/or capital.
- Risk arises from faulty analysis of current circumstances or probabilities and future change of a social, commercial, economic or environmental or political nature, the effect of which cannot be anticipated or hedged, or where reaction to such change is late or insufficient.

Continued

- The principles underlying a risk rating system include:
  - a common framework for assessing risk
  - uniformity throughout the bank
  - compatibility with regulatory requirements
  - the ability to identify satisfactory levels of credit risk.

Continued

- A borrower rating is likely to be based on:
  - industry and operating environment
  - earnings and operating cash flow
  - asset and liability structure
  - debt capacity
  - management and controls
  - financial reporting.

Continued

- The root causes and the danger signs can be analysed under four main headings: weaknesses in management and proprietors, technical and commercial problems, financing problems and faulty accounting.
- The sound practices set out in the Basel Committee on Banking Supervision's "Principles for the Management of Credit Risk" represent internationally acceptable standards which should be instilled in all banks' credit risk management processes.

In Conclusion

- This Presentation was designed to assist you with your studies on “Credit Risk Management”.

Thank you for your attention!

Annex 6

Supervisory Slotting Criteria for Specialised Lending

Table 1 — Supervisory Rating Grades for Project Finance Exposures

	Strong	Good	Satisfactory	Weak
Financial strength				
Market conditions	Few competing suppliers or substantial and durable advantage in location, cost, or technology. Demand is strong and growing	Few competing suppliers or better than average location, cost, or technology but this situation may not last. Demand is strong and stable	Project has no advantage in location, cost, or technology. Demand is adequate and stable	Project has worse than average location, cost, or technology. Demand is weak and declining
Financial ratios (e.g. *debt service coverage ratio (DSCR), loan life coverage ratio (LLCR), project life coverage ratio (PLCR), and debt-to-equity ratio*)	Strong financial ratios considering the level of project risk; very robust economic assumptions	Strong to acceptable financial ratios considering the level of project risk; robust project economic assumptions	Standard financial ratios considering the level of project risk	Aggressive financial ratios considering the level of project risk
Stress analysis	The project can meet its financial obligations under sustained, severely stressed economic or sectoral conditions	The project can meet its financial obligations under normal stressed economic or sectoral conditions. The project is only likely to default under severe economic conditions	The project is vulnerable to stresses that are not uncommon through an economic cycle, and may default in a normal downturn	The project is likely to default unless conditions improve soon

	Strong	Good	Satisfactory	Weak
Financial structure				
Duration of the credit compared to the duration of the project	Useful life of the project significantly exceeds tenor of the loan	Useful life of the project exceeds tenor of the loan	Useful life of the project exceeds tenor of the loan	Useful life of the project may not exceed tenor of the loan
Amortisation schedule	Amortising debt	Amortising debt	Amortising debt repayments with limited bullet payment	Bullet repayment or amortising debt repayments with high bullet repayment
Political and legal environment				
Political risk, including transfer risk, considering project type and mitigants	Very low exposure; strong mitigation instruments, if needed	Low exposure; satisfactory mitigation instruments, if needed	Moderate exposure; fair mitigation instruments	High exposure; no or weak mitigation instruments
Force majeure risk (war, civil unrest, etc),	Low exposure	Acceptable exposure	Standard protection	Significant risks, not fully mitigated
Government support and project's importance for the country over the long term	Project of strategic importance for the country (preferably export-oriented). Strong support from Government	Project considered important for the country. Good level of support from Government	Project may not be strategic but brings unquestionable benefits for the country. Support from Government may not be explicit	Project not key to the country. No or weak support from Government
Stability of legal and regulatory environment (risk of change in law)	Favourable and stable regulatory environment over the long term	Favourable and stable regulatory environment over the medium term	Regulatory changes can be predicted with a fair level of certainty	Current or future regulatory issues may affect the project
Acquisition of all necessary supports and approvals for such relief from local content laws	Strong	Satisfactory	Fair	Weak

	Strong	Good	Satisfactory	Weak
Enforceability of contracts, collateral and security	Contracts, collateral and security are enforceable	Contracts, collateral and security are enforceable	Contracts, collateral and security are considered enforceable even if certain non-key issues may exist	There are unresolved key issues in respect if actual enforcement of contracts, collateral and security
Transaction characteristics				
Design and technology risk	Fully proven technology and design	Fully proven technology and design	Proven technology and design — start-up issues are mitigated by a strong completion package	Unproven technology and design; technology issues exist and/or complex design
Construction risk				
Permitting and siting	All permits have been obtained	Some permits are still outstanding but their receipt is considered very likely	Some permits are still outstanding but the permitting process is well defined and they are considered routine	Key permits still need to be obtained and are not considered routine. Significant conditions may be attached
Type of construction contract	Fixed-price date-certain turnkey construction EPC (engineering and procurement contract)	Fixed-price date-certain turnkey construction EPC	Fixed-price date-certain turnkey construction contract with one or several contractors	No or partial fixed-price turnkey contract and/or interfacing issues with multiple contractors
Completion guarantees	Substantial liquidated damages supported by financial substance and/or strong completion guarantee from sponsors with excellent financial standing	Significant liquidated damages supported by financial substance and/or completion guarantee from sponsors with good financial standing	Adequate liquidated damages supported by financial substance and/or completion guarantee from sponsors with good financial standing	Inadequate liquidated damages or not supported by financial substance or weak completion guarantees

	Strong	Good	Satisfactory	Weak
Track record and financial strength of contractor in constructing similar projects.	Strong	Good	Satisfactory	Weak
Operating risk				
Scope and nature of operations and maintenance (O & M) contracts	Strong long-term O&M contract, preferably with contractual performance incentives, and/or O&M reserve accounts	Long-term O&M contract, and/or O&M reserve accounts	Limited O&M contract or O&M reserve account	No O&M contract: risk of high operational cost overruns beyond mitigants
Operator's expertise, track record, and financial strength	Very strong, or committed technical assistance of the sponsors	Strong	Acceptable	Limited/weak, or local operator dependent on local authorities
Off-take risk				
(a) If there is a take-or-pay or fixed-price off-take contract:	Excellent creditworthiness of off-taker; strong termination clauses; tenor of contract comfortably exceeds the maturity of the debt	Good creditworthiness of off-taker; strong termination clauses; tenor of contract exceeds the maturity of the debt	Acceptable financial standing of off-taker; normal termination clauses; tenor of contract generally matches the maturity of the debt	Weak off-taker; weak termination clauses; tenor of contract does not exceed the maturity of the debt
(b) If there is no take-or-pay or fixed-price off-take contract:	Project produces essential services or a commodity sold widely on a world market; output can readily be absorbed at projected prices even at lower than historic market growth rates	Project produces essential services or a commodity sold widely on a regional market that will absorb it at projected prices at historical growth rates	Commodity is sold on a limited market that may absorb it only at lower than projected prices	Project output is demanded by only one or a few buyers or is not generally sold on an organised market

	Strong	Good	Satisfactory	Weak
Supply risk				
Price, volume and transportation risk of feed-stocks; supplier's track record and financial strength	Long-term supply contract with supplier of excellent financial standing	Long-term supply contract with supplier of good financial standing	Long-term supply contract with supplier of good financial standing — a degree of price risk may remain	Short-term supply contract or long-term supply contract with financially weak supplier — a degree of price risk definitely remains
Reserve risks (e.g. natural resource development)	Independently audited, proven and developed reserves well in excess of requirements over lifetime of the project	Independently audited, proven and developed reserves in excess of requirements over lifetime of the project	Proven reserves can supply the project adequately through the maturity of the debt	Project relies to some extent on potential and undeveloped reserves
Strength of Sponsor				
Sponsor's track record, financial strength, and country/sector experience	Strong sponsor with excellent track record and high financial standing	Good sponsor with satisfactory track record and good financial standing	Adequate sponsor with adequate track record and good financial standing	Weak sponsor with no or questionable track record and/or financial weaknesses
Sponsor support, as evidenced by equity, ownership clause and incentive to inject additional cash if necessary	Strong. Project is highly strategic for the sponsor (core business — long-term strategy)	Good. Project is strategic for the sponsor (core business — long-term strategy)	Acceptable. Project is considered important for the sponsor (core business)	Limited. Project is not key to sponsor's long-term strategy or core business
Security Package				
Assignment of contracts and accounts	Fully comprehensive	Comprehensive	Acceptable	Weak

	Strong	Good	Satisfactory	Weak
Pledge of assets, taking into account quality, value and liquidity of assets	First perfected security interest in all project assets, contracts, permits and accounts necessary to run the project	Perfected security interest in all project assets, contracts, permits and accounts necessary to run the project	Acceptable security interest in all project assets, contracts, permits and accounts necessary to run the project	Little security or collateral for lenders; weak negative pledge clause
Lender's control over cash flow (e.g. cash sweeps, independent escrow accounts)	Strong	Satisfactory	Fair	Weak
Strength of the covenant package (mandatory prepayments, payment deferrals, payment cascade, dividend restrictions…)	Covenant package is strong for this type of project Project may issue no additional debt	Covenant package is satisfactory for this type of project Project may issue extremely limited additional debt	Covenant package is fair for this type of project Project may issue limited additional debt	Covenant package is Insufficient for this type of project Project may issue unlimited additional debt
Reserve funds (debt service, O&M, renewal and replacement, unforeseen events, etc)	Longer than average coverage period, all reserve funds fully funded in cash or letters of credit from highly rated bank	Average coverage period, all reserve funds fully funded	Average coverage period, all reserve funds fully funded	Shorter than average coverage period, reserve funds funded from operating cash flows

Credit Risk Grading

Developed by:
Keith Checkley FCIB
And Keith Dickinson FCIB

Welcome:

- Introduction to Module
- Technical Instructions for Participating
  - With all our content on-demand; you choose when to start, stop or pause the presentation

What is Credit Risk?

- **Credit Risk can be defined as**

  the Credit Loss emanating from a Borrower or Counterparty failing to meet their obligation in accordance with the agreed terms.

The Importance of Credit

- Prudent management of the Financial Institution is a reflection of its ability to balance successfully the risk in the portfolio with profit earned on it

- The fundamental purpose of credit risk management is to develop 'good' business with:
  - a known and acceptable level of risk
  - appropriate controls to mitigate the risk
  - an acceptable return

The Importance of Credit continued

- The primary vision when writing policy is to determine the institution's tolerance for accepting financial risks and articulate it when defining the risk parameters of the policy.
- Each financial institution is unique and this must be reflected in its policy.
- The policy must reflect the collective risk tolerance of senior managers and boards of directors, which may vary from extremely conservative to very aggressive.

The Importance of Credit continued

- The Credit Risk Committee policy must also address the responsibility for managing the institution's capital position. If Credit risk wants to establish strong control of the risk position, it should include a description of its minimum default expectations within the policy.
- When developing controls the Credit Committee will need to set sectorial and business exposure limits to mitigate economic downturn sectorial risks
- The frequency that accounts will be monitored and the establishment of credit grade guidelines to manage the mix of lending will enhance portfolio management.

RISK MANAGEMENT - BIS

- It's sub-committee, Basle Committee on Banking Supervision, Basle, is one which encourages banking supervisors globally to promote sound practices for managing risk.
- Their consultative document 'Principles for the Management of Credit Risk' discusses principles applicable to the business of lending.----ref www.bis.org.---2002.

RISK MANAGEMENT – BIS
Standards-17 Key Principles

The main topics of the Basle Paper are:

- Establishing an Appropriate Credit Risk Environment
- Operating under a Sound Credit Granting Process
- Maintaining an Appropriate Credit Administration, Measurement and Monitoring Process
- Ensuring Adequate Controls over Credit Risk

Basel Extract:

- Principle 10: Banks are encouraged to develop and utilise an internal risk rating system in managing credit risk. The rating system should be consistent with the nature, size and complexity of a bank's activities.
- An important tool in monitoring the quality of individual credits, as well as the total portfolio, is the use of an internal risk rating system.
- A well-structured internal risk rating system is a good means of differentiating the degree of credit risk in the different credit exposures of a bank.

Basel Extract: continued

- This will allow more accurate determination of the overall characteristics of the credit portfolio, concentrations, problem credits, and the adequacy of loan loss reserves.
- More detailed and sophisticated internal risk rating systems, used primarily at larger banks, can also be used to determine internal capital allocation, pricing of credits, and profitability of transactions and relationships.

Credit Risk Rating Systems

Objectives for Control:

- Assist with overall portfolio management by identifying and monitoring risk composition
- Individual account management, which is proactive to problem causes and symptoms rather than reactive to default/collapse

Credit Risk Rating Systems

Main Benefits:

- **"Macro"** - More informed strategic decision making through identification of opportunities/threats within the loan portfolio
- **"Micro"** - Early warning of potential problems followed by prompt action will reduce loan losses

Credit Risk Rating Systems

Requirements:

- Universally understood and applied consistently
- Minimum number of categories which are easily defined
- Standardised and streamlined reporting procedures which ensure: accuracy, clarity and brevity
- Individual ownership and responsibility for problem accounts
- Every problem account to have an action plan and strategy in place

Example of Account Risk Rating Categories

Rating	Official Definition	Unofficial Term(s)
1A	Highest Quality	"AAA"/Blue Chip/ Undoubted
1B	Very Strong	Highly valued/First Class Track Record
2	Fully Satisfactory	Solid Performer/No previous problems and none expected

Example of Account Risk Rating Categories

Rating	Official Definition	Unofficial Term(s)
3	Minor Weaknesses	Should be OK, put on Watch List
4	Weak	Possible Loss
5	Partial Loss	Without major upturn in fortunes, bank will lose money, provision needed
6	Full Loss	Collapse/Full provision needed

What is Credit Rating ?

- Credit Rating can be defined as

  the measuring of credit risk through a combination of quantitative and qualitative factors applying judgmental factors based on experience.
- *It is therefore not an exact science.*

Credit Risk Rating

Main Segments to consider:

- Micro Finance
- Personal Lending
- SME Businesses
- Corporates
- Project Finance

Micro Finance

A Definition:

"The Provision of Financial Services to Low-Income Clients, including Consumers and the Self-Employed."

Micro Finance continued

The aim of Microfinance:

- To help raise Income
- To help build up Assets
- To help cushion against External Shocks.

Micro financial Services are needed everywhere – including the developed World.

Micro Finance continued

The Problems in this Marketplace:

- Clients with little or no cash Income.
- The Cost of providing Banking Services to this Market.
- Few Assets available to use as Collateral.

Hence we have seen the development of specialised Micro Finance Institutions - who can undertake financing to this special sector - see handout in study pack.

Personal Lending - Ratings : Measuring Probability of Default (PD)

- PD is a widely understood component or risk within retail banking. Most consumer credit scorecards that exist within retail banking have been developed to measure PD.
- If an organisation does not have application and behavioural scorecards, a significant amount of work will be required to develop these.
- The model development process is similar for both of these areas, though each type of scorecard development has its own anomalies.
- PD is the most important component of risk modelling for unsecured products, and it is a significant driver in the risk calculations for all lending products.

Scorecard development

The kind of data used within application scorecards varies widely, but generally anything on the credit application form can be included in an application scorecard, not withstanding any local data protection or anti-discriminatory laws.

Application Scorecard development

Some typical fields that are used in application score development are listed below:

- Age, Sex, Marital status
- Educational qualifications
- Residential status (e.g. homeowner, living with parents etc)
- Length of time at current address
- Industry in which the applicant works
- Job position (e.g. director, manager, team worker etc)
- Length of time in current job
- Current banking products utilised
- Length of time bank account held

- These fields are known as a “characteristics” in model development

An Example Application Scorecard

Weight	Variable Description
250	
-13	Accommodation Type = “Rented”
57	Accommodation Type = “Home Owner”
-27	Age < 23 years
-7	Age = 23-42 years
55	Education level = MBA
41	Education level = Masters/doctorate
18	Education level = Degree
-81	Occupation = High Risk
-37	Occupation = Medium Risk
26	Sex = Female
-42	Years in current job <3 years
-60	Time at current address <4 years
52	Time at current address >7 years

Scorecards

Data that can be included within BEHAVIORAL scorecards can include any of the following:

- Balance data
- Credit Limit information (generally only including agreed limit, as the other limits are beyond the customer's control)
- Utilisation information
- Transactions (including use of ATMs, cards as payment mechanism, standing orders, direct debits etc.
- Fees (Late payment fees, over-limit fees etc)
- Payments (cash payments into the account, cheque payments, automated payments)

Small and Medium Enterprises – Ratings

Definition: Small and Medium Enterprises (SME) are either self-employed people or small firms, with sales typically in the single or tens of thousands/millions euros, which are typically regional in focus.

The following data can be used for a rating tool for SMEs:

•Spread of financial statement

•Current account information

•Information about management strategies

•Industry reviews, regional reviews and external assessment of market position

Small and Medium Enterprises

- For SME portfolios, we differentiate hard facts and soft facts as top-level classification of available data. Information sectors are further differentiated by source or content of information:
- **Hard Facts:**

Financial Statements, Account Data, Regional Data and Industry Sector Data

- **Soft Facts:**

Management Evaluation, Market Evaluation, SWOT (Strengths, weaknesses, opportunities and threats) and Balance Sheet Forecasts and Scenarios.

Small and Medium Enterprises

Hybrid System

- A reliable estimate of the default probability of a customer or applicant should be based on data from different information sectors – financial (balance sheet) information, account data, external credit bureau data and so on.
- Technical and maintenance requirements are such, that it is often helpful to develop separate score functions for each information sector and to combine the resulting scores into a final default probability estimate.
- This modular approach can also improve the transparency and acceptability of the score system.

Small and Medium Enterprises

•Example: For SME portfolios a standard process is the combination of financial statement rating, behaviour score and qualitative evaluation of market and management evaluation by the analyst.

•All results of the sub-modules are translated into a probability of default estimate for combination.

- The main issue will be the "weighting" given to the financial factors versus the non-financial factors

For example where the financials are robust and reliable a weighting of 60/40 could be made or vice versa.

SME – Financial Statement rating

- Financial statement information is spread into the internal database either manually by the analyst or using interfaces to external data providers.
- Within the module, customers are segmented into a small number of industry sectors and sales volume categories.
- This allows optimisation with regard to industry – and size specific financial statement ratios.
- The methodology applied might be a linear discriminant analysis. Ratios include evaluations of the balance sheet structure, the profit-and-loss and the cash-flow situation.

SME – Behaviour Score based on Account Data

- Account data is important up-to-date information on the customer. They are usually of good quality and available electronically.
- A behaviour score should be based on ratios generated by the variables describing all aspects necessary for account management, e.g. account balance information, turnover, utilisation, overdrafts.

SME – Rating Sheet for "Market and Competition"

- For scoring competitiveness, a questionnaire evaluating certain markets and competition characteristics of the company is presented to the analyst.
- Focus is on getting a picture of the company's position in line with common SWOT and product life cycle analysis concepts.

SME – Rating Sheet for "Management Quality"

- Analogous to the rating sheet for "market and competition", management quality is scored. Focus is on total quality management, professionalism and management personality, transparency and control.

Business Analysis - checklist

NON-FINANCIAL ANALYSIS

Environmental Variables

- Interest Rates
- Inflation
- Unemployment
- Wage Controls
- Population Trends
- Lifestyle Changes
- Political/Government Incentives/Restrictions
- Green Issues

Industry Characteristics

- Relative Attractiveness
- Profitability
- Competitive Pressures
- Market Size
- Growth Prospects

Business Overview

- What Business?
- Growth Stage
- Quality Review/ Location
- Development Prospects/ Market Position
- Publicity
- Human Resources
- Financial Resources

Swot Analysis

- Strengths
- Weaknesses
- Threats
- Opportunities

Corporates - Ratings - based on Expert Judgement

Definition: The asset class corporates refers to large corporations. Middle market or small and medium-sized borrowers are not included.

The following data can be used for a rating tool for corporates:

- Spread of financial statement;
- Share Price
- Public announcements;
- (Confidential) information about management strategies;
- Industry reviews, peer comparison, and assessment of market position.

Ratings based on Expert Judgement

A typical rating system based on the sources mentioned, can be used to assess the creditworthiness of a corporate counterparty.

- Operating environment (medium to long-term industry outlook, special risks)
- Business and financial condition (quality of product offering, marketing strength, market standing/competition, dependencies, revenue development, ability to generate profits, long-term earnings outlook, internal cashflow generation after working capital, external cashflow generation, access to capital markets, debt to capitalisation ratio)

Ratings based on Expert Judgement
continued

- Management transparency (long-term management strategy, quality of operational management, management structure, continuity plans and succession, business planning).

- On many Large Corporates we can get the benefit of an External Rating Agency assessment of Grade - please see handout in Study Pack for detailed narrative about this and also some example ratings.

Basel II-Specialised Lending: an example-Project Finance

PROJECT FINANCE - DEFINITION

- DEFINITION:
  A financing of a particular economic unit in which a lender is satisfied to look initially to the cash flows and earnings of that economic unit as the source of funds from which a loan will be repaid and to the assets of the economic unit as collateral for the loan.
- Although the lender may be willing to look initially to the cash flows of a project for repayment as stated. The lender must feel comfortable that the loan will in fact be paid even on a worst case basis. This may involve undertakings or direct or indirect guarantees by third parties.

CREDIT ANALYSIS FROM THE VIEWPOINT OF A TERM LENDER

- Project companies are highly leveraged. Thus, anticipated cash flow is key, as the source of loan repayments. The following areas must be thoroughly analysed:
- Market and competition
- Stability of Expenses/Costs, including relations with suppliers, sources of raw materials etc.
- Projections of futures sales, earnings cash flow and balance sheets.
- Assumptions underlying the projections are as important as the numbers themselves and must be reviewed critically.
- Total cash needs of the enterprise must be reviewed in the projections, not only in terms of loan payments and capital expenditure, but working capital needs.

GENERAL CONSIDERATIONS FOR THE CREDIT DECISION

- Management - What are management's objectives and how will they be achieved. What are their financial and operating policies?
- Level and Stability of Earnings - Ability to generate good revenues consistently and to maintain adequate coverages and margins.
- Industry - Ranking, competition and trends within the industry. Past performance if applicable.

GENERAL CONSIDERATIONS FOR THE CREDIT DECISION

- Financial Resources - Current liquidity, cash flow relationships and current assets are important both from the standpoint of relative size and of quality.
- Asset Protection - Total long-term debt/net plant and net tangible assets/total long-term debt are calculated to determine the degree of protection afforded by the company's assets. e.g. real estate or natural resource companies.
- Guarantees and Securities - Further analysis is necessary, when specific guarantees exist or if debt is secured by a lien on tangible assets, to determine the value of these guarantees or liens.

Cash Flow Debt Service Key Ratios

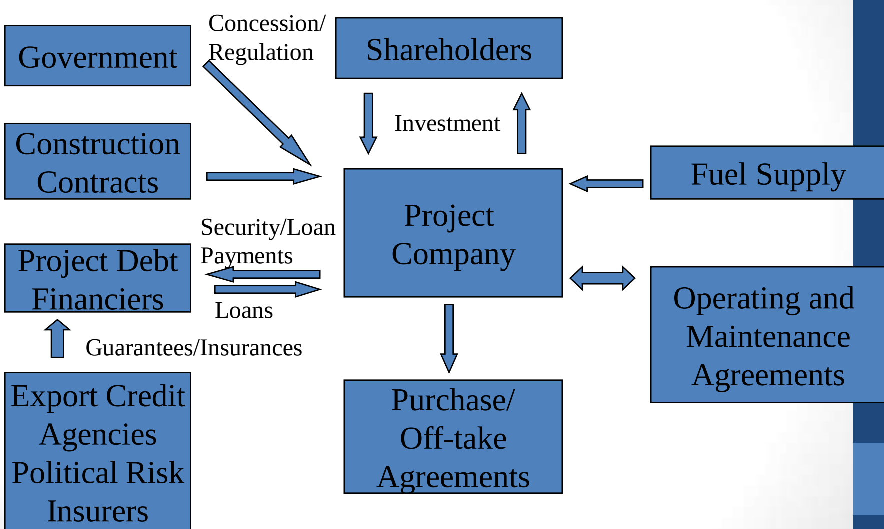
Cashflow Interest Cover = Net Operating Cash Flow / Interest Expense*

Debt Service Ratio = Net Operating Cash Flow / ST, LT Debt payable in one year and interest expense*

Total Debt Payout = Total Interest Bearing Debt / Net Operating Cashflow

* Leasing payments should be added to interest expense as they represent an alternative form of interest expense.

Example Power Plant Project Finance Structure



Ratings based on Expert Judgement

A typical rating system based on the issues mentioned, can be used to assess the creditworthiness of a project finance transaction.

- A typical approach is described within the Basel II documentation

- see annex 6 - Supervisory Slotting Criteria for Specialised Lending Table 1 – Supervisory Rating Grades for Project Finance Exposures

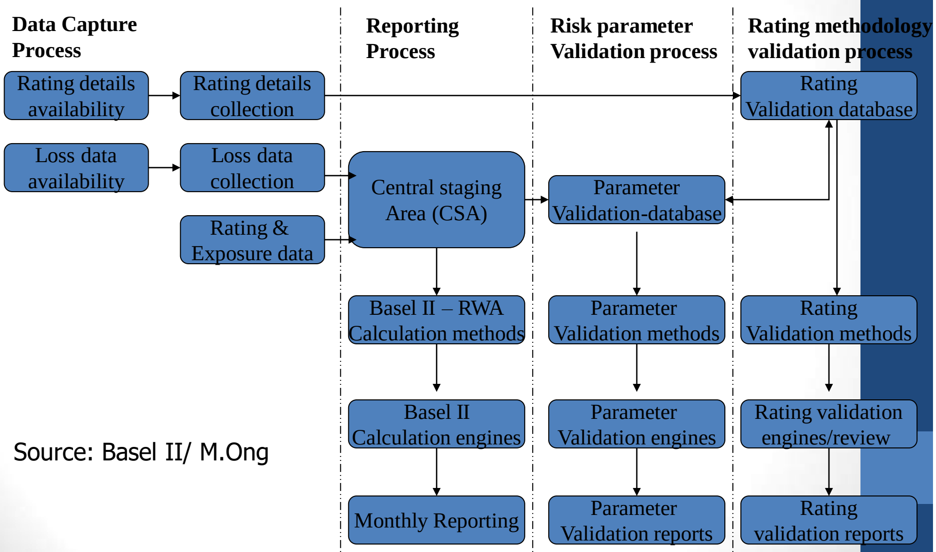
- Reference www.bis.org

How to Structure a Basel II Credit Risk Implementation Project

Generally, the implementation project can be separated into the following processes:

- Data-collection process
- Reporting process
- Parameter-validation process
- Methodology-validation process

Components of the Basel II Implementation Project



Source: Basel II/ M.Ong

Review

- Review - The main points introduced were :
- What is Credit Risk ?
- The Importance of Credit
- Prudent management of the Financial Institution is a reflection of its ability to balance successfully the risk in the portfolio with profit earned on it
- The primary vision when writing policy is to determine the institution's tolerance for accepting financial risks and articulate it when defining the risk parameters of the policy.
- Each financial institution is unique and this must be reflected in its policy.

Review continued

■ RISK MANAGEMENT - BIS Standards-17 Key Principles
•Basel Extract: Principle 10: Banks are encouraged to develop and utilise an internal risk rating system in managing credit risk.
•The rating system should be consistent with the nature, size and complexity of a bank's activities.
•Credit Risk Rating Systems will assist with overall portfolio management by identifying and monitoring risk composition and formulate individual account management, which is proactive to problem causes and symptoms rather than reactive to default/collapse

Review continued

We continued by examining Credit Risk Rating Main Segments

- Micro Finance
- Personal Lending
- SME Businesses
- Corporates
- Project Finance

•And provided examples of how to construct templates for Rating purposes
•and finally please see study pack for more written details and exercises

Credit

Risk Rating

Table of Contents

Credit Ratings

1 What is a credit rating?

A credit rating is an independent and objective opinion of the likelihood of default of a company or country on either its debt obligations in general, or a particular debt security issue.

A credit rating measures the probability of default as well as the likely severity of loss if default occurs. It also measures both the ability and willingness of an issuer to make timely payments on debt obligations.

Investors use a rating to compare the credit risk of investing in a debt issuer or security with the credit risk of other rated debt issuers or securities.

The three main ratings agencies are Standard and Poor's, Moody's Investor Services and Fitch. Each of these agencies aims to provide an impartial rating system to help investors determine the risk associated with investing in a specific company, investing instrument or market.

The ratings provided by the agencies are not the same as buy, sell or hold recommendations and they are not intended to distinguish between a good company or a bad company. Additionally, although ratings tend to correspond fairly closely with the pricing on debt securities, there is not always a direct correlation since default risk is only one of many factors which influence pricing of debt securities. Ratings are intended only a measure of issuer creditworthiness and the likelihood and severity of loss if default occurs on debt obligations of an issuer.

An issuer of debt securities will typically receive financing on terms which correspond fairly closely with its credit rating; although again other factors such as supply and demand for a particular issuer's paper in the market may influence this. Ratings are issued following a request for a rating by an issuer of debt securities and a fee is payable for the rating agencies services.

Ratings can be assigned to governments, banks and other financial institutions, such as insurance companies as well as corporates. Ratings are assigned to short-term and long-term debt obligations and across a full range of debt instruments.

2 The Two Basic Types of Credit Rating

2.1 Issue Specific Credit Rating

An issue specific credit rating is a measure of the likelihood of default on a specific debt issue such as bonds, notes, commercial paper, preferred stock and municipal notes. This type of rating will take into consideration liquidation preferences on different debt obligations within an entity, the recovery prospects based on the seniority of the debt and will reflect any credit-enhancing techniques such as guarantees and contingent support arrangements.

Issue specific ratings are not intended to directly measure liquidity risk (a function of volume of trading), prepayment risk (the likelihood that the issuer will repay early), or the risk of interest rate and exchange movements, nor are they investment recommendations.

2.2 Issuer Rating

Issuer ratings may also be called the counterparty, corporate or sovereign credit rating. An issuer rating measures the issuer's creditworthiness based on the entity's financial capacity to meet all of its debt obligations. It indicates the likelihood of default regarding all of the issuer's financial commitments - it is not specific to a particular debt obligation and therefore does not take into account liquidation preferences.

An issuer can be rated long or short term. Both are intended to forecast the probability of default and the severity of loss given default.

Issuer ratings measure the credit risk of an entire organisation. The entity may be a government, or local government authority / municipality, corporation or financial institution

To attract debt capital to finance growth and expansion in an economy, it is an advantage for a country to have a sovereign rating. In most circumstances, a country's sovereign credit rating will be its upper limit of any local authority, corporate or financial institution credit ratings that may be issued for entities that are established and operating within that country.

3 Ratings Hierarchies

S&P and Fitch categorize their ratings from AAA to CCC, modified with a + or - to show their relative standing within a rating category. Moody's modifies its ratings categories with a 1 - high end, 2 - mid-range and 3 - lower end. These modifications are known as the notching within a rating category.

The following table sets out the rating hierarchy and describes the default expectations for each rating category.

Table 1

Description	Fitch & S&P		Moody's		Explanation
Highest credit quality	**AAA**		**Aaa**		Exceptionally strong capacity for timely payment of financial commitments which is highly unlikely to be adversely affected by foreseeable events
Very high credit quality	**AA**	AA+ AA AA-	**Aa**	Aa 1 Aa 2 Aa 3	Very strong capacity for timely payment of financial commitments which is not significantly vulnerable to foreseeable events
High credit quality	**A**	A+ A A-	**A**	A 1 A 2 A 3	Strong capacity for timely payment of financial commitments which may be more vulnerable to changes in circumstances / economic conditions
Good credit quality	**BBB**	BBB+ BBB BBB-	**Baa**	Baa 1 Baa 2 Baa 3	Adequate capacity for timely payment of financial commitments but adverse changes in circumstances / economic conditions are more likely to impair this capacity
Speculative	**BB**	BB+ BB BB-	**Ba**	Ba 1 Ba 2 Ba 3	Possibility of credit risk developing, particularly due to adverse economic change over time. Business / financial alternatives may be available to allow financial commitments to be met
Highly speculative	**B**	B+ B B-	**B**	B 1 B 2 B 3	Significant credit risk with a limited margin of safety. Financial commitments currently being met; however, continued payment is contingent upon a sustained, favourable business and economic environment.
High default risk	**CCC**		**Caa**		Default is a real possibility. Capacity for meeting financial commitments is solely reliant upon sustained, favourable business or economic developments
Probable default	**CC**		**Ca**		Default of some kind appears probable
Likely default	**C**		**C**		Default imminent

4 Investment Grade versus Sub Investment Grade Ratings

Ratings above and including Baa3 by Moody's and BBB- are known as investment grade ratings. A rating below this level is known as sub-investment grade. Sub-investment grade debt securities carry higher expected returns for investors than sub-investment grade securities to compensate investors for the higher risks involved. Sub investment grade bonds are therefore known as high yield bonds, or more pejoratively as "junk bonds". The demand from investors for investment grade securities is much higher than sub-investment grade securities and investment grade securities are more actively traded. This leads to greater liquidity and the lower liquidity risk is another reason why investment grade securities provide lower yields to investors in comparison with sub-investment grade bonds.

5 Short Term versus Long Term Ratings

5.1 Long Term Ratings

The objective of an agency in producing a long term rating is to rate 'through the cycle'. This means that where an issuer operates in a cyclical business, such as the heavy industrials sector where revenues are driven by the economic cycle in general and GDP in particular then, under these circumstances, the rating agency may not adjust the rating where performance is affected due to cyclical downturns or upturns within a normal tolerance range. This is one reason why long term ratings may not directly correlate with short term pricing movements in debt securities.

Table 2

LONG-TERM RATING	CHARACTERISTICS
AAA/Aaa	Highest quality due to the extremely strong capacity to pay interest and repay principal. Risk factors are negligible.
AA/Aa	Very strong capacity to pay interest and repay principal. Rated lower than the highest quality bonds because margins of protection are not as large.
A/A	Strong capacity to make interest and principal payments, although somewhat more susceptible to adverse effects of changes in circumstances and economic conditions.
BBB/Baa	Adequate capacity to pay interest and repay principal Protection factors are deemed sufficient for prudent investment, but adverse economic conditions or changing circumstances are more likely to lead to weakened capacity to pay.
BB/Ba	Bonds that are judged to have speculative elements. Their future cannot be considered as well assured

5.2 Short Term Ratings

Moody's Investor Services denotes short term prime ratings as either P1, P2, or P3. Short term debt securities issued by issuers who do not achieve this grading are known as non prime. Standard and Poor's denote their short term ratings as either A1, A2 or A3.

A prime (A1, A2, A3) rating is an all in opinion of an issuer's short term credit risk including the issuer's fundamental credit quality, vulnerability to shock risk, reliance on short term funding, adequacy of on-balance sheet liquidity and adequacy of alternate liquidity.

Achieving a short term rating at A1/P1 or A2/P2 is key for corporates seeking to access the commercial paper markets at attractive rates. The commercial paper market is not available to corporate that have not achieved a prime rating.

Table 3

SHORT-TERM RATING	CHARACTERISTICS
A-1/P-1	Superior ability for timely repayment of senior short-term debt obligations. S&P give a '+' designation to issues that possess extremely strong safety characteristics.
A-2/P-2	Capacity for timely payment is satisfactory. However the relative degree of safety is not as high for the issues as for issues designated A-1/P-1.
A-3/P-3	Acceptable ability for timely repayment. More vulnerable to the adverse effects of changes in circumstances.

Liquidity risk assessment is an important part of determining the short term credit rating for an issuer. As mentioned, liquidity risk is primarily a function of volume of trading and this risk is not directly measured by the ratings agencies. The focus of the rating agencies is therefore not the likelihood that an issuer will lose market access, but instead how well the issuer could deal with it if they did.

For a corporate issuer, liquidity risk assessment by the ratings agencies will take into consideration three aspects. Firstly, how much cash and available liquid resources such as marketable securities is available on the balance sheet? Secondly, for how long will the company be able to maintain regular business activity including the capital expenditure required to maintain regular business, given its liquidity resources? Thirdly, how likely is it that the company would be able to draw on its available facilities if they were required?

6 How are Credit Ratings Used and by whom?

Appropriately used, ratings are a key means of promoting efficiency in the debt securities markets. Inappropriately used, they lose meaning and encourage issuers to 'shop' for the highest rating in order to meet a minimum quality standard. This encourages lower quality ratings in a market.

Investors use credit ratings to help them control and manage the probability of future defaults.

Issuers use ratings to get wider or more stable access to the debt capital markets, to reduce borrowing costs and for more efficient new issuance.

Banks use ratings to assist them in making credit decisions and in the planning, pricing and placement of securities on behalf of their clients.

Regulators use ratings to help them monitor the financial soundness of the organizations for which they are responsible ranging from banks to insurance companies to public utilities.

7 The Process of Assigning and Monitoring a Rating

7.1 Assigning a Rating

Assigning a corporate rating involves gathering relevant qualitative and quantitative information (see below) about the issuer and the issuer's environment and additionally for an issue specific rating details about the issue structure.

The information is then analyzed to identify the critical factors that affect the creditworthiness of the issuer and the issuer's ability to weather these critical risk factors.

The rating recommendation is then put forward and a rating decision is reached via a process of rating committee discussion and approval.

Once the rating has been decided on, the issuer is informed of the rating and of the rationale in arriving at the rating. New ratings are typically distributed by press release to the major financial media worldwide prior to any major planned debt security issues so that investors may use these opinions in their purchase decisions.

7.2 Monitoring a Rating

Ratings are continuously monitored and updated when required. Economic, industry and regulatory trends as appropriate are gathered and monitored. The performance of the issuer is also tracked in order to identify and make changes in a timely manner. Although the rating agencies are sometimes criticized for slowness in adjusting a rating and also for failure to spot problems such as accounting irregularities, ultimately the rating agencies reputation depends upon the accuracy and dependability of their ratings.

8 How Accurate are the Credit Rating Agencies?

In practice, there is a high degree of correlation between credit ratings and the actual experience of corporate defaults. This is set out in the table below.

Table 4

Good grades

Cumulative average corporate default rates*

1981-2004, %

Rating	1 year	5 years	10 years	15 years
AAA	0.00	0.10	0.45	0.61
AA	0.01	0.30	0.85	1.35
A	0.04	0.61	1.94	2.98
BBB	0.29	2.99	6.10	8.72
BB	1.20	11.25	19.20	22.59
B	5.71	25.40	33.75	38.63
CCC/C	28.83	50.85	56.45	59.44
Investment grade	0.11	1.20	2.71	3.92
Speculative grade	4.91	20.22	28.25	32.42
All rated	1.64	7.08	10.45	12.51

Source: Standard & Poor's *By years after initial rating

9 What Qualitative Factors are Considered in the Credit Rating Process?

For a corporate credit rating, the rating will take into consideration the issuer's macro and economic environment, regulatory issues, industry risk, market position , operating and financial position, accounting quality, management and company structure.

A sovereign credit rating signifies a country's overall ability to provide a secure investment environment. This rating reflects factors such as a country's economic status, levels of public and private investment flows and foreign direct investment, foreign currency reserves and political stability.

10 What Quantitative factors are Evaluated in the Credit Rating Process?

For a corporate credit rating, the rating will take into consideration financial characteristics and policy, profitability, capital structure, cash flow protection and financial flexibility. Ratio analysis is used to help judge the company's financial strength and ability to repay it's debt and the gauge the company's relative strength within its industry.

The tables below are examples of some specific key ratios used firstly by Moody's[*] and secondly by Standard and Poor's[*].

[*]ref: http://www.moodys.com/
[*] ref: http://www2.standardandpoors.com/

1 Extract for Moody’s: Global Auto Supplier Industry
Effective Date: 29 June 2005

Industry Rated Issuers and Key Ratios 2003/2004

Credit Metrics Statistics (Ratings and Outlooks as of 30 April 2005)

Rating	Outlook	Name	FYE	Sales (in USD)	1-year Adj. EBIT Margin	5-year Adj. EBIT Margin	Cash & Cash equivalents / Total Assets	Adj. Net Debt / Adj. NetCapitali-sation	Total Coverage Ratio	Adj. RCF (post WC) / Adj. Net Debt	FCF / Adj. Gross Debt	Adj. Gross Debt / EBITDAR	Return on Average Assets	Number of issuers
Aaa	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Aa1	Stable	Denso	2003	24,438	7.4%	6.4%	32.2%	-32.7%	43.3	-48.5%	4.9%	-1.1	8%	
Aa		MEAN		24,438	7.4%	6.4%	32.2%	-32.7%	43.3	-48.5%	4.9%	-1.1	8%	1
Aa		MEDIAN		24,438	7.4%	6.4%	32.2%	-32.7%	43.3	-48.5%	4.9%	-1.1	8%	
A2	Stable	Johnson Controls	2004	26,553	4.7%	5.4%	1.0%	46.4%	6.0	29.1%	1.6%	2.5	8%	
A3	Stable	Bridgestone	2004	23,048	8.2%	7.6%	19.2%	32.8%	10.0	39.6%	-15.7%	1.4	8%	
A3	Negative	Valeo	2004	12,148	3.3%	3.8%	11.8%	47.3%	3.9	34.5%	2.1%	2.9	4%	
A		MEAN		20,583	5.4%	5.6%	10.7%	42.2%	6.6	34.4%	-4.0%	2.3	7%	3
A		MEDIAN		23,048	4.7%	5.4%	11.8%	46.4%	6.0	34.5%	1.6%	2.5	8%	
Baa1	Stable	Compagnie Financiere Michelin	2004	20,192	8.3%	7.5%	9.8%	53.0%	4.1	22.8%	0.3%	3.1	8%	
Baa1	Stable	Continental	2004	16,213	8.6%	6.3%	10.9%	44.3%	7.2	45.7%	10.3%	2.1	11%	
Baa1	Stable	Koyo Seiko	2003	4,818	4.3%	2.4%	16.0%	55.4%	6.6	26.4%	10.6%	3.4	4%	
Baa1	Stable	NSK	2003	4,980	5.0%	3.4%	22.2%	38.7%	4.0	19.4%	2.8%	2.5	4%	
Baa1	Stable	NTN	2003	3,408	6.9%	4.5%	10.3%	55.4%	8.5	21.7%	1.1%	3.7	5%	
Baa2	Positive	BorgWarner	2004	3,525	9.3%	9.3%	6.3%	29.9%	9.5	69.2%	22.4%	1.8	10%	
Baa2	Positive	Knorr-Bremse AG	2004	3,119	9.6%	7.4%	2.3%	64.2%	10.9	33.7%	21.8%	2.0	16%	
Baa2	Positive	Kolbenschmidt-Pierburg AG	2004	2,532	6.6%	4.4%	5.2%	51.0%	6.5	48.3%	20.5%	1.8	10%	
Baa2	Stable	Hella KGaA Hueck & Co.	2004	4,126	3.2%	4.3%	6.3%	60.4%	2.5	8.5%	-17.7%	3.0	5%	
Baa3	Positive	Harman International	2004	2,711	9.0%	6.8%	15.0%	39.7%	6.6	90.7%	33.4%	2.3	10%	
Baa3	Stable	GKN Holdings Plc	2004	8,483	2.5%	5.8%	21.5%	39.1%	2.1	18.4%	56.2%	6.0	3%	
Baa3	Stable	Cooper Tire [1]	2004	2,082	2.9%	4.3%	32.9%	7.9%	1.0	135.4%	-11.1%	5.4	2%	
Baa3	Negative	American Axle	2004	3,600	8.5%	8.8%	0.5%	43.2%	7.6	56.0%	4.2%	1.6	11%	
Baa3	Negative	Lear Corporation	2004	16,960	4.3%	4.9%	5.3%	53.4%	3.9	21.6%	0.9%	3.2	7%	
Baa		MEAN		6,911	6.4%	5.7%	11.7%	45.4%	5.8	44.1%	11.1%	3.0	8%	14
Baa		MEDIAN		3,863	6.8%	5.3%	10.1%	47.7%	6.6	30.0%	7.2%	2.7	7%	
Ba1	Stable	ArvinMeritor	2004	8,033	3.9%	5.2%	2.2%	66.9%	2.7	20.3%	15.0%	4.3	5%	
Ba2	Stable	Dana Corporation	2004	9,056	2.4%	2.7%	6.4%	49.8%	1.0	9.8%	21.8%	5.5	2%	
Ba2	Stable	Sun Sage ** [1]	2003	1,250	12.4%	12.1%	3.1%	60.2%	6.6	31.6%	7.9%	1.8	15%	
Ba2	Stable	TRW Automotive	2004	12,011	5.1%	5.6%	7.5%	74.3%	2.3	20.5%	2.1%	4.3	6%	
Ba2	RUR – DG	Delphi Corporation	2003	28,096	2.4%	3.9%	3.9%	83.7%	3.1	26.7%	11.1%	4.6	3%	
Ba3	Stable	Shiloh Industries, Inc.	2004	639	6.3%	2.0%	0.7%	61.8%	3.7	37.7%	29.4%	3.0	9%	
Ba3	Stable	Stoneridge	2004	682	8.5%	9.4%	9.9%	57.3%	2.2	25.1%	10.8%	3.0	10%	
Ba		MEAN		8,538	5.9%	5.8%	4.8%	64.9%	3.1	24.2%	14.0%	3.8	7%	7
Ba		MEDIAN		8,033	5.1%	5.2%	3.9%	61.8%	2.7	25.1%	11.1%	4.3	6%	

Moody's Credit Metrics Statistics (Ratings and Outlooks as of 30 April 2005)

Rating	Outlook	Name	FYE	Sales (in USD)	1-year Adj. EBIT Margin	5-year Adj. EBIT Margin	Cash & Cash equivalents / Total Assets	Adj. Net Debt / Adj. Net Capitalisation	Total Coverage Ratio	Adj. RCF (post WC) / Adj. Net Debt	FCF / Adj. Gross Debt	Adj. Gross Debt / EBITDAR	Return on Average Assets	Number of issuers
B1	Positive	Tenneco Automotive	2003	3,766	4.9%	6.2%	4.7%	92.0%	1.2	15.1%	7.6%	5.8	6%	
B1	Stable	Cooper-Standard Automotive	2004	1,859	8.2%	6.3%	1.0%	70.8%	2.1	18.7%	12.8%	4.4	9%	
B1	Stable	Durr AG	2003	2,915	2.0%	3.0%	9.0%	56.1%	1.6	17.5%	2.5%	5.8	2%	
B1	Stable	HLI Operating Company Inc. (Hayes Lemmerz)	2004	2,056	3.5%	4.5%	2.0%	60.1%	1.1	12.1%	-2.1%	4.9	3%	
B1	Stable	Mark IV Industries Inc.	2004	1,450	6.6%	7.6%	7.0%	92.0%	1.8	7.9%	4.0%	11.4	4%	
B1	Stable	Standard Motor Products	2003	679	2.4%	4.0%	2.5%	58.0%	1.1	10.2%	-21.4%	7.8	2%	
B1	Stable	United Components, Inc.	2004	1,027	9.2%	9.3%	1.1%	65.3%	2.5	14.7%	4.9%	4.2	9%	
B1	Negative	Goodyear Tire	2004	18,370	4.2%	2.0%	10.5%	87.2%	1.9	13.6%	4.4%	6.6	4%	
B1	Negative	Hilite Industries, Inc.	2004	384	5.3%	10.0%	0.4%	46.3%	1.5	12.7%	3.1%	4.2	4%	
B1	Negative	J.B. Poindexter & Co.	2003	436	5.7%	4.6%	0.4%	102.7%	1.9	10.2%	-2.1%	4.4	12%	
B1	Negative	Plastech Engineered Products *	2004	1,040	7.9%	7.7%	0.1%	89.3%	1.9	9.3%	2.0%	5.4	8%	
B1	Negative	TI Automotive	2003	2,998	7.5%	7.9%	3.5%	65.2%	2.6	27.7%	15.5%	4.0	8%	
B1	RUR – DG	Visteon Corporation	2004	18,657	-0.1%	0.7%	6.8%	81.7%	0.1	17.1%	-9.4%	6.0	0%	
B2	Positive	Accuride Corporation	2004	494	15.6%	10.8%	11.8%	111.1%	2.2	14.6%	7.1%	4.8	13%	
B2	Stable	Advanced Accessory Systems	2003	358	8.0%	9.2%	4.1%	69.2%	1.5	7.1%	-39.2%	5.6	8%	
B2	Stable	Remy International	2003	973	8.7%	8.5%	2.5%	144.2%	1.5	4.6%	2.2%	6.8	9%	
B2	Stable	Dura Automotive	2003	2,381	5.7%	7.4%	1.4%	82.2%	1.5	10.2%	0.7%	6.5	6%	
B2	Stable	Exide Technologies, Inc. *	2004	2,654	1.1%	2.5%	0.8%	69.6%	0.6	3.4%	-2.4%	7.2	1%	
B2	Stable	Meridian Automotive System ***	2003	1,025	3.5%	4.2%	0.5%	134.0%	1.3	10.8%	4.2%	7.3	5%	
B2	Stable	MetoKote	2004	201	12.9%	13.3%	5.7%	123.3%	2.5	23.4%	8.7%	4.3	14%	
B2	Stable	Stanadyne Holdings, Inc.	2004	336	10.4%	6.9%	0.3%	76.6%	1.7	2.6%	-68.3%	6.1	8%	
B2	RUR – DG	Metaldyne	2003	1,508	2.5%	7.5%	0.6%	63.7%	0.6	10.3%	-1.8%	8.8	2%	
B2	Negative	Schefenacker AG [1]	2003	1,259	4.6%	4.6%	2.9%	76.4%	1.5	22.6%	9.6%	3.5	5%	
B2	Negative	TK Aluminium (Teksid)	2003	1,149	4.1%	2.5%	8.0%	63.4%	0.6	16.4%	2.8%	5.6	4%	
B3	Stable	J.L. French Automotive Castings	2003	521	9.6%	10.9%	0.5%	203.9%	0.8	5.1%	-0.7%	6.8	10%	
B3	Negative	Special Devices	2004	105	5.7%	4.9%	6.9%	130.7%	0.7	9.6%	3.0%	5.9	6%	
B3	Negative	Collins & Aikman Products	2003	3,984	4.3%	5.3%	0.4%	77.2%	1.1	3.0%	-7.0%	6.7	5%	
B3	RUR – DG	Autocam Corporation [2]	2004	350	8.8%	8.2%	0.3%	65.3%	1.7	4.8%	-2.5%	6.1	5%	
B		**MEAN**		**2,605**	**6.17%**	**6.45%**	**3.42%**	**87.77%**	**1.5**	**12.0%**	**-2.2%**	**5.9**	**6%**	**28**
B		**MEDIAN**		**1,094**	**5.71%**	**6.60%**	**2.24%**	**76.91%**	**1.5**	**10.6%**	**2.3%**	**5.8**	**6%**	
Caa2	Stable	Holley Performance Products Inc.	2004	130	13.3%	4.5%	0.0%	236.0%	0.8	1.1%	-0.7%	8.8	15%	
Caa		**MEAN**		**130**	**13.3%**	**4.5%**	**0.0%**	**236.0%**	**0.8**	**1.1%**	**-0.7%**	**8.8**	**15%**	**1**
Caa		**MEDIAN**		**130**	**13.3%**	**4.5%**	**0.0%**	**236.0%**	**0.8**	**1.1%**	**-0.7%**	**8.8**	**15%**	
Ca	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
C	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total														**54**

Moody's Key Ratio Definitions:

ADJUSTED EBIT MARGIN

Operating Profit = Net revenue – operating expenses +/- one-time non recurring charges / (gains) + Adjustment of net capitalised R&D expenses

Adjusted EBIT = Operating profit before goodwill amortisation

Adjusted EBIT margin = EBIT / net revenue

RETURN ON AVERAGE ASSETS

Average Assets (n) = (Total assets (n) + 8*rents (n) + Total assets (n-1) + 8*rents (n-1)) / 2Return on Average Assets = Adjusted EBIT / average assets

ADJUSTED RCF / NET ADJUSTED DEBT

Cash flow from Operations (CFO) = cash flow from operating activities from the Consolidated Statement of Cash Flow

Adjusted Retained Cash Flow (RCF) = CFO before changes in working capital +/- Change in Working Capital - Preferred Dividends – Common Dividends + 2/3 rent expenses + pension contribution above service costs - net capitalised R&D expenses (in case not included in CFO)

Adjusted gross Debt = gross debt + 8*rents + under funded pension liabilities + "basket adjusted" hybrids + cash earn-outs + accounts receivable securitisation outstanding + guarantees of debt obligations + share trusts + off-balance sheet debt-like obligations + other debt like items

Net Adjusted Debt = adjusted gross Debt – cash & marketable securities (with no haircut on cash)

FCF / ADJUSTED GROSS DEBT

FCF = CFO before changes in working capital +/- Change in Working Capital - Preferred Dividends – Common Dividends – CAPEX (Investments in Property, Plant, Equipment and intangibles excluding capitalised R&D expenses) + pension contribution above service costs – net capitalised R&D expenses (in case not included in CFO) – Acquisitions + Dispositions – Share Buybacks

ADJUSTED GROSS DEBT / EBITDAR

EBITDA = adjusted EBIT + depreciation + amortised portion of capitalised R&D expenses

EBITDAR = EBITDA + rent expenses

TOTAL COVERAGE RATIO

Total Coverage = (EBIT + 1/3 rent) / (cash interest expense + 1/3 rent + (preferred dividends)/ (1-Tax Rate))

NET ADJUSTED DEBT / ADJUSTED NET CAPITALISATION

Net adjusted Debt / Adjusted net capitalisation

Adjusted net capitalisation = Net adjusted debt + shareholders equity (common and preferred) + minority interests + deferred taxes

Moody's Example of Rating Grid:

Continental AG

Public Rating: Baa1 (at 04/30/2005)
Model Rating: Baa1

	Continental AG	Comments
1 - Scale, diversification and competitive position		
a) Scale and market position	A	Between $13 billion and $19 billion total sales
b) Competitive position / barriers to entry	A/Baa	High level of technological content in product portfolio stabilizes revenue base
c) Geographic diversification	Baa/Ba	Concentration on European Region
d) Segmental / product diversification	A/Baa	Balanced business unit portfolio
e) Customer diversification / concentration	Baa	Limited customer concentration. Solid aftermarket proportion of sales.
2 - Revenue growth		
a) 4-year Revenue growth (CAGR)	Aaa-Aa	> 5%
b) R&D expenditure as a % of sales	Baa	R&D spendings between 4-6% of annual sales
3 - Cost position and profitability		
a) Profitability (Adjusted EBIT Margin)	A/Baa	1-year adjusted EBIT Margin above 7%, 5-year adjusted EBIT Margin between 5-7%
b) Operating efficiency - Labor efficiency	A/Baa	Revenue per employee around $220k
c) Operating efficiency - Asset Turnover	A	Asset Turnover Rate between 1.2-1.3x
4 - Cash flow variability		
a) Ability to generate Free Cash Flow through the business cycle	Baa	Positive Free Cash Flow generation in the majority of last years
b) Reinvestment strategy (CAPEX/Depreciation)	Baa	Capex amount comparable to depreciation
5 - Financial policy and capital structure		
a) Financial strategy	A	Predictable financial policy, balanced between shareholders and creditors
b) Capital structure: Adj. Net Debt / Adj. Net Capitalisation	Ba	Ratio over 40%
c) Debt Maturities / Debt Structure	Baa	Balanced debt maturity profile and solid variety of debt instruments
d) Cash Reserves and Credit Line availability	Baa	Consistently strong liquidity management and contingency planning
e) M&A risk	Ba	Significant
6 – Key Credit Metrics		
a) Total Coverage Ratio	Aaa-Aa	Ratio above 7x
b) Adj. RCF (post WC) / Adj. Net debt	A	Ratio above 30%
c) FCF / Adj. Gross Debt	Baa	Ratio above 8%
d) Adj. Gross Debt / EBITDAR	Baa	Ratio above 2x
e) Return on average assets	A	Ratio at 11%
WEIGHTED RATING AVERAGE	**Baa1**	

2 Extract for Standard & Poor's: Corporate Criteria Book
Effective Date: 24 July 2006

Table 1—Key Industrial Financial Ratios, Long-Term Debt

Three-year (2002 to 2004) medians

	AAA	AA	A	BBB	BB	B	CCC
EBIT interest coverage (x)	23.8	19.5	8.0	4.7	2.5	1.2	0.4
EBITDA interest coverage (x)	25.5	24.6	10.2	6.5	3.5	1.9	0.9
FFO/total debt (%)	203.3	79.9	48.0	35.9	22.4	11.5	5.0
Free operating cash flow/total debt (%)	127.6	44.5	25.0	17.3	8.3	2.8	(2.1)
Total debt/EBITDA (x)	0.4	0.9	1.6	2.2	3.5	5.3	7.9
Return on capital (%)	27.6	27.0	17.5	13.4	11.3	8.7	3.2
Total debt/total debt + equity (%)	12.4	28.3	37.5	42.5	53.7	75.9	113.5

Table 2—Key Utility Financial Ratios, Long-Term Debt

Three-year (2002 to 2004) medians

	AA	A	BBB	BB	B
EBIT interest coverage (x)	4.4	3.1	2.5	1.5	1.3
FFO interest coverage (x)	5.4	4.0	3.8	2.6	1.6
Net cash flow/capital expenditures (%)	86.9	76.2	100.2	80.3	32.5
FFO/average total debt (%)	30.6	18.2	18.1	11.5	21.6
Total debt/Total debt + equity (%)	47.4	53.8	58.1	70.6	47.2
Common dividend payout (%)	78.2	72.3	64.2	68.7	(4.8)
Return on common equity (%)	11.3	10.8	9.8	4.4	6.0

Table 3—Key Ratios

Formulas	
1. EBIT interest coverage	Earnings from continuing operations* before interest and taxes/Gross interest incurred before subtracting capitalized interest and interest income
2. EBITDA interest coverage	Adjusted earnings from continuing operations** before interest, taxes, depreciation, and amortization/Gross interest incurred before subtracting capitalized interest and interest income
3. Funds from operations (FFO)/total debt	Net income from continuing operations, depreciation and amortization, deferred income taxes, and other non-cash items/Long-term debt§ + current maturities + commercial paper, and other short-term borrowings
4. Free operating cash flow/total debt	FFO – capital expenditures – (+) increase (decrease) in working capital (excluding changes in cash, marketable securities, and short-term debt)/Long-term debt§ + current maturities, commercial paper, and other short-term borrowings
5. Total debt/Total debt + equity	Long-term debt§ + current maturities, commercial paper, and other short-term borrowings/Long-term debt§ + current maturities, commercial paper, and other short-term borrowings + shareholders' equity (including preferred stock) + minority interest
6. Return on capital	EBIT/Average of beginning of year and end of year capital, including short-term debt, current maturities, long-term debt§, non-current deferred taxes, minority interest, and equity (common and preferred stock)
7. Total debt/EBITDA	Long-term debt§ + current maturities, commercial paper, and other short-term borrowings/Adjusted earnings from continuing operations before interest, taxes, and D&A

*Including interest income and equity earnings; excluding nonrecurring items. **Excludes interest income, equity earnings, and nonrecurring items; also excludes rental expense that exceeds the interest component of capitalized operating leases. §Including amounts for operating lease debt equivalent, and debt associated with accounts receivable sales/securitization programs.

11 Signs of distress

Companies start to exhibit signs of distress and decline and these are typified by worsening ratios. Profitability ratios decline and turnover ratios such as asset turnover show lower activity. Borrowings tend to increase to fund the slowdown in the operating cycle.

- Core ratios – lower return on equity by a decline in the components of return on sales, asset leverage and asset turnover
- Profitability – declining sales, profitability and possibly increasing overheads relative to sales
- Liquidity – reduced working capital, declining creditor days and increasing stock and debtor days. This may also be combined with lower turnover and activity giving rise to stagnation.
- Financial structure – weakened structure with more reliance on debt
- Cash flow – reduced cash flow to meet commitments and negative trading cash flow

The company used in the example shows few signs of bankruptcy with the balance sheet increasing in strength over period.

Beaver and Altman Z scores
These methods pick out key ratios as indicators of a company's financial health and attempt to show a link to companies that subsequently fail.

Beaver studied a variety of long term and current ratios and found the best single predictor to be these ratios:

- Cash Flow / Total Debt
- Net Income / Total Debt
- Total Debt / Total Assets

Client: Tesco plc

Ref	Item	GBP'000,000	Reference	Feb-05	Feb-06	Feb-07	Feb-08	Feb-09	Feb-10
				Actual	Forecast	Forecast	Forecast	Forecast	Forecast
	Beaver Model								
Z010	Cash flow / total debt		LC29/B27+B32	0.11	0.14	0.21	0.22	0.24	0.25
Z011	Net income / total debt		P23/B27+B32	0.27	0.32	0.33	0.34	0.36	0.37
Z012	Total debt / total assets		B27+B32/B23	0.25	0.25	0.25	0.25	0.25	0.24
	Bathory's Model								
Z015	X1 - Gross cash flow / current debt	0.20	P23+P12.13/B27+B32	0.420	0.442	0.444	0.452	0.461	0.470
Z016	X2 - Pretax profit / capital employed	0.20	P15/B32+B38	0.144	0.147	0.148	0.148	0.149	0.149
Z017	X3 - Equity / current liabilities	0.20	B38/B31	1.483	1.675	1.696	1.724	1.756	1.794
Z018	X4 - Tangible net worth / total liabilities	0.20	B38-B20/B40	0.390	0.397	0.402	0.408	0.414	0.422
Z019	X5 - Working capital / total assets	0.20	R36/B23	(0.128)	(0.062)	(0.018)	0.028	0.075	0.121
	Formula = 0.2 * X1 + 0.2 * X2 + 0.2 * X3 + 0.3 * X4 + 0.2 * X5			**0.462**	**0.520**	**0.534**	**0.552**	**0.571**	**0.591**
	Z-Score								
Z024	Working capital / total assets			(0.128)	(0.062)	(0.018)	0.028	0.075	0.121
Z025	Retained earnings / total assets			0.422	0.430	0.435	0.440	0.446	0.453
Z026	EBIT / total assets			0.095	0.102	0.103	0.104	0.105	0.105
Z027	Market value equity / total liabilities			4.987	4.455	4.050	3.682	3.347	3.043
Z028	Sales / total assets			1.665	1.668	1.659	1.648	1.634	1.618
	Z Score: If Publicly Held								
Z031	1.2 * Working capital / total assets	2.9	1.200	(0.154)	(0.075)	(0.022)	0.034	0.090	0.146
Z032	1.4 * Retained earnings / total assets	1.81	1.400	0.591	0.602	0.609	0.616	0.625	0.634
Z033	3.3 * EBIT / total assets		3.300	0.315	0.337	0.341	0.344	0.346	0.348
Z034	0.6 * Market value equity / total liabilities		0.600	2.992	2.673	2.430	2.209	2.008	1.826
Z035	0.999 * Sales / total assets		0.999	1.663	1.667	1.658	1.646	1.632	1.616
Z036	**Public Z Score Sum**	Slope	(129.307)	**5.407**	**5.204**	**5.015**	**4.849**	**4.701**	**4.570**

CV_19 Failure ratios

Another approach to failure prediction is to combine a number of ratios and calculate a score. Edward Altman in his paper published in 1968 ('Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy', *Journal of Finance*, September 1968, 589-609) used multi discriminant analysis to create a scoring system based on five key ratios. The ratios are then multiplied by a weighting factor to derive a score.

- Altman's Z-score: Z = 1.2 x Y1 + 1.4 x Y2 + 3.3 x Y3 + 0.6 x Y4 + 1.0 x Y5

Where:
Y1 = Working capital / Total assets
Y2 = Retained earnings to date / Total assets
Y3 = Profit from ordinary activities before interest and tax / Total assets
Y4 = Market value / Book value of total debt
Y5 = Sales / Total assets

The ratios used and the weightings given to them were estimated empirically from extensive analysis of companies which had collapsed. It was found that such companies had common characteristics in terms of selected financial ratios. The scores are:

- >2.99 Unlikely to fail
- 1.8 > 2.99 Unsure
- <1.8 Likely to fail

In the example above, the company shows increasing scores using both the Beaver and Altman approaches and this is confirmed by the other ratios calculated so far.

Z-score models are used routinely by most of the large banks and accountancy firms, however you should consider that they are based on the accounting model with all the weaknesses of other ratios, for example international comparisons. They may be used to:

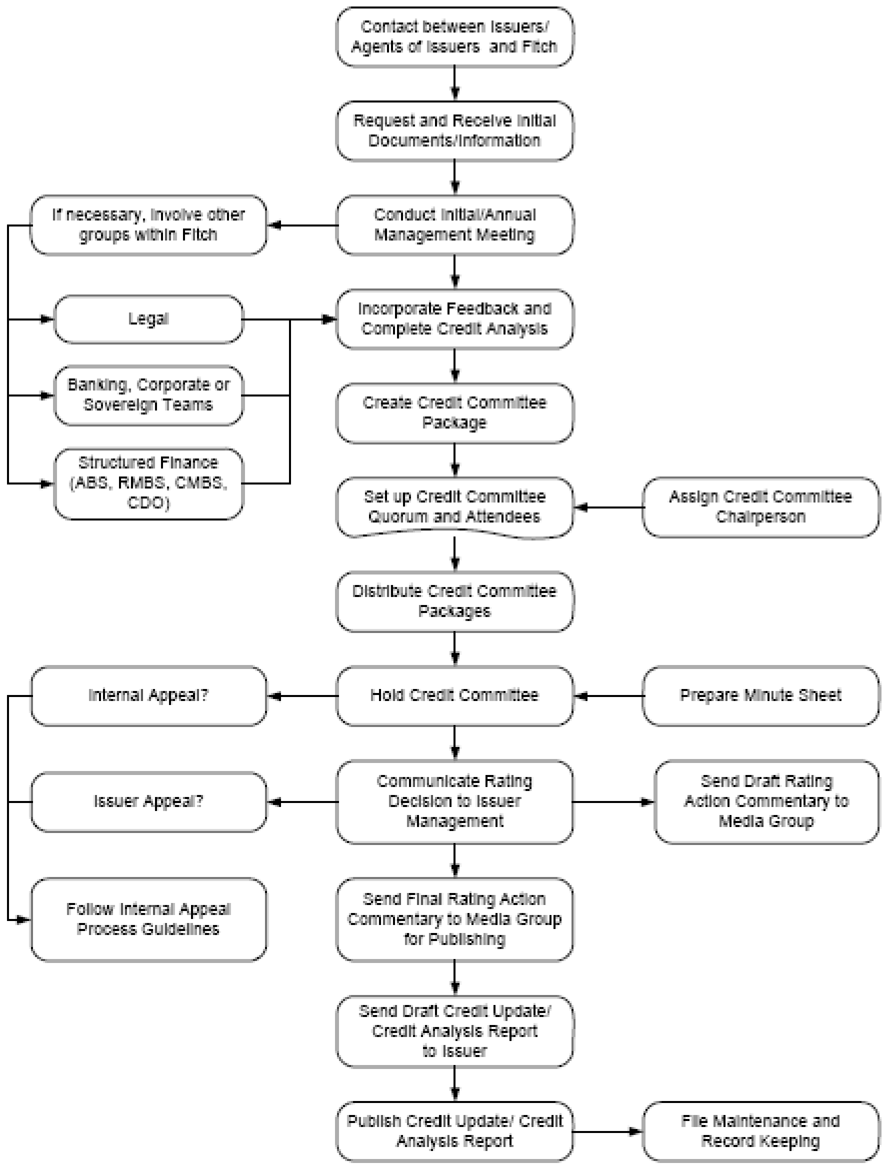
- Track a company's progress over time
- Compare companies of similar sizes in the same sector of industry

Nevertheless, this type of analysis adds more information to the traditional ratio analysis and should add weight to the same conclusion.

12 Appendix 1

Extract for Fitch: The Rating Process*
Effective Date: 27 July 2006

Credit Rating Process Flow Chart[2]



[2] Provided for illustrative purposes; timing and order of certain steps may vary

* Ref: www.fitchratings.com

Principles for the
Management of Credit Risk

Basel Committee on Banking Supervision

Basel
September 2000

Risk Management Group
of the Basel Committee on Banking Supervision

Chairman:
Mr Roger Cole – Federal Reserve Board, Washington, D.C.

Banque Nationale de Belgique, Brussels	Ms Ann-Sophie Dupont
Commission Bancaire et Financière, Brussels	Mr Jos Meuleman
Office of the Superintendent of Financial Institutions, Ottawa	Ms Aina Liepins
Commission Bancaire, Paris	Mr Olivier Prato
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European Central Bank, Frankfurt am Main	Mr Panagiotis Strouzas
European Commission, Brussels	Mr Michel Martino
Secretariat of the Basel Committee on Banking Supervision, Bank for International Settlements	Mr Ralph Nash Mr Guillermo Rodriguez Garcia

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Principles for the Management of Credit Risk

I. Introduction

1. While financial institutions have faced difficulties over the years for a multitude of reasons, the major cause of serious banking problems continues to be directly related to lax credit standards for borrowers and counterparties, poor portfolio risk management, or a lack of attention to changes in economic or other circumstances that can lead to a deterioration in the credit standing of a bank's counterparties. This experience is common in both G-10 and non-G-10 countries.

2. Credit risk is most simply defined as the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with agreed terms. The goal of credit risk management is to maximise a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Banks need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credits or transactions. Banks should also consider the relationships between credit risk and other risks. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any banking organisation.

3. For most banks, loans are the largest and most obvious source of credit risk; however, other sources of credit risk exist throughout the activities of a bank, including in the banking book and in the trading book, and both on and off the balance sheet. Banks are increasingly facing credit risk (or counterparty risk) in various financial instruments other than loans, including acceptances, interbank transactions, trade financing, foreign exchange transactions, financial futures, swaps, bonds, equities, options, and in the extension of commitments and guarantees, and the settlement of transactions.

4. Since exposure to credit risk continues to be the leading source of problems in banks world-wide, banks and their supervisors should be able to draw useful lessons from past experiences. Banks should now have a keen awareness of the need to identify, measure, monitor and control credit risk as well as to determine that they hold adequate capital against these risks and that they are adequately compensated for risks incurred. The Basel Committee is issuing this document in order to encourage banking supervisors globally to promote sound practices for managing credit risk. Although the principles contained in this paper are most clearly applicable to the business of lending, they should be applied to all activities where credit risk is present.

5. The sound practices set out in this document specifically address the following areas: (i) establishing an appropriate credit risk environment; (ii) operating under a sound credit-granting process; (iii) maintaining an appropriate credit administration, measurement and monitoring process; and (iv) ensuring adequate controls over credit risk. Although specific credit risk management practices may differ among banks depending upon the nature and complexity of their credit activities, a comprehensive credit risk management program will address these four areas. These practices should also be applied in conjunction with sound practices related to the assessment of asset quality, the adequacy of provisions and reserves,

and the disclosure of credit risk, all of which have been addressed in other recent Basel Committee documents.[1]

6. While the exact approach chosen by individual supervisors will depend on a host of factors, including their on-site and off-site supervisory techniques and the degree to which external auditors are also used in the supervisory function, **all members of the Basel Committee agree that the principles set out in this paper should be used in evaluating a bank's credit risk management system**. Supervisory expectations for the credit risk management approach used by individual banks should be commensurate with the scope and sophistication of the bank's activities. For smaller or less sophisticated banks, supervisors need to determine that the credit risk management approach used is sufficient for their activities and that they have instilled sufficient risk-return discipline in their credit risk management processes. The Committee stipulates in Sections II to VI of the paper, principles for banking supervisory authorities to apply in assessing bank's credit risk management systems. In addition, the appendix provides an overview of credit problems commonly seen by supervisors.

7. A further particular instance of credit risk relates to the process of settling financial transactions. If one side of a transaction is settled but the other fails, a loss may be incurred that is equal to the principal amount of the transaction. Even if one party is simply late in settling, then the other party may incur a loss relating to missed investment opportunities. Settlement risk (i.e. the risk that the completion or settlement of a financial transaction will fail to take place as expected) thus includes elements of liquidity, market, operational and reputational risk as well as credit risk. The level of risk is determined by the particular arrangements for settlement. Factors in such arrangements that have a bearing on credit risk include: the timing of the exchange of value; payment/settlement finality; and the role of intermediaries and clearing houses.[2]

8. This paper was originally published for consultation in July 1999. The Committee is grateful to the central banks, supervisory authorities, banking associations, and institutions that provided comments. These comments have informed the production of this final version of the paper.

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1 See in particular *Sound Practices for Loan Accounting and Disclosure* (July 1999) and *Best Practices for Credit Risk Disclosure* (September 2000).

2 See in particular *Supervisory Guidance for Managing Settlement Risk in Foreign Exchange Transactions* (September 2000), in which the annotated bibliography (annex 3) provides a list of publications related to various settlement risks.

Principles for the Assessment of Banks' Management of Credit Risk

A. Establishing an appropriate credit risk environment

Principle 1: The board of directors should have responsibility for approving and periodically (at least annually) reviewing the credit risk strategy and significant credit risk policies of the bank. The strategy should reflect the bank's tolerance for risk and the level of profitability the bank expects to achieve for incurring various credit risks.

Principle 2: Senior management should have responsibility for implementing the credit risk strategy approved by the board of directors and for developing policies and procedures for identifying, measuring, monitoring and controlling credit risk. Such policies and procedures should address credit risk in all of the bank's activities and at both the individual credit and portfolio levels.

Principle 3: Banks should identify and manage credit risk inherent in all products and activities. Banks should ensure that the risks of products and activities new to them are subject to adequate risk management procedures and controls before being introduced or undertaken, and approved in advance by the board of directors or its appropriate committee.

B. Operating under a sound credit granting process

Principle 4: Banks must operate within sound, well-defined credit-granting criteria. These criteria should include a clear indication of the bank's target market and a thorough understanding of the borrower or counterparty, as well as the purpose and structure of the credit, and its source of repayment.

Principle 5: Banks should establish overall credit limits at the level of individual borrowers and counterparties, and groups of connected counterparties that aggregate in a comparable and meaningful manner different types of exposures, both in the banking and trading book and on and off the balance sheet.

Principle 6: Banks should have a clearly-established process in place for approving new credits as well as the amendment, renewal and re-financing of existing credits.

Principle 7: All extensions of credit must be made on an arm's-length basis. In particular, credits to related companies and individuals must be authorised on an exception basis, monitored with particular care and other appropriate steps taken to control or mitigate the risks of non-arm's length lending.

C. Maintaining an appropriate credit administration, measurement and monitoring process

Principle 8: Banks should have in place a system for the ongoing administration of their various credit risk-bearing portfolios.

Principle 9: Banks must have in place a system for monitoring the condition of individual credits, including determining the adequacy of provisions and reserves.

Principle 10: Banks are encouraged to develop and utilise an internal risk rating system in managing credit risk. The rating system should be consistent with the nature, size and complexity of a bank's activities.

Principle 11: Banks must have information systems and analytical techniques that enable management to measure the credit risk inherent in all on- and off-balance sheet activities. The management information system should provide adequate information on the composition of the credit portfolio, including identification of any concentrations of risk.

Principle 12: Banks must have in place a system for monitoring the overall composition and quality of the credit portfolio.

Principle 13: Banks should take into consideration potential future changes in economic conditions when assessing individual credits and their credit portfolios, and should assess their credit risk exposures under stressful conditions.

D. Ensuring adequate controls over credit risk

Principle 14: Banks must establish a system of independent, ongoing assessment of the bank's credit risk management processes and the results of such reviews should be communicated directly to the board of directors and senior management.

Principle 15: Banks must ensure that the credit-granting function is being properly managed and that credit exposures are within levels consistent with prudential standards and internal limits. Banks should establish and enforce internal controls and other practices to ensure that exceptions to policies, procedures and limits are reported in a timely manner to the appropriate level of management for action.

Principle 16: Banks must have a system in place for early remedial action on deteriorating credits, managing problem credits and similar workout situations.

E. The role of supervisors

Principle 17: Supervisors should require that banks have an effective system in place to identify, measure, monitor and control credit risk as part of an overall approach to risk management. Supervisors should conduct an independent evaluation of a bank's strategies, policies, procedures and practices related to the granting of credit and the ongoing management of the portfolio. Supervisors should consider setting prudential limits to restrict bank exposures to single borrowers or groups of connected counterparties.

II. Establishing an Appropriate Credit Risk Environment

Principle 1: The board of directors should have responsibility for approving and periodically (at least annually) reviewing the credit risk strategy and significant credit risk policies of the bank. The strategy should reflect the bank's tolerance for risk and the level of profitability the bank expects to achieve for incurring various credit risks.

9. As with all other areas of a bank's activities, the board of directors[3] has a critical role to play in overseeing the credit-granting and credit risk management functions of the bank. Each bank should develop a credit risk strategy or plan that establishes the objectives guiding the bank's credit-granting activities and adopt the necessary policies and procedures for conducting such activities. The credit risk strategy, as well as significant credit risk policies, should be approved and periodically (at least annually) reviewed by the board of directors. The board needs to recognise that the strategy and policies must cover the many activities of the bank in which credit exposure is a significant risk.

10. The strategy should include a statement of the bank's willingness to grant credit based on exposure type (for example, commercial, consumer, real estate), economic sector, geographical location, currency, maturity and anticipated profitability. This might also include the identification of target markets and the overall characteristics that the bank would want to achieve in its credit portfolio (including levels of diversification and concentration tolerances).

11. The credit risk strategy should give recognition to the goals of credit quality, earnings and growth. Every bank, regardless of size, is in business to be profitable and, consequently, must determine the acceptable risk/reward trade-off for its activities, factoring in the cost of capital. A bank's board of directors should approve the bank's strategy for selecting risks and maximising profits. The board should periodically review the financial results of the bank and, based on these results, determine if changes need to be made to the strategy. The board must also determine that the bank's capital level is adequate for the risks assumed throughout the entire organisation.

12. The credit risk strategy of any bank should provide continuity in approach. Therefore, the strategy will need to take into account the cyclical aspects of any economy and the resulting shifts in the composition and quality of the overall credit portfolio. Although the strategy should be periodically assessed and amended, it should be viable in the long-run and through various economic cycles.

13. The credit risk strategy and policies should be effectively communicated throughout the banking organisation. All relevant personnel should clearly understand the bank's

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[3] This paper refers to a management structure composed of a board of directors and senior management. The Committee is aware that there are significant differences in legislative and regulatory frameworks across countries as regards the functions of the board of directors and senior management. In some countries, the board has the main, if not exclusive, function of supervising the executive body (senior management, general management) so as to ensure that the latter fulfils its tasks. For this reason, in some cases, it is known as a supervisory board. This means that the board has no executive functions. In other countries, by contrast, the board has a broader competence in that it lays down the general framework for the management of the bank. Owing to these differences, the notions of the board of directors and senior management are used in this paper not to identify legal constructs but rather to label two decision-making functions within a bank.

approach to granting and managing credit and should be held accountable for complying with established policies and procedures.

14. The board should ensure that senior management is fully capable of managing the credit activities conducted by the bank and that such activities are done within the risk strategy, policies and tolerances approved by the board. The board should also regularly (i.e. at least annually), either within the credit risk strategy or within a statement of credit policy, approve the bank's overall credit granting criteria (including general terms and conditions). In addition, it should approve the manner in which the bank will organise its credit-granting functions, including independent review of the credit granting and management function and the overall portfolio.

15. While members of the board of directors, particularly outside directors, can be important sources of new business for the bank, once a potential credit is introduced, the bank's established processes should determine how much and at what terms credit is granted. In order to avoid conflicts of interest, it is important that board members not override the credit-granting and monitoring processes of the bank.

16. The board of directors should ensure that the bank's remuneration policies do not contradict its credit risk strategy. Remuneration policies that reward unacceptable behaviour such as generating short-term profits while deviating from credit policies or exceeding established limits, weaken the bank's credit processes.

Principle 2: Senior management should have responsibility for implementing the credit risk strategy approved by the board of directors and for developing policies and procedures for identifying, measuring, monitoring and controlling credit risk. Such policies and procedures should address credit risk in all of the bank's activities and at both the individual credit and portfolio levels.

17. Senior management of a bank is responsible for implementing the credit risk strategy approved by the board of directors. This includes ensuring that the bank's credit-granting activities conform to the established strategy, that written procedures are developed and implemented, and that loan approval and review responsibilities are clearly and properly assigned. Senior management must also ensure that there is a periodic independent internal assessment of the bank's credit-granting and management functions.[4]

18. A cornerstone of safe and sound banking is the design and implementation of written policies and procedures related to identifying, measuring, monitoring and controlling credit risk. Credit policies establish the framework for lending and guide the credit-granting activities of the bank. Credit policies should address such topics as target markets, portfolio mix, price and non-price terms, the structure of limits, approval authorities, exception procesing/reporting, etc. Such policies should be clearly defined, consistent with prudent banking practices and relevant regulatory requirements, and adequate for the nature and complexity of the bank's activities. The policies should be designed and implemented within the context of internal and external factors such as the bank's market position, trade area, staff

[4] This may be difficult for very small banks; however, there should be adequate checks and balances in place to promote sound credit decisions.

capabilities and technology. Policies and procedures that are properly developed and implemented enable the bank to: (i) maintain sound credit-granting standards; (ii) monitor and control credit risk; (iii) properly evaluate new business opportunities; and (iv) identify and administer problem credits.

19. As discussed further in paragraphs 30 and 37 through 41 below, banks should develop and implement policies and procedures to ensure that the credit portfolio is adequately diversified given the bank's target markets and overall credit strategy. In particular, such policies should establish targets for portfolio mix as well as set exposure limits on single counterparties and groups of connected counterparties, particular industries or economic sectors, geographic regions and specific products. Banks should ensure that their own internal exposure limits comply with any prudential limits or restrictions set by the banking supervisors.

20. In order to be effective, credit policies must be communicated throughout the organisation, implemented through appropriate procedures, monitored and periodically revised to take into account changing internal and external circumstances. They should be applied, where appropriate, on a consolidated bank basis and at the level of individual affiliates. In addition, the policies should address equally the important functions of reviewing credits on an individual basis and ensuring appropriate diversification at the portfolio level.

21. When banks engage in granting credit internationally, they undertake, in addition to standard credit risk, risk associated with conditions in the home country of a foreign borrower or counterparty. Country or sovereign risk encompasses the entire spectrum of risks arising from the economic, political and social environments of a foreign country that may have potential consequences for foreigners' debt and equity investments in that country. Transfer risk focuses more specifically on a borrower's capacity to obtain the foreign exchange necessary to service its cross-border debt and other contractual obligations. In all instances of international transactions, banks need to understand the globalisation of financial markets and the potential for spillover effects from one country to another or contagion effects for an entire region.

22. Banks that engage in granting credit internationally must therefore have adequate policies and procedures for identifying, measuring, monitoring and controlling country risk and transfer risk in their international lending and investment activities. The monitoring of country risk factors should incorporate (i) the potential default of foreign private sector counterparties arising from country-specific economic factors and (ii) the enforceability of loan agreements and the timing and ability to realise collateral under the national legal framework. This function is often the responsibility of a specialist team familiar with the particular issues.

Principle 3: Banks should identify and manage credit risk inherent in all products and activities. Banks should ensure that the risks of products and activities new to them are subject to adequate risk management procedures and controls before being introduced or undertaken, and approved in advance by the board of directors or its appropriate committee.

23. The basis for an effective credit risk management process is the identification and analysis of existing and potential risks inherent in any product or activity. Consequently, it is important that banks identify all credit risk inherent in the products they offer and the

activities in which they engage. Such identification stems from a careful review of the existing and potential credit risk characteristics of the product or activity.

24. Banks must develop a clear understanding of the credit risks involved in more complex credit-granting activities (for example, loans to certain industry sectors, asset securitisation, customer-written options, credit derivatives, credit-linked notes). This is particularly important because the credit risk involved, while not new to banking, may be less obvious and require more analysis than the risk of more traditional credit-granting activities. Although more complex credit-granting activities may require tailored procedures and controls, the basic principles of credit risk management will still apply.

25. New ventures require significant planning and careful oversight to ensure the risks are appropriately identified and managed. Banks should ensure that the risks of new products and activities are subject to adequate procedures and controls before being introduced or undertaken. Any major new activity should be approved in advance by the board of directors or its appropriate delegated committee.

26. It is critical that senior management determine that the staff involved in any activity where there is borrower or counterparty credit risk, whether established or new, basic or more complex, be fully capable of conducting the activity to the highest standards and in compliance with the bank's policies and procedures.

III. Operating under a Sound Credit Granting Process

Principle 4: Banks must operate within sound, well-defined credit-granting criteria. These criteria should include a clear indication of the bank's target market and a thorough understanding of the borrower or counterparty, as well as the purpose and structure of the credit, and its source of repayment.

27. Establishing sound, well-defined credit-granting criteria is essential to approving credit in a safe and sound manner. The criteria should set out who is eligible for credit and for how much, what types of credit are available, and under what terms and conditions the credits should be granted.

28. Banks must receive sufficient information to enable a comprehensive assessment of the true risk profile of the borrower or counterparty. Depending on the type of credit exposure and the nature of the credit relationship to date, the factors to be considered and documented in approving credits include:

- the purpose of the credit and sources of repayment;
- the current risk profile (including the nature and aggregate amounts of risks) of the borrower or counterparty and collateral and its sensitivity to economic and market developments;
- the borrower's repayment history and current capacity to repay, based on historical financial trends and future cash flow projections, under various scenarios;

- for commercial credits, the borrower's business expertise and the status of the borrower's economic sector and its position within that sector;
- the proposed terms and conditions of the credit, including covenants designed to limit changes in the future risk profile of the borrower; and
- where applicable, the adequacy and enforceability of collateral or guarantees, including under various scenarios.

In addition, in approving borrowers or counterparties for the first time, consideration should be given to the integrity and reputation of the borrower or counterparty as well as their legal capacity to assume the liability. Once credit-granting criteria have been established, it is essential for the bank to ensure that the information it receives is sufficient to make proper credit-granting decisions. This information will also serve as the basis for rating the credit under the bank's internal rating system.

29. Banks need to understand to whom they are granting credit. Therefore, prior to entering into any new credit relationship, a bank must become familiar with the borrower or counterparty and be confident that they are dealing with an individual or organisation of sound repute and creditworthiness. In particular, strict policies must be in place to avoid association with individuals involved in fraudulent activities and other crimes. This can be achieved through a number of ways, including asking for references from known parties, accessing credit registries, and becoming familiar with individuals responsible for managing a company and checking their personal references and financial condition. However, a bank should not grant credit simply because the borrower or counterparty is familiar to the bank or is perceived to be highly reputable.

30. Banks should have procedures to identify situations where, in considering credits, it is appropriate to classify a group of obligors as connected counterparties and, thus, as a single obligor. This would include aggregating exposures to groups of accounts exhibiting financial interdependence, including corporate or non-corporate, where they are under common ownership or control or with strong connecting links (for example, common management, familial ties).[5] Banks should also have procedures for aggregating exposures to individual clients across business activities.

31. Many banks participate in loan syndications or other such loan consortia. Some institutions place undue reliance on the credit risk analysis done by the lead underwriter or on external commercial loan credit ratings. All syndicate participants should perform their own due diligence, including independent credit risk analysis and review of syndicate terms prior to committing to the syndication. Each bank should analyse the risk and return on syndicated loans in the same manner as directly sourced loans.

32. Granting credit involves accepting risks as well as producing profits. Banks should assess the risk/reward relationship in any credit as well as the overall profitability of the

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[5] Connected counterparties may be a group of companies related financially or by common ownership, management, research and development, marketing or any combination thereof. Identification of connected counterparties requires a careful analysis of the impact of these factors on the financial interdependency of the parties involved.

account relationship. In evaluating whether, and on what terms, to grant credit, banks need to assess the risks against expected return, factoring in, to the greatest extent possible, price and non-price (e.g. collateral, restrictive covenants, etc.) terms. In evaluating risk, banks should also assess likely downside scenarios and their possible impact on borrowers or counterparties. A common problem among banks is the tendency not to price a credit or overall relationship properly and therefore not receive adequate compensation for the risks incurred.

33. In considering potential credits, banks must recognise the necessity of establishing provisions for identified and expected losses and holding adequate capital to absorb unexpected losses. The bank should factor these considerations into credit-granting decisions, as well as into the overall portfolio risk management process.[6]

34. Banks can utilise transaction structure, collateral and guarantees to help mitigate risks (both identified and inherent) in individual credits but transactions should be entered into primarily on the strength of the borrower's repayment capacity. Collateral cannot be a substitute for a comprehensive assessment of the borrower or counterparty, nor can it compensate for insufficient information. It should be recognised that any credit enforcement actions (e.g. foreclosure proceedings) can eliminate the profit margin on the transaction. In addition, banks need to be mindful that the value of collateral may well be impaired by the same factors that have led to the diminished recoverability of the credit. Banks should have policies covering the acceptability of various forms of collateral, procedures for the ongoing valuation of such collateral, and a process to ensure that collateral is, and continues to be, enforceable and realisable. With regard to guarantees, banks should evaluate the level of coverage being provided in relation to the credit-quality and legal capacity of the guarantor. Banks should be careful when making assumptions about implied support from third parties such as the government.

35. Netting agreements are an important way to reduce credit risks, especially in interbank transactions. In order to actually reduce risk, such agreements need to be sound and legally enforceable.[7]

36. Where actual or potential conflicts of interest exist within the bank, internal confidentiality arrangements (e.g. "Chinese walls") should be established to ensure that there is no hindrance to the bank obtaining all relevant information from the borrower.

Principle 5: Banks should establish overall credit limits at the level of individual borrowers and counterparties, and groups of connected counterparties that aggregate in a comparable and meaningful manner different types of exposures, both in the banking and trading book and on and off the balance sheet.

37. An important element of credit risk management is the establishment of exposure limits on single counterparties and groups of connected counterparties. Such limits are

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6 Guidance on loan classification and provisioning is available in the document *Sound Practices for Loan Accounting and Disclosure* (July 1999).

7 Guidance on netting arrangements is available in the document *Consultative paper on on-balance sheet netting* (April 1998).

frequently based in part on the internal risk rating assigned to the borrower or counterparty, with counterparties assigned better risk ratings having potentially higher exposure limits. Limits should also be established for particular industries or economic sectors, geographic regions and specific products.

38. Exposure limits are needed in all areas of the bank's activities that involve credit risk. These limits help to ensure that the bank's credit-granting activities are adequately diversified. As mentioned earlier, much of the credit exposure faced by some banks comes from activities and instruments in the trading book and off the balance sheet. Limits on such transactions are particularly effective in managing the overall credit risk profile or counterparty risk of a bank. In order to be effective, limits should generally be binding and not driven by customer demand.

39. Effective measures of potential future exposure are essential for the establishment of meaningful limits, placing an upper bound on the overall scale of activity with, and exposure to, a given counterparty, based on a comparable measure of exposure across a bank's various activities (both on and off-balance-sheet).

40. Banks should consider the results of stress testing in the overall limit setting and monitoring process. Such stress testing should take into consideration economic cycles, interest rate and other market movements, and liquidity conditions.

41. Bank's credit limits should recognise and reflect the risks associated with the near-term liquidation of positions in the event of counterparty default.[8] Where a bank has several transactions with a counterparty, its potential exposure to that counterparty is likely to vary significantly and discontinuously over the maturity over which it is calculated. Potential future exposures should therefore be calculated over multiple time horizons. Limits should also factor in any unsecured exposure in a liquidation scenario.

Principle 6: Banks should have a clearly-established process in place for approving new credits as well as the amendment, renewal and re-financing of existing credits.

42. Many individuals within a bank are involved in the credit-granting process. These include individuals from the business origination function, the credit analysis function and the credit approval function. In addition, the same counterparty may be approaching several different areas of the bank for various forms of credit. Banks may choose to assign responsibilities in different ways; however, it is important that the credit granting process coordinate the efforts of all of the various individuals in order to ensure that sound credit decisions are made.

43. In order to maintain a sound credit portfolio, a bank must have an established formal transaction evaluation and approval process for the granting of credits. Approvals should be made in accordance with the bank's written guidelines and granted by the appropriate level of management. There should be a clear audit trail documenting that the approval process was complied with and identifying the individual(s) and/or committee(s) providing input as well

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[8] Guidance is available in the documents *Banks' Interactions with Highly Leveraged Institutions* and *Sound Practices for Banks' Interactions with Highly Leveraged Institutions* (January 1999).

as making the credit decision. Banks often benefit from the establishment of specialist credit groups to analyse and approve credits related to significant product lines, types of credit facilities and industrial and geographic sectors. Banks should invest in adequate credit decision resources so that they are able to make sound credit decisions consistent with their credit strategy and meet competitive time, pricing and structuring pressures.

44. Each credit proposal should be subject to careful analysis by a qualified credit analyst with expertise commensurate with the size and complexity of the transaction. An effective evaluation process establishes minimum requirements for the information on which the analysis is to be based. There should be policies in place regarding the information and documentation needed to approve new credits, renew existing credits and/or change the terms and conditions of previously approved credits. The information received will be the basis for any internal evaluation or rating assigned to the credit and its accuracy and adequacy is critical to management making appropriate judgements about the acceptability of the credit.

45. Banks must develop a corps of credit risk officers who have the experience, knowledge and background to exercise prudent judgement in assessing, approving and managing credit risks. A bank's credit-granting approval process should establish accountability for decisions taken and designate who has the absolute authority to approve credits or changes in credit terms. Banks typically utilise a combination of individual signature authority, dual or joint authorities, and a credit approval group or committee, depending upon the size and nature of the credit. Approval authorities should be commensurate with the expertise of the individuals involved.

Principle 7: All extensions of credit must be made on an arm's-length basis. In particular, credits to related companies and individuals must be authorised on an exception basis, monitored with particular care and other appropriate steps taken to control or mitigate the risks of non-arm's length lending.

46. Extensions of credit should be made subject to the criteria and processes described above. These create a system of checks and balances that promote sound credit decisions. Therefore, directors, senior management and other influential parties (e.g. shareholders) should not seek to override the established credit-granting and monitoring processes of the bank.

47. A potential area of abuse arises from granting credit to non-arms-length and related parties, whether companies or individuals.[9] Consequently, it is important that banks grant credit to such parties on an arm's-length basis and that the amount of credit granted is suitably monitored. Such controls are most easily implemented by requiring that the terms and conditions of such credits not be more favourable than credit granted to non-related borrowers under similar circumstances and by imposing strict absolute limits on such credits. Another possible method of control is the public disclosure of the terms of credits granted to related

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9 Related parties can include the bank's subsidiaries and affiliates, its major shareholders, directors and senior management, and their direct and related interests, as well as any party that the bank exerts control over or that exerts control over the bank.

parties. The bank's credit-granting criteria should not be altered to accommodate related companies and individuals.

48. Material transactions with related parties should be subject to the approval of the board of directors (excluding board members with conflicts of interest), and in certain circumstances (e.g. a large loan to a major shareholder) reported to the banking supervisory authorities.

IV. Maintaining an Appropriate Credit Administration, Measurement and Monitoring Process

Principle 8: Banks should have in place a system for the ongoing administration of their various credit risk-bearing portfolios.

49. Credit administration is a critical element in maintaining the safety and soundness of a bank. Once a credit is granted, it is the responsibility of the business unit, often in conjunction with a credit administration support team, to ensure that the credit is properly maintained. This includes keeping the credit file up to date, obtaining current financial information, sending out renewal notices and preparing various documents such as loan agreements.

50. Given the wide range of responsibilities of the credit administration function, its organisational structure varies with the size and sophistication of the bank. In larger banks, responsibilities for the various components of credit administration are usually assigned to different departments. In smaller banks, a few individuals might handle several of the functional areas. Where individuals perform such sensitive functions as custody of key documents, wiring out funds, or entering limits into the computer database, they should report to managers who are independent of the business origination and credit approval processes.

51. In developing their credit administration areas, banks should ensure:

- the efficiency and effectiveness of credit administration operations, including monitoring documentation, contractual requirements, legal covenants, collateral, etc.;
- the accuracy and timeliness of information provided to management information systems;
- adequate segregation of duties;
- the adequacy of controls over all "back office" procedures; and
- compliance with prescribed management policies and procedures as well as applicable laws and regulations.

52. For the various components of credit administration to function appropriately, senior management must understand and demonstrate that it recognises the importance of this element of monitoring and controlling credit risk.

53. The credit files should include all of the information necessary to ascertain the current financial condition of the borrower or counterparty as well as sufficient information to track the decisions made and the history of the credit. For example, the credit files should include current financial statements, financial analyses and internal rating documentation, internal memoranda, reference letters, and appraisals. The loan review function should determine that the credit files are complete and that all loan approvals and other necessary documents have been obtained.

Principle 9: Banks must have in place a system for monitoring the condition of individual credits, including determining the adequacy of provisions and reserves.

54. Banks need to develop and implement comprehensive procedures and information systems to monitor the condition of individual credits and single obligors across the bank's various portfolios. These procedures need to define criteria for identifying and reporting potential problem credits and other transactions to ensure that they are subject to more frequent monitoring as well as possible corrective action, classification and/or provisioning.[10]

55. An effective credit monitoring system will include measures to:

- ensure that the bank understands the current financial condition of the borrower or counterparty;
- monitor compliance with existing covenants;
- assess, where applicable, collateral coverage relative to the obligor's current condition;
- identify contractual payment delinquencies and classify potential problem credits on a timely basis; and
- direct promptly problems for remedial management.

56. Specific individuals should be responsible for monitoring credit quality, including ensuring that relevant information is passed to those responsible for assigning internal risk ratings to the credit. In addition, individuals should be made responsible for monitoring on an ongoing basis any underlying collateral and guarantees. Such monitoring will assist the bank in making necessary changes to contractual arrangements as well as maintaining adequate reserves for credit losses. In assigning these responsibilities, bank management should recognise the potential for conflicts of interest, especially for personnel who are judged and rewarded on such indicators as loan volume, portfolio quality or short-term profitability.

Principle 10: Banks are encouraged to develop and utilise an internal risk rating system in managing credit risk. The rating system should be consistent with the nature, size and complexity of a bank's activities.

[10] See footnote 6.

57. An important tool in monitoring the quality of individual credits, as well as the total portfolio, is the use of an internal risk rating system. A well-structured internal risk rating system is a good means of differentiating the degree of credit risk in the different credit exposures of a bank. This will allow more accurate determination of the overall characteristics of the credit portfolio, concentrations, problem credits, and the adequacy of loan loss reserves. More detailed and sophisticated internal risk rating systems, used primarily at larger banks, can also be used to determine internal capital allocation, pricing of credits, and profitability of transactions and relationships.

58. Typically, an internal risk rating system categorises credits into various classes designed to take into account gradations in risk. Simpler systems might be based on several categories ranging from satisfactory to unsatisfactory; however, more meaningful systems will have numerous gradations for credits considered satisfactory in order to truly differentiate the relative credit risk they pose. In developing their systems, banks must decide whether to rate the riskiness of the borrower or counterparty, the risks associated with a specific transaction, or both.

59. Internal risk ratings are an important tool in monitoring and controlling credit risk. In order to facilitate early identification of changes in risk profiles, the bank's internal risk rating system should be responsive to indicators of potential or actual deterioration in credit risk. Credits with deteriorating ratings should be subject to additional oversight and monitoring, for example, through more frequent visits from credit officers and inclusion on a watchlist that is regularly reviewed by senior management. The internal risk ratings can be used by line management in different departments to track the current characteristics of the credit portfolio and help determine necessary changes to the credit strategy of the bank. Consequently, it is important that the board of directors and senior management also receive periodic reports on the condition of the credit portfolios based on such ratings.

60. The ratings assigned to individual borrowers or counterparties at the time the credit is granted must be reviewed on a periodic basis and individual credits should be assigned a new rating when conditions either improve or deteriorate. Because of the importance of ensuring that internal ratings are consistent and accurately reflect the quality of individual credits, responsibility for setting or confirming such ratings should rest with a credit review function independent of that which originated the credit concerned. It is also important that the consistency and accuracy of ratings is examined periodically by a function such as an independent credit review group.

Principle 11: Banks must have information systems and analytical techniques that enable management to measure the credit risk inherent in all on- and off-balance sheet activities. The management information system should provide adequate information on the composition of the credit portfolio, including identification of any concentrations of risk.

61. Banks should have methodologies that enable them to quantify the risk involved in exposures to individual borrowers or counterparties. Banks should also be able to analyse credit risk at the product and portfolio level in order to identify any particular sensitivities or concentrations. The measurement of credit risk should take account of (i) the specific nature of the credit (loan, derivative, facility, etc.) and its contractual and financial conditions (maturity, reference rate, etc.); (ii) the exposure profile until maturity in relation to potential market movements; (iii) the existence of collateral or guarantees; and (iv) the potential for default based on the internal risk rating. The analysis of credit risk data should be undertaken

at an appropriate frequency with the results reviewed against relevant limits. Banks should use measurement techniques that are appropriate to the complexity and level of the risks involved in their activities, based on robust data, and subject to periodic validation.

62. The effectiveness of a bank's credit risk measurement process is highly dependent on the quality of management information systems. The information generated from such systems enables the board and all levels of management to fulfil their respective oversight roles, including determining the adequate level of capital that the bank should be holding. Therefore, the quality, detail and timeliness of information are critical. In particular, information on the composition and quality of the various portfolios, including on a consolidated bank basis, should permit management to assess quickly and accurately the level of credit risk that the bank has incurred through its various activities and determine whether the bank's performance is meeting the credit risk strategy.

63. Banks should monitor actual exposures against established limits. It is important that banks have a management information system in place to ensure that exposures approaching risk limits are brought to the attention of senior management. All exposures should be included in a risk limit measurement system. The bank's information system should be able to aggregate credit exposures to individual borrowers and counterparties and report on exceptions to credit risk limits on a meaningful and timely basis.

64. Banks should have information systems in place that enable management to identify any concentrations of risk within the credit portfolio. The adequacy of scope of information should be reviewed on a periodic basis by business line managers and senior management to ensure that it is sufficient to the complexity of the business. Increasingly, banks are also designing information systems that permit additional analysis of the credit portfolio, including stress testing.

Principle 12: Banks must have in place a system for monitoring the overall composition and quality of the credit portfolio.

65. Traditionally, banks have focused on oversight of contractual performance of individual credits in managing their overall credit risk. While this focus is important, banks also need to have in place a system for monitoring the overall composition and quality of the various credit portfolios. This system should be consistent with the nature, size and complexity of the bank's portfolios.

66. A continuing source of credit-related problems in banks is concentrations within the credit portfolio. Concentrations of risk can take many forms and can arise whenever a significant number of credits have similar risk characteristics. Concentrations occur when, among other things, a bank's portfolio contains a high level of direct or indirect credits to (i) a single counterparty, (ii) a group of connected counterparties[11], (iii) a particular industry or economic sector, (iv) a geographic region, (v) an individual foreign country or a group of countries whose economies are strongly interrelated, (vi) a type of credit facility, or (vii) a type of collateral. Concentrations also occur in credits with the same maturity. Concentrations can stem from more complex or subtle linkages among credits in the portfolio. The

[11] See footnote 5.

concentration of risk does not only apply to the granting of loans but to the whole range of banking activities that, by their nature, involve counterparty risk. A high level of concentration exposes the bank to adverse changes in the area in which the credits are concentrated.

67. In many instances, due to a bank's trade area, geographic location or lack of access to economically diverse borrowers or counterparties, avoiding or reducing concentrations may be extremely difficult. In addition, banks may want to capitalise on their expertise in a particular industry or economic sector. A bank may also determine that it is being adequately compensated for incurring certain concentrations of risk. Consequently, banks should not necessarily forego booking sound credits solely on the basis of concentration. Banks may need to make use of alternatives to reduce or mitigate concentrations. Such measures can include pricing for the additional risk, increased holdings of capital to compensate for the additional risks and making use of loan participations in order to reduce dependency on a particular sector of the economy or group of related borrowers. Banks must be careful not to enter into transactions with borrowers or counterparties they do not know or engage in credit activities they do not fully understand simply for the sake of diversification.

68. Banks have new possibilities to manage credit concentrations and other portfolio issues. These include such mechanisms as loan sales, credit derivatives, securitisation programs and other secondary loan markets. However, mechanisms to deal with portfolio concentration issues involve risks that must also be identified and managed. Consequently, when banks decide to utilise these mechanisms, they need to first have policies and procedures, as well as adequate controls, in place.

Principle 13: Banks should take into consideration potential future changes in economic conditions when assessing individual credits and their credit portfolios, and should assess their credit risk exposures under stressful conditions.

69. An important element of sound credit risk management involves discussing what could potentially go wrong with individual credits and within the various credit portfolios, and factoring this information into the analysis of the adequacy of capital and provisions. This "what if" exercise can reveal previously undetected areas of potential credit risk exposure for the bank. The linkages between different categories of risk that are likely to emerge in times of crisis should be fully understood. In case of adverse circumstances, there may be a substantial correlation of various risks, especially credit and market risk. Scenario analysis and stress testing are useful ways of assessing areas of potential problems.

70. Stress testing should involve identifying possible events or future changes in economic conditions that could have unfavourable effects on a bank's credit exposures and assessing the bank's ability to withstand such changes. Three areas that banks could usefully examine are: (i) economic or industry downturns; (ii) market-risk events; and (iii) liquidity conditions. Stress testing can range from relatively simple alterations in assumptions about one or more financial, structural or economic variables to the use of highly sophisticated financial models. Typically, the latter are used by large, internationally active banks.

71. Whatever the method of stress testing used, the output of the tests should be reviewed periodically by senior management and appropriate action taken in cases where the results exceed agreed tolerances. The output should also be incorporated into the process for assigning and updating policies and limits.

72. The bank should attempt to identify the types of situations, such as economic downturns, both in the whole economy or in particular sectors, higher than expected levels of delinquencies and defaults, or the combinations of credit and market events, that could produce substantial losses or liquidity problems. Such an analysis should be done on a consolidated bank basis. Stress-test analyses should also include contingency plans regarding actions management might take given certain scenarios. These can include such techniques as hedging against the outcome or reducing the size of the exposure.

V. Ensuring Adequate Controls over Credit Risk

Principle 14: Banks must establish a system of independent, ongoing assessment of the bank's credit risk management processes and the results of such reviews should be communicated directly to the board of directors and senior management.

73. Because various appointed individuals throughout a bank have the authority to grant credit, the bank should have an efficient internal review and reporting system in order to manage effectively the bank's various portfolios. This system should provide the board of directors and senior management with sufficient information to evaluate the performance of account officers and the condition of the credit portfolio.

74. Internal credit reviews conducted by individuals independent from the business function provide an important assessment of individual credits and the overall quality of the credit portfolio. Such a credit review function can help evaluate the overall credit administration process, determine the accuracy of internal risk ratings and judge whether the account officer is properly monitoring individual credits. The credit review function should report directly to the board of directors, a committee with audit responsibilities, or senior management without lending authority (e.g., senior management within the risk control function).

Principle 15: Banks must ensure that the credit-granting function is being properly managed and that credit exposures are within levels consistent with prudential standards and internal limits. Banks should establish and enforce internal controls and other practices to ensure that exceptions to policies, procedures and limits are reported in a timely manner to the appropriate level of management for action.

75. The goal of credit risk management is to maintain a bank's credit risk exposure within parameters set by the board of directors and senior management. The establishment and enforcement of internal controls, operating limits and other practices will help ensure that credit risk exposures do not exceed levels acceptable to the individual bank. Such a system will enable bank management to monitor adherence to the established credit risk objectives.

76. Limit systems should ensure that granting of credit exceeding certain predetermined levels receive prompt management attention. An appropriate limit system should assist management in controlling credit risk exposures, initiating discussion about opportunities and risks, and monitoring actual risk taking against predetermined credit risk tolerances.

77. Internal audits of the credit risk processes should be conducted on a periodic basis to determine that credit activities are in compliance with the bank's credit policies and procedures, that credits are authorised within the guidelines established by the bank's board of

directors and that the existence, quality and value of individual credits are accurately being reported to senior management. Such audits should also be used to identify areas of weakness in the credit risk management process, policies and procedures as well as any exceptions to policies, procedures and limits.

Principle 16: Banks must have a system in place for early remedial action on deteriorating credits, managing problem credits and similar workout situations.

78. One reason for establishing a systematic credit review process is to identify weakened or problem credits.[12] A reduction in credit quality should be recognised at an early stage when there may be more options available for improving the credit. Banks must have a disciplined and vigorous remedial management process, triggered by specific events, that is administered through the credit administration and problem recognition systems.

79. A bank's credit risk policies should clearly set out how the bank will manage problem credits. Banks differ on the methods and organisation they use to manage problem credits. Responsibility for such credits may be assigned to the originating business function, a specialised workout section, or a combination of the two, depending upon the size and nature of the credit and the reason for its problems.

80. Effective workout programs are critical to managing risk in the portfolio. When a bank has significant credit-related problems, it is important to segregate the workout function from the area that originated the credit. The additional resources, expertise and more concentrated focus of a specialised workout section normally improve collection results. A workout section can help develop an effective strategy to rehabilitate a troubled credit or to increase the amount of repayment ultimately collected. An experienced workout section can also provide valuable input into any credit restructurings organised by the business function.

VI. The Role of Supervisors

Principle 17: Supervisors should require that banks have an effective system in place to identify, measure, monitor and control credit risk as part of an overall approach to risk management. Supervisors should conduct an independent evaluation of a bank's strategies, policies, procedures and practices related to the granting of credit and the ongoing management of the portfolio. Supervisors should consider setting prudential limits to restrict bank exposures to single borrowers or groups of connected counterparties.

81. Although the board of directors and senior management bear the ultimate responsibility for an effective system of credit risk management, supervisors should, as part of their ongoing supervisory activities, assess the system in place at individual banks to identify, measure, monitor and control credit risk. This should include an assessment of any measurement tools (such as internal risk ratings and credit risk models) used by the bank. In addition, they should determine that the board of directors effectively oversees the credit risk

[12] See footnote 6.

management process of the bank and that management monitors risk positions, and compliance with and appropriateness of policies.

82. To evaluate the quality of credit risk management systems, supervisors can take a number of approaches. A key element in such an evaluation is the determination by supervisors that the bank is utilising sound asset valuation procedures. Most typically, supervisors, or the external auditors on whose work they partially rely, conduct a review of the quality of a sample of individual credits. In those instances where the supervisory analysis agrees with the internal analysis conducted by the bank, a higher degree of dependence can be placed on the use of such internal reviews for assessing the overall quality of the credit portfolio and the adequacy of provisions and reserves[13]. Supervisors or external auditors should also assess the quality of a bank's own internal validation process where internal risk ratings and/or credit risk models are used. Supervisors should also review the results of any independent internal reviews of the credit-granting and credit administration functions. Supervisors should also make use of any reviews conducted by the bank's external auditors, where available.

83. Supervisors should take particular note of whether bank management recognises problem credits at an early stage and takes the appropriate actions.[14] Supervisors should monitor trends within a bank's overall credit portfolio and discuss with senior management any marked deterioration. Supervisors should also assess whether the capital of the bank, in addition to its provisions and reserves, is adequate related to the level of credit risk identified and inherent in the bank's various on- and off-balance sheet activities.

84. In reviewing the adequacy of the credit risk management process, home country supervisors should also determine that the process is effective across business lines, subsidiaries and national boundaries. It is important that supervisors evaluate the credit risk management system not only at the level of individual businesses or legal entities but also across the wide spectrum of activities and subsidiaries within the consolidated banking organisation.

85. After the credit risk management process is evaluated, the supervisors should address with management any weaknesses detected in the system, excess concentrations, the classification of problem credits and the estimation of any additional provisions and the effect on the bank's profitability of any suspension of interest accruals. In those instances where supervisors determine that a bank's overall credit risk management system is not adequate or effective for that bank's specific credit risk profile, they should ensure the bank takes the appropriate actions to improve promptly its credit risk management process.

86. Supervisors should consider setting prudential limits (e.g., large exposure limits) that would apply to all banks, irrespective of the quality of their credit risk management process. Such limits would include restricting bank exposures to single borrowers or groups of

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[13] The New Capital Adequacy Framework anticipates that, subject to supervisory approval, banks' internal rating methodologies may be used as a basis for regulatory capital calculation. Guidance to supervisors specific to this purpose will be published in due course.

[14] See footnote 6.

connected counterparties. Supervisors may also want to impose certain reporting requirements for credits of a particular type or exceeding certain established levels. In particular, special attention needs to be paid to credits granted to counterparties “connected” to the bank, or to each other.

Appendix

Common Sources of Major Credit Problems

1. Most major banking problems have been either explicitly or indirectly caused by weaknesses in credit risk management. In supervisors' experience, certain key problems tend to recur. Severe credit losses in a banking system usually reflect simultaneous problems in several areas, such as concentrations, failures of due diligence and inadequate monitoring. This appendix summarises some of the most common problems related to the broad areas of concentrations, credit processing, and market- and liquidity-sensitive credit exposures.

Concentrations

2. Concentrations are probably the single most important cause of major credit problems. Credit concentrations are viewed as any exposure where the potential losses are large relative to the bank's capital, its total assets or, where adequate measures exist, the bank's overall risk level. Relatively large losses[15] may reflect not only **large exposures**, but also the potential for **unusually high percentage losses given default**.

3. Credit concentrations can further be grouped roughly into two categories:

- **Conventional credit concentrations** would include concentrations of credits to single borrowers or counterparties, a group of connected counterparties, and sectors or industries, such as commercial real estate, and oil and gas.

- **Concentrations based on common or correlated risk factors** reflect subtler or more situation-specific factors, and often can only be uncovered through analysis. Disturbances in Asia and Russia in late 1998 illustrate how close linkages among emerging markets under stress conditions and previously undetected correlations between market and credit risks, as well as between those risks and liquidity risk, can produce widespread losses.

4. Examples of concentrations based on the potential for unusually deep losses often embody factors such as leverage, optionality, correlation of risk factors and structured financings that concentrate risk in certain tranches. For example, a highly leveraged borrower will likely produce larger credit losses for a given severe price or economic shock than a less leveraged borrower whose capital can absorb a significant portion of any loss. The onset of exchange rate devaluations in late 1997 in Asia revealed the correlation between exchange rate devaluation and declines in financial condition of foreign exchange derivative counterparties resident in the devaluing country, producing very substantial losses relative to notional amounts of those derivatives. The risk in a pool of assets can be concentrated in a

[15] Losses are equal to the exposure times the percentage loss given the event of default.

securitisation into subordinated tranches and claims on leveraged special purpose vehicles, which in a downturn would suffer substantial losses.

5. The recurrent nature of credit concentration problems, especially involving conventional credit concentrations, raises the issue of why banks allow concentrations to develop. First, in developing their business strategy, most banks face an inherent trade-off between choosing to specialise in a few key areas with the goal of achieving a market leadership position and diversifying their income streams, especially when they are engaged in some volatile market segments. This trade-off has been exacerbated by intensified competition among banks and non-banks alike for traditional banking activities, such as providing credit to investment grade corporations. Concentrations appear most frequently to arise because banks identify "hot" and rapidly growing industries and use overly optimistic assumptions about an industry's future prospects, especially asset appreciation and the potential to earn above-average fees and/or spreads. Banks seem most susceptible to overlooking the dangers in such situations when they are focused on asset growth or market share.

6. Banking supervisors should have specific regulations limiting concentrations to one borrower or set of related borrowers, and, in fact, should also expect banks to set much lower limits on single-obligor exposure. Most credit risk managers in banks also monitor industry concentrations. Many banks are exploring techniques to identify concentrations based on common risk factors or correlations among factors. While small banks may find it difficult not to be at or near limits on concentrations, very large banking organisations must recognise that, because of their large capital base, their exposures to single obligors can reach imprudent levels while remaining within regulatory limits.

Credit Process Issues

7. Many credit problems reveal basic weaknesses in the credit granting and monitoring processes. While shortcomings in underwriting and management of market-related credit exposures represent important sources of losses at banks, many credit problems would have been avoided or mitigated by a strong internal credit process.

8. Many banks find carrying out **a thorough credit assessment** (or basic due diligence) a substantial challenge. For traditional bank lending, competitive pressures and the growth of loan syndication techniques create time constraints that interfere with basic due diligence. Globalisation of credit markets increases the need for financial information based on sound accounting standards and timely macroeconomic and flow of funds data. When this information is not available or reliable, banks may dispense with financial and economic analysis and support credit decisions with simple indicators of credit quality, especially if they perceive a need to gain a competitive foothold in a rapidly growing foreign market. Finally, banks may need new types of information, such as risk measurements, and more frequent financial information, to assess relatively newer counterparties, such as institutional investors and highly leveraged institutions.

9. The absence of **testing and validation of new lending techniques** is another important problem. Adoption of untested lending techniques in new or innovative areas of the market, especially techniques that dispense with sound principles of due diligence or traditional benchmarks for leverage, have led to serious problems at many banks. Sound practice calls for the application of basic principles to new types of credit activity. Any new

technique involves uncertainty about its effectiveness. That uncertainty should be reflected in somewhat greater conservatism and corroborating indicators of credit quality. An example of the problem is the expanded use of credit-scoring models in consumer lending in the United States and some other countries. Large credit losses experienced by some banks for particular tranches of certain mass-marketed products indicates the potential for scoring weaknesses.

10. Some credit problems arise from **subjective decision-making by senior management** of the bank. This includes extending credits to companies they own or with which they are affiliated, to personal friends, to persons with a reputation for financial acumen or to meet a personal agenda, such as cultivating special relationships with celebrities.

11. Many banks that experienced asset quality problems in the 1990s lacked an **effective credit review process** (and indeed, many banks had no credit review function). Credit review at larger banks usually is a department made up of analysts, independent of the lending officers, who make an independent assessment of the quality of a credit or a credit relationship based on documentation such as financial statements, credit analysis provided by the account officer and collateral appraisals. At smaller banks, this function may be more limited and performed by internal or external auditors. The purpose of credit review is to provide appropriate checks and balances to ensure that credits are made in accordance with bank policy and to provide an independent judgement of asset quality, uninfluenced by relationships with the borrower. Effective credit review not only helps to detect poorly underwritten credits, it also helps prevent weak credits from being granted, since credit officers are likely to be more diligent if they know their work will be subject to review.

12. A common and very important problem among troubled banks in the early 1990s was their failure to **monitor borrowers or collateral values**. Many banks neglected to obtain periodic financial information from borrowers or real estate appraisals in order to evaluate the quality of loans on their books and the adequacy of collateral. As a result, many banks failed to recognise early signs that asset quality was deteriorating and missed opportunities to work with borrowers to stem their financial deterioration and to protect the bank’s position. This lack of monitoring led to a costly process by senior management to determine the dimension and severity of the problem loans and resulted in large losses.

13. In some cases, the failure to perform adequate due diligence and financial analysis and to monitor the borrower can result in a breakdown of **controls to detect credit-related fraud**. For example, banks experiencing fraud-related losses have neglected to inspect collateral, such as goods in a warehouse or on a showroom floor, have not authenticated or valued financial assets presented as collateral, or have not required audited financial statements and carefully analysed them. An effective credit review department and independent collateral appraisals are important protective measures, especially to ensure that credit officers and other insiders are not colluding with borrowers.

14. In addition to shortcomings in due diligence and credit analysis, bank credit problems reflect other recurring problems in credit-granting decisions. Some banks analyse credits and decide on appropriate non-price credit terms, but do not use **risk-sensitive pricing**. Banks that lack a sound pricing methodology and the discipline to follow consistently such a methodology will tend to attract a disproportionate share of under-priced risks. These banks will be increasingly disadvantaged relative to banks that have superior pricing skills.

15. Many banks have experienced credit losses because of the failure to use sufficient **caution with certain leveraged credit arrangements**. As noted above, credit extended to highly leveraged borrowers is likely to have large losses in default. Similarly, leveraged structures such as some buyout or debt restructuring strategies, or structures involving customer-written options, generally introduce concentrated credit risks into the bank's credit portfolio and should only be used with financially strong customers. Often, however, such structures are most appealing to weaker borrowers because the financing enables a substantial upside gain if all goes well, while the borrower's losses are limited to its net worth.

16. Many banks' credit activities involve **lending againstnon-financial assets**. In such lending, many banks have failed to make an adequate assessment of the correlation between the financial condition of the borrower and the price changes and liquidity of the market for the collateral assets. Much asset-based business lending (i.e. commercial finance, equipment leasing, and factoring) and commercial real estate lending appear to involve a relatively high correlation between borrower creditworthiness and asset values. Since the borrower's income, the principal source of repayment, is generally tied to the assets in question, deterioration in the borrower's income stream, if due to industry or regional economic problems, may be accompanied by declines in asset values for the collateral. Some asset based consumer lending (i.e. home equity loans, auto financing) exhibits a similar, if weaker, relationship between the financial health of consumers and the markets for consumer assets.

17. A related problem is that many banks do not take **sufficient account of business cycle effects** in lending. As income prospects and asset values rise in the ascending portion of the business cycle, credit analysis may incorporate overly optimistic assumptions. Industries such as retailing, commercial real estate and real estate investment trusts, utilities, and consumer lending often experience strong cyclical effects. Sometimes the cycle is less related to general business conditions than the product cycle in a relatively new, rapidly growing sector, such as health care and telecommunications. Effective stress testing which takes account of business or product cycle effects is one approach to incorporating into credit decisions a fuller understanding of a borrower's credit risk.

18. More generally, many underwriting problems reflect the absence of a **thoughtful consideration of downside scenarios**. In addition to the business cycle, borrowers may be vulnerable to changes in risk factors such as specific commodity prices, shifts in the competitive landscape and the uncertainty of success in business strategy or management direction. Many lenders fail to "stress test" or analyse the credit using sufficiently adverse assumptions and thus fail to detect vulnerabilities.

Market and Liquidity-Sensitive Credit Exposures

19. Market and liquidity-sensitive exposures pose special challenges to the credit processes at banks. Market-sensitive exposures include foreign exchange and financial derivative contracts. Liquidity-sensitive exposures include margin and collateral agreements with periodic margin calls, liquidity back-up lines, commitments and some letters of credit, and some unwind provisions of securitisations. The contingent nature of the exposure in these instruments requires the bank to have the ability to assess the probability distribution of the size of actual exposure in the future and its impact on both the borrower's and the bank's leverage and liquidity.

20. An issue faced by virtually all financial institutions is the need to develop **meaningful measures of exposure** that can be compared readily with loans and other credit exposures. This problem is described at some length in the Basel Committee's January 1999 study of exposures to highly leveraged institutions.[16]

21. Market-sensitive instruments require a **careful analysis of the customer's willingness and ability to pay.** Most market-sensitive instruments, such as financial derivatives, are viewed as relatively sophisticated instruments, requiring some effort by both the bank and the customer to ensure that the contract is well understood by the customer. The link to changes in asset prices in financial markets means that the value of such instruments can change very sharply and adversely to the customer, usually with a small, but non-zero probability. Effective stress testing can reveal the potential for large losses, which sound practice suggests should be disclosed to the customer. Banks have suffered significant losses when they have taken insufficient care to ensure that the customer fully understood the transaction at origination and subsequent large adverse price movements left the customer owing the bank a substantial amount.

22. Liquidity-sensitive credit arrangements or instruments require a **careful analysis of the customer's vulnerability to liquidity stresses**, since the bank's funded credit exposure can grow rapidly when customers are subject to such stresses. Such increased pressure to have sufficient liquidity to meet margin agreements supporting over-the-counter trading activities or clearing and settlement arrangements may directly reflect market price volatility. In other instances, liquidity pressures in the financial system may reflect credit concerns and a constricting of normal credit activity, leading borrowers to utilise liquidity backup lines or commitments. Liquidity pressures can also be the result of inadequate liquidity risk management by the customer or a decline in its creditworthiness, making an assessment of a borrower's or counterparty's liquidity risk profile another important element of credit analysis.

23. Market- and liquidity-sensitive instruments change in riskiness with changes in the underlying distribution of price changes and market conditions. For market-sensitive instruments, for example, increases in the volatility of price changes effectively increases potential exposures. Consequently, banks should conduct **stress testing of volatility assumptions**.

24. Market- and liquidity-sensitive exposures, because they are probabilistic, can be correlated with the creditworthiness of the borrower. This is an important insight gained from the market turmoil in Asia, Russia and elsewhere in the course of 1997 and 1998. That is, the same factor that changes the value of a market- or liquidity-sensitive instrument can also influence the borrower's financial health and future prospects. Banks need to **analyse the relationship between market- and liquidity-sensitive exposures and the default risk of the borrower**. Stress testing — shocking the market or liquidity factors — is a key element of that analysis.

[16] See *Banks' Interactions with Highly Leveraged Institutions* and *Sound Practices for Banks' Interactions with Highly Leveraged Institutions* (January 1999).

SUPERVISORY AND REGULATORY GUIDELINES: 2003-05
Credit Risk Management
16th October, 2003

GUIDELINES FOR THE MANAGEMENT OF CREDIT RISK

I. INTRODUCTION

The Central Bank of The Bahamas *("the Central Bank")* is responsible for the licensing, regulation and supervision of banks and trust companies operating in and from within The Bahamas pursuant to The Banks and Trust Companies Regulation Act, 2000, and The Central Bank of The Bahamas Act, 2000. Additionally, The Central Bank has the duty, in collaboration with financial institutions, to promote and maintain high standards of conduct and management in the provision of banking and trust services.

All licensees are expected to adhere to the Central Bank's licensing and prudential requirements and ongoing supervisory programmes, including periodic on-site inspections, and required regulatory reporting. Licensees are also expected to conduct their affairs in conformity with all other Bahamian legal requirements.

II. DEFINITIONS

Credit is the provision of funds on agreed terms and conditions to a debtor who is obliged to repay the amount borrowed (together with interest thereon). Credit may be extended, on a secured or unsecured basis, by way of instruments such as mortgages, bonds, consumer and corporate advances, financial derivatives and finance leases.

Credit risk is the risk of financial loss, despite realization of collateral, security or property, resulting from the failure of a debtor to honour its obligations to the licensee.

Credit risk management is the process of controlling the impact of credit risk-related events on the licensee. This management involves identification, understanding, and quantification of the degree of potential loss and the consequent taking of appropriate measures to minimise the risk of loss to the licensee.

III. PURPOSE

These Guidelines specifically address the management of the credit risk present in the business activities of licensees, within their overall corporate governance process and risk management programme. The effective management of credit risk as a component of a comprehensive risk management programme is fundamental to the safety and soundness of every licensee and is critical to its long-term viability. These Guidelines should be read in conjunction with the ***"Guidelines for the Corporate Governance of Banks and Trust Companies Licensed to do Business Within and From Within The Bahamas" ("Corporate Governance Guidelines") and the*** **Guidelines for the Management of Large Exposures ("Large Exposures Guidelines).** Additionally, the Central Bank endorses the Basel Committee's 17 Principles for Management of Credit Risk (September 2000) (See Appendix 1). Banks are encouraged to refer to the full Basel document at www.bis.org.

Experience indicates that adherence to sound credit granting policies and procedures goes hand in hand with financial soundness. Failure to adopt and adhere to sound credit policies and procedures is often a source of weakness in financial institutions. The major consequence, which arises from a weakening of the credit risk portfolio is the impairment of capital or liquidity, or both.

Credit risk management should be conducted within the context of a comprehensive business plan. Although these Guidelines focus on a licensee's responsibility for managing and controlling its investments and loan portfolio and exposure to credit risk, it is not meant to imply that credit risk can be managed in isolation from other considerations such as asset/liability management considerations and the need to maintain adequate liquidity.

IV. APPLICABILITY

These Guidelines apply, as appropriate, to all licensees that engage in business activities that produce credit risk. They represent the Central Bank's identification of accepted best practices for effective credit risk management in licensees. The Central Bank appreciates that the breadth of the credit risk management programme in each licensee will depend on the scope and sophistication of the activities of the licensee, the nature and complexity of its credit-related businesses, and the types and levels of the risks that it assumes. However, failure to adopt a satisfactory credit risk management programme appropriate to its business activities constitutes an unsafe and unsound practice and could subject the licensee to regulatory sanctions.

As part of its ongoing off-site supervision and on-site examination and analysis programmes, the Central Bank will periodically conduct an evaluation of each licensee's strategies, policies, procedures and the management of the business activities that generate credit and related risks (i.e., the credit risk management programme**). The Central Bank's Regulations and Guidelines establish the standards against which each licensee's credit risk management programme will be evaluated.**

V. ESTABLISHING A CREDIT RISK ENVIRONMENT

Sound credit management involves establishing a credit risk philosophy, and policies and procedures for prudently managing the risk/reward relationship across a variety of dimensions, such as quality, concentration, maturity, currency, collateral security or property and type of credit facility.

1. Credit Risk Strategy and Policy

Licensees should have a written statement of their credit risk strategy and policy to implement the strategy. The strategy and policy should be approved by the board of directors and should be consistent with the licensee's degree of risk tolerance, the level of capital available for credit activities and credit management expertise. The board should review the strategy and policy periodically (at least annually) to ensure their adequacy and relevance given the changing operating circumstances, economic cycles, activities and risks that the licensee may face.

The credit risk strategy and policy should be clearly disseminated to, and understood by, all relevant staff.

2. Risk Tolerance and Portfolio Limits

Licensees should clearly articulate their credit risk tolerance, including how much, and what types of risk they are prepared to undertake. Risk tolerance should be compatible with the licensee's overall strategic objectives.

The credit risk policy should specify, inter-alia:

(a) Types of facilities to be offered, along with pricing policies, profitability targets, maximum maturities and maximum debt-servicing ratios borrowers for each type of lending;
(b) A ceiling for the total loan portfolio ratios (i.e., for loan to deposit ratio, maximum dollar amount or a percentage of capital base);
(c) Portfolio limits for maximum aggregate exposures by country, industry, category of borrower/ counterparty, individual credit product, groups of related parties and single borrowers, etc.;
(d) Limits, terms and conditions, approval and review procedures and records kept for connected lending;
(e) Types of acceptable collateral (e.g., charges, pledges, cash, securities, credit derivatives), loan-to-value ratios and the criteria for accepting guarantees; and
(f) The minimum information required from loan applicants (bearing in mind AML and KYC best practice and legal requirements).

3. Risk Concentrations

Licensees should establish internal controls and systems, endorsed by the board of directors, to measure, monitor and control large exposures and other risk concentrations in accordance with the Central Bank's Large Exposures Regulations and Guidelines. Licensees should establish the proper mechanisms to ensure timely and accurate regulatory pre-notification and reporting.

4. New Products

Licensees should recognise and control the credit risk arising from their services and activities, including the risks associated with new products. Before licensees enter into new types of products, activities or markets, they should ensure that they understand and assess the impact of the possible risks to be undertaken with a view of minimizing the downside potential of the inherent risks associated with the introduction of the new product or service. They should decide whether such products, activities or markets are consistent with their strategy, and if so, they should establish appropriate credit risk policies, procedures and controls, which should be approved by the board of directors or its appropriate delegated committee. The required formal risk assessment of new products and activities should be documented.

5. Delegated Credit Authority

Credit authority should be clearly delegated by the board of directors and should be appropriate for the products or portfolios assigned to the Credit Committee or individual credit officers and should be commensurate with their credit experience and expertise. Licensees should ensure that credit authority is required and designated for all types of credit exposures, including the use of credit derivatives for hedging or income generation. Delegated credit authority should be subject to regular review to ensure that it remains appropriate to current market conditions and the levels of their credit officers' performance and expertise.

Delegated credit authority may be absolute, incremental or a combination thereof and may also be individual, pooled, or shared within a committee. The delegation of authority needs to be clearly documented, and should include:

- The absolute and/or incremental approval authority being delegated;
- The officers, positions or committees to whom authority is being delegated;
- The ability of recipients to further delegate risk approval; and
- The restrictions, if any, placed on the use of delegated risk-approval.

Approval limits should relate to some combination of:

- Type of credit activity;

- Credit rating;
- Size;
- Credit concentration;
- Type of collateral security or property;
- Liquidity of investment; and
- Quality of covenant package.

6. Accountability

All staff should comply with credit polices and procedures and should be held accountable, ultimately to the board of directors through their reporting officers, for their decisions when discharging their responsibilities. A licensee's remuneration policies should be consistent with its credit risk strategy. The policies should not encourage officers to generate short-term profits by taking an unacceptably high level of risk.

VI. PRUDENT PROCEDURES FOR APPROVING CREDIT, DOCUMENTATION AND COLLECTION

1. Documented Credit Approval Procedures

Licensees should have a written statement (credit manual) setting out the criteria and procedures for granting new credit, for approving extensions of existing credits and exceptions, for conducting periodic and independent reviews of credits granted and for maintaining the records of credits granted.

The credit manual should stipulate sound, well-defined criteria for granting credit, including a thorough understanding of the borrower or counterparty, the purpose and structure of the credit and its source of repayment. The same criteria should be applied to both advised and unadvised facilities.

Credit decisions should be supported by adequate evaluation of the borrower's repayment ability based on reliable information. Sufficient and up-to-date information should continue to be available to enable effective monitoring of the account.

All credit should be granted on an arm's length basis. Credit to related borrowers should be monitored carefully and steps should be taken to control or reduce the risks of connected lending (see Large Exposures Regulations and Guidelines).

Licensees should not over-rely on collateral or guarantees. While these can provide secondary protection to the lender if the borrower defaults, the primary consideration should be the borrower's debt-servicing capacity.

2. Legal Documentation

The credit manual should outline documentation required for compliance with Know-Your-Customer and Anti-Money Laundering statutory requirements (i.e. Financial Transactions Reporting Act, 2000 and the Financial Transactions Reporting Regulations, 2000).

Licensees should take measures to minimize the possibility of loss through legal risk. All new draft loan documentation, and documentation for all other credit products should be subject to (independent) legal review and approval for enforceability and compliance with relevant domestic and international law.

Prior to release of funds, all completed documentation and supporting documents (such as mortgages, guarantees, charges, bills of lading, etc.) should be received, independently reviewed and approved by the licensee's authorized parties. This requirement applies equally to rescheduled facilities. Incomplete, unenforceable or inaccurate documentation has been another major historical source of loss for financial institutions.

VII. EFFECTIVE SYSTEMS FOR CREDIT ADMINISTRATION, MEASUREMENT AND MONITORING

1. Credit Administration

Licensees should have in place systems for administering their credit portfolio, including keeping the credit files current, obtaining up-to-date financial information on borrowers and other counterparties, and safe custody of important documents (such as title deeds etc.).

Additionally, licensees should conduct a review of all facilities, at least annually, to ensure that the terms and conditions continue to be complied with and that the rationale for the original facility continues to be reflective of the borrower's capacity to repay the loan. (Consumer loans repayable by instalment need not be reviewed if current).

Failure to establish adequate procedures to effectively monitor and control the credit function within established guidelines can result in significant other costs, in addition to credit losses. Compromising credit policies and procedures is a major cause of servicing costs and credit losses.

Accordingly, each licensee needs to develop and implement procedures to identify, monitor and control the characteristics and quality of its credit portfolio. These procedures need to define prudent criteria for identifying and reporting potential problem credit exposures to ensure that they are identified for more frequent review, followed up with appropriate corrective action, classified as below standard where appropriate, and that provisions are made where necessary.

Categorization of the credit portfolio by type of credit activity, credit rating, regular review of individual and groups of credits within the portfolio and internal credit audits are integral elements of effective and prudent portfolio monitoring and control and should include current relevant information about the collateral, the borrower, and all other parties which support the credit.

Regular review of ratings and the rating system can also provide an effective tool for monitoring the level and trends in the quality of individual credits and the credit portfolio by highlighting credits or segments of the portfolio that warrant special attention.

2. Measuring and Monitoring of Credit Risk

Licensees should maintain comprehensive procedures and adequate information systems for measuring credit risk (including measuring credit risk inherent in off-balance sheet products such as guarantees issued and received, derivatives in credit equivalent terms, etc.) and for monitoring the condition of individual credits to facilitate identification of problem credits and determination of the adequacy of provisions and reserves. The complexity of the credit risk measurement tools will depend on the nature and degree of the inherent risks of the products involved. These should be flexible to help licensees identify risk concentrations. To achieve this, a licensee's monitoring system should be capable of analysing its credit portfolio by the following characteristics:-

(a) Size of exposure;
(b) Exposure to groups of connected parties;
(c) Individual product lines;
(d) Sectors (geographic, industrial);
(e) Borrowers' demographic profiles;
(f) Account performance;
(g) Internal credit ratings;
(h) Outstanding versus undrawn commitments;
(i) Types and coverage of collateral; and
(j) Interest rate sensitivity (i.e. fixed or floating), etc.

Licensees should have in place a system for monitoring the overall quality of their credit risk exposures under normal and stress conditions.

There should also be a reporting system which alerts management to aggregate exposures approaching various pre-set portfolio limits.

Licensees should be conscious of business and economic cycles and regularly stress-test their portfolios against adverse market scenarios.

Adequate contingency planning should be developed in conjunction with stress-testing.

3. Asset Classification

Licensees are required to develop and use credit risk grading systems in managing credit risk. The grading system should be consistent with the nature, size and complexity of the licensee's activities.

The Central Bank of The Bahamas does not wish to impose a standard credit risk grading system for all licensees. Rather, the Central Bank, during the course of the onsite examination programme, will rely upon the system adopted by each licensee. The following factors should be considered when developing these systems:-

(a) Coverage should extend to as much of a licensee's portfolio as possible, including off-balance sheet exposures;

(b) For applicable exposures, the system should cover both performing and non-performing assets to provide for the migration of an exposure from fully performing to loss status;

(c) Connected parties should generally be classified on a group basis;

(d) A regular independent review function to provide assurances about the integrity of the grading process should be established;

(e) Arrangements for the periodic validation of the grading model to ensure that it continues to deliver reliable information and adequately distinguishes between exposures of varying credit quality;

(f) A sufficient number of risk grades to ensure that the system adequately captures gradation of risk; and

(g) Poorer quality facilities should at least include four categories along the lines indicated in Appendix 2. However, comparable ratings systems may also be used.

4. Provisioning Policy

Licensees should establish policies on provisioning which ensure that exposures are prudently provided for on a timely basis. Experience has demonstrated that there is a period between when a loss event occurs – that is, an event that results in a borrower's inability to repay interest and/or principal – and when management is able to identify such an event. Accordingly, loan loss provisions, including both specific and general provisions for credit risk, must be established to recognize (1) the losses that management estimates to have occurred in the portfolio at the balance-sheet date, and (2) impaired loans or credits that, may not yet have been, or not yet specifically identified as being impaired.

Historical evidence indicates that problem credits often originate in periods of economic growth. Typically, as a business/economic cycle peaks and begins to decline, more loans are likely to become impaired. However, many problem credits will not become specifically identified as impaired until some time later when the evidence of impairment becomes more explicit.

Although a variety of methodologies may be appropriate for determining a licensee's specific and general provisions (see example footnote 1 below), it is important to recognize these dynamics when establishing the methodology most appropriate for each licensee. Specific provisions must be reflective of the expected loss on any loan facility while the general provision account is expected to increase to reflect portfolio growth and/or evidence of deterioration in credit quality through the economic cycle.

General provisions are not a substitute for specific provisions. Accordingly, as individual assets can be identified as impaired, specific provisions are to be established. Licensees should provide specifically for credits where losses are certain or likely. The percentages to be provided will depend on the particular circumstances.

Licensees should maintain general provisions based on historical loss experience and their assessment of future economic trends in the markets in which they operate.[1] As general and specific allowances are related, it is necessary to review and assess regularly the adequacy of specific and general allowances in light of the developments within the portfolio, and to be able to demonstrate that the level of both general and specific allowances is adequate.

Whilst the level of provisions is normally a matter for a licensee to determine in consultation with its external auditors, the Central Bank may exercise its discretion to intervene where in its opinion the licensee is being insufficiently prudent in its approach to its own provisioning policies or is seriously out of line with industry best practice provisioning policies.

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[1] The following is an example of a common provisioning benchmark system:-

(a) **Satisfactory – 0**
(b) **Special mention – 0%**
(c) **Substandard – 15-25%**
(d) **Doubtful – 50-75%**
(e) **Loss – 100%**

(a) Measurement Guidance

Loans that are not specifically identified as impaired should be grouped into pools of loans with common risk characteristics. To capture the extent of impairment fully, the general allowance must reflect exposures across all portfolios/categories that give rise to credit risk including, but not limited to, the unimpaired portion of the loan portfolio, undrawn commitments, letters of credit, guarantees and bankers acceptances, credit derivatives and loan substitutes.

(b) Components of Collective Loan Impairment

The assessment of impairment for pools of loans should be based on all available and relevant information. Licensees are likely to identify multiple components of collective loan impairment.

Components of collective loan impairment may relate to:

- Historical loss experience;
- Current environmental conditions;
- Attributes specific to a defined group of borrowers; and,
- Other characteristics directly affecting the collectability of a pool or portfolio of loans, and that are unique to a defined group of borrowers within a pool or portfolio.

Each identified component should be assessed individually and should be supported by data developed by the licensee demonstrating how the data supports their estimates. Although the appropriate level of specific and general allowances will normally lie within a range of estimates, The Central Bank of The Bahamas believes the level chosen should be conservative, reflecting such factors as the imprecise nature of the estimates.

(c) Changes to the Allowance for Loan Loss Provisions

The levels of allowances are expected to fluctuate in accordance with the nature and composition of the licensee's portfolio, shifts in the economic cycle and the effectiveness of the licensee's own credit risk policies and procedures. Management, with close oversight of the board of directors, must closely monitor changing conditions and resulting impairments and reflect such changes through increases or decreases in general and specific allowances as appropriate.

Amounts will flow from general to specific allowances. In normal circumstances, transfers occur as specific allowances are established to recognize impairment on an individual loan basis. A transfer from the general to the specific is appropriate only to the extent that the individual exposure can be identified with the categories/subgroups of risk for which the general provision has been established. The level of the residual provision must continue to be maintained at a reasonable level as supported by the licensee's methodology to establish the general provision.

The methodology for establishing general and specific allowances must be supported by appropriate observable data. This data must be assessed periodically as circumstances change or as new data that are more relevant and directly representative of loss become available.

Where the condition/composition of an underlying portfolio has materially changed, it will be appropriate for the licensee to review the components of impairment; this may, in turn, result in reassessment/recalibration of a portion of the general allowance. The Central Bank of The Bahamas must be notified prior to a material adjustment of this type. The licensee would be expected to demonstrate that:

- The circumstances under which a licensee has previously established its level of general and specific provisions have undergone material change;

- The residual general provision is sufficient to meet any minimum level that the Central Bank of The Bahamas may establish for either the licensee or the industry; and,

- The adjustment is justified by the licensee's methodology to establish the level of provisions.

The methodology for establishing provisions for loan losses should include a threshold, or minimum level of general provision that is reflective of the probability of loss in a licensee's performing risk portfolio. Given the industry's historical loss experience, the Central Bank of The Bahamas would not normally expect general provisions to represent less than ***1.00 percent*** of a licensee's on and off balance sheet credit risk portfolio. Any recommended variances to the recommended threshold must have Central Bank of The Bahamas approval prior to implementation.

The Central Bank of The Bahamas will require that licensees retain on file sufficient documentation of their data and management judgment and board of directors support for their estimates of impairment.

VIII. ADEQUATE CONTROLS OVER CREDIT RISK

1. Segregation of duties

Licensees should keep the functions of credit initiation, approval, review, administration, payments and work-out as separate as possible.

Licensees should establish and enforce internal controls and practices so that deviations from policies, procedures, limits and prudential guidelines are promptly reported to the appropriate level of management.

A timely, accurate and in-depth management information system should be supported by a framework whereby relevant reports on the credit portfolio are generated and made available to various levels of management on a timely basis.

2. Risk Mitigation

In controlling credit risk, licensees can utilize certain mitigation techniques. Normally, they include:

(a) Accepting collateral, standby letters of credit and guarantees;
(b) Entering into netting arrangements;
(c) Setting strict loan covenants; and
(d) Using credit derivatives and other hedging instruments.

While mitigation through collateral and guarantee is usually dealt with at the time of granting of credits, credit derivatives and netting are often employed after the credit is in place, or used to manage the overall portfolio risk.

When the mitigation arrangements are in place they should be controlled. Licensees should have written policies, procedures and controls for the use of credit mitigation techniques. They should also ensure adequate systems are in place to manage these activities.

Licensees should revalue their collateral and mitigation instruments on a regular basis. The method and frequency of revaluation depends on the nature of the mitigation and the products involved.

3. Managing Problem Credits

It is recommended that licensees establish a dedicated resource to handle the recovery and work-out of problem loans with appropriate policies in place. Licensees should have a well defined credit collection and arrears management process.

4. Independent Audits

Licensees should establish a system of regular independent credit and compliance audits. These audits should be performed by independent parties (i.e. Internal Audit and Compliance, which report to the Board or the Audit Committee).

Credit audits should be conducted to assess individual credits on a sampling basis and the overall quality of the credit portfolio. Such audits are useful for evaluating the performance of account officers and the effectiveness of the credit process.

Compliance audits should be performed to test compliance with established credit policies and procedures, in particular credit approval, internal credit risk grading, the appropriateness of pricing, adequacy of provisioning and adherence to limits, statutory restrictions and operating procedures. Such audits should also be used to identify credit control or process weaknesses, irregularities and exceptions and to test whether the reporting of credits to senior management is accurate as regards composition, credit quality and value of the portfolio.

The findings of these audits should be reported to the Board or the Audit Committee on a timely basis, and appropriate remedial actions should be taken to address any concerns and weakness raised.

IX. CENTRAL BANK OF THE BAHAMAS' ASSESSMENT PROCESS

The Central Bank of The Bahamas' assessment of a licensee's compliance with these Guidelines will be conducted in two ways:

(1) The Central Bank will assess licensees' credit risk management policies, specific and general provisioning policy and associated methodologies against the assessment criteria identified in this Guideline. Emphasis will be placed on the understanding and degree of oversight of the provisioning process applied by senior management and the board of directors of each licensee; and

(2) The Central Bank will assess the overall reasonableness of the level of specific and general allowances.

Licensees having a credit risk management methodology and/or level of provisioning (specific and general allowances) that is assessed as "Not Acceptable" will be required to submit an action plan and timeline for compliance with the Guideline. Until such time as the licensee achieves an "Acceptable" or better rating the licensee may be subject to enhanced monitoring of its risk management processes. Also, licensees that do not achieve an "Acceptable" rating for the level of provisioning may be expected to provide an additional level of capital or equivalent to minimize the adverse effects of not having a sufficient level of provisioning.

Appendix 1: Principles for the Management of Credit Risk

Basel Committee on Banking Supervision (September 2000)

(a) Establishing an Appropriate Credit Risk Environment

1. The board of directors should have responsibility for approving and periodically (at least annually) reviewing the credit risk strategy and significant credit risk policies of the licensee. The strategy should reflect the licensee's tolerance for risk and the level of profitability the licensee expects to achieve for incurring various credit risks.

2. Senior management should have responsibility for implementing the credit risk strategy approved by the board of directors and for developing policies and procedures for identifying, measuring, monitoring and controlling credit risk. Such policies and procedures should address credit risk in all of the licensee's activities and at both the individual credit and portfolio levels.

3. Licensees should identify and manage credit risk inherent in all products and activities. Licensees should ensure that the risks of products and activities new to them are subject to adequate risk management procedures and controls before being introduced or undertaken, and approved in advance by the board of directors or its appropriate committee.

(b) Enforcing Prudent Procedures for Approving Credits

4. Licensees must operate within sound, well-defined credit-granting criteria. These criteria should include a clear indication of the licensee's target market and a thorough understanding of the borrower or counterparty, as well as the purpose and structure of the credit, and its source of repayment.

5.

6. Licensees should establish overall credit limits at the level of individual borrowers and counterparties, and groups of connected counterparties that aggregate in a comparable and meaningful manner different types of exposures, both in the banking and trading book and on and off the balance sheet.

7. Licensees should have a clearly-established process in place for approving new credits as well as the amendments, renewal and re-financing of existing credits.

8. All extensions of credit must be made on an arm's-length basis. In particular, credit to related companies and individuals must be authorised on an exception basis, monitored with particular care and other appropriate steps taken to control or mitigate the risks of non-arm's length lending.

(c) Maintaining Effective Systems

9. Licensees should have in place a system for the ongoing administration of their various credit risk-bearing portfolios.

10. Licensees must have in place a system for monitoring the condition of individual credits, including determining the adequacy of provisions and reserves.

11. Licensees are encouraged to develop and utilize an internal risk rating system in managing credit risk. The rating system should be consistent with the nature, size and complexity of the licensee's activities.

12. Licensees must have information systems and analytical techniques that enable management to measure the credit risk inherent in all on- and off-balance sheet activities. The management information system should provide adequate information on the composition of the credit portfolio, including identification of and concentrations of risk.

13. Licensees must have in place a system for monitoring the overall composition and quality of the credit portfolio.

14. Licensees should take into consideration potential future changes in economic conditions when assessing individual credits and their credit portfolios, and should assess their credit risk exposures under stressful conditions.

(d) Ensuring Adequate Controls Over Credit Risk

15. Licensees must establish a system of independent, ongoing assessment of the institution's credit risk management process and the results of such reviews should be communicated directly to the board of directors and senior management.

16. Licensees must ensure that the credit-granting function is being properly managed and that credit exposures are within levels consistent with prudential standards and internal limits. Licensees should establish and enforce internal controls and other practices to ensure that exceptions to policies, procedures and limits are reported in a timely manner to the appropriate level of management for action.

17. Licensees must have system in place for early remedial action on deteriorating credits, managing problem credits and similar workout situations.

(e) The Role of Supervisors

18. Supervisors should require that banks have an effective system in place to identify, measure, monitor and control credit risk as part of an overall approach to risk management. Supervisors should conduct an independent evaluation of a bank's strategies, policies, procedures and practices related to the granting of credit and the on-going management of the portfolio. Supervisors should consider setting prudential limits to restrict bank exposures to single borrowers or groups of connected counterparties

Appendix 2 – Asset Classification Ratings System

- **Special Mention**, where a credit which is has potential weakness that deserve management's close attention. If left uncorrected, these potential weaknesses may, at some future date, result in the deterioration of the repayment prospects for the credit or the institution's credit positions. Special mention credits are not considered as part of the classified extensions of credit category and do not expose the licensee to sufficient risk to warrant classification;

- **Substandard,** where well identified and defined weakness are evident which could jeopardize repayment, particularly of interest. The bank will sustain some loss if the deficiencies are not corrected. The credit is inadequately protected by the current sound worth and paying capacity of the obligor or of the collateral pledged or guarantee(s) given, if any.

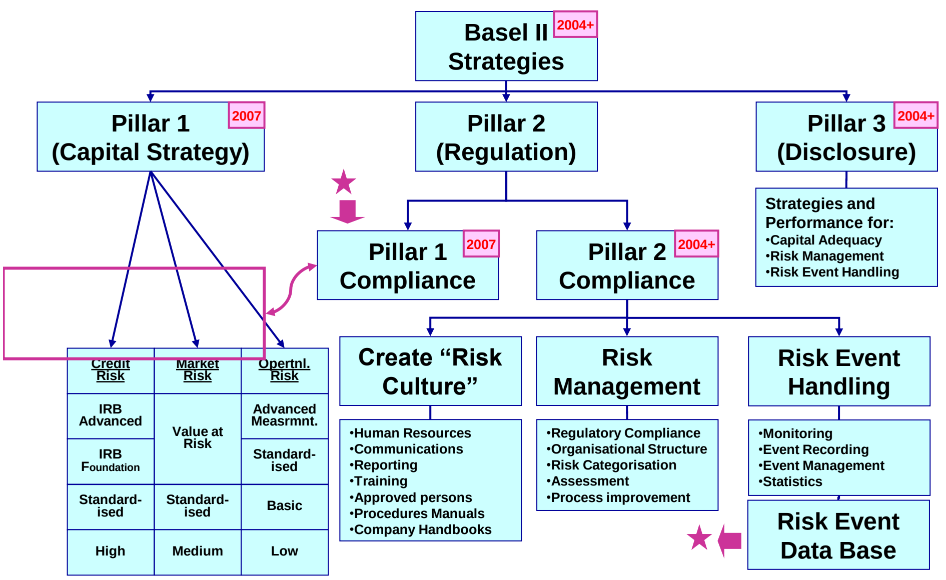
- **Doubtful**, where the situation has deteriorated to such a degree that collection of the facility amount in full is improbable and the licensee expects to sustain a loss; and

- **Loss**, where facilities are considered uncollectible and of such little value that their continuance as bankable assets is not warranted. This classification does not mean that the credit has absolutely no recovery or salvage value, but rather that it is not practical or desirable to defer writing off this basically worthless asset even though partial recovery may be effected in the future

Basel II: New Challenges for the Financial Services Sector: Operational Risk in Practice

PRESENTED BY:
KEITH CHECKLEY FCIB

Basel II in Summary



Ref: BIS 7.04

The Second Pillar – Supervisory Review Process

Importance of Supervisory Review:

- The supervisory review process of the Framework is intended not only to ensure that banks have adequate capital to support all the risk in their business, but also to encourage banks to develop and use better risk management techniques in monitoring and managing their risks.

Importance of Supervisory Review

- The supervisory review process recognises the responsibility of bank management in developing an internal capital assessment process and setting capital targets that are commensurate with the bank's risk profile and control environment.
- In the Framework, bank management continues to bear responsibility for ensuring that the bank has adequate capital to support its risks beyond the core minimum requirements.

Importance of Supervisory Review

- Supervisors are expected to evaluate how well banks are assessing their capital needs relative to their risks and to intervene, where appropriate.
- This interaction is intended to foster an active dialogue between banks and supervisors, such that when deficiencies are identified, prompt and decisive action can be taken to reduce risk or restore capital.
- Accordingly supervisors may wish to adopt an approach to focus more intensely on those banks with risk profiles or operational experience that warrants such attention.

Importance of Supervisory Review

- Increased capital should not be viewed as the only option for addressing increased risks confronting the bank.
- Other means for addressing risk, such as strengthening risk management, applying internal limits, strengthening the level of provisions and reserves and improving internal controls, must also be considered.
- Furthermore, capital should not be regarded as a substitute for addressing fundamentally inadequate control or risk management processes.

Importance of Supervisory Review

- Particular focus can be directed towards risks that are not fully captured by the Pillar 1 process (e.g. credit concentration risk); those factors not taken into account by the Pillar 1 process (e.g. interest rate risk in the banking book, business and strategic risk); and factors external to the bank (e.g. business cycle effects).
- The assessment of compliance with the minimum standards and disclosure requirements of the more advanced methods in Pillar 1, in particular the IRB framework for credit risk and the Advanced Measurement Approaches for operational risk.

Four Key Principles of Supervisory Review

Principle 1: Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.

Principle 2: Supervisors should review and evaluate banks' internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with regulatory capital ratios. Supervisors should take appropriate supervisory action, if they are not satisfied with the result of this process.

Four Key Principles of Supervisory Review

Principle 3: Supervisors should expect banks to operate above the minimum capital ratios and should have the ability to require banks to hold capital in excess of the minimum.

Principle 4: Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored.

The Third Pillar – Market Discipline General Considerations

Disclosure requirements:

- The Committee believes that the rationale for Pillar 3 is sufficiently strong to warrant the introduction of disclosure requirements for banks using the Framework.
- Supervisors have an array of measures that they can use to require banks to make such disclosures. Some of these disclosures will be qualifying criteria for the use of particular methodologies or the recognition of particular instruments and transactions.

The Third Pillar – Market Discipline General Considerations

Guiding principles:

- The purpose of Pillar 3 – market discipline is to complement the minimum capital requirements (Pillar 1) and the supervisory review process (Pillar 2).
- The Committee aims to encourage market discipline by developing a set of disclosure requirements which will allow market participants to assess key pieces of information on the scope of application, capital, risk exposures, risk assessment processes, and hence the capital adequacy of the institution.

The Third Pillar – Market Discipline General Considerations

- The Committee believes that such disclosures have particular relevance under the Framework, where reliance on internal methodologies gives banks more discretion in assessing capital requirements.
- In principle, banks disclosures should be consistent with how senior management and the board of directors assess and manage the risks of the bank.

The Third Pillar – Market Discipline General Considerations

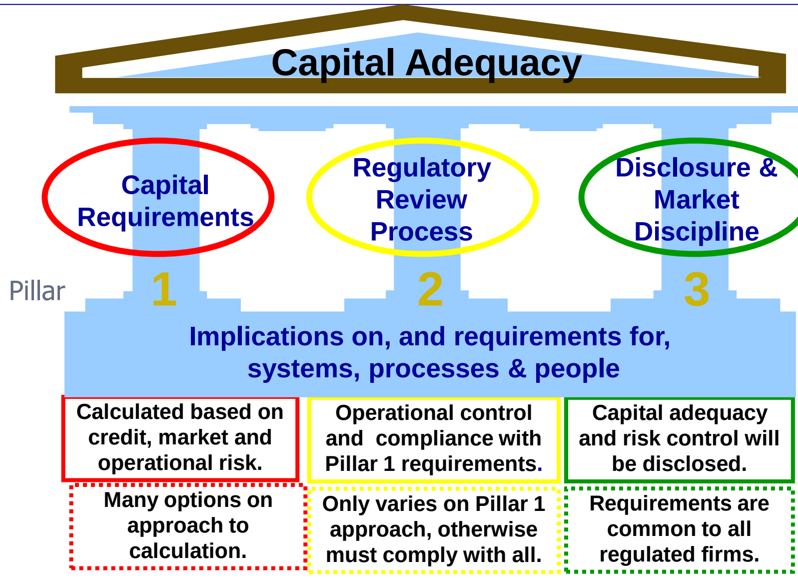
- Under Pillar 1, banks use specified approaches/ methodologies for measuring the various risks they faced and the resulting capital requirements.
- The Committee believes that providing disclosures that are based on this common framework is an effective means of informing the market about a bank's exposure to those risks and provides a consistent and understandable disclosure framework that enhances comparability.

Disclosure Requirements

General Disclosure Principle:

- Banks should have a formal disclosure policy approved by the board of directors that addresses the bank's approach for determining what disclosures it will make and the internal controls over the disclosure process.
- In addition, banks should implement a process for assessing the appropriateness of their disclosures, including validation and frequency of them.

Recap-BASEL II Overview



Operational Risk Overview

- Definition & analysis of operational risk
- Types of operational risk events
- An operational risk management framework
- Case Studies

Definition-Basel II

- Operational risk:

  "the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events"
- Includes legal risk
- Excludes strategic & reputational risk

Basel Committee - Key Considerations

- Operational risk is an independent risk category that must be backed by regulatory capital
- The management of operational risk involves the identification, assessment, monitoring and control/mitigation of risk
- The most important types of operational risks involve breakdowns in internal controls & corporate governance

Examples of Operational Risk

Institution	Offense
BCCI	Illegal activities
Barings	Rogue trader & incompetence
Daiwa Bank	Rogue trader
Morgan Grenfell	Unauthorised investments
Long Term Capital Management	Errors in derivatives model
Equitable Life	Non-respect of guaranteed annuities
Cantor Fitzgerald	Terrorist attack
Allied Irish Bank	Rogue trader
Merrill Lynch	Biased analyst recommendations

Causes of Operational Risk

- **Processes:**
  - execution error
  - product complexity
  - booking error
  - settlement error
  - exceeding limits
  - model/methodology error
  - mark-to-model error
  - etc
- **External events:**
  - natural disaster
  - terrorist attack
  - etc
- **People:**
  - incompetence
  - fraud
  - etc
- **Systems:**
  - programming error
  - system failure
  - telecommunications failure
  - etc

Operational Risk Loss Event Types

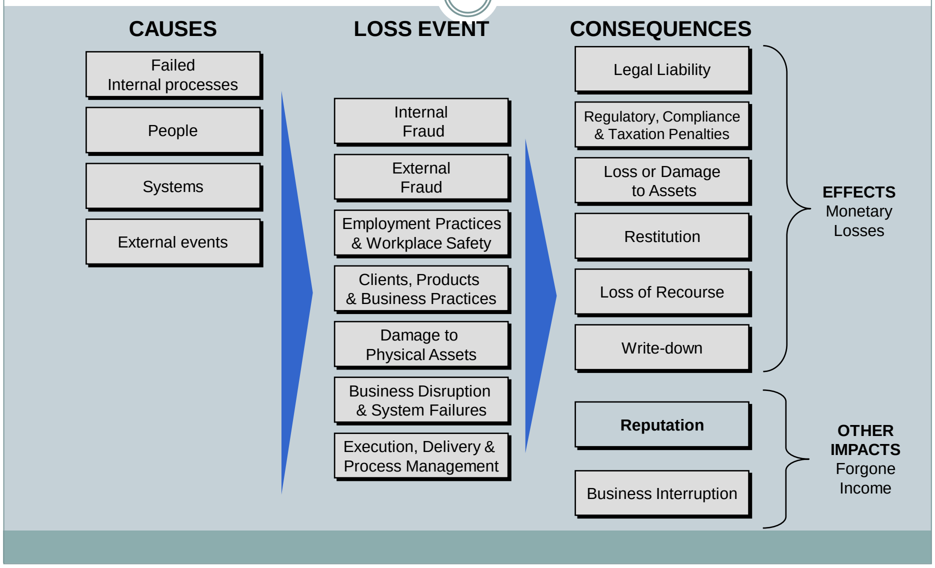
- Internal fraud
- External fraud
- Employment practices & workplace safety
- Clients, products and business practices
- Damage to physical assets

Operational Risk Loss Event Types

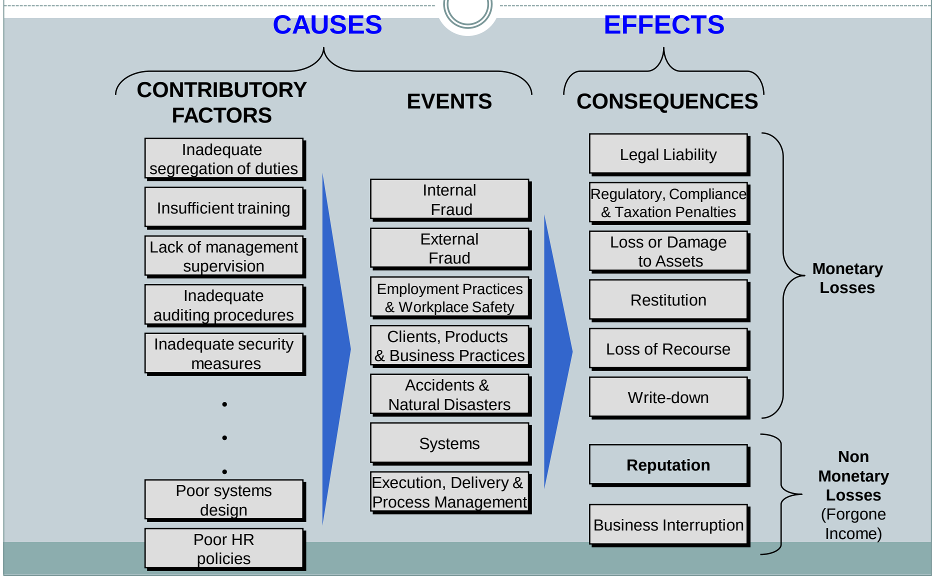
- Business disruption & systems failure
- Execution, delivery & process management

All have the potential to result in substantial losses

The Three Dimensions of OR



Cause & Effect



Operational Risk Management Framework

- "Sound Practices for the Management and Supervision of Operational Risk" (February 2003)
- Basel Committee develops risk principles around four themes

Theme 1: Developing an Appropriate RM Environment

- Principle 1:
  - Board responsibility
- Principle 2:
  - subject to effective, comprehensive & independent internal audit
- Principle 3:
  - senior management is responsible for implementing the OR management framework approved by the Board
  - consistent implementation throughout
  - all levels of staff should understand their responsibilities

Theme 2: RM Identification, Assessment, Monitoring and Mitigation/Control

- Principle 4:
  - need to identify & assess the OR inherent in all material products, activities, processes & systems
  - assessment before new products etc are introduced
- Principle 5:
  - a process for regular monitoring
  - regular reporting to senior management & the Board

Theme 2: RM Identification, Assessment, Monitoring and Mitigation/Control

- Principle 6:
  - policies, processes & procedures to control/mitigate material OR
  - these should be periodically reviewed
- Principle 7:
  - contingency & business continuity plans needed

Theme 3: Role of Supervisors

- Principle 8:

  - should require that all banks, regardless of size, have an effective OR framework
- Principle 9:

  - should conduct regular independent evaluation

  - should ensure appropriate mechanisms to enable them to remain appraised of developments at banks
- Principle 10:

  - banks should make sufficient public disclosure to allow market participants to assess their approach to OR management

Quantifying the Capital Charge

- Key Issues
- Measurement methodologies
- Qualifying criteria
- AMA primer
- Exercise

Key Issues

- A choice of methods:
  - Basic Indicator Approach
  - (alternative) Standardised Approach
  - Advanced Measurement Approaches
- Each is increasingly sophisticated & risk sensitive
- Choice is up to management BUT has to be approved by the supervisor

Basic Indicator Approach (BIA)

- Indicator is annual gross income – i.e. net interest income plus net non-interest income
- Bank must hold capital for operational risk equal to the average over the previous 3 years of a fixed % (alpha) of positive annual gross income
- Alpha is 15% - set by the Committee

Issues concerning the BIA

- The default position – no conditions, other than market entry, prescribed
- Not appropriate for internationally active banks & those with significant operational risk exposures
- It is not risk sensitive – gross income is an indicator of size, not risk
- If used in isolation, it is likely to produce a high capital charge – this is the only incentive for better risk management

Standardised Approach (STA)

- Banks' activities are divided into 8 business lines
- Gross income within each business line is the indicator
- Capital charge for each business line is:

  gross income @ factor (beta) assigned by the Committee
- Total capital charge is the 3 year average of the summation of the capital charges across each of the business lines in each year

Beta Values Set by the Committee

BUSINESS LINES	BETA FACTORS
Corporate finance	18%
Trading & sales	18%
Retail banking	12%
Commercial banking	15%
Payment & settlement	18%
Agency services	15%
Asset management	12%
Retail brokerage	12%

Alternative Standardised Approach (ASA)

- Identical to the standardised approach except for 2 business lines - retail banking and commercial banking
- The total drawn amounts of loans and advances replaces gross income as the indicator for these business lines
- A fixed factor of 0.035 ("m") is applied to loans and advances, the beta factor is also applied unchanged
- The total capital charge is the three year average of the business lines

Differences between BIA & STA

- STA is more sophisticated and is likely to lead to a lower capital charge
- STA is appropriate for a well-run & well-managed institution
- Regulators will expect the institution to:

  - identify its OR exposures & assess its potential impact

  - monitor & report its OR (ongoing)

  - create proper incentives by factoring OR into its overall business strategy

Advanced Measurement Approaches (AMA)

- No set approach
- Regulatory capital requirement = the risk measure generated by the bank's internal OR measurement system using quantitative & qualitative criteria
- There are stringent criteria attached, including the need to have a loss-event database going back at least 3 years
- AMA is subject to supervisory approval
- Appropriate for internationally active banks

Benefits of AMA

- Industry best practice
- The prospect of lower capital charges
- The use of risk mitigation – insurance. This is limited to 20% of the total OR capital charge and subject to qualifying criteria e.g.

  - insurance provider has a minimum claims paying ability rating of A

  - policy must have an initial term of not less than one year

  - insurance is provided by a third party entity

Qualifying Criteria – STA (1)

- Minimum requirements:

  - Board & senior management are actively involved in oversight of the OR framework

  - OR management system is conceptually sound & is implemented with integrity

  - sufficient resources in the use of the approach in the major business lines (as well as in the control & audit areas)
- Must develop specific policies and have documented criteria for mapping gross income into the standardised framework

Qualifying Criteria – STA (2)

- Internationally active banks must have adequate OR management systems
- They are subject to additional criteria:

  - an OR function with clear responsibilities

  - systematically track OR data by business line

  - OR assessment system closely integrated into RM processes & its output must be an integral part of process of monitoring & controlling bank's operational risk profile

  - techniques for creating incentives to improve throughout the firm

Qualifying Criteria – STA (3)

- regular reporting of OR exposures

- OR management system must be well documented

- validation & independent review (to include business units & OR management function)

- regular review by external auditors and/or supervisors

Qualifying Criteria – AMA (1)

- As for STA (minimum standards & qualitative standards) PLUS.....
- "a bank's internal measurement system must reasonably estimate unexpected losses based on the combined use of internal and relevant external loss data, scenario analysis and bank-specific business environment and internal control factors"

Qualifying Criteria – AMA (2)

- AMA soundness standard. Whatever approach is used a bank must be able to demonstrate:

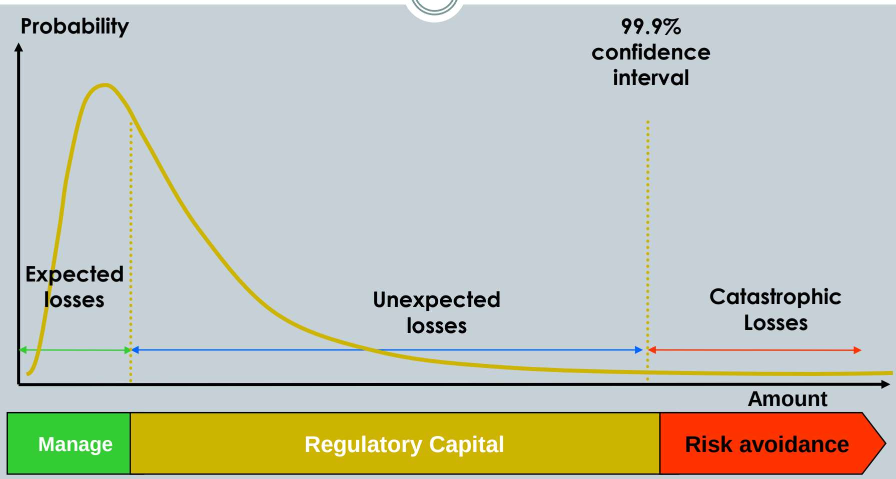
  - it captures potentially severe "tail" loss events

  - it meets a soundness standard comparable to IRB approach for credit risk (a one year holding period and a 99.9% confidence level)

Qualifying Criteria – AMA (3)

- Regulatory capital is the sum of expected loss (EL) and unexpected loss (UL) UNLESS the bank can demonstrate that it is adequately capturing EL in its internal business practices
- If the bank can demonstrate to the satisfaction of the supervisor that it has measured and accounted for its EL exposure, it can base regulatory capital requirement on UL alone

Example: Operational risk



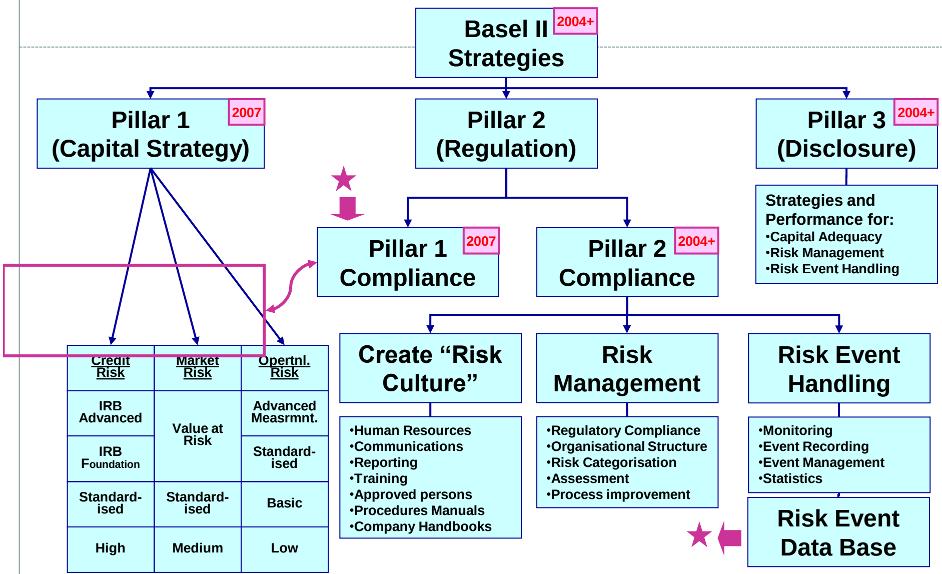
Issues Concerning AMA

- Will require significant investment
- Incentive = lower capital charges
- Must be co-ordinated project – rooted in loss experience
- Data for high impact low probability events is scarce
- Will test the supervisor

Comments On Pillar 1

- Use the method most appropriate to your organisation
- No agreed AMA approach yet
- Don't view Pillar 1 in isolation – all 3 pillars are equally important and complementary

Basel II - Summary



Ref: BIS 7.04

Some suggestions to Financial Institutions

- Know your local regulatory requirements
- All three pillars must be considered together
- Cost/benefit is the key
- Consider simple solutions first
- Operational risk is more than compliance, it is a business requirement
- Culture will be a key area
- Start now !

SUPERVISORY AND REGULATORY GUIDELINES: PU-0412
Operational Risk
25th November , 2013

GUIDELINES FOR THE MANAGEMENT OF OPERATIONAL RISK

1. INTRODUCTION

1.1. The Central Bank of The Bahamas ("the Central Bank") is responsible for the licensing, regulation and supervision of banks and trust companies operating in and from within The Bahamas pursuant to the Central Bank of The Bahamas Act, 2000 ("the CBA") and the Banks and Trust Companies Regulation Act, 2000 ("the BTCRA"). Additionally, The Central Bank has the duty, in collaboration with financial institutions, to promote and maintain high standards of conduct and management in the provision of banking and trust services.

1.2. All licensees are expected to adhere to the Central Bank's licensing and prudential requirements and ongoing supervisory programmes and required regulatory reporting, and are subject to periodic on-site examinations. Licensees are also expected to conduct their affairs in conformity with all other Bahamian legal requirements.

2. PURPOSE

2.1. These Guidelines provide guidance to licensees in relation to operational risk management. Licensees are expected to develop and implement an operational risk management framework in line with these Guidelines, taking into account the nature, size, complexity and risk profile of its activities. Licensees are expected to continuously improve their approaches to operational risk management as operational risk continues to evolve.

2.2. These Guidelines are based on the *Principles for the Sound Management of Operational Risk* issued by the Basel Committee on Banking Supervision in 2011 and should be read in conjunction with the following guidelines:

a) *Guidelines for the Corporate Governance of Banks and Trust Companies Licensed to do Business within and from within The Bahamas;*

b) *Business Continuity Guidelines; and*

c) *Guidelines on Minimum Standards for the Outsourcing of Material Functions.*

3. APPLICABILITY

3.1. These Guidelines apply to all licensees, with the exception of nominee trust companies or restricted trust companies whose operations are limited to conducting business on behalf of one client or clients who are members of the same family. The Central Bank recognises that the degree of sophistication of a licensee's operational risk management framework will depend on the nature, size, complexity and risk profile of its activities, as well as the level of operational risk assumed. The Central Bank equally accepts that in the supervision of local subsidiaries of international groups and branches of foreign banks, account should also be taken of the group's operational risk management framework.

4. DEFINITION

4.1. *Operational risk* refers to the risk of loss resulting from inadequate or failed internal processes, people, and systems or from external events. This definition includes legal risk, but excludes other risks like strategic and reputational risk.

5. OVERVIEW

5.1. Operational risk is potentially inherent in all of a licensee's products, activities, processes and systems and the effective management of operational risk has always been a fundamental element of a bank's risk management program.

5.2. Sound internal governance forms the foundation of an effective operational risk management framework. Operational risk management can vary from one licensee to the next. However, common industry practice for sound operational risk governance often relies on three lines of defence: business line, independent corporate operational risk; and an independent review. The nature, size, complexity and risk profile of a licensee's activities will determine how these three lines of defence are implemented.

5.3. A licensee's governance function should be fully integrated into its overall risk management governance structure. A strong risk culture and good communication among the three lines of defence are important characteristics of good operational risk governance.

Business Line Management

5.3.1. Business line management, as the first line of defence, is responsible for identifying and managing the risks inherent in the products, activities, processes and systems for which it is accountable.

Independent Corporate Operational Risk Function

5.3.2. The degree of independence of the second line of defence, the corporate operational risk function, will differ among licensees. For small licensees, independence may be achieved through separation of duties and independent review of processes and functions. In larger licensees, the corporate operational risk function will have a reporting structure independent of the risk generating business lines and will be responsible for the design, maintenance and ongoing development of the operational risk framework within the licensee. This function may include the operational risk measurement and reporting processes, risk committees and responsibility for board reporting. A key function of the corporate operational risk function is to challenge the business lines' inputs to, and outputs from, the licensee's risk management, risk measurement and reporting systems. The function should have a sufficient number of staff skilled in the management of operational risk to effectively address its many responsibilities. The managers of the corporate operational risk function should be of sufficient stature within the licensee to perform their duties effectively.

Independent Review (Internal Audit)

5.3.3. The third line of defence is an independent review and challenge of a licensee's operational risk management controls, processes and systems. Individuals performing the reviews must be competent and appropriately trained and not involved in the development, implementation and operation of the framework.

5.3.4. Internal audit coverage should be adequate to independently verify that the framework has been implemented as intended and is functioning effectively. Where audit activities are outsourced, senior management should consider the effectiveness of the underlying arrangements and the suitability of relying on an outsourced audit function as a third line of defence.

5.3.5. Internal audit coverage should include opining on the overall appropriateness and adequacy of the framework and the associated governance processes across the licensee. Internal audit should not simply be testing for compliance with board approved policies and procedures, but should also be evaluating whether the framework meets the licensee's needs and supervisory expectations.

5.4. Given that operational risk management is evolving and licensees' business environments are constantly changing, senior management should ensure that the framework's policies, processes and systems remain sufficiently robust.

6. FUNDAMENTAL PRINCIPLES OF OPERATIONAL RISK MANAGEMENT

6.1. The operational risk management strategy chosen by an individual licensee will depend on a range of factors, including its size and sophistication and the nature and complexity of its activities. However, despite these differences, clear strategies and oversight by the board of directors (the Board) and senior management, a strong operational risk culture and internal control culture (including, among other things, clear lines of responsibility and segregation of duties), effective internal reporting, and contingency planning are all crucial elements of an effective operational risk management framework for institutions of any size and scope.

6.2. The Board should take the lead in establishing a strong risk management culture. The Board and senior management should establish a corporate culture, throughout the whole organisation, that is guided by strong risk management and that supports and provides appropriate standards and incentives for professional and responsible behaviour.

6.3. The Board should establish a code of conduct or ethics policy that sets out clear expectations for integrity and ethical values and ensure that the licensee's employees understand their roles and responsibilities.

6.4. Training on operational risk should be available to all levels throughout the organisation and should appropriately reflect employees' roles and responsibilities.

Components of an Effective Operational Risk Management Framework

6.5. Unlike credit and interest rate risks, operational risk is not undertaken with the expectation of a higher return. Because it occurs naturally in the course of corporate activity, and cannot be readily measured to the same extent as market or credit risks, it is often easily overlooked and poorly managed. To ensure effective operational risk management, the Central Bank requires that the senior management of each of its licensees, under the approval of the board of directors, develop and implement an operational risk management framework (the framework) that explicitly recognizes operational risk as a distinct risk to the institution and aims to efficiently manage it.

6.6. Licensees should develop, implement and maintain a framework that is fully integrated into its overall risk management processes. The framework for operational risk management chosen by an individual licensee will depend on a range of factors, including its nature, size, complexity and risk profile. The framework should be based on a firm-wide definition of operational risk. The scope of the operational risk definition should cover the full range of material operational risk facing the institution and the most significant causes of operational losses. From this definition, methods of how operational risk is to be identified, assessed, monitored and controlled should be devised

6.7. The Board and senior management should ensure that it understands the nature and complexity of the risks inherent in its products, services and activities/business. A vital means of understanding the nature and complexity of operational risk is to have the components of the framework fully integrated into the overall risk management processes across all levels of the organisation including those at the group and business levels, as well as into new business initiative's products, activities, processes and systems.

6.8. The framework of a licensee should:

a) be comprehensively and appropriately documented in the policies approved by the Board and should include definitions of operational risk and operational loss;

b) identify the organisation structure used to manage operational risk, setting out reporting lines and individuals responsibilities and accountabilities;

c) define the licensee's risk assessment tools and indicate how they are used;

d) define the institution's appetite and tolerance limits for operational risk in its activities and detail the approved risk mitigation strategies and instruments;

e) describe the licensee's approach to establishing and monitoring thresholds or limits for inherent and residual risk exposure;

f) establish risk reporting and Management Information Systems (MIS);

g) define operational risk terms to ensure consistency of risk identification, exposure rating and risk management objectives;

h) provide for appropriate independent review and assessment of operational risk; and

i) require that policies be reviewed whenever a material change in the operational risk profile of the bank occurs and revised as appropriate.

7. GOVERNANCE

Role of the Board of Directors

7.1. The board of directors, in particular, should be aware of the major aspects of the institution's operational risks as they are ultimately responsible and accountable for managing and controlling operational risks. This section should be read in conjunction with the *Guidelines for the Corporate Governance of Banks and Trust Companies Licensed to do Business within and from within the Bahamas*.

7.2. The Board should:

a) establish a management culture, and supporting processes, to understand the nature and scope of the operational risk inherent in the bank's strategies and activities. Within the institutional structure, the board of directors along with senior management should oversee all risk management functions.

b) provide senior management with clear guidance and direction regarding the principles underlying the framework and approve the corresponding policies developed by senior management;

c) approve the basic structure of the framework and must periodically review the institution's framework to guarantee that operational risks are being effectively managed;

d) ensure that the framework is subject to effective independent review by internal audit or other appropriately trained parties; and

e) ensure that as best practice evolves management is availing themselves of these advances.

7.3. The board of directors has responsibility for establishing clear lines of management responsibility and accountability for implementing a strong control environment. The control environment should provide appropriate independence/separation of duties between operational risk management functions, business lines and support functions.

7.4. The Board should approve, and review on a regular basis, the risk appetite and tolerance statement that articulates the nature, types and levels of operational risk that the licensee is willing to assume. When approving and reviewing the risk appetite and tolerance statement, the Board should consider all relevant risks, the licensee's risk aversion, its current financial condition and its strategic direction. The Board should also approve the appropriate thresholds/limits for specific operational risks and an overall opearational risk appetite and tolerance. This review should consider changes in the external environment, material increases in business or activity volumes, the quality of the control environment, the effectiveness of risk management or mitigation strategies, loss experience and the frequency, volume, or nature of limit breaches. The Board should monitor management adherence to the risk appetite and tolerance statement and provide timely detection and remediation of breaches.

Role of Senior Management

7.5. Following the board of directors' approval of the framework, senior management has responsibility for developing a clear and effective governance structure with well-defined, transparent and consistent lines of responsibility. The governance structure should be commensurate with the nature, size, complexity and risk profile of its activities. When designing the operational risk governance structure, licensees should take the following into consideration:

7.5.1. Sound industry practice for larger more complex institutions with a central group function and separate business units is to utilise a board-created enterprise level risk committee for overseeing all risks, to which a management level operational risk committee reports. Depending on the nature, size and complexity of the licensee, the enterprise level risk committee may receive input from operational risk committees by country, business or functional area. Smaller and less complex institutions may utilise a flatter organisational structure that oversees operational risk directly within the Board's risk management committee.

7.5.2. It is sound industry practice for operational risk committees (or the risk committee in smaller institutions) to include a combination of members with expertise in business activities, finance and risk management.

7.5.3. Risk committee meetings should be held at appropriate frequencies with adequate time and resources to permit productive discussion and decision-making. Records of committee operations should be adequate to permit review and evaluation of committee effectiveness.

7.6. Senior management is also responsible for implementing and maintaining the framework throughout the licensee's business units, its policies, processes and systems for managing operational risk and ensuring they are consistent with the licensee's risk appetite and tolerance. Senior management is also responsible for establishing and maintaining robust challenge mechanisms and effective issue-resolution processes, which include systems to report, track and escalate issues to ensure resolution.

7.7. Senior Management should ensure that, on an ongoing basis, the framework is being implemented consistently throughout the whole institution and that all levels of staff understand their responsibilities with respect to operational risk management. Senior management should clearly assign authority, responsibility and reporting relationships to encourage and maintain accountability and to ensure that the necessary resources are available to manage operational risk in line with the licensee's risk appetite and tolerance statement. Additionally, senior management should ensure that the management oversight process is appropriate for the risks inherent in a business unit's activities.

7.8. Senior management should also ensure that staff responsible for managing operational risk coordinate and communicate effectively with other staff involved in the business. The licensee's staff should have the necessary experience, technical capabilities and access to resources. Staff responsible for monitoring and enforcing compliance with the licensee's risk policy should have authority independent from the units they oversee.

8. RISK MANAGEMENT ENVIRONMENT

Identification and Assessment

8.1. An important feature of any operational risk management framework is its ability to identify and assess the degree of operational risk in an institution's products, activities, processes and systems. Effective risk identification examines internal events such as the institution's structure, the nature of its activities, the quality of its human resources, organizational changes, and employee turnover as well as external events, such as changes in the industry and technological advances in an effort to identify which business components are vulnerable to material operational risks. Sound risk assessment allows institutions to better understand their risk profile and more effectively target risk management resources.

8.2. Examples of some tools that may be used for identifying and assessing operational risk include, but are not limited to:-

a) Internal/External Audit Findings: While audit findings primarily focus on control weaknesses and vulnerabilities, they can also provide insight into inherent risk due to internal or external factors;

b) Internal Loss Data Collection and Analysis: Internal operational loss data provides meaningful information for assessing a bank's exposure to operational risk and the effectiveness of internal controls. Analysis of loss events can provide insight into the causes of large losses and information on whether control failures are isolated or systematic. Banks may also find it useful to capture and monitor operational risk contributions to credit and market risk related losses in order to obtain a more complete view of their operational risk exposure;

c) External Data Collection and Analysis: External data elements consist of gross operational loss amounts, dates, recoveries, and relevant causal information for operational loss events occurring at organisations other than the bank/licensee. External loss data can be compared with internal loss data, or used to explore possible weaknesses in the control environment or consider previously unidentified risk exposures;

d) Risk Assessments: In a risk assessment, often referred to as a Risk Self Assessment (RSA), a bank assesses the processes underlying its operations against a library of potential threats and vulnerabilities and considers their potential impact. A similar approach, Risk Control Self Assessments (RCSA), typically evaluates inherent risk (the risk before controls are considered), the effectiveness of the control environment, and residual risk (the risk exposure after controls are considered). Scorecards build on RCSAs by weighting residual risks to provide a means of translating the RCSA output into metrics that give a relative ranking of the control environment;

e) Business Process Mapping: Business process mappings identify the key steps in business processes, activities and organisational functions. They also identify the key risk points in the overall business process. Process maps can reveal individual risks, risk interdependencies, and areas of control or risk management weakness. They also can help prioritise subsequent management action;

f) Risk and Performance Indicators: Risk and performance indicators are risk metrics and/or statistics that provide insight into a bank's risk exposure. Risk indicators, often referred to as Key Risk Indicators (KRIs), are used to monitor the main drivers of exposure associated with key risks. Performance indicators, often referred to as Key Performance Indicators (KPIs), provide insight into the status of operational processes, which may in turn provide insight into operational weaknesses, failures, and potential loss. Risk and performance indicators are often paired with escalation triggers to warn when risk levels approach or exceed thresholds or limits and prompt mitigation plans;

g) Scenario Analysis: Scenario analysis is a process of obtaining expert opinion of business line and risk managers to identify potential operational risk events and assess their potential outcome. Scenario analysis is an effective tool to consider potential sources of significant operational risk and the need for additional risk management controls or mitigation solutions. Given the subjectivity of the scenario process, a robust governance framework is essential to ensure the integrity and consistency of the process;

h) Measurement: Larger banks may find it useful to quantify their exposure to operational risk by using the output of the risk assessment tools as inputs into a model that estimates operational risk exposure. The results of the model can be used in an economic capital process and can be allocated to business lines to link risk and return; and

i) Comparative Analysis: Comparative analysis consists of comparing the results of the various assessment tools to provide a more comprehensive view of the licensee's operational risk profile. For example, comparison of the frequency and severity of internal data with RCSAs can help the bank determine whether self assessment processes are functioning effectively. Scenario data can be compared to internal and external data to gain a better understanding of the severity of the bank's exposure to potential risk events.

8.3. As the risk profile and appetite of an institution may change over time, the assessment of operational risks should be conducted periodically along with the review of its tolerance levels. The frequency of periodic assessments and reviews is at the discretion of the licensee's Board and senior management. Nonetheless, periodic efforts are necessary as they ensure that material operational risks are captured through the continual update of a licensee's operational risk control strategies, policies, processes, procedures and systems.

8.4. A licensee's operational risk exposure may increase when it engages in new activities or develops new products, enters new or unfamiliar markets, implements new business processes or technology system. The level of risk may also increase when new products activities, processes or systems become a material source of revenue or is a business critical operation. A licensee should ensure that its risk management control infrastructure is appropriate at inception and that it keeps pace with the rate of growth of, or changes to, products activities, processes and systems. Licensees should have policies and procedures that address the process for review and approval of new products, activities, processes and systems, which consider the following:

a) inherent risks in the new product, service or activity;

b) changes to the operational risk profile and appetite and tolerance, including the risk of existing products or activities;

c) the necessary controls, risk management processes and risk mitigation strategies;

d) the residual risk;

e) changes to relevant risk thresholds or limits; and

f) new procedures and metrics to measure, monitor and manage the risk of the new product of activity.

8.5. The approval process should also include ensuring that the appropriate investment has been made for human resources and technology infrastructure before new products are introduced. The implementation of new products, activities, processes and systems should be monitored in order to identify any material issues.

Monitoring and Reporting

8.6. Licensees should have the appropriate monitoring and reporting mechanisms in place at the Board, senior management and business line levels that support the proactive management of operational risk, but should also be manageable in terms of scope and volume. Licensees are encouraged to continuously improve the quality of operational risk reporting. Reports should be comprehensive, accurate and consistent and actionable across business lines and products. Reports should also be timely and licensees should be able to produce reports in both normal and stressed market conditions. The nature of the risks involved and the frequency of changes in the operating environment should determine the reporting frequency. Reports generated by (and/or for) supervisory authorities should also be reported internally to the Board and senior management, where appropriate.

8.7. Risk monitoring should cover the institution's entire range of operations and all types of material risks inherent in its operations. Particularly, in an effective operational risk management framework, risk indicators and material exposures to losses should be monitored regularly. The results of monitoring activities should be included in the regular reports to the Board and senior management. These reports should highlight items of concern and the areas of the institution that will be impacted and, among other uses, be used to assess the effectiveness of the licensee's risk management and may reveal areas that need improvement.

8.8. Operational risk reports may contain internal financial, operational and compliance indicators, as well as external market or environmental information about events and conditions that are relevant to decision making. Operational risk reports should include:

a) breaches of the institution's risk appetite and tolerance statement, as well as thresholds and limits;

b) details of recent significant internal operational risk events and losses; and

c) relevant external events and any potential impact on the institution.

8.9. Data capture and risk reporting processes should be analysed periodically with a view to continuously enhancing risk management performance as well as advancing risk management policies, procedures and practices.

Risk Control and Mitigation

8.10. Risk control and mitigation is at the heart of operational risk management. Once risks have been identified, assessed and measured, and the institution has decided to bear the risks, these risks must be controlled by having a strong control environment in places that utilises policies, processes and systems, appropriate internal controls and appropriate risk mitigation and/or transfer activities.

8.11. On an ongoing basis, licensees should provide for expected losses and maintain adequate financial resources against unexpected losses that may be encountered in the normal course of their business activities.

A. Internal Controls

8.12. Internal controls should be designed to provide reasonable assurance that a licensee will have efficient and effective operations, safeguard its assets, produce reliable financial reports and comply with applicable laws and regulations. Control processes and procedures should include a system for ensuring compliance with policies. More generally, institutions should ensure that in an effort to control and mitigate operational risks, there are appropriate internal controls. A sound internal control programme consists of five components that are integral to the risk management process: control environment, risk assessment, control activities, information and communication and monitoring activities.

8.13. Control processes and procedures should include a system for ensuring compliance with policies. Examples of principle elements of a policy compliance assessment include:

a) top-level reviews of progress towards stated objectives;

b) verifying compliance with management controls;

c) review of the treatment and resolution of instances of non-compliance;

d) evaluation of the required approvals and authorisations to ensure accountability to an appropriate level of management; and

e) tracking reports for approved exceptions to thresholds or limits, management overrides and other deviations from policy.

8.14. An effective control environment also requires appropriate segregation of duties among employees to avoid conflicts of interest and as an independent quality control check. Assignments that establish conflicting duties for individuals or a team without dual controls or other countermeasures may enable concealment of losses, errors or other inappropriate actions. Therefore, areas of potential conflicts of interest should be identified, minimised and be subject to careful independent monitoring and review.

8.15. In addition to segregation of duties and dual control, licensees should ensure that other traditional internal controls are in place as appropriate to address operational risk. Examples of these controls include:

a) a system of documented approvals and authorizations to ensure accountability to an appropriate level of management;

b) close monitoring of adherence to assigned risk limits/thresholds or compliance with management controls;

c) safeguards restricting access to, and use of, bank records and assets to authorized personnel;

d) appropriate staffing level and training to maintain expertise;

e) ongoing processes to identify business lines or products where returns appear to be out of line with reasonable expectations;

f) regular verification and reconciliation of transactions and accounts; and

g) a vacation policy that provides for officers and employees being absent from their duties for a period of not less than two consecutive weeks.

B. Information Technology Systems

8.16. The effective use and sound implementation of technology may reduce an institution's susceptibility to some human errors, but will increase its dependency on the reliability of information technology systems. It is necessary to be aware that increasing automation of systems and reliance on information technology has the potential to transform minor manual processing errors to major systematic failures.

8.17. Complex or poorly designed IT systems and processes can give rise to operational losses, either because they are not optimally structured, or because they malfunction. Properly functioning systems reduce settlement-processing errors, fraud and information security failures. Hence, licensees should have an integrated approach to identifying, measuring, monitoring and managing technology risks. Sound technology risk management uses the same precepts as operational risk management and includes:

a) governance and oversight controls that ensure technology, including outsourcing arrangements, is aligned with and supportive of the licensee's business objectives;

b) policies and procedures that facilitate identification and assessment of risk;

c) establishment of a risk appetite and tolerance statement as well as performance expectations to assist in controlling and managing risk;

d) implementation of an effective control environment and the use of risk transfer strategies that mitigate risk; and

e) monitoring processes that test for compliance with policy thresholds or limits.

8.18. Management should ensure that the institution has a sound technology infrastructure that meets current and long-term business requirements by providing sufficient capacity for normal activity levels as well as peaks during periods of market stress, ensuring data and system integrity, security and availability and supporting in integrated and comprehensive risk management. Management should make appropriate capital investment or otherwise provide for a robust infrastructure at all times, particularly before mergers are consummated, high growth strategies are initiated or new products are introduced.

C. Outsourcing and Insurance

8.19. For the purposes of these Guidelines, outsourcing involves a licensee entering into an arrangement with another party, including an entity affiliated or related to the licensee, to perform a business activity which currently is, or could be, undertaken by the licensee itself. Outsourcing may, in certain circumstances, help manage costs, provide expertise, expand product offerings and improve services. However, if outsourcing arrangements are not managed adequately the degree of operational risk faced by an institution may increase. The Board and senior management are responsible for understanding the operational risks associated with outsourcing arrangements and ensuring that effective risk management policies and procedures are in place to manage the risk in outsourcing activities. Licensees' outsourcing policies and risk management activities should encompass:

a) procedures for determining whether and how activities can be outsourced;

b) processes for conducting due diligence in the selection of potential service providers;

c) sound structuring of the outsourcing arrangement, including ownership and confidentiality of data, as well as termination rights;

d) programmes for managing and monitoring the risks associated with the outsourcing arrangement, including the financial condition of the service provider;

e) establishment of an effective control environment at the licensee and the service provider;

f) development of viable contingency plans; and

g) execution of comprehensive service level agreements with a clear allocation of responsibilities between the outsourcing provider and the licensee.

8.20. Licensees are encouraged to review the Central Bank's Guidelines on *Minimum Standards for the Outsourcing of Material Functions (August* 2009). Before entering into, or significantly changing an outsourcing arrangement, an institution should analyse how the proposed outsourcing will affect its overall risk profile and business strategy and its ability to continue to meet the Central Bank's regulatory requirements. To minimize the risks that an outsourcee may pose on an institution, the quality of the outsourcee and the contents of the outsourcing contract must be closely analyzed. In particular, senior management must ensure the proper implementation and maintenance of an outsourcing arrangement so that it retains control of the performance quality of outsourced activities.

8.21. In cases where internal controls do not adequately address risk and exiting the risk is not a reasonable option, the institution may seek to transfer the risk to another party such as through insurance. The Board should determine the maximum loss exposure the institution is willing and has the financial capacity to assume and should perform an annual review of its risk and insurance management programme. Institutions using insurance to cover operational risks should conduct proper due diligence of the insurance carrier and review the insurance policy so as not to incur counterparty risk and, potentially, liquidity risk.

8.22. Risk transfer is an imperfect substitute for sound controls and risk management programmes. Hence, licensees should view risk transfer tools as complementary to, rather than a replacement for, thorough operational risk control. Having mechanisms in place to quickly identify, recognise and rectify distinct operational risk errors can greatly reduce exposures. Careful consideration also needs to be given to the extent to which risk mitigation tools such as insurance truly reduce risk, transfer the risk to another business sector or area or create a new risk. Regardless of the protection that insurance provides, licensees should ensure that the policies and procedures to control operational risks are maintained and that insurance does not decrease the incentive to effectively control/mitigate against operational risks.

Business Resiliency and Continuity

8.23. In accordance with the Central Bank's Business Continuity Guidelines (October 2008), institutions should have contingency and business continuity plans to ensure their ability to operate on an ongoing basis and limit losses in the event of severe business disruption. Incidents that damage or render inaccessible an institution's facilities, telecommunication or information technology infrastructures, or an event that affects human resources, can result in significant financial losses, as well as broader disruptions to the financial system. Licensees should establish business continuity plans commensurate with the institution's nature, size and the complexity of its operations.

8.24. Business continuity plans should address different types of plausible scenarios in which the licensee's physical, telecommunication, or information technology infrastructures may be damaged or inaccessible. These scenarios should be assessed for their financial, operational and reputational impact and the resulting risk assessment should be the foundation for recovery priorities and objectives.

8.25. Business continuity plans should incorporate business impact analysis, recovery strategies, testing, training and awareness programs and communication and crisis management programmes. Licensees should identify critical business operations, key internal and external dependencies and appropriate resilience levels. Licensees should devise alternate means of resuming their operations should they be severely disrupted. The use of an alternative site for recovery of operations is common practice in business continuity management. Where used, an institution should assess the appropriateness of the alternate site (i.e. the location, speed of recovery, adequacy of resources, etc.). Continuity plans should establish contingency strategies, recovery and resumption procedures and communication plans for informing management, employees, regulatory authorities, customers, suppliers and, where appropriate, other agencies.

8.26. Senior management is responsible for regularly reviewing the plans to make sure they are updated to meet the institution's operational and strategic needs. The plans should also be tested periodically to ensure that recovery and resumption objectives and timeframes can be met. Where possible, licensees should participate in disaster recovery and business continuity testing with key service providers, the results of which should be reported to the Board and senior management. Training and awareness programmes should also be implemented to ensure that staff can effectively execute contingency plans.

9. DISCLOSURE

9.1. Given that public disclosure improves transparency and strengthens market discipline, the Central Bank encourages licensees to disclose relevant information regarding their operational risk management framework to allow stakeholders to determine whether the licensee identifies, assesses, monitors and controls/mitigates operational risk effectively. Disclosures should be commensurate with the size, risk profile and complexity of a licensee's operations.

10. SUPERVISION OF OPERATIONAL RISK MANAGEMENT

10.1. The Central Bank, as part of its ongoing supervisory responsibilities, intends to assess the degree of licensees' compliance with the principles set forth in these Guidelines, taking into account the nature, size, risk profile and complexity of the licensee's activities. Consequently, the Central Bank will examine the effectiveness of the operational risk management strategy and framework during the course of its on-site examination of licensees.

END

APPENDIX I

Examples of the events that can give rise to significant operational risks

- Execution, delivery and process management inaccuracies. For example, data entry errors, settlement-processing errors, collateral management failures, incomplete legal documentation

- Internal fraud. For example, intentional misreporting of positions, employee theft, insider trading

- External fraud. For example, robbery, forgery, computer hacking

- Employment practices and workplace safety difficulties. For example, workers compensation claims, organized labour activities, harassment and discrimination claims, other unbudgeted personnel costs

- Damage to physical assets. For example, terrorism, vandalism, hurricanes, floods

- Clients, products and business practice abuses. For example, money laundering, misuse of confidential customer information, sale of unauthorized products, fiduciary breaches, improper trading activities, unapproved access given to client accounts

- Business disruption and system malfunction. For example, hardware and software failures, telecommunication problems, utility outages, information security failures

- Outsourced function/process failures. For example, poor execution of back-office functions, inadequately trained personnel, significant changes in systems and procedures

Module III

Investment & Liquidity Risk

- Investment and Liquidity Risks Measuring
- Investment returns v risk Managing/Monitoring and reporting of Investment Portfolio
- Asset classes and the Investment mandate
- Liquidity Risk and the need for Cash Flow
- Basel II and Principles for liquidity Management Stress testing liquidity

Investment & Liquidity Risks
(Module III)

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Bahamas Institute of Financial Services (BIFS)
Certified International Risk Management

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Enterprise-wide Risk Management

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Investment Risk

Investment risk can be defined as the probability or likelihood of occurrence of losses relative to the expected return on any particular investment.

Types of Investment Risk

- **Interest Rate Risk**
  Interest rate risk is the possibility that a fixed-rate debt instrument will decline in value as a result of a rise in interest rates. Whenever investors buy securities that offer a fixed rate of return, they are exposing themselves to interest rate risk.

- **Business Risk** *(unsystematic risk)*
  The risk associated with a specific issuer of a security. Business risk refers to the possibility that the issuer of a stock or a bond may go bankrupt or be unable to pay the interest or principal. A common way to avoid unsystematic risk is to diversify.

- **Credit Risk**
  A credit risk is the risk of default on a debt that may arise from a borrower failing to make required payments.

Types of Investment Risk

- **Taxability Risk**
  The risk that a security that was issued with tax-exempt status could potentially lose that status prior to maturity.

- **Call Risk**
  Call risk is specific to bond issues and refers to the possibility that a debt security will be called prior to maturity.

- **Inflationary Risk** *(purchasing power risk)*
  The chance that the value of an asset or income will be eroded as inflation shrinks the value of a country's currency. It is the risk that future inflation will cause the purchasing power of cash flow from an investment to decline.

- **Liquidity Risk**
  Risks that a company or bank may be unable to meet short term financial demands. The inability to convert a security or hard asset to cash without a loss of capital and/or income.

Types of Investment Risk

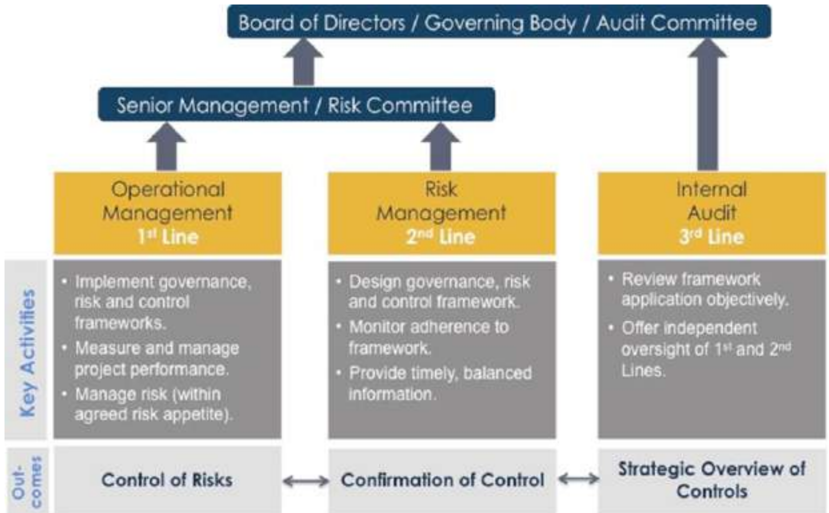
- **Market Risk (systematic risk)**
  The risk of inherent uncertainty; market volatility or undiversifiable risk.

- **Social/Political / legislative Risk**
  Risks associated with the possibility of nationalization, unfavorable government action or social changes resulting in a loss of value is called **social or political risk**; to change laws affecting securities, any ruling that results in adverse consequences is also known as **legislative risk**.

- **Currency/Exchange Rate Risk**
  A form of risk that arises from the change in price of one currency against another. The constant fluctuations in the foreign currency in which an investment is denominated vis-à-vis one's home currency may add risk to the value of a security.

- **Reinvestment Risk**
  Risk that falling interest rates will lead to a decline in cash flow from an investment when its principal and interest payments are reinvested at lower rates.

Governance & Risk Mgmt.



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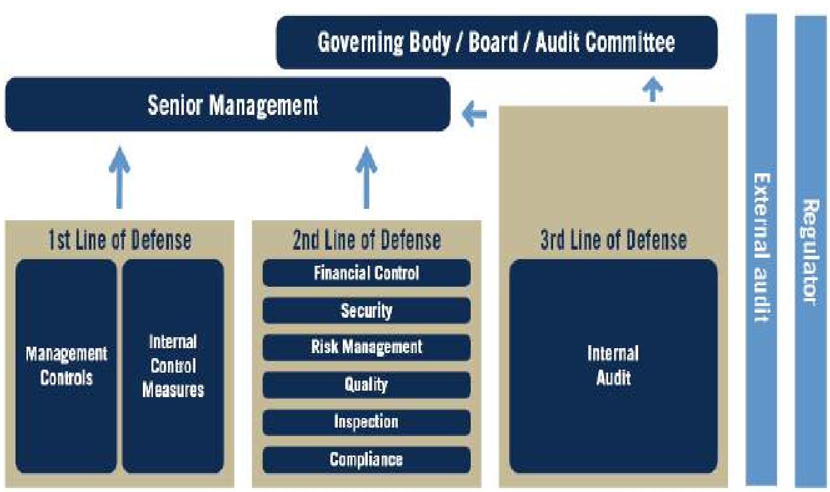
Governance & Risk Mgmt.



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Individual Investor Life Cycle

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Individual Investor Life Cycle

- **Accumulation phase** – early to middle years of working career.

- **Consolidation phase** – past midpoint of careers. Earnings greater than expenses.

- **Spending/Gifting phase** – begins after retirement.

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Age 20-39	Age 40-59	Age 60-69	Age 70-79	Age 80 - X
LIFECYLE				
Early earning years	Peak earnings	Declining earnings	No earnings	No earnings
Building a career	Established within career	Phased retirement	Full retirement	Long-term care
Marriage & Family	Aging parents	Active lifestyle	Maintain lifestyle	Assisted living
Mortgage & debt	Children's marriage	Vacation home/boat	Health issues	Death of spouse
WEALTH CYCLE				
Aggressive growth	Capital appreciation	Capital preservation	Protect wealth	Protect wealth
Long-term growth	Maximize contributions	Manage market risk	Manage cash flow	Long-term care
Manage debt	Retirement Planning	Estate planning	Meet obligations	Transfer estate
Pay off loans	College savings	Charitable activities	Manage health care costs	Charitable giving

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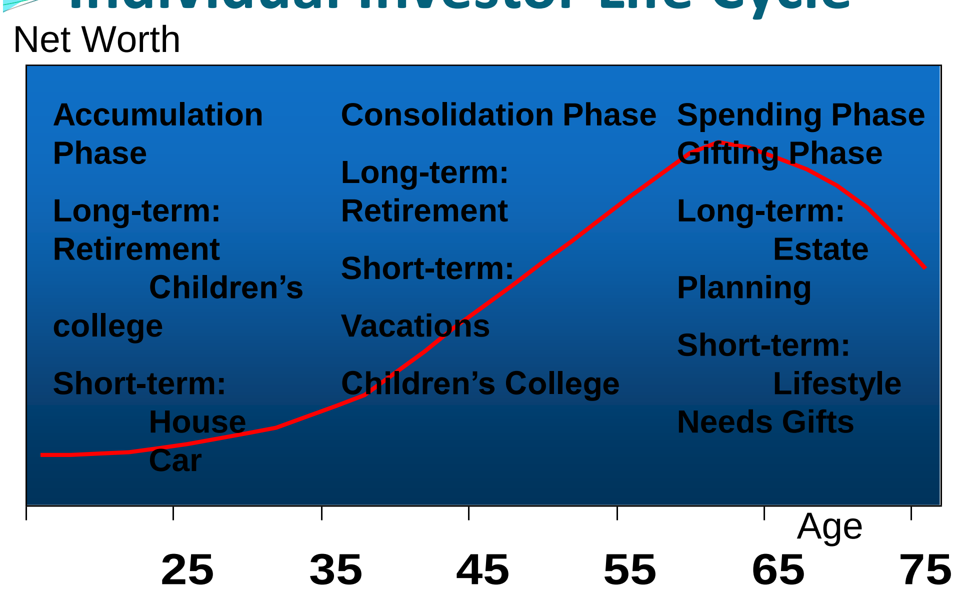
Individual Investor Life Cycle



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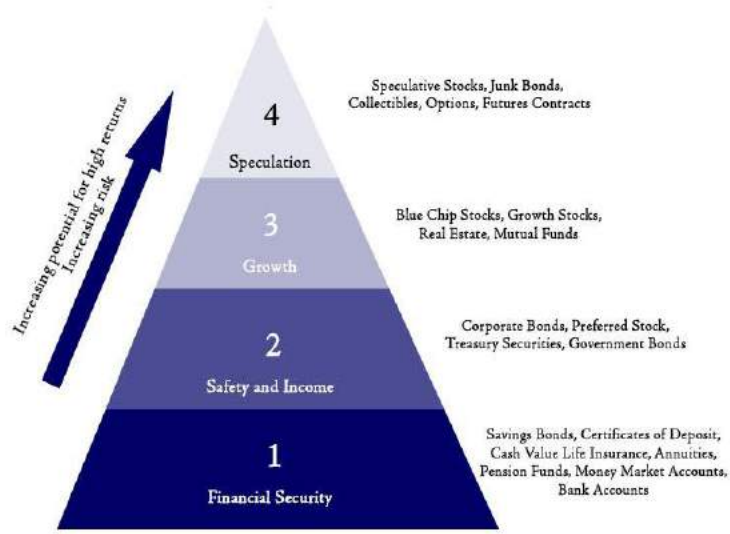
Investment Risk Pyramid



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The Portfolio Management Process

1. **Develop Policy statement** (investment mandate) – set return requirements, risk tolerance and constraints.
2. **Determine Investment Strategy** (investment philosophy) – decide investment style for managing portfolio.
3. **Construct the portfolio** – Allocate investment funds across asset classes, securities and countries.
4. Feedback loop: **Monitor investor needs and evaluate portfolio performance** – evaluate performance against expectations and requirements in policy statement, update investment strategy and rebalance position as needed.

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The Portfolio Management Process

1. **Policy statement**
   - specifies investment goals and acceptable risk levels
   - should be reviewed periodically
   - guides all investment decisions

2. Study current financial and economic conditions and forecast future trends
- determine strategies to meet goals
- requires monitoring and updating

3. Construct the portfolio
- allocate available funds to minimize investor's risks and meet investment goals

4. Monitor and update
- evaluate portfolio performance
- Monitor investor's needs and market conditions
- revise policy statement as needed
- modify investment strategy accordingly

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The Need For A Policy Statement

- Helps investors understand their own needs, objectives, and investment constraints.
- Sets standards for evaluating portfolio performance.
- Reduces the possibility of inappropriate behavior on the part of the portfolio manager.

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Constructing A Policy Statement

Questions:

- What are the real risks of an adverse financial outcome, especially in the short run?
- What probable emotional reactions will I have to an adverse financial outcome?
- How knowledgeable am I about investments and the financial markets?

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Constructing A Policy Statement

- What other capital or income sources do I have? How important is this particular portfolio to my overall financial position?
- What, if any, legal restrictions may affect my investment needs?
- What, if any, unanticipated consequences of interim fluctuations in portfolio value might affect my investment policy?

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Investment Risk Tolerance

Risk tolerance is the degree of variability in investment returns that an investor is willing to withstand: *Aggressive, Moderate and Conservative Risk Tolerance.*

- **Aggressive Risk Tolerance**
  Aggressive investors tend to be market-savvy. Aggressive investors reach for maximum returns with maximum risk. *(Risk Seeking/Risk Lover)*

- **Moderate Risk Tolerance**
  Moderate investors accept some risk to principal but adopt a balanced approach with intermediate term time horizons. *(Risk Neutral/Risk Acceptant)*

- **Conservative Risk Tolerance**
  Conservative investors are willing to accept little to no volatility in their investment portfolios. *(Risk Averse)*

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Investment Objectives

- **Trade-off between risk and expected return** = should include both risk and return objectives

- **Factors affecting investor tolerance:**
- Psychological factors
- Economic factors

Investment Objectives

Psychological factors/Personal Factors cont'd:

Psychological factors mean thoughts, feelings, and other cognitive characteristics that influence the behavior, attitude, and functions of the person mind. These psychological factors can effect on human thinking and afterward they also affect his decision-making and relationships in daily life. Psychologist describes individual investor behavior by keeping focus on person's personality or his characteristics.

Overconfidence

- Overconfidence means when someone has more confidence in his/her abilities about some situation. They misjudge their abilities, knowledge, skills, and availability of information.

Optimism

- Optimism means that all will be better than the examination. It originates from overconfidence. People have positive feelings about everything. They hope for the good more than the actual. Investors think that market will go high in the future but this can't be happen all the time.

Fear of loss

- People are afraid of losing. Investors do not want to bear loss.

Investment Objectives

Psychological factors/Personal Factors:

Herd behavior

- Investors discuss about their investment with their relatives, friends, co-workers etc. and want to act on it.

Positive attitude

- Some investors are confident about their decision-making. They think they should take risk in order to earn more profits than others.

Consultancy effect

- Investors are very conscious about their investment, they discuss and take advices from brokers in order to minimize risk on their investment.

Cognitive bias

- Cognitive bias means that when a person obtains some information, he processes it by filtering through his/her own experience, thoughts, likes, and dislikes. Simply cognitive psychology (a part of behavior finance) tells how people think.

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Investment Objectives

Economic Factors:

Economic factors consist of the information that can affect the worth or value of a business or an investment. Economic factors can be those which you bear in your mind after manipulating or calculating the present and expected future value of an investment portfolio or any kind of business.

Overall performance of company

- It means the analysis of a company's performance that how a company meets its goals and objectives. It includes three (3) things: *Financial Performance, Market Performance & Shareholder*.

Price movement information

- It means change or fluctuation in prices because of difference in demand and supply in a trading day.

Risk aversion

- Risk is uncertainty about their investment that whether it will give them profit or loss. Every investor takes risk according to his/her investment objectives.

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Investment Objectives

Economic Factors cont'd:

Risk taking capacity

- Risk is uncertainty about their investment that whether it will give them profit or loss. Investor invests in volatile investment in order to get higher profits than average. Investors who want to generate higher return will invest in the securities with high risk, while risk avoiding investors will invest in securities with low risk hence results in low profits: there are three (3) important determinant of risk taking behavior can be **Risk attitude**, **Beliefs** and **Risk Perception.**

Profitability

- When investors invest their money, their main purpose is to earn profit on it. They do not hesitate to invest on risky securities because they think that high risk can give them high returns. Level of annual earning/income and the savings affects the decision-making of investor.

Investment Objectives

General Goals

- **Capital preservation**
  - minimize risk of real loss
- **Capital appreciation**
  - Growth of the portfolio in real terms to meet future need.
- **Current income**
  - Focus is in generating income rather than capital gains.
- **Total return**
  - Increase portfolio value by capital gains and by reinvesting current income.
  - Maintain moderate risk exposure

Investment Constraints

- **Liquidity needs**
  - Vary between investors depending upon age, employment, tax status, etc.
- **Time horizon**
  - Influences liquidity needs and risk tolerance.
- **Tax concerns**
  - Must look at after tax returns, affected by rates on income (dividends) and capital gains.

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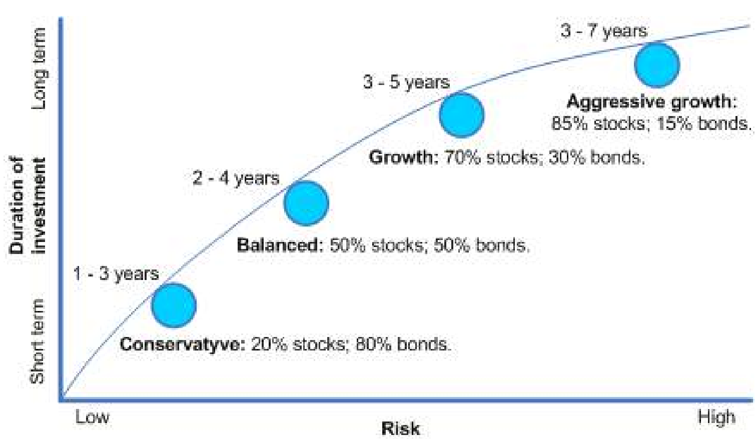
Investment Constraints



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Investment Constraints

- **Legal and regulatory factors**
  - Apply more to institutional investors, but also affect individual
  - Limitations or penalties on withdrawals
  - Fiduciary responsibilities - "prudent man" rule
  - Investment laws prohibit insider trading

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Investment Constraints

- **Unique needs and preferences**
  - Anything that does not fit into the above categories
  - Personal preferences such as socially conscious investments could influence investment choice
  - Time constraints or lack of expertise for managing the portfolio may require professional management
  - Large investment in employer's stock may require consideration of diversification needs
  - Institutional investors needs

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Asset Allocation

- The process of dividing investment funds across different asset classes.
- **Asset class** – securities that have similar characteristics, attributes and risk/return relationships.
- **Diversification is an underlying principle:** reducing portfolio risk by adding asset classes/securities whose returns are not highly correlated.

Asset Allocation

An investment strategy is based on (4) four decisions

- What asset classes to consider for investment?
- What normal or policy weights to assign to each eligible class?
- Determining the allowable allocation ranges based on policy weights.
- What specific securities to purchase for the portfolio?

Asset Allocation

Various asset classes ranked in terms of riskiness

1. **Cash :** money market funds, commercial paper
2. **Bonds:** investment-grade, high yield, corporate government, short-term, intermediate, long-term, domestic, foreign, etc.
3. **Stock :** large cap, small cap, growth, value, domestic, international, emerging markets, etc.
4. **Other** – derivatives, commodities, currencies, real estate, etc.

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Returns and Risk of Different Asset Classes

- Historically, small company stocks have generated the highest returns. But the volatility of returns have been the highest too.
- Inflation and taxes have a major impact on returns.
- Returns on Treasury Bills have barely kept pace with inflation.

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Returns and Risk of Different Asset Classes

- Measuring risk by probability of **not** meeting your investment return objective indicates risk of equities is small and that of T-bills is large because of their differences in expected returns.

- Focusing only on return variability as a measure of risk ignores reinvestment risk

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Asset Allocation Summary

- Policy statement determines types of assets to include in portfolio.
- Asset allocation determines portfolio return more than stock selection.
- Over long time periods, sizable allocation to equity will improve results.
- Risk of a strategy depends on the investor’s goals and time horizon.

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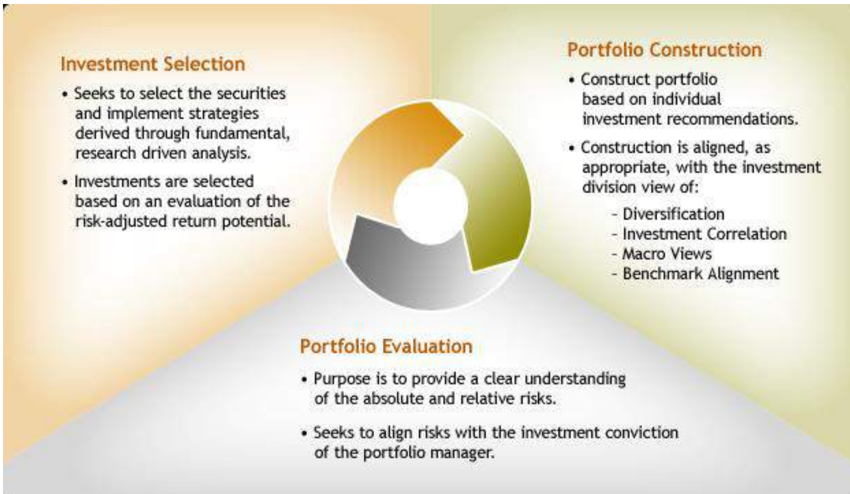
Portfolio Risk Management



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Summary

- Identify investment needs, risk tolerance, and familiarity with capital markets
- Identify objectives and constraints
- Enhance investment plans by accurate formulation of a policy statement
- Focus on asset allocation as it determines long-term returns and risk

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The Internet *Investments Online*

www.ssa.gov
www.ibbotson.com
www.mfea.com
www.mfea.com/planidx.html
www.asec.com
www.cccsedu.org/home.html
www.aimr.org
www.iafp.org

www.amercoll.edu
www.idfp.org
www.napfa.org

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Banks

- Must attract funds in a competitive interest rate environment.
- Try to maintain a positive difference between their cost of funds and their return on assets.
- Need substantial liquidity to meet withdrawals and loan demands.
- Face regulatory constraints.

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Investment Management

- What is an investment?
  - Current commitment of dollars for a period of time to derive future payments (returns) that will compensate for:
    1. the time the funds are committed
    2. the expected rate of inflation <u>and</u>
    3. the uncertainty of future payments
  - Expenditure of capital with the expectation of returns
- Returns = return <u>of</u> capital + return <u>on</u> capital

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Investment Management

- How is risk defined?
  - Uncertainty of future outcomes
  - Volatility in returns
  - Probability of an adverse outcome (downside risk)
- What does it mean to be risk averse?
  - Investors prefer less risk to more risk, all else being equal, i.e.
    - When two investments have the same expected return, investors prefer the lower risk investment
    - When two investments have the same risk, investors prefer the investment with the higher expected return
- Risky asset – one whose return is not guaranteed

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Investment Management

- Markowitz's Modern Portfolio Theory (MPT) – basis for measuring portfolio risk. Key concepts:
  1. Investors look at each investment as a **probability distribution** of expected returns
  2. Investors **measure risk as variance** (standard deviation) of expected returns (mean)
  3. Investor decisions consider only the **risk and return** of an investment opportunity
  4. Investors are **risk averse**

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Investment Management

- MPT is the basis for diversification theory and measuring portfolio risk
- Under MPT, an investment is considered to be efficient if no other investment offers
  – higher expected return with the same (or lower) risk i.e. standard deviation

  <u>OR</u>

  – lower risk with the same (or higher) expected return i.e. mean

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Investment Management

Which of the following portfolios cannot be efficient?

Portfolio	Mean	Std. Dev.
A	10%	12%
B	12%	16%
C	14%	15%

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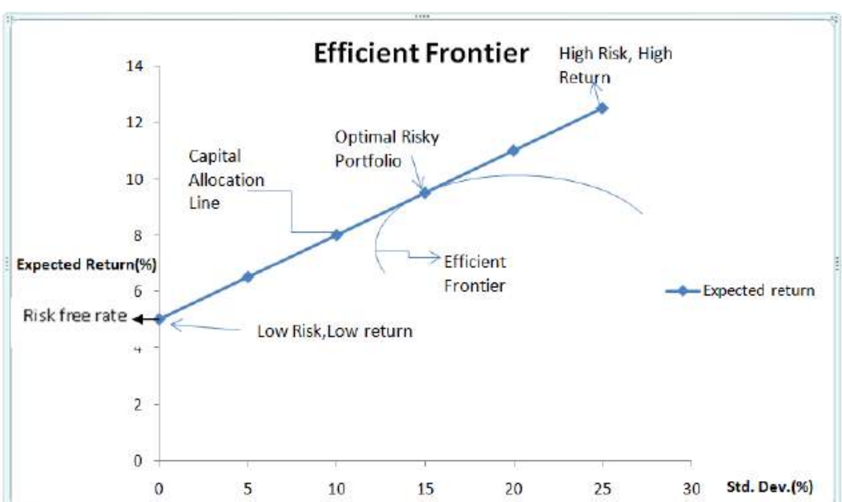
Return, Risk and Diversification



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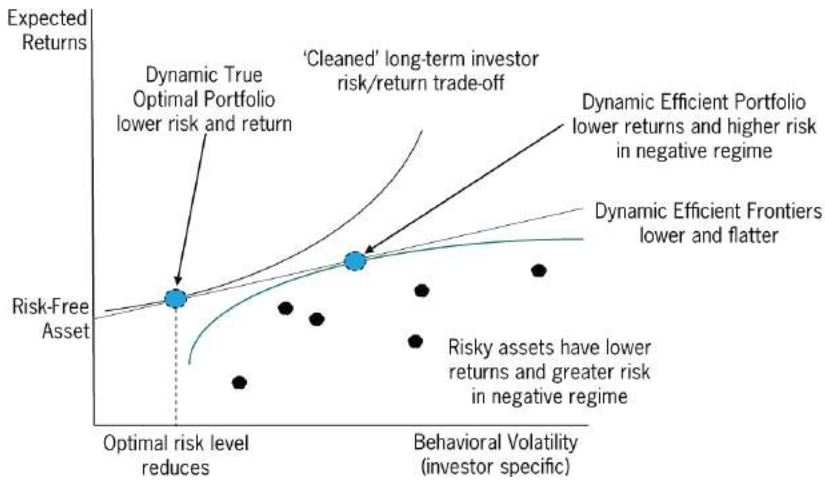
Return, Risk and Diversification



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Return, Risk and Diversification

- Holding period return (HPR) – total return over a specific time period (usually 1 year)

$$HPR = \frac{[(P_1 - P_0) + CF]}{P_0}$$

where

P_0 = price at start of period

P_1 = price at end of period

CF = cash flow from investment (income)

Income = dividends and interest

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Return, Risk and Diversification

- You buy 100 shares of Company X for $15 each on 1 January and sell them for $17.50 each on 31 December after receiving dividends of $1 per share. What is your HPR?

$$HPR = \frac{[(P_1 - P_0) + CF]}{P_0}$$

$$= \frac{[(\$1{,}750 - \$1{,}500) + \$100]}{\$1{,}500}$$

$$= 23.33\%$$

Return, Risk and Diversification

- Annalized hold period return – used to calculate annual returns where holding period < 1 year

  Annualized HPR = $(1+HPR)^n - 1$

  where

  HPR = HPR for the period

  n = number of compounding periods

Return, Risk and Diversification

- What would HPR be if you sold your 100 shares in Company X (on slide 17) for $16 each on 30 June and missed out on the dividend payment?

$$HPR = \frac{[(P_1 - P_0) + CF]}{P_0}$$

$$= \frac{[(\$1,600 - \$1,500)]}{\$1,500} = 6.67\%$$

Annualized HPR = $(1 + HPR)^n - 1$

$= (1 + 0.067)^2 - 1 = 13.78\%$

Return, Risk and Diversification

Basic calculation definitions

i/j = any given asset

port = any given portfolio

P = probability

R = return

E(R) = expected return

X = value of an observation

∑ = the sum of all observations

μ = population mean

w = weight or percentage

n = number of items in a set

Return, Risk and Diversification

- Mean – expected return/expected outcome
- For a single asset:

  Mean = μ = $(\sum HPR)/n = (R_1 + R_2 + \ldots + R_n)/n$

  OR

  $$Mean = \mu = \sum P_i E(R_i)$$

  where

  P_i = probability of the return on asset i

  $E(R_i)$ = expected return on asset i

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Return, Risk and Diversification

Calculating the mean of a single asset:

Year 1	P_i	$E(R_i)$	$P_i\,E(R_i)$
Recession	**0.20**	**–0.05**	–0.01
Normal	**0.60**	**0.10**	0.06
Expansion	**0.20**	**0.25**	0.05
		Mean = μ =	**0.10**
	$\mu = \Sigma P_i\,E(R_i)$ = 10%		

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Return, Risk and Diversification

- For a portfolio of assets:

$$Mean_{port} = \mu_{port} = \sum_{i=1}^{n} w_i R_i$$

where

i = any given asset

w_i = weight of asset i in the portfolio

R_i = return on asset i

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Return, Risk and Diversification

Calculating the mean of a portfolio of assets:

Asset	w_i	R_i	w_iR_i
Stock A	0.25	9.0%	2.25%
Stock B	0.45	19.0%	8.55%
Stock C	0.30	13.0%	3.90%
		Mean = μ =	**14.70%**

$$\mu_{port} = w_A R_A + w_B R_B + w_C R_C$$

$$= \sum_{i=1}^{n} w_i R_i = 14.70\%$$

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Return, Risk and Diversification

- Variance/standard deviation – measures the dispersion or spread of returns around an expected value (the mean)
- A low standard deviation indicates that the data points tend to be very close to the mean
- A high standard deviation indicates that the data is spread out over a large range of values around the mean
- Lower standard deviation = less volatility in returns = less risk

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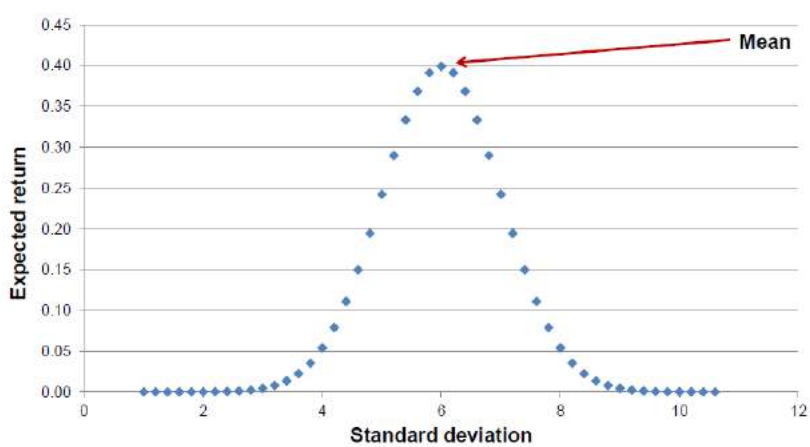
Return, Risk and Diversification



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Sources:

- ***Investment Analysis and Portfolio Management***
  Seventh Edition
  by Frank K. Reilly & Keith C. Brown

- *CFA Institute*
  - *Corporate Finance and Portfolio Management*, CFA© Program Curriculum, Level I 2012, Volume 4
  - CFA© Level I Mock Exams, 2011, 2012, 2013, 2014
- Other
  - *Investment Analysis and Portfolio Management*, 4th Ed., Frank K. Reilly
  - *Portfolio Management*, CFA© Study Session 12, Level I 2013, Schweser Kaplan

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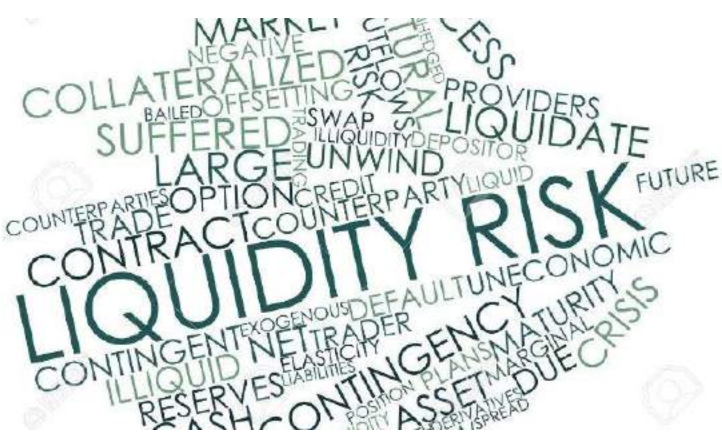

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Agenda

- Overview
- Principles of Sound Liquidity Management
- Monitoring and Controls
- Application: Banking Industry

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Liquidity Risk Management

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Overview

Liquidity

- Ability to fund increases in assets and meet obligations as they come due, w/out incurring unacceptable losses ***(Basel Committee).***

- Liquidity is a licensee's capacity to fund increases in assets or meet collateral obligations at a reasonable cost as they fall due, without incurring unacceptable losses. Maintaining an adequate level of liquidity depends on the licensee's ability to meet both expected and unexpected cash flows efficiently and collateral needs, without adversely affecting either daily operations or the financial condition of the licensee ***(Central Bank of the Bahamas).***

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Overview (cont'd)

Liquidity Risk

- Liquidity risk is the risk that a licensee's financial condition or **overall safety and soundness** is adversely affected by an inability—real or perceived—to meet its contractual obligations . A licensee's obligations and the funding sources used to meet them depend significantly on its business mix, balance sheet structure, and the cash-flow profiles of its <u>on- and off-balance sheet obligations</u>. ***(Central Bank of the Bahamas).***

- The risk that the entity will encounter difficulty in meeting obligations associated with financial liabilities that are settled by delivering cash or other financial asset ***(IFRS 7).***

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Overview (cont'd)

- Liquidity is the ability to fund increases in assets and meet obligations as they come due. Within this definition is an assumption that obligations will be able to be met "at reasonable cost". Liquidity risk management seeks to ensure a bank's ability to continue to do this. This involves meeting uncertain cash flow obligations, which depend on external events and on other agents' behavior.

  The fundamental role of banks in facilitating the maturity transformation of short-term deposits into long-term loans makes banks inherently vulnerable to liquidity risk, the risk that demands for repayment outstrip the capacity to raise new liabilities or liquefy assets ***(Basel Committee).***

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Overview (cont'd)

Basel Committee
on Banking Supervision

THE CENTRAL BANK OF THE BAHAMAS

Principles for Sound Liquidity Risk Management and Supervision

September 2008

The Central Bank of The Bahamas — Minimum Liquidity Requirements

SUPERVISORY AND REGULATORY GUIDELINES: PU68-0510
Management of Liquidity Risk
Issued: 25th March 2005
Revised: 20th April 2012

GUIDELINES FOR THE MANAGEMENT OF LIQUIDITY RISK

BANK FOR INTERNATIONAL SETTLEMENTS

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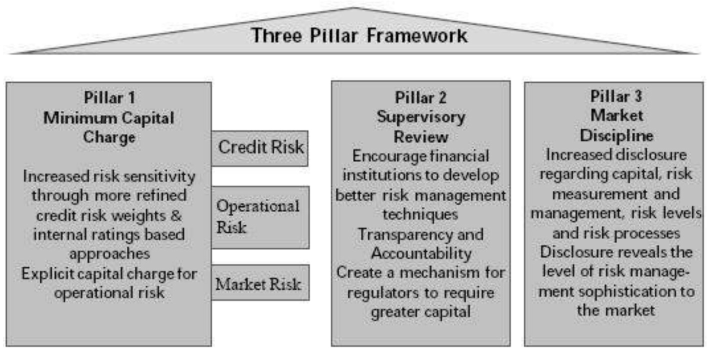
Liquidity Risk Management

Governing Legislation

- **Basel III** (or the **Third Basel Accord**) - *voluntary regulatory framework on bank capital adequacy, stress testing and market liquidity risk.*



Principles of Sound Liquidity Management -*Basel Committee*

Fundamental principles for the management and supervision of liquidity risk

Principle 1: A bank is responsible for the **sound management** of liquidity risk. A bank should establish a **robust liquidity risk management framework** that ensures it maintains sufficient liquidity, including a cushion of unencumbered, high quality liquid assets, to withstand a range of stress events, including those involving the loss or impairment of both unsecured and secured funding sources.

Supervisors should assess the adequacy of both a bank's liquidity risk management framework and its liquidity position and should take prompt action if a bank is deficient in either area in order to **protect depositors** and to **limit potential damage to the financial system.**

Principles of Sound Liquidity Management (cont'd)

Governance of liquidity risk management

Principle 2: A bank should clearly articulate a **liquidity risk tolerance** that is appropriate for its business strategy and its role in the financial system.

Principle 3: Senior management should develop a strategy, policies and practices to manage liquidity risk in accordance with the risk tolerance and to ensure that the bank maintains sufficient liquidity. Senior management should continuously review information on the bank's liquidity developments and report to the board of directors on a regular basis. **A bank's board of directors should review and approve the strategy, policies and practices related to the management of liquidity at least annually and ensure that senior management manages liquidity risk effectively.**

Principle 4: A bank should incorporate liquidity costs, benefits and risks in the internal pricing, performance measurement and new product approval process for all significant business activities (both on- and off-balance sheet), thereby aligning the risk-taking incentives of individual business lines with the liquidity risk exposures their activities create for the bank as a whole.

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Principles of Sound Liquidity Management (cont'd)

Measurement and management of liquidity risk

Principle 5: A bank should have a sound process for identifying, measuring, monitoring and controlling liquidity risk. This process should include a robust framework for comprehensively projecting cash flows arising from assets, liabilities and off-balance sheet items over an appropriate set of time horizons.

Principle 6: A bank should **actively monitor and control liquidity risk exposures and funding needs** within and across legal entities, business lines and currencies, taking into account legal, regulatory and operational limitations to the transferability of liquidity.

Principle 7: A bank should **establish a funding strategy** that provides effective diversification in the sources and tenor of funding. It should maintain an ongoing presence in its chosen funding markets and strong relationships with funds providers to promote effective diversification of funding sources. A bank should regularly gauge its capacity to raise funds quickly from each source. It should identify the main factors that affect its ability to raise funds and monitor those factors closely to ensure that estimates of fund raising capacity remain valid.

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Principles of Sound Liquidity Management (cont'd)

Measurement and management of liquidity risk (cont'd)

Principle 8: A bank should actively manage its intraday liquidity positions and risks to meet payment and settlement obligations on a timely basis under both normal and stressed conditions and thus contribute to the smooth functioning of payment and settlement systems.

Principle 9: A bank should **actively manage its collateral positions, differentiating between encumbered and unencumbered assets**. A bank should monitor the legal entity and physical location where collateral is held and how it may be mobilized in a timely manner.

Principle 10: A bank should conduct **stress tests on a regular basis for a variety of short-term and protracted institution-specific and market-wide stress scenarios** (individually and in combination) to identify sources of potential liquidity strain and to ensure that current exposures remain in accordance with a bank's established liquidity risk tolerance. A bank should use stress test outcomes to adjust its liquidity risk management strategies, policies, and positions and to develop effective contingency plans.

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Principles of Sound Liquidity Management (cont'd)

Measurement and management of liquidity risk (cont'd)

Principle 11: A bank should have a **formal contingency funding plan (CFP)** that clearly sets out the strategies for addressing liquidity shortfalls in emergency situations. A CFP should outline policies to manage a range of stress environments, establish clear lines of responsibility, include clear invocation and escalation procedures and be regularly tested and updated to ensure that it is operationally robust.

Principle 12: A bank should maintain a cushion of unencumbered, high quality liquid assets to be held as **insurance** against a range of liquidity stress scenarios, including those that involve the loss or impairment of unsecured and typically available secured funding sources. There should be no legal, regulatory or operational impediment to using these assets to obtain funding.

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Principles of Sound Liquidity Management (cont'd)

Public disclosure

Principle 13: A bank should publicly disclose information on a regular basis that enables market participants to make an informed judgement about the soundness of its liquidity risk management framework and liquidity position.

The role of supervisors

Principle 14: Supervisors should regularly perform a comprehensive assessment of a bank's overall liquidity risk management framework and liquidity position to determine whether they deliver an adequate level of resilience to liquidity stress given the bank's role in the financial system.

Principle 15: Supervisors should supplement their regular assessments of a bank's liquidity risk management framework and liquidity position by monitoring a combination of internal reports, prudential reports and market information.

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Principles of Sound Liquidity Management (cont'd)

The role of supervisors (cont'd)

Principle 16: Supervisors should intervene to require effective and timely remedial action by a bank to address deficiencies in its liquidity risk management processes or liquidity position.

Principle 17: Supervisors should communicate with other supervisors and public authorities, such as central banks, both within and across national borders, to facilitate effective cooperation regarding the supervision and oversight of liquidity risk management. Communication should occur regularly during normal times, with the nature and frequency of the information sharing increasing as appropriate during times of stress.

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Liquidity Risk Management
Central Bank of the Bahamas

- **Effective corporate governance** consisting of oversight by the board of directors and active involvement by senior management in an institution's control of liquidity risk;
- **Appropriate strategies, policies, procedures, and limits** used to manage and mitigate liquidity risk;

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Critical elements of sound liquidity risk management (Cont'd)

- **Comprehensive liquidity risk measurement and monitoring systems** (including assessments of the current and prospective cash flows or sources and uses of funds) that are commensurate with the complexity and business activities of the institution;
- Active management of intraday liquidity and collateral;
- An appropriately diverse mix of existing and potential future funding sources;

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Critical elements of sound liquidity risk management (Cont'd)

- Adequate levels of **highly liquid marketable securities free of legal, regulatory, or operational impediments** that can be used to meet liquidity needs in stressful situations;
- **Internal controls and internal audit processes** sufficient to determine the adequacy of the institution's liquidity risk management process; and
- **Appropriate contingency funding plans ("CFPs")** that sufficiently address potential adverse liquidity events to which the institution may be exposed and emergency cash flow requirements.

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Liquidity Risk Monitoring & Control

Central Bank of the Bahamas:

Ratio and Limits:

- Target liquidity ratio
- Maturity mismatch limits for local and major foreign currencies;
- Concentration limits in respect of the mix of assets and liabilities
- Loan to deposit ratio or other ratios appropriate to a licensee's business activities

Pursuant to Regulation 6(1) of the LRMR and as detailed in paragraph 3.1 of these Guidelines, **every licensee shall maintain a liquidity ratio of not less than twenty (20) percent**.

Liquidity Ratio = Total Liquid Assets / Total Deposit Liabilities

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Liquidity Risk Management

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Liquidity Ratio:

- Bank X has liquid assets of $125 million and deposit liabilities of $500 million. What is the bank's liquidity ratio?

  Liquidity ratio = liquid assets / deposit liabilities
  = 125 / 500 = 25%

- If assets deposit liabilities grow to $600 million, what level of liquid assets is needed in order to maintain the 25% liquidity ratio?

  Total assets = deposit liabilities * liquidity ratio
  = $600 * 25% = $150 million

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Basel III:

Minimum liquidity requirements:

- **Liquidity Coverage Ratio (LCR)**
  phase-in timing: 2015 = 60%; 2019 = 100%
- **Net stable funding ratio (NSFR)**
  2018 minimum standard

- **Liquidity Coverage Ratio (LCR)**

Identifies the amount of unencumbered, high quality liquid assets that can be converted into cash to meet a bank's net cash outflows for a 30-day stressed funding scenario specified by supervisors.

LCR = Stock of high quality liquid assets / Net cash outflows over a 30 day time period.

Liquidity Risk Monitoring and Control (cont'd)

High Quality Liquid Assets (HQLAs)

- Easily converted to cash at little or no loss of value
- Low credit and market risk
- Ease and certainty of valuation
- Low correlation with risky assets
- Listed on a developed and recognized exchange
- Active and sizeable market
- Presence of committed market makers
- Low market concentration
- Flight to quality

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Liquidity Risk Monitoring and Control (cont'd)

- **Net stable funding ratio (NSFR)**

Establishes minimum acceptable amount of stable funding that must be in place based on the liquidity characteristics of a bank's assets and activities over 1 year horizon

NSFR = Available amount of stable funding / Required amount of stable funding

Stable funding – types and amounts of equity and liability financing expected to be reliable sources of funds (for assets and off-balance sheet exposures) over a 1 year horizon under conditions of extended stress.

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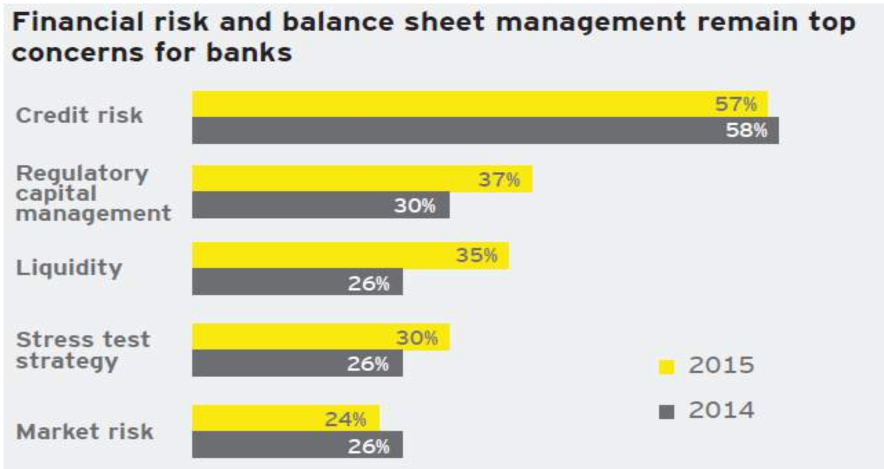
Banking Industry



"Rethinking risk management: Banks focus on non-financial risks and accountability", EY's 2015 risk management survey of major financial institutions, is the sixth annual study of risk management practices conducted in cooperation with the Institute of International Finance (IIF). A total of 51 firms across 29 countries participated in this year's study.

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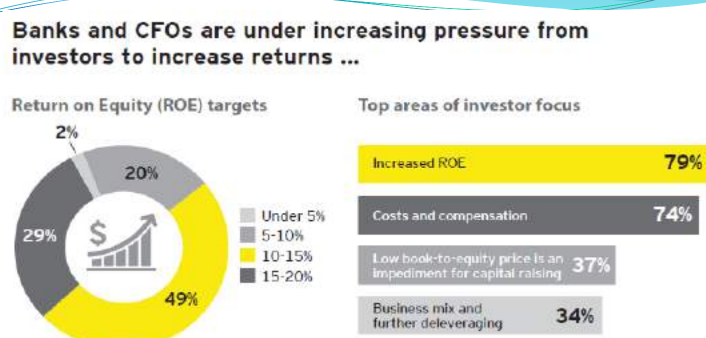

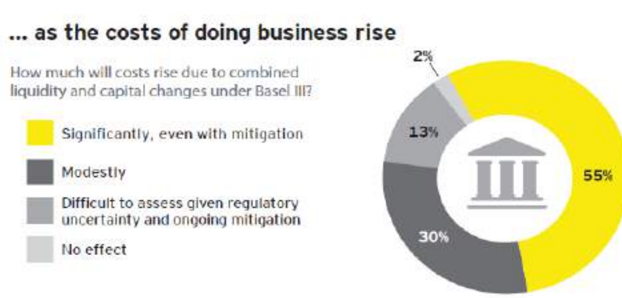

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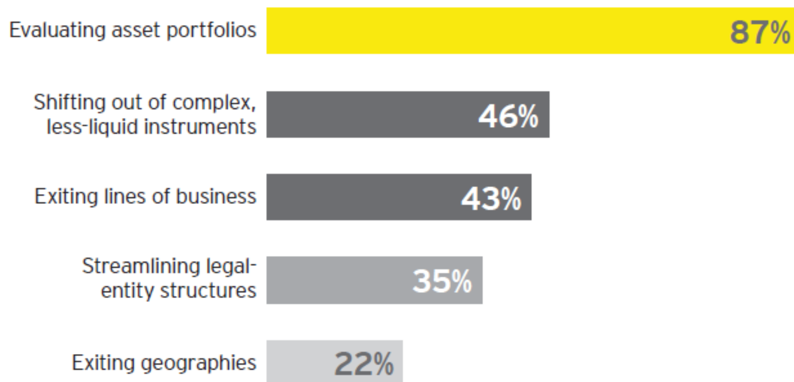
The impact of higher capital and liquidity requirements on ROE is driving significant business model change



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Sources

- **Basel Committee on Banking Supervision** – Principles for Sound Liquidity Risk Management and Supervision - https://www.bis.org/bcbs/

- **Central Bank of The Bahamas** – Guidelines for the Management of Liquidity Risk - http://www.centralbankbahamas.com/

- **EY and IIF - Rethinking risk management:** Banks focus on non-financial risks and accountability - http://www.ey.com/gl/en/industries/financial-services/banking---capital-markets/ey-rethinking-risk-management

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SUPERVISORY AND REGULATORY GUIDELINES: PU68-0510
Management of Liquidity Risk
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GUIDELINES FOR THE MANAGEMENT OF LIQUIDITY RISK

1. INTRODUCTION

1.1 The Central Bank of The Bahamas ("the Central Bank") is responsible for the licensing, regulation and supervision of banks and trust companies operating in and from within The Bahamas, pursuant the Central Bank of The Bahamas Act, 2000 ("the CBA") and the Banks and Trust Companies Regulation Act, 2000 ("the BCTRA"). Additionally, the Central Bank has the duty, in collaboration with financial institutions, to promote and maintain high standards of conduct and management in the provision of banking and trust services.

1.2 All licensees are expected to adhere to the Central Bank's licensing and prudential requirements, ongoing supervisory programmes and regulatory reporting requirements, and are subject to periodic on-site examinations. Licensees are expected to conduct their affairs in conformity with all other Bahamian legal requirements.

2. PURPOSE

2.1 Liquidity is a licensee's capacity to fund increases in assets or meet collateral obligations at a reasonable cost as they fall due, without incurring unacceptable losses. Maintaining an adequate level of liquidity depends on the licensee's ability to meet both expected and unexpected cash flows efficiently and collateral needs, without adversely affecting either daily operations or the financial condition of the licensee.

2.2 Liquidity risk is the risk that a licensee's financial condition or overall safety and soundness is adversely affected by an inability—real or perceived—to meet its contractual obligations. A licensee's obligations and the funding sources used to meet them depend significantly on its business mix, balance sheet structure, and the cash-flow profiles of its on- and off-balance sheet obligations. In managing their cash flows, licensees confront various situations that can give rise to increased liquidity risk. These include funding mismatches, market constraints on the ability to convert assets into cash or in accessing sources of funds (i.e., market liquidity), and contingent liquidity events. Changes in economic conditions or exposure to credit, market, operation, legal, and reputation risks also can affect a licensee's liquidity risk profile.

2.3 Lessons learned from the recent events in financial markets have pointed to the importance of liquidity and the need for improvement in liquidity risk management in financial institutions. To account for financial market developments, as well as the lessons learned from the recent financial market turmoil, the Central Bank undertook a fundamental review of the 2005 *Guidelines for the Management of Liquidity Risk* to bring them in conformance, where appropriate, with the Principles for Sound Liquidity Risk Management and Supervision issued by the Basel Committee on Banking Supervision in September 2008.

2.4 These revised Guidelines, therefore, provide guidance to licensees in relation to the Central Bank's expectations of their liquidity risk management practices, as well as outlining the Central Bank's approach to assessing the adequacy of licensees' liquidity risk management frameworks and their liquidity positions.

3. APPLICABILITY

3.1 These Guidelines apply to all public banks and/or trust companies. However, pursuant to Regulation 6(2) of the Banks and Trust Companies (Liquidity Risk Management) Regulations 2011 ('the LRMR"), the liquidity ratio shall not currently apply to licensees that are subject to the provisions of section 19 and 20 of the CBA ("commercial banks").

3.2 The Central Bank recognises that the degree of sophistication of a licensee's liquidity risk management framework will depend on the nature, scale of complexity of a licensee's activities, as well as the level of liquidity risk assumed. The Central Bank equally accepts that in the supervision of internationally active banks, account should also be taken of the global liquidity risk management frameworks of the head office and the home supervisor's assessment of the overall liquidity risk management framework and liquidity positions.

4. DEFINITIONS

4.1 Liquid assets have the same meaning as defined by Regulation 2 of the LRMR.

4.2 Liquidity ratio means the ratio of the sum of a licensee's liquid assets (in all currencies) expressed as a percentage of the sum of its deposit liabilities (in all currencies).

5. SOUND PRACTICES OF LIQUIDITY RISK MANAGEMENT

5.1 Because of its critical importance to the viability of a licensee, liquidity risk management should be fully integrated into the licensee's risk management processes. Therefore, licensees should have a comprehensive management process for identifying, measuring, monitoring and controlling liquidity risk, appropriate to the operations of the licensee. Critical elements of sound liquidity risk management are highlighted below:

i. Effective corporate governance consisting of oversight by the board of directors and active involvement by senior management in an institution's control of liquidity risk;
ii. Appropriate strategies, policies, procedures, and limits used to manage and mitigate liquidity risk;
iii. Comprehensive liquidity risk measurement and monitoring systems (including assessments of the current and prospective cash flows or sources and uses of funds) that are commensurate with the complexity and business activities of the institution;
iv. Active management of intraday liquidity and collateral;
v. An appropriately diverse mix of existing and potential future funding sources;
vi. Adequate levels of highly liquid marketable securities free of legal, regulatory, or operational impediments that can be used to meet liquidity needs in stressful situations;
vii. Internal controls and internal audit processes sufficient to determine the adequacy of the institution's liquidity risk management process; and
viii. Appropriate contingency funding plans (“CFPs”) that sufficiently address potential adverse liquidity events to which the institution may be exposed and emergency cash flow requirements.

5.2 The Central Bank will review these critical elements in its assessment of a licensee’s liquidity risk management framework, during the course of its on-site examination of licensees and the risk assessment process, generally.

6. LIQUIDITY RISK MANAGEMENT FRAMEWORK

Board and Senior Management Responsibilities

6.1 Ultimate responsibility for the liquidity risk assumed by a licensee and the manner in which this risk is managed rest with the licensee’s Board of Directors (“the Board”). For branches of international banks, the responsibilities set forth in these Guidelines for the Board should be assumed by the head office of the local branch. Senior managers at head office should ensure that the standards set forth in these Guidelines are appropriately addressed by the senior management of the local branch. Where the Board of a subsidiary or head office of a local branch utilises liquidity risk management programmes applicable to all group companies, such liquidity risk management programmes must be consistent with the requirements of these Guidelines and should be tailored to the local environment. In undertaking this responsibility, the Board should, inter alia:

i. Approve the licensee's liquidity risk strategy and other significant policies related to liquidity risk management, including contingency fund planning;
ii. Review policies and procedures periodically, but at least annually;
iii. Establish and approve senior management lines of authority and responsibility for managing the licensee's liquidity risk;
iv. Understand the nature of the liquidity risks of the licensee and the tools used by senior management to monitor and control liquidity risk;
v. Ensure appropriate processes and systems are in place to identify, measure, monitor and control sources of liquidity risk; and
vi. Regularly monitor the performance and liquidity risk profile of the licensee, through periodic and timely reporting by senior management and internal auditors.

6.2 Senior management is responsible for ensuring that Board approved strategies, polices, and procedures for the day-to-day and long-term liquidity management are appropriately executed within the lines of authority and responsibility designated for managing and controlling liquidity risk. This involves overseeing the development, implementation and maintenance of:

i. Appropriate policies and procedures that translate the Board's approved objectives and risk tolerances into operating standards;
ii. Management information and other systems that adequately identify, measure and control liquidity risk; and
iii. Effective internal controls over the liquidity risk management process, including review and assessment by an appropriately trained, competent and independent party, e.g. internal or external auditors.

6.3 Senior management should fully understand the nature and level of liquidity risk assumed by the licensee and the means of managing that risk. Senior management should also promptly communicate any material changes in the licensee's liquidity position to the Board, given that maintenance of adequate liquidity is fundamental to the ongoing viability of the licensee.

6.4 The close links between and among other risks, such as credit, market, operational and reputational, can significantly impact a licensee's liquidity risk strategy; therefore, senior management should communicate the liquidity strategy, key policies for implementing the strategy and the liquidity risk management framework throughout the organisation. Additionally, senior management should coordinate the licensee's liquidity risk management with its business continuity arrangements (see also Contingency Planning section below).

Liquidity Risk Management Structure

6.6 Licensees should have in place an appropriate liquidity management structure that can effectively execute their liquidity risk management strategy, policies and procedures.

6.6 While the specific structure chosen by a licensee will depend on the nature, scale and complexity of its operations, responsibility for managing overall liquidity should be delegated to a specific group or individual within the licensee. This might be in the form of an Asset Liability Committee ("ALCO"), comprised of senior management, the treasury function or the risk management department. Ideally, the ALCO should have broad representation from across major business and operational lines that can influence, directly or indirectly, the licensee's liquidity risk. It is important that members of the ALCO have clear authority over the units responsible for executing liquidity-related transactions, so that ALCO directives reach these line units unimpeded.

6.7 Liquidity risk may be managed on a group or sub-group basis, in the case of subsidiaries and branches of an international banking group. However, the licensee's local Board and senior management (in the case of a subsidiary) or head office (in the case of a branch) retains ultimate responsibility for ensuring compliance with these Guidelines, by having arrangements in place to ensure that any liquidity issues specific to the licensee are appropriately identified and addressed by the licensee or those delegated with responsibility for managing the licensee's liquidity risk.

Internal Controls and Audit

6.8 Licensees should have appropriate internal controls addressing relevant elements of the risk management process, including adherence to policies and procedures, the adequacy of risk identification, measurement, reporting and compliance with applicable rules and regulations.

6.9 Senior management should ensure periodic reviews and assessment of various components of the licensee's liquidity risk management processes. A qualified independent party, e.g., internal or external auditors, should do such reviews and assessments. Any weaknesses or problems identified in the review should be brought to the attention to senior management for prompt corrective action.

6.10 The reviews and assessment should, inter alia, cover the following areas:

i. adequacy of risk identification, measurement, reporting and compliance with supervisory guidance (including statutory liquidity ratios/limits) and industry sound practices;
ii. suitability of the underlying assumptions for conducting cash flow and stress scenario analyses;
iii. integrity and usefulness of management information system reports; and
iv. adherence to established liquidity policies and procedures.

Management Information Systems

6.11 Licensees should have a reliable management information system ("MIS"), consistent with the size, nature and complexity of their operations, to measure, monitor and control liquidity risk under normal and stressed conditions. The MIS should be able capture all sources of liquidity risk, including contingent risks and the related triggers and those arising from new activities, and have the ability to deliver more granular and time sensitive information during periods of stress. The MIS should particularly be able to:

i. analyse liquidity positions in all currencies in which the licensee conducts significant business[1], both on a stand-alone and on an aggregate group basis;
ii. calculate liquidity positions, both on an intraday and day-to-day basis and over a series of more distant time periods;
iii. calculate and project various liquidity related limits and ratios, including statutory requirements, and for internal risk management purposes;
iv. set out clearly the assumptions and limitations underlying cash flow management reports and stress scenario analyses;
v. generate timely reports on risk measures and liquidity trends for management; and
vi. check compliance with established liquidity policies and limits, and generate exception reports.

6.12 While the precise content and format of MIS reports will largely depend on a licensee's liquidity management framework and the size, nature and complexity of its activities, the reports should enable the Board and senior management to review and monitor the following:

i. the maturity profiles of licensee's cash flows under normal and stress conditions;
ii. the stock of liquid assets available and their market values;

[1] The Central Bank will normally regard a currency position to be significant, if the amount of a currency represents more than 10% of total deposits.

iii. the concentration in sources and application of funds;
iv. the compliance with liquidity management strategies and risk tolerance levels set by the Board;
v. compliance with the liquidity ratio;
vi. the ability to borrow or undertake asset sales in various markets;
vii. potential sources of volatility in assets and liabilities (and claims and obligations arising from off-balance sheet activities);
viii. the analysis of intra-group cash flows and accessibility to such funding;
ix. the capacity of providers of standby facilities to meet their obligations; and
x. the impact of adverse trends (e.g. decline in asset quality, market or operational disruptions etc.) on future cash flows and market confidence.

6.13 Reporting of risk measures should be done frequently (e.g., daily reporting to the senior/management/ALCO and each Board meeting during normal times, with reporting increasing during stress situations).

Liquidity Strategy, Policies and Procedures

6.14 Licensees should have comprehensive strategies for managing liquidity risk, which should be clearly documented in policies and procedures for limiting and controlling risk exposures that appropriately reflect the licensee’s risk tolerances.

6.15 A licensee’s liquidity strategy should be appropriate to the nature, size complexity of its activities, taking into consideration such issues as legal structures, key business lines, the breath and diversity of markets, products and jurisdictions in which the licensee operates, and statutory/regulatory requirements. The strategy should address specific policies on particular aspects of liquidity risk management such as:

i. the composition and maturity of assets and liabilities;
ii. the diversity and stability of funding sources;
iii. the approach to managing liquidity in different currencies, across borders, and across business lines and legal entities;
iv. the approach to intraday liquidity management; and
v. the assumptions on the liquidity and marketability of assets.

6.16 The strategy should also take account of liquidity needs under normal conditions as well as under periods of liquidity stress, the nature of which may be institution-specific or market-wide, or a combination of the two.

6.17 While the specific details of liquidity policies and procedures will vary across licensees, according to the nature scale and complexity of the licensee's activities, elements of any liquidity policy include, but are not limited to the following:

i. General liquidity strategy (short- and long-term), specific goals and objectives in relation to liquidity risk management, process for strategy formulation and the level within the licensee it is approved;
ii. Roles and responsibilities of individuals performing liquidity risk management functions, including structural balance sheet management, pricing, marketing, contingency planning, management reporting, lines of authority and responsibility for liquidity decisions;
iii. Liquidity risk management structure for monitoring, reporting and reviewing liquidity;
iv. Liquidity risk management tools for identifying, measuring, monitoring and controlling liquidity risk (including the types of liquidity limits and ratios in place and rationale for establishing limits and ratios);
v. Policies with respect to transferring a liquidity surplus from one currency to another, and across jurisdictions and legal entities; and
vi. Contingency plan for handling liquidity crises.

6.18 To be effective, the liquidity policy must be communicated throughout the firm. It is important that the Board and senior management/ALCO review these policies, at least annually, and when there are any material changes in the licensee's current and prospective liquidity risk profile. Such changes could stem from internal circumstances (e.g., changes in business focus) or external circumstances (e.g., changes in economic conditions). Reviews provide the opportunity to fine-tune the licensee's liquidity policies in light of its liquidity management experience and development of its business. Any significant or frequent exception to the policy is an important barometer to gauge its effectiveness and any potential impact on the licensee's liquidity risk profile.

6.19 Licensees should establish appropriate procedures and processes to implement their liquidity policies. The procedural manual should explicitly enunciate the necessary operational steps and processes to execute the relevant liquidity risk controls. The manual should be periodically reviewed and updated to take into account new activities, changes in risk management approaches and systems.

7. LIQUIDITY RISK MEASUREMENT AND MONITORING

Funding Requirements

7.1 The process for measuring liquidity risk should include robust methods for comprehensively projecting cash flows arising from assets[2], liabilities and off-balance sheet activities over meaningful and multiple time horizons and under different operating conditions.

7.2 Given their significance in constructing cash flow projections, the assumptions underlying the behaviour of assets, liabilities and off-balance sheet activities should be consistent, reasonable, and appropriate to a licensee's business profile and be adequately documented in the liquidity risk management policies. Senior management/ALCO should periodically review and formally approve these assumptions.

7.3 Licensees should ensure that either a positive cash flow position is maintained or otherwise sufficient cash can be generated satisfy to their daily funding requirements. Licensees are therefore required to measure, monitor their net funding requirements by constructing a maturity profile—which must be reported to the Central Bank (maturity-wise analysis of liabilities and assets)[3]—that projects future cash flows arising from assets, liabilities and off-balance sheet commitments and other contingent liabilities. However, senior management/ALCO may approve the exclusion of certain cash flows from the maturity profile, if they are deemed immaterial. The rationale for such exclusions should be adequately documented in the liquidity risk management policies and periodically reviewed to ensure that they remain appropriate.

7.4 Licensees should set realistic and appropriate internal limits to control the size of their cumulative net mismatch positions (i.e., where cumulative cash inflows exceed cumulative outflows)[4] for the short-term time buckets (i.e., "sight--less than 8 days", "8 days--less than one month" and "1 month--less than 3 months"), commensurate with the nature, scale, and complexity of the firm's activities, as well as risk tolerances. Maturity mismatch limits should also be set for individual currencies in which a licensee has significant activity. The maturity mismatch limits should be adequately documented in the liquidity risk management policies and periodically reviewed to ensure that they remain appropriate. Any exceptions to the imposed limits should be approved by senior management/ALCO.

7.5 The Central Bank will discuss the appropriateness and adequacy of the internal limits and actual mismatches of licensees on, a case-by-case basis, during an on-site examination and/or risk assessment process, taking into account various factors, including:

i. A licensee's stock a quality of liquid assets;
ii. The volatility and diversity of deposits;
iii. The quality and diversity of the loan book;

[2] Assets should be prudently valued according to relevant financial reporting standards and supervisory standards.
[3] See Section 8 "Central Bank Reporting Requirements"
[4] A cumulative net mismatch position is derived by accumulating the net mismatch position in each successive time bucket.

iv. Contingent liabilities and loan commitments
v. The availability and reliability of undrawn standby facilities;
vi. The extent to which liquidity is managed and supervised, on an integrated global basis;
vii. The ability and willingness of the parent/head office to provide liquidity; and
viii. A licensee's market standing and the quality of its treasury management.

Liquidity Ratios and Limits

7.6 Licensees should maintain an appropriate cushion of liquid assets[5] that can be sold or pledged for meeting liquidity needs in crises. While the amount and composition of these assets should be commensurate with the nature, scale and complexity of the licensee's activities, as well as its liquidity risk tolerances, key considerations include assumptions about the size of cash flow mismatches, the duration and severity of the stress event and the liquidation or borrowing value of the assets in stress situations.

7.7 Pursuant to Regulation 6(1) of the LRMR and as detailed in paragraph 3.1 of these Guidelines, every licensee shall maintain a liquidity ratio of not less than twenty (20) percent. In addition to the statutory requirement, licensees should establish a variety of ratios and limits to control the nature and amount of liquidity risk that they are willing to assume, taking into account the nature of a licensee's business (in terms of location, complexity of activities, nature of products, currencies and markets served), historical performance, and the level of earnings and capital available to absorb potential losses. These ratios and limits, including corresponding escalation procedures, should also be properly documented and periodically reviewed (see Section 6 under Internal Controls and Audit) and adjusted, as conditions or risk tolerances of a licensee change.

7.8 Liquidity ratios and limits will not prevent a liquidity crisis, but used in conjunction with more qualitative information, such as a licensee's funding capacity (e.g., in terms of a reduction in credit lines or an increase in requests for early withdrawals of deposits), exceptions or breaches can be early warning indicators of excessive risk or inadequate liquidity risk management. Accordingly, monitoring of ratios and limits should be assigned to a function independent of the funding areas, with breaches and exceptions appropriately escalated to senior management/ALCO.

7.9 Typical examples of ratios and limits used by licensees for liquidity risk monitoring and control include:

[5] See Regulation 2 of the LRMR for definition of "liquid assets".

i. Target liquidity ratio—licensees are encouraged to set a target liquidity ratio above the statutory requirement as an early warning indicator. This might be particularly useful for commercial banks, as they may be more vulnerable to early withdrawals of deposits in a liquidity crisis and those licensees that normally maintain a liquidity ratio relatively close to the statutory requirement;
ii. Maturity mismatch limits for local and major foreign currencies;
iii. Concentration limits in respect of the mix of assets and liabilities—this includes limits to avoid excessive exposure to market and other risks within the asset portfolios in respect of asset type, counterparty, geographic location and economic sector;
iv. Loan to deposit ratio or other ratios appropriate to a licensee's business activities

Foreign Currency Liquidity Management

7.10 Licensees should assess their foreign currency liquidity needs on an aggregate basis, and have adequate systems in place for measuring, monitoring and controlling cash flow and acceptable mismatch positions in each foreign currency in which they have significant activity[6]. Mismatch positions in foreign currencies should be analysed under both normal and stressed conditions. In managing individual currency funding needs, licensees should take into account the nature of their business activities and funding strategies. The size of mismatches for individual foreign currencies should take into account, inter alia, the following factors:

i. the ability to transfer a liquidity surplus from one currency to another, and across jurisdictions and legal entities;
ii. the availability of foreign currency back-up facilities to cater for circumstances in which normal access to individual currencies is disrupted;
iii. the "stickiness" of foreign currency deposits under stressed conditions;
iv. ability of borrowers to repay their foreign currency obligations under stressed conditions;
v. the ability to raise funds in foreign currency markets; and
vi. the convertibility of currencies in which the licensee is active, including the potential for impairment or complete closure of foreign exchange swap markets for particular currency pairs.

Diversified Funding

[6] The Central Bank will normally regard a foreign currency position to be significant, if the amount of foreign currency represents more than 10% of total deposits.

7.11 Licensees should establish a funding strategy that provides effective diversification in the sources and tenor of funding, by maintaining an ongoing presence in its chosen funding markets and building strong and lasting relationships with key fund providers. As such, licensees should regularly gauge their capacity to raise funds rapidly from each fund provider, as well as frequently assess and closely monitor the most important factors affecting its ability to raise funds, to ensure that estimates of its funding capacity remain valid. The objective is to identify and build-up an appropriate level of "core" funding and to minimise reliance on volatile funding sources. In particular, licensees with a large deposit base should have systems to carry out statistical and behavioural analysis to detect any signs that the average life of retail deposits is shortening or that the deposit base is becoming volatile. Licensees should also be cautious about attracting deposits mainly by way of offering above market interest rates or promotional gift items, as such deposits may prove to be highly volatile.

7.12 As a general liquidity risk management practice, licensees should avoid any potential concentration in funding sources. Available funding sources should be diversified over multiple time horizons (e.g., short-, medium- and long-term). Diversification targets should be part of medium- to long- term funding plans and should be aligned with budgeting and business planning processes, as well as take into account correlations between sources of funds and market conditions. Funding should also be diversified across a full range of retail as well as secured and unsecured wholesale sources of funds, consistent with the nature and complexity of a licensee's business activities. Concentration limits should be established, together with systems for monitoring compliance, so that over-reliance on a single counterparty (or group of related counterparties), secured versus unsecured market funding, instrument type, securitisation vehicle, currency and geographic market, may be prevented.

7.13 An essential component of ensuring funding diversity is maintaining market access. Market access is critical for effective liquidity risk management as it affects both the ability to raise new funds and to liquidate assets. Senior management should ensure that market access is being actively managed, monitored, and tested by the appropriate staff. Such efforts should be consistent with the licensee's liquidity risk profile and sources of funding.

7.14 Licensees should identify alternative sources of funding that strengthen their capacity to withstand a variety of severe institution-specific and market-wide liquidity shocks. Depending upon the nature, severity, and duration of the liquidity shock, potential sources of funding include, but are not limited to, the following:

i. Deposit growth
ii. Lengthening of maturities of liabilities
iii. Issuance of debt instruments

iv. Intra-group transfers, new capital issues, sales of subsidiaries or lines of business
v. Asset securitisation
vi. Sale (outright or through repurchase agreements) or pledging of unencumbered highly liquid assets
vii. Drawing-down committed facilities
viii. Borrowing

Intra-day Liquidity Position Management

7.15 Structural and operational changes in payment systems have increased the importance of monitoring intra-day liquidity for licensees engaged in significant payment, settlement, and clearing activities. In this respect, the failure by a licensee to manage intra-day liquidity effectively, under normal and stressed conditions, could leave it unable to meet payment and settlement obligations in a timely manner, adversely affecting its own liquidity position and that of its counterparties. Among large, complex firms, the interdependencies that exist among payment systems and the inability to meet certain critical payments has the potential to lead to systemic disruptions that can prevent the smooth functioning of all payment systems and money markets. Licensees should take account of this in their stress testing and scenario analysis. Therefore, licensees with material payment, settlement and clearing activities should actively manage their intra-day liquidity positions and risks to meet payment and settlement obligations on a timely basis, under both normal and stressed conditions, in all of the financial markets and currencies in which they have significant payment and settlement flows. Senior management should develop and adopt an intra-day liquidity strategy that allows the licensee to:

i. Monitor and measure expected daily gross liquidity inflows and outflows;
ii. Identify and prioritize time-specific and other critical obligations in order to meet them when expected;
iii. Settle other less critical obligations as soon as possible;
iv. Control credit to customers, when necessary; and
v. Ensure that liquidity planners understand the amounts of collateral and liquidity needed to perform payment-system obligations when assessing the institution’s overall liquidity needs.

7.16 Where a licensee relies on correspondents or custodians to conduct payment and settlement activities, it should ensure that this arrangement allows it to meet its obligations on a timely basis and to manage its intra-day liquidity risks under a variety of circumstances. In particular, such licensees should recognise the potential for operational or financial disruptions at its correspondent or custodian to disrupt its own liquidity management, and therefore should have alternative arrangements in place to ensure fulfilment of its obligations under such situations.

Intra-group Liquidity

7.17 Intra-group funds transfers could affect a licensee's liquidity in various ways. For example, a licensee may have to provide support to group companies experiencing liquidity shocks, while funding provided by other related entities to the licensee may be withdrawn in an emergency. Licensees should therefore have adequate policies and systems to manage their intra-group liquidity arrangements, including by establishing internal limits on intra-group liquidity risk to mitigate the risk of contagion in periods of stress. Internal limits may also be set for each currency in which the licensee operates.

7.18 Licensees should specify in their liquidity management strategy the treatment of intra-group liquidity and assumptions on intra-group dependencies. They should also be able to monitor and analyse how the funding positions of other group companies might affect their own liquidity, and to address any regulatory or legal impediments to accessing liquidity on a group basis.

7.18 Licensee should ensure that where they provide significant funding or liquidity support to other group or related entities (e.g., in the form of explicit guarantees or funding lines to be drawn at times of need), such support is appropriately accounted for in the measurement of their own liquidity positions.

7.19 Subsidiaries and branches of international banking groups should generally be able to rely on the support of their parent or head office in a liquidity crisis affecting only The Bahamas operations. Such support could however be called into question if the crisis affected the group as a whole. The local Board and senior management (in the case of a subsidiary) or head office (in the case of a branch) must demonstrate to the Central Bank how the liquidity of The Bahamas operation is to be supported and the degree of commitment of the parent or head office to provide liquidity in support in the event of a crisis.[7] (See also paragraph on 6.13)

7.20 The Central Bank will monitor the level and trend of intra-group transactions. Where the Central Bank has reason to doubt the financial or liquidity position of the group, the Central Bank may set limits on intra-group transactions, including requiring that a licensee becomes self-sufficient in terms of its own liquidity adequacy.

Stress Testing and Scenario Analysis

[7] The Central Bank may require letters of comfort or parental guarantees to be in place, depending on the circumstances, as proof of this commitment.

7.21 Licensees should conduct stress tests on a regular basis for a variety of short-term and protracted institution-specific and market-wide events across multiple time horizons, including on an intraday basis. The range and frequency of stress testing that is conducted by a particular firm should be commensurate with the nature, scale, complexity of the licensee's activities, size of a licensee's liquidity risk exposures, as well as the licensee's relative importance to the financial system in which it operates. Stress test outcomes should be used to identify and quantify sources of potential liquidity strain and to analyse possible adverse impacts on the licensee's cash flows, liquidity position, profitability, and solvency. Stress tests should consider the effects that losses and the resulting reduction in capital can have on the licensee's ability to maintain funding relationships. Stress tests should also be used to ensure that current exposures are consistent with the licensee's established liquidity risk tolerance. There should be an independent review (e.g., internal or external audit) of the adequacy of the design and effectiveness of the operations of a licensee's stress testing programme. The Central Bank will discuss the results of licensees' stress tests during the course of its on-site examinations.

7.22 Licensees should develop and utilise rigorous and challenging stress scenarios—the underlying assumptions should be reasonable and appropriate—when conducting stress tests and examine resultant cash-flow needs. Stress scenarios, as well as their underlying assumptions, should be properly documented.

7.23 While licensees are encouraged to cover stress scenarios of different types and levels of adversity commensurate with the nature, scale, complexity of their activities, they should, at a minimum, include the following:

i. Institution-specific scenario—covering situations that might arise from a licensee experiencing problems (real or perceived), such as asset quality problems, solvency concerns, rumours about a licensees credibility, or management fraud etc. This should represent the licensee's "worst-case" view of its cash flows in a crisis. Subsidiaries and branches of international banking groups should consider **two** types of institution-specific scenarios, namely, a crisis affecting only The Bahamas operations and a crisis that affects the global operations of the group. In the latter case, no intra-group or head office support should be assumed as available.

ii. Market-wide scenario—involves events where liquidity at numerous financial institutions in one or more markets is affected.

7.24 The Board (in case of subsidiaries) or head office (in the case of branches) has ultimate responsibility for the overall stress-testing programme and should be aware of the key findings from stress tests. Senior management's active involvement and support is critical to the effectiveness of the stress testing process. Senior management should discuss the results of stress tests and take remedial or mitigating actions to limit the licensee's exposures, build up a liquidity cushion, and adjust its liquidity profile to fit its risk tolerance. Stress testing and contingency planning are closely entwined; therefore, the results of stress tests should be incorporated into the licensee’s CFP.

7.25 Liquidity risk may be managed on an integrated basis in the case of subsidiaries and branches of an international banking group, with stress tests conducted on group or sub-group level. In these instances, the Central Bank may regard these arrangements for complying with stress test requirements as acceptable, provided that the licensee’s local Board and senior management (in the case of a subsidiary) or head office (in the case of a branch) can demonstrate that the stress scenarios employed appropriately addresses specific risk characteristics of the licensee concerned. Licensees having such arrangements in place should discuss this with the Central Bank.

Contingency Planning

7.26 All licensees are expected to have a comprehensive CFP that clearly sets out the strategies for addressing liquidity shortfalls in crises. Comprehensive contingency plans delineate specific policies and procedures to manage a wide range of stress events, establish clear lines of responsibility, and articulate clear implementation and escalation procedures. The CFP should be regularly tested[8] to ensure that it remains relevant and operationally sound. Senior management should also review and update the CFP, at least annually, for the Board’s approval, or more often, as warranted by business or market conditions.

7.27 A CFP should cover at least the following components:-

i. Specific reporting procedures to ensure timely and uninterrupted information flows to senior management. A clear division of responsibility should be in place so that all personnel understand their roles in a crisis situation, including designated personnel who would be responsible for indentifying crises and crisis management as well as those for promptly notifying the Inspector of Banks and Trust Companies(“the Inspector”) of the problems;
ii. Early warning indicators[9] that are used to signal an approaching crisis event, the mechanisms to facilitate constant monitoring and reporting of these signals. Licensees should tailor these indicators to its specific risk profile;

[8] The extent and frequency of such testing should be proportionate to the nature, scale and complexity of a licensee’s activities, as well as to the size of its liquidity risk exposures.
[9] See also Principles for Sound Liquidity Risk Management and Supervision, Basel Committee on Banking Supervision (September 2008) for an indicative list of early warning indicators, which a licensee may wish to consider.

iii. Action plans for altering asset and liability behaviours (i.e., market assets more aggressively, sell assets intended to hold, raise interest rates on deposit etc.) to deal with crisis events, which should include assessing the likely impact of particular courses of action;

iv. Procedures for making-up cash flow shortfalls during a crises. This should include identifying various sources of liquidity (including unused credit facilities), their availability, the conditions for their use, their reliability and the order of priority in which they are to be used. Licensees should also assess the cost of alternative funding sources and the potential impact on capital;

v. Procedures for determining the priority of customer relationships during a crisis, e.g. the order in which credit lines would be withdrawn from specific customers; and

vi. A communication plan for effectively communicating with employees, clients, market participants, creditors, counterparties, shareholders, the media and the Central Bank.

7.28 The results of stress tests and scenario analyses should be incorporated into the CFP. These results should be used as the basis for identifying various crises that could affect the licensee's liquidity and estimating its severity.

7.29 In the case of commercial banks, with extensive branch networks, the CFP should include contingencies to ensure the delivery of currency to their operations within a short period in a crisis. They may also consider the extent to which assets held with the Central Bank, pursuant to the statutory reserve and liquid assets requirements of Sections 19 and 20, respectively, of the CBA, are eligible to secure funding under the Central Bank's discount window.

7.30 For subsidiaries and branches of international banking groups, the CFP should deal with how the management of liquidity of The Bahamas operations is integrated into the global liquidity management of their respective parents or head office. The CFP should set out how the liquidity of The Bahamas operations is to be supported and the degree of commitment of the parent or head office to provide liquidity support in the event of a crisis.[10]

7.31 The CFP should be consistent with a licensee's business continuity plans and should be operational under situations where business continuity arrangements have been activated. Therefore, senior management should ensure effective coordination between teams managing liquidity crises and business continuity. As with business continuity plans, licensees should ensure that CFPs are readily accessible by liquidity crisis teams, both on- and off-site to facilitate quick implementation.

8. CENTRAL BANK REPORTING REQUIREMENTS

[10] See footnote 7.

8.1 The Central Bank will monitor the liquidity position of a licensee on an ongoing basis to satisfy itself that the liquidity risk is being appropriately managed, taking into account the nature, scale and complexity of the licensee's activities. As a part of this process, licensees must provide the Central Bank with a copy of their liquidity risk management strategy in addition to Form 7 (Profit and Loss) and the Maturity-Wise Analysis of Liabilities and Assets of the Excel Reporting System (ERS).

8.2 Any change in a licensee's liquidity risk management strategy should be communicated to the Inspector within two weeks of being approved by the Board.

8.3 In addition, licensees should inform the Inspector, forthwith, of any concerns about their current or future liquidity position, as well as their plans to address these concerns. Where a licensee's liquidity ratio is below the statutory requirement, it should immediately notify the Inspector and provide the necessary details. The Inspector may enter into discussions with the licensee to determine what remedial action is required.

9. PUBLIC DISCLOSURE

9.1 Given that public disclosure improves transparency, facilitates valuation, reduces uncertainty in markets and strengthens market discipline, the Central Bank encourages licensees, as part of their periodic financial reporting, to disclose both quantitative and qualitative information, regarding their liquidity risk management frameworks to enable relevant stakeholders, particularly major creditors and counterparties, to make an informed judgement concerning their ability to meet liquidity needs.

10. SUPERVISION OF LIQUIDITY RISK MANAGEMENT

10.1 In fostering the establishment of sound and prudent liquidity risk management frameworks within licensees, the Central Bank, as a part of its ongoing supervisory responsibilities, intends to assess the degree of licensees' compliance with the principles set forth in these Guidelines, taking into account the nature, scale and complexity of the licensee's activities. Consequently, the Central Bank will examine the effectiveness, relevance of the strategies, policies and procedures adopted by licensees, including the quality of the supervision and control exercised by the Boards and senior management, during the course of its on-site examinations of licensees.

10.2 In the case of the commercial banks, the Central Bank will use the liquidity ratio as specified in Regulation 6(1) of the LRMR, amongst other indicators, for monitoring and assessing the overall liquidity positions of these licensees and will be subject to discussion during the quarterly meetings held with these firms.

END

Module IV

Market Risk & Financial Instruments

- Defining Market Risk and the Basel II overview
- Key components within Market Risk
- Using VAR as a Risk Management tool and its limitations
- The importance of stress testing scenarios
- Setting market risk limits
- Reviewing market risk models

Market Risk
(Module IV)

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Bahamas Institute of Financial Services (BIFS)
Certified International Risk Management

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Course Agenda

- Defining Market Risk and the key components of Market Risk
- Basel II and IFRS overview on Market Risk
- Using VAR as a Risk Management tool and its limitations
- The importance of stress testing scenarios
- Setting market risk limits
- Reviewing market risk models

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Market Risk and the Basel II Overview

- Market Risk
  - As defined by the Bank for International Settlements ("BIS")
  - As defined by the International Financial Reporting Standards ("IFRS")
- Basel II Overview
  - Basel II Market Risk Framework
  - Revisions to the Basel II Market Risk Framework

Definition of Market Risk – Basel II

- Market risk is defined as the risk of losses in on and off-balance-sheet positions arising from movements in market prices. The risks subject to this requirement are:
  - The risks pertaining to interest rate related instruments and equities in the trading book;
  - Foreign exchange risk and commodities risk throughout the bank.

Source: Basel Committee on Banking Supervision, Basel II: International convergence of capital measurement and capital standards: a revised framework, comprehensive version, June 2006, paragraph 683(i)

Definition of Market Risk - IFRS

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: **interest rate risk, currency risk**, **commodity risk** and **other price risk**.

Source: IFRS 7

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Market Risk

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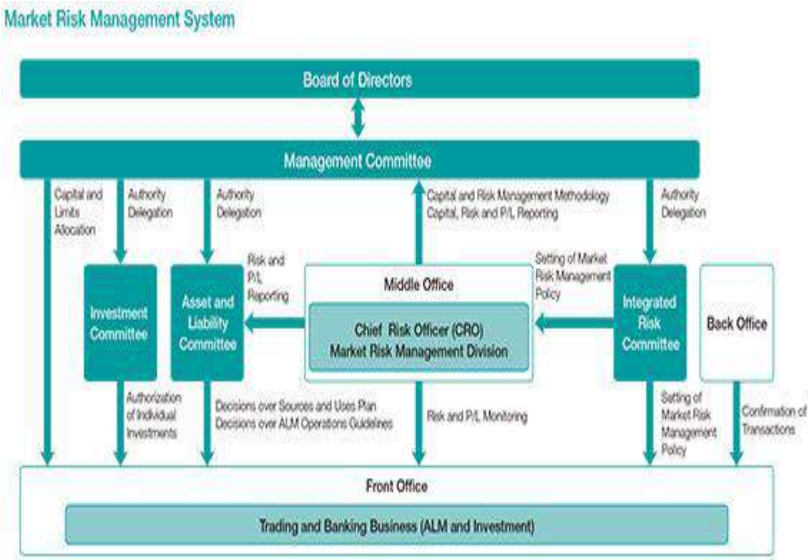

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Key Components of Market Risk

- Interest rate risk
- Currency risk
- Commodity price risk
- Other price risk

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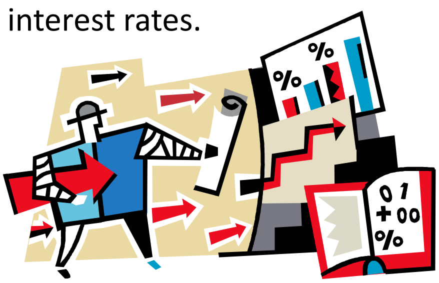
Definition of Currency Risk

Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates.

Source: IFRS 7

Definition of Interest Rate Risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates.



Source: IFRS 7

Types of Interest Rate Risk

- Shape of the yield curve
  - Normal
  - Flat
  - Inverse
- Yield curve shifts
  - Parallel
  - Nonparallel – twists
  - Nonparallel – butterfly shifts
- Measuring yield curve risk
  - Duration
  - Convexity

"A **yield curve** is a line that plots the interest rates, at a set point in time, of bonds having equal credit quality but differing maturity dates."

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Shapes of the Yield Curve

The shape of the yield curve gives an idea of future interest rate changes and economic activity.

- **Normal**

  Normal or up-sloped yield curve indicates yields on longer-term bonds may continue to rise, responding to periods of economic expansion.

- **Inverse**

  Inverse or down-sloped yield curve suggests yields on longer-term bonds may continue to fall, corresponding to periods of economic recession.

- **Flat**

  May arise from normal or inverted yield curve, depending on changing economic conditions (e.g. economy is transitioning from expansion to slower development and even recession or economy is transitioning from recession to recovery and potentially expansion).

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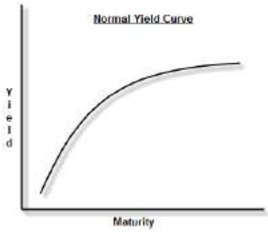
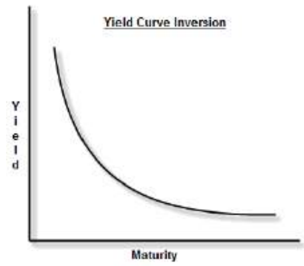
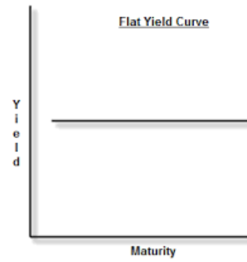
Shapes of the Yield Curve







Yield Curve Shifts

- **Parallel Shift**

  Rates across the maturity spectrum change by a constant amount and the slope of the yield curve remains consistent.

- **Non-parallel Shift:**

  Twist: The slope of the yield curve becomes flatter (the spread between short and long term yields narrows) or steeper (the spread between short and long term yields widens).

  Butterfly: Change to the curvature of the yield curve.

  Positive butterfly: The yield curve goes loses some of its “hump” and becomes straighter.

  Negative butterfly: The yield curve takes on more of a hump and ceases to look similar to a straight line.

Measuring yield curve risk

Yield curve risk refers to the probability that the yield curve will shift in a manner that affects the values of securities tied to interest rates -- particularly, bonds.

- **Duration**

  It is a measurement of how long, in years, it takes for the price of a bond to be repaid by its internal cash flows. It is an important measure for investors to consider, as bonds with higher durations carry more risk and have higher price volatility than bonds with lower durations.
  For each of the two basic types of bonds the duration is the following:
  Zero-Coupon Bond – Duration is equal to its time to maturity.
  Vanilla Bond - Duration will always be less than its time to maturity.

- **Convexity**

  For any given bond, a graph of the relationship between price and yield is convex. This means that the graph forms a curve rather than a straight-line (linear). The degree to which the graph is curved shows how much a bond's yield changes in response to a change in price.

"Hedging interest rate risk can be done using interest rate future, interest rate options, interest rate swaps"

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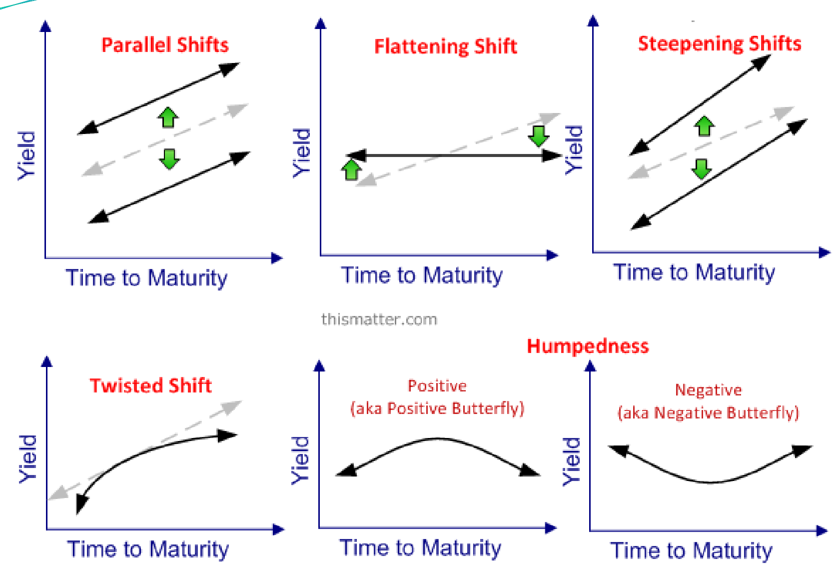

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Interest rate risk:

Central Bank of the Bahamas: Monetary Policy in The Bahamas

- In an effort to position the domestic business sector to take more advantage of growth opportunities in the near-term, and to provide more support to housing sector investments, the Central Bank reduced the Discount Rate by 50 basis points to 4.00 percent, effective December 22nd, 2016. The Bank requested that financial institutions follow suit with a corresponding reduction in the Prime Rate, from 4.75 percent to 4.25 percent, and similar adjustments in their lending rate schedules. Commercial banks announced the reduction in the Prime Rate to 4.25%, effective January 5th, 2017.

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Examples of Currency Risk

- The risk of receiving less in the domestic currency when invested in a bond issue that makes payments in a foreign currency. This risk applies to coupon payments and the principal payment at maturity.
- **Transaction Risk** - the risk or receiving less or paying more in domestic currency when entering into a business contract to receive payment or take delivery in a foreign currency at a specified date in the future.

Hedging of these risks can be done using currency forward contracts or currency futures contracts.

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Definition of Commodity Risk

Commodity risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in commodity prices.

Source: IFRS 7

Examples of Commodity Risk

- The risk or receiving less or paying more in domestic currency when entering into a business contract to receive payment for the sale of a commodity or take delivery of a commodity in a foreign currency at a specified date in the future.

Hedging of these risks can be done using primarily futures contracts

Definition of Other Price Risk

Other price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices (other than those arising from interest rate risk, currency risk, or commodity risk), whether those changes are caused by factors specific to the individual financial instrument or its issuer, or factors affecting all similar financial instruments traded in the market.

Source: IFRS 7

Four tools to manage commodity risk and volatility

Hedge the risk	• Hedge positions in advance • Manage portfolio risks
Deflect the risk	• Share risk with CPGs, retailers • Reduce costs and target risk exposure
Transfer the risk	• Partner to share the risk • Lock in prices with suppliers • Direct suppliers to hedging positions
Operate the risk	• Take advantage of value zones • Own more of the upstream • Employ make-versus-buy strategies

Source: A.T. Kearney analysis

Basel II Overview

The history of papers that preceded the latest version of the Basel II market risk framework are:

- The Basel Capital Accord of July 1988.
- Basel Committee on Banking Supervision, Modification of the Basel Capital accord of July 1988, as amended in January 1996, press release, 19 September 1997 (Basel I).
- Basel Committee on Banking Supervision, Basel II: International convergence of capital measurement and capital standards: a revised framework, comprehensive version, June 2006.
- Basel Committee on Banking Supervision, Proposed revisions to the Basel II market risk framework, consultative document, July 2008.
- Basel Committee on Banking Supervision, Proposed revisions to the Basel II market risk framework, consultative document, January 2009.
- Basel Committee on Banking Supervision: Revisions to the Basel II market risk framework, July 2009.

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BASEL II + MARKET RISK AMENDMENT

$$\frac{\text{Total Regulatory capital: Tier-1,2,3}}{RWA_{Credit} + [MRC_{Market} \times 12.5] + [ORC_{Opr'l} \times 12.5]} \geq 8\%$$

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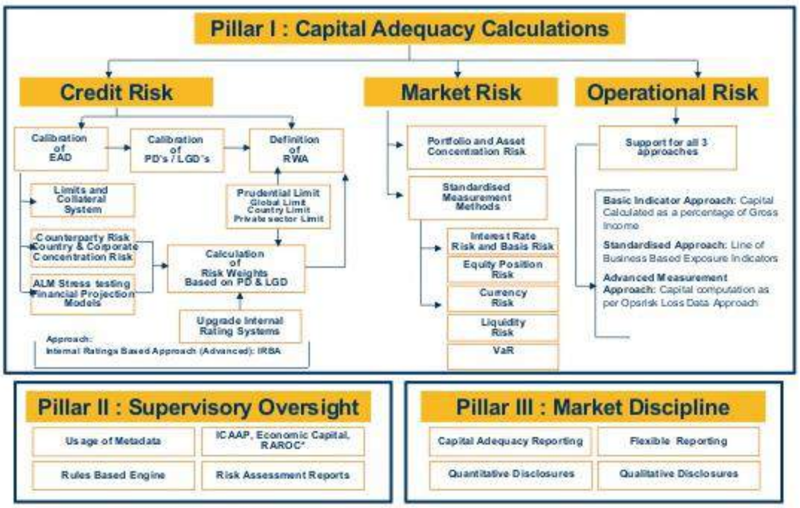
Basel II 3 Pillar Analytics



* Risk-Adjusted Return on Capital (RAROC)

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Basel I Shortcomings

- Capital required did not mirror a bank's true risk profile
- Too simple for advanced banks
- Inflexible against new developments
- Covers only credit and market risks
- Only quantitative in nature
- Limited recognition of collateral

Source: Financial Crisis and the Implementation of Basel II: Potential Economic Impact for Trinidad and Tobago, by *Lester Henry and Michelle Majid*

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Basel II Objectives

- Greater emphasis on banks' own assessment of risk
- Comprehensive framework for credit, market and operational risk
- Encourages rigorous bank supervision
- Ensures market transparency, disclosure
- More risk sensitive; better align regulatory capital with actual risk exposure

Source: Financial Crisis and the Implementation of Basel II: Potential Economic Impact for Trinidad and Tobago, by *Lester Henry and Michelle Majid*

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Minimum capital requirements for market risk

The 2007-08 period of severe market stress exposed weaknesses in the framework for capitalizing risks from trading activities.

In 2009, the Committee introduced a set of revisions to the Basel II market risk framework to address the most pressing deficiencies.

A fundamental review of the trading book was also initiated to tackle a number of structural flaws in the framework that were not addressed by those revisions. This has led to the revised market risk framework, which is a key component of the Basel Committee's reform of global regulatory standards in response to the global financial crisis.

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Minimum capital requirements for market risk

The purpose of the revised market risk framework is to ensure that the standardized and internal model approaches to market risk deliver credible capital outcomes and promote consistent implementation of the standards across jurisdictions.

The final standard incorporates changes that have been made following two consultative documents published in October 2013 and December 2014 and several quantitative impact studies.

Minimum capital requirements for market risk

The key features of the revised framework include:

- *A revised boundary between the trading book and banking book*
- *A revised internal models approach for market risk*
- *A revised standardized approach for market risk*
- *A shift from value-at-risk to an expected shortfall measure of risk under stress*
- *Incorporation of the risk of market illiquidity*

The revised market risk framework comes into effect on **1 January 2019.**

IFRS Overview of Market Risk

International Financial Reporting Standards ("IFRS"), IFRS 7

Sensitivity analysis

Paragraph 40

Unless an entity complies with paragraph 41, it shall disclose:

- a sensitivity analysis for each type of market risk to which the entity is exposed at the end of the reporting period, showing how profit or loss and equity would have been affected by changes in the relevant risk variable that were reasonably possible at the date;
- the methods and assumptions used in the preparing the sensitivity analysis; and
- changes from the previous period in the methods and assumptions used, and the reasons for such changes.

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IFRS Overview of Market Risk

International Financial Reporting Standards ("IFRS"), IFRS 7

Sensitivity analysis...cont

Paragraph 41

- If an entity prepares a sensitivity analysis, such as value-at-risk, that reflects interdependence between risk variables (e.g. interest rates and exchange rates) and uses it to manage financial risks, it may use that sensitivity analysis in place of the analysis specified in paragraph 40. The entity shall also disclose:
  - an explanation of the method used in preparing such a sensitivity analysis and of the main parameters and assumptions underlying the data provided; and
- an explanation of the objective of the method used and of limitation that may result in the information not fully reflecting the fair value of the assets and liabilities involved

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IFRS Overview of Market Risk

International Financial Reporting Standards ("IFRS"), IFRS 7

Paragraph 42

- When the sensitivity analysis disclosed in accordance with paragraph 40 or 41 are unrepresentative of a risk inherent in a financial instrument (for example because the year-end exposure does not reflect the exposure during the year), the entity shall disclose that fact and the reason it believes the sensitivity analyses are unrepresentative.

IFRS Overview of Market Risk

International Financial Reporting Standards ("IFRS"), IFRS 7

IG32 - Paragraph 40(a) requires a sensitivity analysis for each type of market risk to which the entity is exposed. There are three types of market risk: interest rate risk, currency risk and other price risk. Other price risk may include risk such as equity price risk, commodity price risk, prepayment risk (i.e. the risk that one party to a financial asset will incur a financial loss because the other party repays earlier or later than expected), and residual value risk (e.g. a lesser of motor cars that writes residual value guarantees is exposed to residual value risk). Risk variables that are relevant to disclosing markets risk include, but are not limited to:

- the yield curve of market interest rates. It may be necessary to consider both parallel and non-parallel shifts in the yield curve.
- foreign exchange rates;
- prices of equity instruments; and
- market prices of commodities.

IFRS Overview of Market Risk

International Financial Reporting Standards ("IFRS"), IFRS 7

IG33 - Paragraph 40(a) requires the sensitivity analysis to show the effect on profit or loss and equity of reasonably possible changes in the relevant risk variable. For example, relevant risk variables might include:

- prevailing market interest rates, for interest-sensitive financial instruments such as a variable-rate loan; or
- currency rates and interest rates, for foreign currency financial instruments such as foreign currency bonds.

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IFRS Overview of Market Risk

International Financial Reporting Standards ("IFRS"), IFRS 7

IG34 - For interest rate risk, the sensitivity analysis might show separately the effect of a change in market interest rates on:

- interest income and expense;
- other line items of profit or loss (such as trading gains and losses); and
- when applicable, equity.

An entity might disclose a sensitivity analysis for interest rate risk for each currency in which the entity has material exposures to interest rate risk.

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IFRS Overview of Market Risk

International Financial Reporting Standards ("IFRS"), IFRS 7

- IG35 - Because the factors affected market risk vary depending on the specific circumstances of each entity, the appropriate range to be considered in providing a sensitivity analysis of market risk varies for each entity and for each type of market risk.
- IG36 - includes disclosure examples regarding interest rate risk and foreign currency risk.

IFRS Overview of Market Risk

International Financial Reporting Standards ("IFRS"), IFRS 7

Other market risk disclosures (paragraph 42)

IG 37 - Paragraph 42 requires the disclosure of additional information when the sensitivity analysis disclosed is unrepresentative of a risk inherent in a financial instrument. For example, this can occur when:

- a financial instrument contains terms and conditions whose effects are not apparent from the sensitivity analysis, e.g. options that remain out of (or in) the money for the chosen change in the risk variable;
- financial assets are illiquid, e.g. when there is a low volume of transactions in similar assets and an entity finds it difficult to find a counterparty; or
- an entity with a large holding of a financial asset that, if sold in its entirety, would be sold at a discount or premium to the quoted market price for a smaller holding.

IFRS Overview of Market Risk

International Financial Reporting Standards ("IFRS"), IFRS 7

IG38 - In the situation of paragraph IG37(a), additional disclosure might include:

- the terms and conditions of the financial instruments (e.g. the options);
- the effect on profit or loss if the term or condition were met (i.e. if the options were exercised); and
- a description of how the risk is hedged.

For example, an entity may acquire a zero-cost interest rate collar that includes an out-of-the-money leveraged written option (e.g. the entity pays ten times the amount of the difference between a specified interest rate collar as an inexpensive economic hedge against a reasonably possible increase in interest rates. However, an unexpectedly large decrease in interest rates might trigger payments under the written option that, because of the leverage, might be significantly larger than the benefit of lower interest rates. Neither the fair value of the collar nor a sensitivity analysis based on reasonably possible changes in market variables would indicate this exposure. In this case, the entity might provide the additional information described above.

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IFRS Overview of Market Risk

International Financial Reporting Standards ("IFRS"), IFRS 7

IG39 - In the situation described in paragraph IG37(b), additional disclosure might include the reasons for the lack of liquidity and how the entity hedges the risk.

IG40 - In the situation described in paragraph IG37©, additional disclosure might include:

- the nature of the security (e.g. entity name);
- the extent of holding (e.g. 15 per cent of the issued shares);
- the effect on profit or loss; and
- how the entity hedges the risk.

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Value at Risk ("VaR")

- **Methodologies:**
  - **Variance Covariance** – multiplies market value exposure by the standard deviation of price changes
  - **Historical Data** – run the portfolio through actual historical data and computing the change that would have occurred
  - **Monte Carlo** – this is a simulation program that running multiple simulations based on probability distributions for each of the market risk factors

VaR

- **Variance Covariance – Pros**
  - Fast
  - Relatively easy to implement
  - Consistent measurement tool
  - Data sets are readily available (RiskMetrics)
  - Defines what is low and high risk
  - Requires only portfolio level sensitivities
  - Constant reference point for staff

VaR

- **Variance Covariance – Cons**
  - Assumes normal distributions or distributions similar to normal which may understate the true VaR
  - Does not capture "Fat Tails"
  - Input error – the variance-covariance matrix is a collection of estimates, so of which have very large error terms
  - Non-stationary variables – occurs when the variances and covariances across assets change over time
  - Difficult to estimate market liquidity
  - Does not revalue positions
  - Multiple time horizons cannot be incorporated
  - Complex or discontinuous payoffs cannot be accounted for
  - Loss estimates based on the selected confidence interval

VaR

- Historical Simulations - Pros
  - Requires no assumption about distributions
  - Relies on volatility and correlation embedded in selected time series
  - Captures fat tails (extreme events) in price change distribution, which are not captured in a normal distribution
  - Relatively easy to compute
  - Can capture non-linear risks

VaR

- Historical Simulations - Cons
  - Relies on historical data – the past is not necessarily a good predictor of the future
  - Trends in time series data – if volatility is increasing over time, the VaR estimate will understate true VaR
  - Data intensive – requires numerous time series
  - New assets or market risks – VaR cannot necessarily be estimated

VaR

- Monte Carlo Simulation - Pros
  - Accommodates a variety of statistical models and assumptions
  - Produces a distribution of profit & loss changes
  - Unrealistic assumptions about normality are not required
  - Flexible enough to run VaR for any type of portfolio and are flexible enough to handle options and option-like securities
  - Provides greatest level of control over price volatility
  - Can capture non-linear risks

VaR

- Monte Carlo Simulation - Cons
  - Mathematically intensive – can require tens of thousands of simulations
  - Requires distribution and correlation assumptions
  - Less transparent
  - Does not capture “Fat Tails”

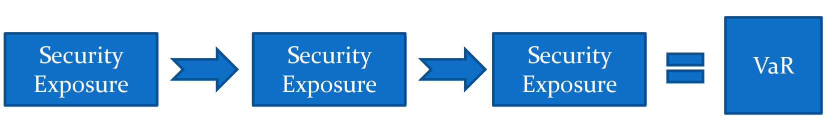
Comparing Approaches

- Variance-covariance requires strong assumptions about the return distributions of standardized assets, but is easy to compute once these assumptions have been made.
- The historical simulation requires no assumptions about return distributions, but implicitly assumes that the data used in the simulation is representative of risks going forward.
- The Monte Carlo simulation approach allows for more flexibility when choosing distributions and bringing in subjective judgments and external data, but it is the most demanding from a computational standpoint.

Confidence Intervals

- 90% confidence interval = 1.65 standard deviations
- 95% confidence interval = 1.96 standard deviations
- 99% confidence interval = 2.33 standard deviations

Variance Covariance



Sensitivity Approach - Inputs

Security Exposure	Unit of Measure
Interest rate exposure	Dollar value per basis point change in rate
Foreign exchange Equity Commodity	Dollar value of the position
Options	Dollar value adjusted for option delta plus gamma expressed as a change in delta

Sensitivity Aggregation

Security - Bonds	Sensitivity
$1 million 5 Year USD T-bond	$200/basis point
$1 million 10 Year USD T-bond	$450/basis point
$1 million 15 Year USD T-bond	$800/basis point
Total for Bond Portfolio	$1,450/basis point

Fortunately the sensitivities can be aggregated to arrive at the USD bond portfolio sensitivity to change in interest rates.

VaR Example for a Single Asset

Asset	Exposure	One Day Volatility	Risk
2,000 shares of GE at $25/share	2,000 * $25 = $50,000	1.5%	$50,000 * 1.5% = $750

VaR Example for a Two Asset Portfolio

Asset	Exposure	One Day Volatility	Risk
10,000 shares of GE at $25/share	10,000 * $25 = $250,000	1.5%	$250,000 * 1.5% = $3,750
$20 million 15 Yr US T-Bond	$800/bp * 20 = $16,000/bp	2 bps	$16,000/bp * 2 bps = $32,000
Assume the correlation between the assets is 0.3			
Two Asset Portfolio Risk (VaR)			$33,317.60

If we simply add the risk for each asset the total risk is $35,750, the correct total is $33,317.60 or $2,182.40 less. This is due to the diversification benefit given that the correlation between the assets is only 0.3. If the correlation was 1.0, then there would not be a diversification benefit.

VaR Example for a Three Asset Portfolio

Asset	Exposure	One Day Volatility	Risk
10,000 shares of GE at $25/share	10,000 * $25 = $250,000	1.5%	$250,000 * 1.5% = $3,750
$20 million 15 Yr US T-Bond	$800/bp * 20 = $16,000/bp	2 bps	$16,000/bp * 2 bps = $32,000
1,000 ounces of Gold at $1,400/ounce	1,000*$1,400 = $1,400,000	3.0%	$1,400,000*3.0% = $42,000
Assume the correlation between the assets 1 & 2 is 0.3 Assume the correlation between assets 1 & 3 is 0.2 Assume the correlation between assets 2 & 3 is 0.1			
Two Asset Portfolio Risk (VaR)			$56,620.34

If we simply add the risk for each asset the total risk is $77,750, but the correct total is $56,620.34 or $21,129.66 less. This is due to the diversification benefit given that the correlation between the assets is only 0.3, 02, and 0.1.

Adjusting the VaR Estimation Period

- Adjusting VaR from one estimation period to another is simpler than one may expect.
- If the period is lengthened you multiply the VaR by the square root ("sqrt") of the increase in trading days.
- If the period is shortened you divide the VaR by the square root of the increase in trading days.
- Assuming a one day VaR of $10,000

Period Adjustment	Trading days	Adjustment	VaR
1 week	5	sqrt(5)	22,360.68
1 month	21	sqrt(21)	45,825.76
3 months	62.5	sqrt(62.5)	79,056.94
1 year	250	sqrt(250)	158,113.90

VaR Confidence Intervals

- Confidence intervals are based on what is called in statistics, the Z-Value.
- The table below details the # of standard deviations (σ's) required for a given confidence interval.

Z-Value	
Confidence	# of σ's
84%	1.00
90%	1.28
95%	1.65
97.5%	1.96
99%	2.33

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Sources

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SUPERVISORY AND REGULATORY GUIDELINES: PU62-0210S
Market Risk Guidelines
Issued: 3rd December 2012

GUIDELINES ON THE MANAGEMENT OF MARKET RISK

1. INTRODUCTION

1.1. The Central Bank of The Bahamas ("the Central Bank") is responsible for the licensing, regulation and supervision of banks and trust companies operating in and from within The Bahamas, pursuant to the Central Bank of The Bahamas Act, 2000 and the Banks and Trust Companies Regulation Act, 2000. Additionally, the Central Bank has the duty, in collaboration with financial institutions, to promote and maintain high standards of conduct and management in the provision of banking and trust services.

1.2. All licensees are required to adhere to the Central Bank's licensing and prudential requirements, ongoing supervisory programs and regulatory reporting requirements, and are subject to periodic on-site examinations. Licensees are required to conduct their affairs in conformity with all other Bahamian legal requirements.

2. PURPOSE

2.1. Market Risk is defined as the risk of losses in on and off-balance sheet positions arising from movement in market prices. Licensees operating in the foreign exchange, commodities, interest rate, or equity markets may be exposed to potentially large fluctuations in market prices. Potential market risk losses may also result from the influence of other risk factors such as volatility and liquidity. These losses may arise from both general market price movements and, in the case of interest rate and equity instruments, from price movements specific to particular issuers. The capital required to guard against potential loss should be commensurate with the risks involved.

2.2. The market risk capital requirement is expressed in terms of two (2) separately calculated charges: ***general market risk*** and ***specific risk***. Positions in interest rate, equities, foreign exchange and commodities all give rise to general market risk. Specific risk is only relevant for interest rate and equity positions related to a specific issuer.

2.3. These Guidelines aim to ensure that all licensees that are engaged in activities that give rise to risks associated with potential movements in market prices adopt management practices and meet capital requirements that are commensurate with the risks involved. These Guidelines form part of a comprehensive set of prudential standards dealing with capital adequacy. It should be read in conjunction with the Central Bank's *Guidelines for the Management of Capital Adequacy* (on the website: www.centralbankbahamas.com).

3. APPLICABILITY

3.1. These Guidelines apply to all public banks and bank and trust companies incorporated in The Bahamas (referred to as "licensees") that have a trading book (see Section 4) and meets the ***de minimis threshold*** as follows:

i. The licensee's market risk position is ≥ 5% of the total on- and off-balance sheet assets; or
ii. The licensee's market risk positions is ≥ US$100 million; and
iii. In the case of a licensee that is jointly regulated by the Central Bank and the Securities Commission of The Bahamas, the licensee's market risk positions is ≥ US$25 million.

3.2. Banks with market risk positions that do not meet the de minimis threshold i.e. (i) to (iii) above are exempt from complying with the market risk capital requirements.

3.3. These Guidelines do not apply to pure trust companies or branches of foreign banks. The Central Bank recognizes that the market risk measurement and management framework will depend to some extent on the range and complexity of activities undertaken by a licensee.

3.4. The Central Bank reserves the right to apply the market risk capital requirements to other banks, on a case-by-case basis, if the Central Bank determines that, inter alia, the trading activities are a large proportion of a licensee's overall operations.

4. DEFINITIONS

4.1. A ***trading book*** consists of positions in financial instruments and commodities held either with trading intent or in order to hedge other elements of the trading book. To be eligible for trading book capital treatment, financial instruments must either be free of any restrictive covenants on their tradability or able to be hedged completely. In addition, positions should be frequently and accurately valued, and the portfolio should be actively managed. Positions held with trading intent are those held intentionally for short-term resale and/or with the intent of benefiting from actual or expected short-term price movements or to lock in arbitrage profits, and may include, for example, proprietary positions, positions arising from client servicing (e.g., matched principal broking) and market making. Licensees should have a policy that specifies what items are allocated to its trading book.

4.2. A ***financial instrument*** is any contract that gives rise to both a financial asset of one entity and a financial liability or equity instrument of another entity. Financial instruments include both primary financial instruments or cash instruments and derivative financial instruments.

4.3. ***Specific risk*** is defined as the risk of loss caused by an adverse price movement of a debt instrument or security due principally to factors related to the issuer.

4.4. ***General market risk*** is defined as the risk of loss arising from adverse changes in market prices.

5. MARKET RISK MANAGEMENT

5.1. Licensees in accordance with the requirements herein shall establish a sound and reliable system for market risk management commensurate with the nature, scale and complexity of the business. The system for the management of market risk shall include the following basic elements:

(i) Effective oversight and control by the board of directors (the Board) and senior management;
(ii) Sound policies and procedures for the management of market risk;
(iii) Sound procedures for identifying, measuring, monitoring and controlling market risk;
(iv) Sound internal controls and independent external audit; and
(v) Appropriate mechanism for market risk capital allocation.

5.2. Licensees must establish and maintain adequate systems and controls sufficient to give management and supervisors the confidence that their valuation estimates are prudent and reliable. These systems must be integrated with other risk management systems within the organization (such as credit analysis). Such systems must include:

(i) Documented policies and procedures for the process of valuation. This includes clearly defined responsibilities of the various areas involved in the determination of the valuation, sources of market information and review of their appropriateness, frequency of independent valuation, timing of closing prices, procedures for adjusting valuations, end of the month and ad-hoc verification procedures; and
(ii) Clear and independent (i.e., independent of front office) reporting lines for the department accountable for the valuation process. The reporting line should ultimately be to a main board executive director.

5.3. Licensees should value the trading book positions by marking-to-market at least the daily valuation of positions at readily available close out prices that are sourced independently. Examples of readily available close out prices include exchange prices, screen prices, or quotes from several independent reputable brokers.

5.4. Licensees must mark-to-market as much as possible. The more prudent side of bid/offer must be used, unless the institution is a significant market maker in a particular position type and it can close out at mid-market.

5.5. In carrying out its market risk management, a licensee shall consider the relationship of market risk with the other types of risks such as credit risk, liquidity risk, operational risk, legal risk, and reputational risk; and align its policies and procedures for market risk with the other risks.

5.6. Licensees should have systems in place to:

(i) Ensure that positions are assigned correctly between its banking book and its trading book;
(ii) Ensure that arrangements are in place to prevent inappropriate switching of transactions between the trading and banking books; and
(iii) Control transfers of position from one book to the other, both at the inception of a deal and, if the intent changes, during the life of the deal/position.

5.7. The integrity and timeliness of data on current positions is also a key component of the risk measurement process. Licensees should have adequate management information systems (MIS) for measuring, monitoring, controlling and reporting market risk. Reports must be provided on a timely basis to the licensee's Board, senior management and, where appropriate, to individual business line managers. Such reports should also ensure the effectiveness of information technology controls to vet the security of trading data and sensitive client information.

Board and Senior Management Oversight

5.8. The Board and senior management of a licensee shall implement effective oversight and control of the management of market risk. Effective supervision by the Board and senior management is critical for sound market risk management. The formality and sophistication with which the Board and senior management fulfill their responsibilities may vary significantly among licensees, depending on the level of the licensee's risk and complexity of its holdings and activities. Regardless of the size of the licensee, the Board and senior management should ensure that there is adequate separation of duties in key elements of the risk management process to avoid potential conflicts of interest. Therefore, licensees should have risk measurement, monitoring, and control functions, with clearly defined duties, that are sufficiently independent from its position-taking functions, which report risk exposures directly to senior management and the Board.

Board of Directors' Responsibilities and Duties

5.9. The Board has the ultimate responsibility for understanding the nature and the level of market risk exposure taken by the licensee. It must ensure that the licensee implements sound fundamental principles that facilitate the identification, measurement, monitoring, and control of market risk. Furthermore, the Board should encourage discussions between its members and senior management - as well as between senior management and staff - regarding the licensee's market risk exposures and management process.

(i) The Board shall adopt a market risk strategy and policies for market risk measurement, management and control (see Section 6);

(ii) The Board must ensure that senior management implement and adhere to the adopted market risk strategy and policy for market risk measurement, management and control. Risk management and control shall be subject to regular oversight and review by the Board;

(iii) The Board shall ensure that, at all times, they have access to timely information on the licensee's risk-taking position. They shall regularly analyze this information in such detail as to be able to assess the amount of risk taken by the licensee and review the risk measurement, management and control taken by senior management;

(iv) The Board shall, at least once a year, establish the level of desirable risk-taking and ensure that appropriate market risk limits have been set. Market risk limits, which may include trade limits, risk limits and stop-loss limits, can be broken down by region, business operation, asset portfolio, financial instrument and risk type. The overall market risk limit and the types and structure of limits of a licensee shall be approved by the Board;

(v) The Board shall ensure that the licensee's remuneration policy is not in conflict with its market risk strategy. The remuneration schemes for staff responsible for trading products containing market risk and in derivatives must not be set up in such a way that they provide an incentive for excessive market risk-taking; and

(vi) The Board shall adopt the strategy and policy for derivatives trading.

Senior Management Responsibilities and Duties

5.10. Senior Management should ensure that the licensee's operations and level of market risk are effectively managed and that appropriate risk management policies and procedures are established and maintained. Senior management must also ensure that resources are available to evaluate and control market risk, which allows the licensee to conduct its activities in a safe and sound manner.

5.11. Senior Management shall:

(i) Be responsible for implementing the market risk strategy adopted by the Board for establishing and maintaining market risk measurement, management as a part of internal control. Senior Management shall be responsible for developing, adopting and updating procedures for the identification, measurement, mitigation, monitoring and controlling of market risk;

(ii) Adopt principles and methodologies for risk measurement and valuation, which must be properly documented;

(iii) Be responsible for maintaining an appropriate framework of market risk limits and designating clear risk-taking powers;

(iv) Be responsible for ensuring that the staff clearly understand and adhere to the entity's market risk strategy and key principles for market risk management and control; and

(v) Set up an organization for market risk management and control and designate the duties of the different units and staff within this organization. In designating the duties, attention must be paid to proper segregation of duties and tasks to avoid potentially harmful combinations of duties and non-compliance with guidelines.

Middle Office

5.12. The middle office staff is inherently positioned to best monitor treasury operations, specifically clearing trades and processing client financial requests. Middle office staff may prepare forecasts showing the effects of various changes in market conditions and risk exposures or submit recommendations to the Board on the improvement of treasury and fiduciary protocols.

5.13. Segregation of duties should be evident in the middle office, which may report to the Risk Management Committee (RMC) or Asset & Liability Committee (ALCO), independently of the treasury function. Licensees without a formal middle office should ensure that risk control and analysis rests with a department/unit with clear reporting independence from treasury or risk-taking units.

Internal Audit

5.14. The internal audit should be functionally separate from management oversight of the trading function. It will be the responsibility of internal audit to, inter alia:

i. Ensure that dealers observe the policies and code of behavior;
ii. Ensure that accounting procedures meet the necessary standards of accuracy, promptness and completeness;
iii. Verify the adequacy and accuracy of management information reports;
iv. Conduct internal audits regularly and make occasional spot checks;
v. Seek, periodically, in conjunction with management, an exchange of information on outstanding contracts with the counterparties to the contracts, as a safeguard against malpractices; and
vi. Review the trading limits and controls, investigate potential conflicts of interest, and ensure trading valuation systems are accurate and mitigate excessive risk taking.

6. MARKET RISK POLICY STATEMENTS

6.1. Licensees are expected to have an established policy for allocating transactions (including internal deals) to the trading and non-trading (i.e., banking) book as well as procedures to ensure compliance with the policy. There should be a clear audit trail at the time each transaction is conducted. The Central Bank will examine the adequacy of the policy and procedures and their consistent implementation, when it considers it necessary. For this purpose, banks which engage in trading activities should submit to the Central Bank a policy statement covering:

i. The definition of trading activities;
ii. The financial instruments which can be traded or used for hedging the trading book portfolios; and
iii. The principles used for transferring positions between the trading and banking books.

6.2. Licensees' policy statements should be approved by their Board or by a committee of the board (i.e., ALCO or RMC).

6.3. The policy statement should be reviewed and, where necessary, updated annually with any major changes approved by its board or a body delegated with this responsibility by the board. A licensee must inform the Central Bank when a review has taken place and major changes made.

6.4. Licensees' policy statements should explicitly require that all trading book positions are marked-to-market on a daily basis.

7. MARKET RISK CAPITAL REQUIREMENTS

Capital Requirement

7.1. The Central Bank requires all licensees, with the exception of pure trust companies, restricted licensees and foreign branches, to maintain a capital adequacy ratio of at least 8 percent at all times (see the *Guidelines for the Management of Capital Adequacy)*. Certain licensees may be required to hold higher minimum capital levels, based on their risk profile. Licensees must hold capital against all marked-to-market interest rate related instruments equities and associated derivatives arising from positions held in the trading book. In addition, licensees' capital must be held against all foreign exchange and commodity risks position that are held in both the banking and trading books.

$$\textbf{Minimum CAR} = \frac{\textbf{Tier 1}\text{ Capital} + \textbf{Tier 2}\text{ Capital}}{\textbf{RWA}(\textbf{CR}+\textbf{MR})} = \textbf{8}\%$$

Where:

CR = Credit Risk **MR** = Market Risk **RWA** = Risk Weighted Assets

7.2. In cases where licensees undertake significant market risk in the course of their business strategy, capital should be allocated specifically to support this risk. Should the Central Bank, through its risk assessment process, conclude that the market risk exposure of a licensee is high relative to current capital, it will discuss this concern with senior management of the licensee. Depending on the circumstances, the Central Bank may require a licensee to strengthen its capital position or reduce its level of market risk exposure.

Measurement Approach

7.3. Given the nature, scope and complexity of banks operating from and within The Bahamas, the Central Bank has determined that banks subject to the market risk capital requirements should use the Basel Standardized Approach. The standardized methodology uses a "building-block" approach. Although the Central Bank employs the standardised approach for regulatory purposes, we agreed to allow licensees to utilize the internal models approach when reporting to their head office. The Basel Framework specifies both the qualitative and quantitative characteristics that a supervisor can use to determine whether to approve an Internal Model (e.g., VaR models, etc). The capital charge for each risk category is determined separately. Each risk category is aggregated to derive a Total Market Risk Capital Charge, which is applied against the capital level of the licensee. Within the interest rate and equity position risk categories, separate capital charges for specific risk and the general market risk arising from debt and equity positions are calculated. For commodities, options, and foreign exchange, there is only a general market risk capital requirement. Details on the standardised method of calculation are set out in the *Guidance Notes for the Completion of the Market Risk Reporting Forms.*

7.4. To complement the above risk measurement techniques, licensees should also measure their vulnerability to loss in stressed market conditions in both their banking and trading book portfolios by conducting stress tests, incorporating extreme but plausible assumptions for the relevant risk factors and giving special considerations to positions that may be difficult to liquidate or offset in stressful situations. The Board and senior management should consider the results of stress tests when establishing and reviewing strategies, policies and limits for market risk.

8. REPORTING REQUIREMENTS

8.1. Once a bank has a trading book that is consistent with the definition under Section 4 above and meets the ***de minimis*** threshold, the bank will be required to report on its trading book activities using the market-risk related forms in the Excel Reporting System (ERS).

8.2. In addition, all licensees are required to report in the ERS, their interest rate risk exposures and foreign currency exposures in the **Interest Rate Sensitivity** and the

Investments by Currency Type forms respectively, on a quarterly basis or a frequency otherwise determined.

INTERNATIONAL RISK MANAGER

Module V

Compliance and Regulatory Risk

"Leaders in Financial Services Education & Professional Development"

ERM, COMPLIANCE AND REGULATORY RISK

ENTERPRISE RISK MANAGEMENT (ERM)

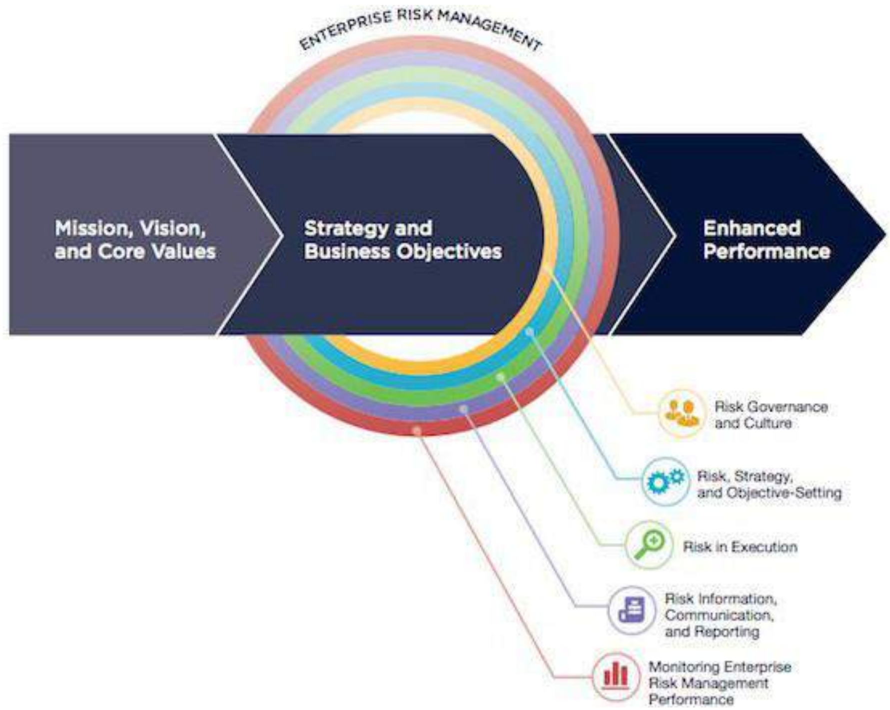
The 2017 COSO ERM framework '***Enterprise Risk Management-Integrating with Strategy and Performance***' consists of five (5) interrelated components of enterprise risk management:

The figure depicts the components of risk management and their relationship with the company's mission, vision and core values. It also depicts the flow of an organization's business model, ultimately resulting in enhanced value. The ribbons in the figure represent the components and show how they flow through an organization, integrated withal aspects of strategy and performance.

An organization's board plays a key role in ERM. A primary oversight role of the board is helping the organization create and protect value. It executes this role through oversight of strategy and the ongoing performance of the organization in exercising its chosen strategies. Through effective oversight, boards become aware of the growing complexities of risk in the environments they operate in. Risk complexities today have necessitated increased attention to risk management activities. In some cases, however, organizations have operated their risk management activities as detached, separate staff functions, simply focused on the objective of assessing risks on a stand-alone basis.

This ERM framework assists the board and management to make better informed decisions that enable them to effectively manage those risks that could impair their ability to achieve their strategies and business objectives. The overall objective of ERM is accordingly, enhanced performance of the organization.

The positioning of ERM is presented below.



The risk management activities related to strategy are represented by the circle that sits in the middle of the value-chain between the mission, vision, and core values of the organization and its enhanced performance. The figure also depicts the relationship between ERM and the organization's mission, vision, and core values. The wrong mission and vision will create risks as will misguided values. It also helps to demonstrate that ERM is not an end point but an integral part of the processes by which an organization develops and executes its strategies to achieve its mission and vision.

One of the key responsibilities of a board is the oversight of the strategies of the organization. All strategies have embedded risks. The clarification of that relationship between strategy and risk and their effect on overall performance, is one of the key points in the Framework. E.g., an incentive compensation strategy that is focused on short term cash incentives may not align with the organization's long erm sustainable growth objective.

So what is the relationship between strategy, risk, performance and value creation: The governing body should appreciate that the organization's core purpose, its risks and opportunities, strategy, business model, performance, and sustainable development are all inseparable elements of the value creation process.

Linking the relationship between strategy and risk is beneficial to evaluating which risks are most critical to the organization. There are various levels of severity and impact of risks. ERM helps not only identify risks but also assesses which risks are significant enough to impair the organization's ability to achieve its objectives these are events and risks related to the core strategies that the organization's ERM activities must identify and mange to be successful.

WHAT IS ERM?

- An ongoing/continuous process
- A way to help create and preserve value
- Includes practices that management puts in place to manage risks
- A process that can be used by organizations of any size
- An aid to making better decisions

WHAT ERM IS NOT

- A separate activity, not coordinated or integrated with strategy setting activities
- A separate staff function or department
- A “to-do’ list or checklist
- Applicable only to large, public companies
- Simply a listing or inventory of risks
- A solely quantitative exercise

WHAT ARE THE BENEFITS OF ERM?

- Increase the range of opportunities by considering both the positive and negative aspects of risk
- Increase positive outcomes and advantages while reducing negative surprises
- Respond more proactively to risks versus reactive responses
- Enhance ability to identify and mange entity-wide risks
- Reduce performance variability
- Improve resource deployment
- Hold richer and more robust conversations and dialog among management and the board about risks

What does it mean to ‘integrate’ ERM in the organization?

The key concept underlying integration is to add the ERM activities to existing activities rather than creating separate and entirely new processes and practices. For example, most organizations already have some kind of budgeting or performance planning process. A first step in integrating ERM may simply be to add one page to the existing budgeting process for each business unit to articulate:

- What events are they concerned with that may impair their ability to achieve their budget/business plan objectives
- Describe what activities they will undertake to monitor and manage those possible events.

Any ERM effort must fit the governance structure and culture of a specific organization. The 2017 ERM is not a checklist or to-do list of specific actions but rather it is comprised of a set of five interrelated components.

Any organization that considers implementing or enhancing their ERM structure should consider the following themes which can aid directors and management to avoid recognized barriers and resistance points as they are implementing their ERM efforts. The below **KEYS TO SUCCESS** can aid directors and management to avoid recognized barriers and resistance points as they are implementing their ERM efforts:

THEME 1: Start at the top: board and management support is necessary-The board and management not only set the strategy of the organization but they also set the ‘tone at the top’ and define the desired culture of the organization. The tone and priority given to an ERM initiative by the board and management will quickly and visible determine its success. Establishing a ‘*risk aware’* culture across the organization is critical and will determine whether ERM is viewed as a separate compliance driven initiative or viewed as a process to help the organization enhance its value. Starting from the top, for an ERM initiative to be successful, the board and management must clearly embrace the objectives of enterprise risk management and set the tone that it is an integral part of how the organization achieves its mission and its business objectives.

It is the board's responsibility to see that management is devoting the right level of attention, resources and priority to ERM and that actions are being taken to integrate ERM with the appropriate functions and processes across the organization. Failure to do that can result in separate, lower-level staff functions who do not have an appropriate support or voice and as a result the organization will not realize fully the benefits of ERM.

Further the board should see that an effective ERM leader is in place who is widely respected across the organization, knowledgeable about is businesses and strategies, and given the resources and support to accomplish the ERM effort.

THEME 2: **The role and objective of ERM must be understood and communicated** – The role and objective of ERM is to help organization enhance value (COSO). As ERM was receiving increased attention from regulators, rating agencies, and financial reporting agencies, it led some organizations to view ERM as a regulatory or compliance driven activity. Likewise, some viewed ERM as a simple exercise in risk identification. However, the Framework describes the role and objective of ERM as helping the board and management make better decisions and enhancing the value of the organization. Hence the role and objective of ERM needs to be understood by directors and management.

This clarity of the role and objectivity of ERM is also useful in building a culture where all members of the organization understand that managing risk is a part of their day-to-day responsibilities. Education and communication concerning the role and objective of ERM are needed and they become the enablers to help establish and build the desired risk culture. The communication should be widespread and iterative. It should articulate not only the role and objective of ERM but the priority that management places on this activity as being an important process helping the organization achieve its mission, vision and core values.

THEME 3: **ERM must be integrated into the fabric and culture of the organization and core strategy-setting and performance processes**- As the ERM process is directly lined to the organization's planning and strategy development processes, integrating ERM with those specific processes makes good sense and is necessary. Integration with these existing processes also is more likely to be lower cost than creating complete stand-alone functions. As the risk management activities are also broadened into and across the business activities, they also help build and evolve the culture to include risk awareness at all levels of the organization. The integration of the enterprise risk management activities also helps organizations avoid a 'siloed' risk management environment where separate parts of the organization are undertaking independent risk related activities.

THEME 4: The starting point is to focus initially on the organization's top strategies and business objectives – ERM does not start by simply attempting to identify risks, but it starts with a thorough analysis of the organization's key strategies and business objectives. There must be a clear understanding of the key strategies and business objectives before one can assess the events that could impair those strategies. The sequence is critical and again, reinforces the objective of ERM as helping the organization be successful with its chosen strategies.

THEME 5:-**The key risks are those events and outcomes related to the key strategies** – that is, those events, and the resultant outcomes, that could impair the organization's ability to implement its specific strategies identified. All organizations face a multitude of risks of various levels of likelihood and impact, some large and others smaller. While smaller risks can cause problems for an organization, various studies have shown that he biggest losses of value for organizations are from strategic risks, those risks and events related to key strategic decisions. Linking risks to strategies will enable directors and management to focus on a smaller number of more critical risks, those which are most worthy of their time and attention.

THEME 6:- Start with simple actions and build incrementally- ERM is not complex and does not require a major and costly effort to implement. Nor does it require an organization to implement fully all the components of ERM in one single effort to bring tangible value to the organization. In practice take an incremental, step-by-step approach to implementing or enhancing the risk management activities rather than one massive undertaking. Start with simple risk management processes and actions and build from there using incremental steps rather than attempting to make a quantum leap to implement fully a complete ERM process. Approaching ERM in this manner also means that supporting ERM processes such as reporting, data gathering and analysis, and the use of technology can be introduced at the right time corresponding to the maturity level of the ERM practices and the knowledge levels of the key stakeholders. Building incrementally provides an opportunity to assess and demonstrate the benefit of each step or action.

THEME 7: -Leverage existing resources and risk management activities – Many organizations have successfully entered the ERM arena by leveraging existing resources with knowledge and capabilities related to their core strategies, risks and risk management. Using existing resources and activities helps avoid the potential barriers to initiating ERM that is the view that an ERM process requires significant new resources such as investments or outside resources to undertake the ERM process. Some organizations have used their head of Strategic Planning or their Chief Audit Executive as the catalyst to start their ERM effort. Others have their CRO head the ERM to bring together a wide array of personnel from across the entity who collectively have sufficient knowledge of the organization's core business strategies and the related risks to get ERM moving

ERM Actions and Their Related Benefits

Incremental Action Step	Benefit Received
Perform an assessment of the key risks related to the core strategies of the organization and prepare a report to the board showing the strategies and related risks	Board and senior management see and discuss, often for the first time, a consensus view of the risks related to their core business strategies. This builds a common understanding and tangibly demonstrates the relationship between strategies and risks.
Prepare a strategy map reflecting the organization's business objectives, the related business strategies and risks and the existing risk management activities of the organization use the strategy map to identify gaps in the existing ERM activities.	The strategy map and analysis will provide transparency to existing risk management activities and provide management and the board a starting point for discussions on the risk management activities and opportunities to enhance those activities.
Different business units and staff functions within an organization may be using different definitions or terminology related to risks. Develop a common taxonomy or definitions of risks that would be used consistently by all units across the organization.	A common risk language will facilitate enterprise wide assessments and reporting of risks and risk activities. It also can provide consistency in how units assess and report on risk and the sharing of risk related information and data it facilitates the establishment of an enterprise risk culture.

INITIAL ACTION STEPS TO IMPLEMENT AN INITIAL ERM

These steps build from the '**Keys to Success'** and describe some simple steps that can serve as the basis for a tailored action plan to implement an ERM initiative.

Step 1 – **Seek Board and Senior Management involvement and oversight**. -This step would involve setting an agenda item for the board and executive management to discuss ERM which could include the following topics:

- Establishing that the overall objective of ERM is to enhance the performance of the organization, not just to identify risks
- Discussing how ERM helps in achieving the organization's strategies and business objectives
- Stating and discussing the need to integrate ERM with the organization's strategy and business objectives
- Identifying the expected benefits from an integrated ERM approach
- Agreeing on high-level objectives and expectations regarding a risk management initiative
- Understanding the process to communicate and set the tone and expectations of ERM for the organization
- Agreeing on a high-level approach, resources, and target dates for the initial ERM effort.

Step 2: - Identify and position a leader to drive the ERM initiative – Identify a person with the right attributes to serve as leader of the risk management initiative. Critical attributes would include:

- ➢ an in-depth knowledge of the organization's overall strategies and business objectives,
- ➢ an appropriate level and stature within the company,
- ➢ ability to acquire appropriate resources, and
- ➢ the appropriate authority to execute their responsibilities.

It is also critical that the ERM leader has direct access to the top of the organization, ideally to the CEO and be an integral player in the strategic planning process (Head of Strategy, Chief Internal Auditor, or Chief Financial Officer). [If they are too low or have no input or involvement with strategic planning the ERM process will likely not be value adding.]

Step 3: **- Establish a management working group** –

- ➢ Establish an executive level management working group to support the risk leader and drive the effort across the organization. This will help in both communicating the ERM effort and in obtaining broader buy-in for the process.
- ➢ The initial objective should be to determine next steps and action plans. Ensure that you have the 'right people'. The group may include executive level personnel not just staff, and business leaders who know the strategies and can consider how to embed the ERM processes in the businesses.
- ➢ The working group should develop the objectives and expected benefits from an ERM initiative including considerations of the current and expected culture as it relates to risk management.
- ➢ The working group should understand and discuss the need for ERM to be integrated and linked into the strategy setting and performance measurement processes of the organization.

An example of the initial objectives for a management working group is outlined below:

> **A major financial institution formed a Management Risk Steering Committee as a first step in aligning its various risk management activities. The committee included senior level business executives as well as senior executives from its various risk and control units. The committee began its activities by developing a set of four overall objectives for the committee. These objectives were:**

- **Agree on a common risk management concept for various functions across the Company who deal with risk**
- **Maintain the independence/objectivity of each risk management function**
- **Rationalize and harmonize approaches to risk across the Company**
- **Increase information sharing across the risk management functions.**

The committee then developed specific actions and plans under each objective. In particular, the committee was focused on increasing the sharing of risk related information across the organization. These four objectives were subsequently achieved, and the committee then developed a second set of more granular risk related objectives to continue to mature their risk management processes.

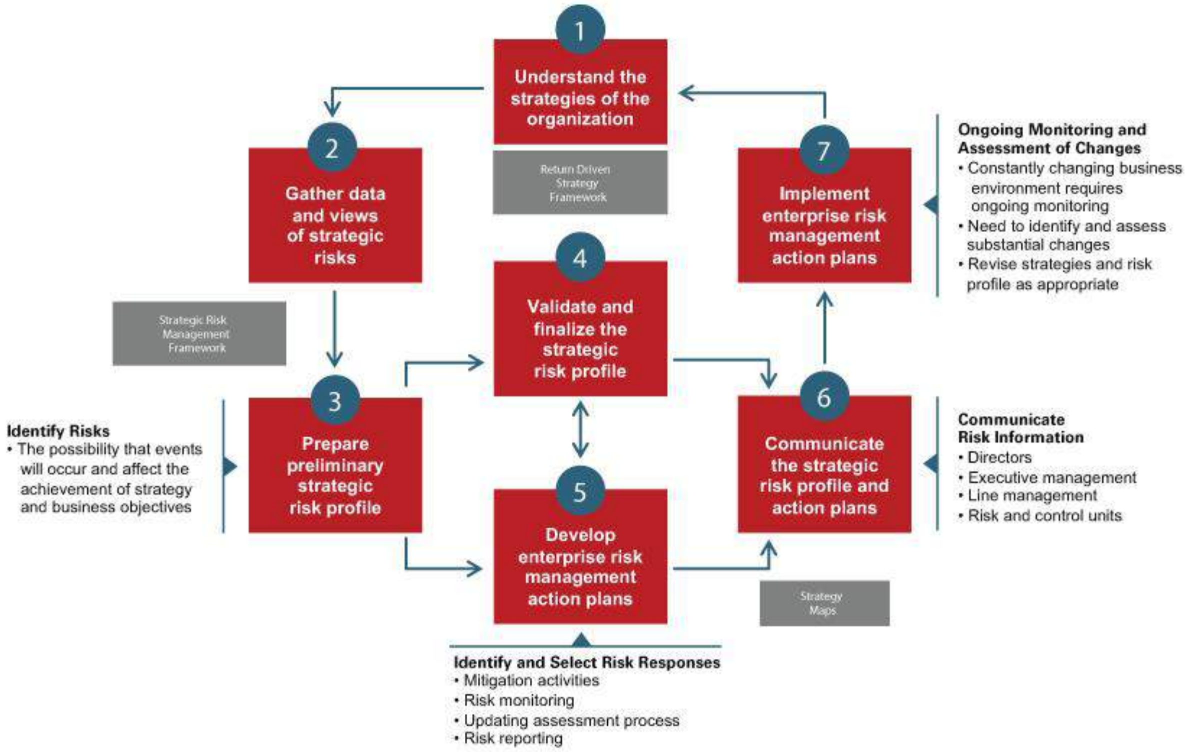
Step 4: - Inventory the existing Risk Management Practices of the organization – Identify and inventory existing risk management practices, whether formal or informal, and ensure that they are aligned and coordinated. This can be accomplished in various ways, including through facilitated sessions of the working group, by surveying business units, or by involving personnel from various risk or control units who may have this knowledge, such as internal audit staff. u

After these existing practices have been cataloged, the working group can consider how those practices fit or align with the organization's strategy setting and performance review process. This will allow them to identify gaps and opportunities to further integrate the organization's strategy and risk processes. Often this step highlights a lack of common risk language across the organization and gives the working group the opportunity to develop and communicate a set of common risk definitions or 'risk language'(taxonomy) across the organization.

Step 5: -Conduct an initial assessment of key strategies and related strategic risks – Understand the organization's key strategies and the related risks and how they are managed. This involves first identifying the organization's key business objectives that enable those strategies, then the Strategic Risks related to the strategies. The organization should also strive to identify external and emerging risks that could impact the organization and its strategies.

An example is where the Strategic Planning Group as Owner of "Unthinkable Risks" (low-frequency/high impact events which can have severe negative impact on organizations) has responsibility for this risk. The planning group identifies and assesses 'improbable' risk events. The risks identified are then communicated and discussed with their internal risk committee. The strategic planning group also considers the possible impact of these risk events on the organization's long-term strategic plans. Finally, the risks, possible impacts on the organization's strategies and business activities, and the related risk management actions are then reported to and discussed with the Board.

Organizations can benefit from using a Strategic Risk Assessment Process (see below)

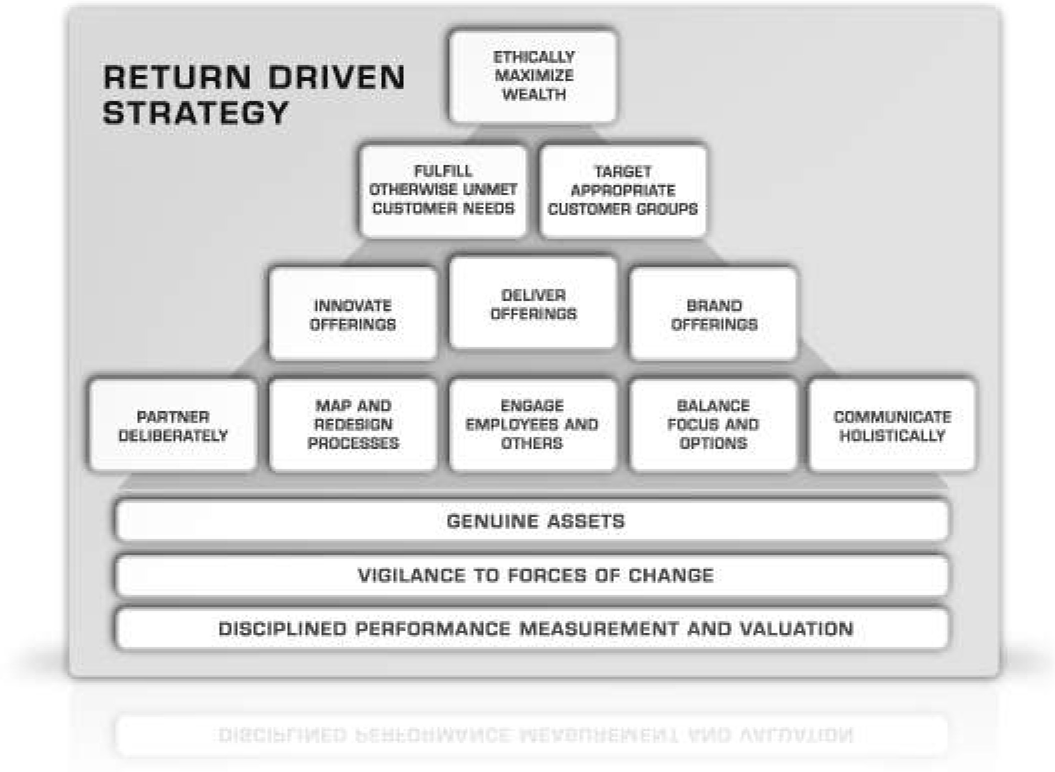


This risk assessment approach can be useful in both identifying the key strategies of the organization and the related critical risks. The supporting models that can be used sequentially are the **Return Driven Strategy Model** which is used to identify the major strategic initiatives of the organization.

This Model provides a way to understand the strategy of the organization as a first step in the Strategic Risk Assessment Process. It provides a structure that is useful to break down the strategies of the organization into separate, discrete components. It is also helpful to identify and categorize individual strategies so that the related risks can then be considered.

Once those key strategies are identified, the **Strategic Risk Management Model** is used to identify corresponding risks related to those key strategies. This Model provides a way to identify the risks related to each of the strategies identified. It is used as an aid in the second step in the Strategic Risk Assessment Process.

The Strategic Risk Assessment Process and related models also provide an approach to identify and work with a manageable number of critical risks that are most significant in regard to the key strategies of the organization. This process also establishes a clear linkage between the strategies and the related risks and provides a way to prioritize those risks.


RETURN DRIVEN STRATEGY
ETHICALLY MAXIMIZE WEALTH
FULFILL OTHERWISE UNMET CUSTOMER NEEDS
TARGET APPROPRIATE CUSTOMER GROUPS
INNOVATE OFFERINGS
DELIVER OFFERINGS
BRAND OFFERINGS
PARTNER DELIBERATELY
MAP AND REDESIGN PROCESSES
ENGAGE EMPLOYEES AND OTHERS
BALANCE FOCUS AND OPTIONS
COMMUNICATE HOLISTICALLY
GENUINE ASSETS
VIGILANCE TO FORCES OF CHANGE
DISCIPLINED PERFORMANCE MEASUREMENT AND VALUATION


AUDITBOARD
The Strategic Risk Management Model
INVESTOR RISK
CUSTOMER RISK
MARKET RISK
INNOVATION RISK
OPERATIONS RISK
BRAND-REPUTATION RISK
PARTNERING RISK
VALUE CHAIN RISK
EMPLOYEE ENGAGEMENT RISK
PLANNING RISK
COMMUNICATION RISK
GENUINE ASSETS AND UNIQUE CAPABILITIES AT RISK
EMERGING EVENTS RISK
SUSTAINABILITY RISK
FINANCIAL MARKETS RISK
REGULATORY RISK
GOVERNANCE RISK
FINANCIAL REPORTING RISK
VALUATION RISK
FRAUD RISK

Step 6: - Develop a Consolidated Action Plan and Communicate to Board and Management - Enterprise Risk Management is more than just identifying risks. The real value of ERM is developing action plans to respond and manage the risk identified. An effective ERM process develops and implements risk responses to enhance its ability to be successful. There different types of risk responses: accept, avoid, pursue, reduce and share. The risk response to each critical risk identified needs to be appropriate for that specific risk and the organization's risk appetite. The action plans should be developed and combined into a consolidated action plan addressing the organization's responses to the critical risk identified. The consolidated initial action plan should then be presented to and discussed with the board and management.

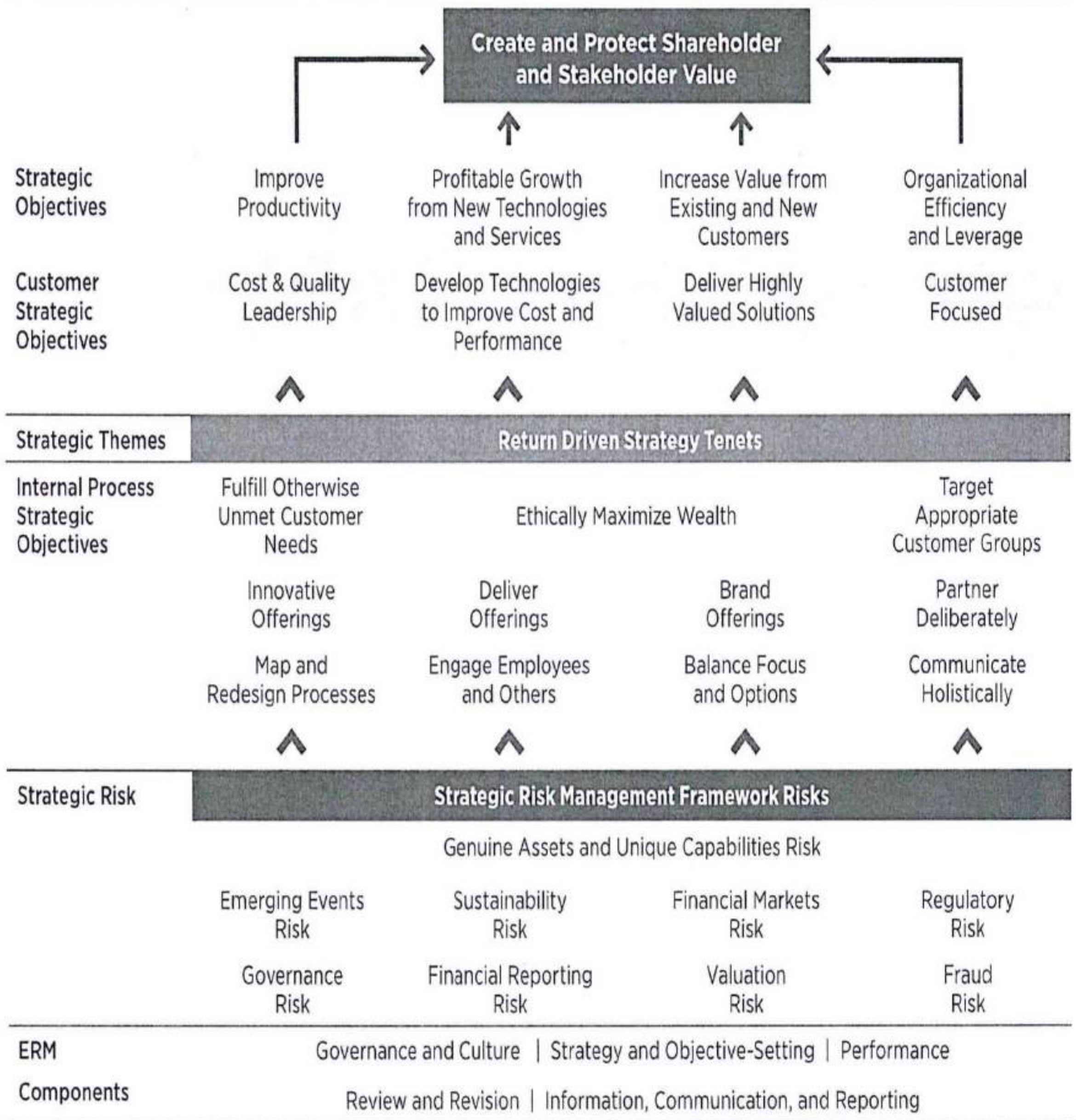
Step 7 - Develop and/or Enhance Risk Reporting – A robust risk reporting process is necessary given the dynamic nature of risk and ongoing changes to the organization's strategies. Initial risk reporting should be simple and clear. Users of the risk reporting should receive information that is focused, understandable, and clearly communicates risk priorities and severity. As risk management processes mature, risk reporting can become more granular and detailed and possible include some quantification. The organization should also consider how its risk reporting process fits and integrates into its existing performance measure processes rather than developing a separate line of reporting. Some organizations use balanced scorecards to include risk reporting and monitoring. Consideration should also be given to periodic reporting of emerging or systemic developing risks. A useful tool is a strategy map linking the organization's objectives, strategies, risk and risk management processes (see overleaf).

<u>Step 8:</u> - Develop the Next Phase of Action Plans and Ongoing Communications – Conduct a critical assessment of the accomplishments of the working group and develop the next steps in the evolution of their risk management processes. This assessment can include such activities as the identification of benefits achieved to date, assessing the level of integration with strategic planning and performance measurement processes and assessing the impact. Consideration can be given to actions such as:

- Establishing or articulating the risk appetite of the organization
- Implementing a process to identify and react to organizational or strategic changes
- Determining how the ERM process can be enhanced to identify opportunities not just threats

The new action plan should be reviewed with executive management and the board, to assure that the new action plan receives appropriate resources and support. The risk leader should also consider scheduling additional ERM session with directors and executive management to further educate them and to update them on the progress and benefits of the ERM initiative. The risk leader should continue an organization-wide communication process to further build and reinforce the desired risk culture of the organization.

Figure 6. Strategy Map Example



Continual improvement efforts should be made by management throughout the entity (functions, operating units, divisions) to improve the efficiency and usefulness of enterprise risk management at all levels. Whatever the approach used, organizations should strive to continually challenge themselves to enhance their ERM processes as they become more familiar with the process and see opportunities to enhance it in response to the dynamic nature of risk in today's business environment.

Possible areas to consider for improvements following an initial ERM effort are:

Governance and Culture

- Development of formal bord and corporate policies and practices for ERM

- Analysis and consideration of human resources needs including skillsets and technical or quantitative capabilities
- A more formal process to reinforce the risk culture through ongoing communications and training

Strategy & Objective Setting

- Further integration of ERM processes into the organization's annual planning and budgeting processes
- More formal integration into the strategy development process
- Further discussion and articulation of the organization's risk appetite

Performance

- Further expansion and enhancements to the risk assessment processes
- More formal process to prioritize and assess the severity of risks
- Updates to the risk response and action plans

Review & Revision

- Considerations of significant organizational changes
- Development of performance processes, such as a balanced scorecard and strategy maps, to assess performance and benefits of ERM processes.
- Development of a more formal continuous improvement process

Information, Communication & Reporting

- Consideration of the possible users or application of new technologies
- Consideration or development of new data sources and analytics
- Development of a program of continuing education for directors and executives
- Development of an ongoing ERM education and training for line management
- Considerations of the use of technology and artificial intelligence for enhanced risk monitoring

The specific steps to be taken must be determined based on the initial steps taken and tailored to the state of maturity and ERM objectives of the specific organization. Enhancing an organization's ERM processes starts with a clear understanding of the role of ERM in assisting the directors and management to make better decisions and achieve their strategy and business objectives.

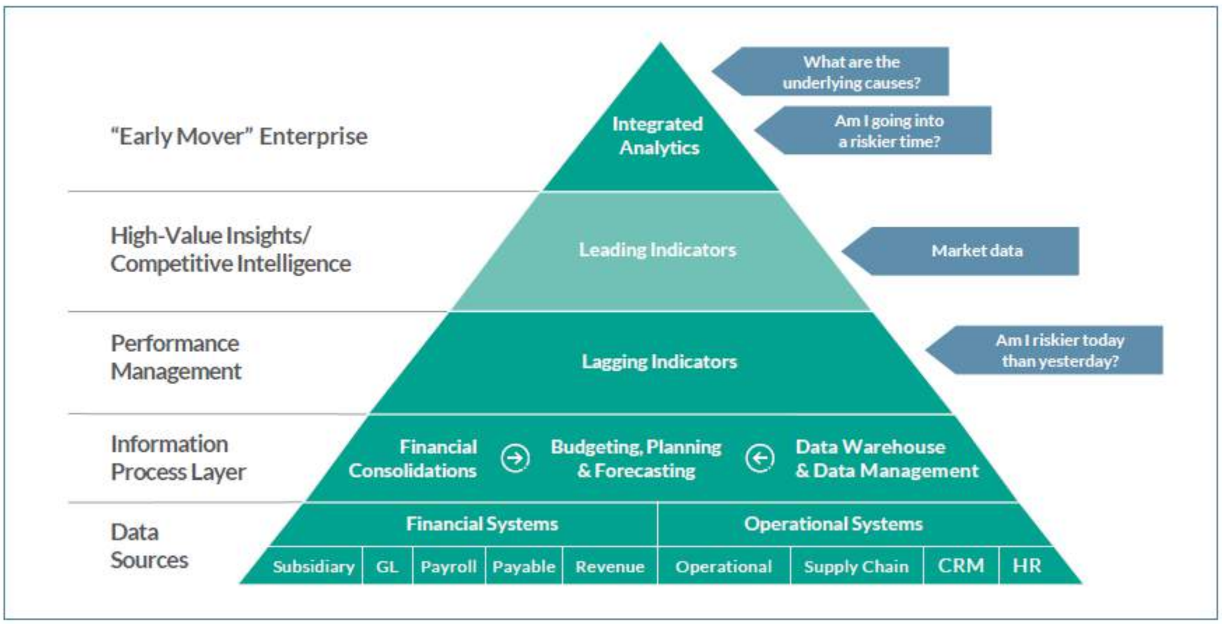
The Three Lines of Defense

To advance ERM within the organization, it is suggested that organizations focus on three (3) keys:

1. Position the organization as an early mover – when a market shift creates an opportunity to deliver enterprise value or invalidates critical assumptions underlying the strategy, it is in an organization's best interests to recognize that insight and act on it as quickly as possible. Organizations committed to continuous improvement and able to embrace breakthrough change are more apt to be early movers.
2. Address the challenges of risk reporting – The business environment features rapid advances in and applications of digital technologies that are altering business models, improving business processes and enhancing the customer experience. Consistent with the objective of being an early mover, risk reporting should help organizations become more agile and nimble in responding to a changing business

environment. Risk reporting should address three questions***: Are we riskier today than yesterday? Are we going into a riskier time? What are the underlying causes?*** Once these three questions are answered it elevates the organization up the enterprise information hierarchy from relying on lagging retrospective indicators so typical of most performance management systems to incorporating a more balanced family of measures that includes leading indicators and advanced analytics to drive value-added insights, competitive intelligence and early-mover position.

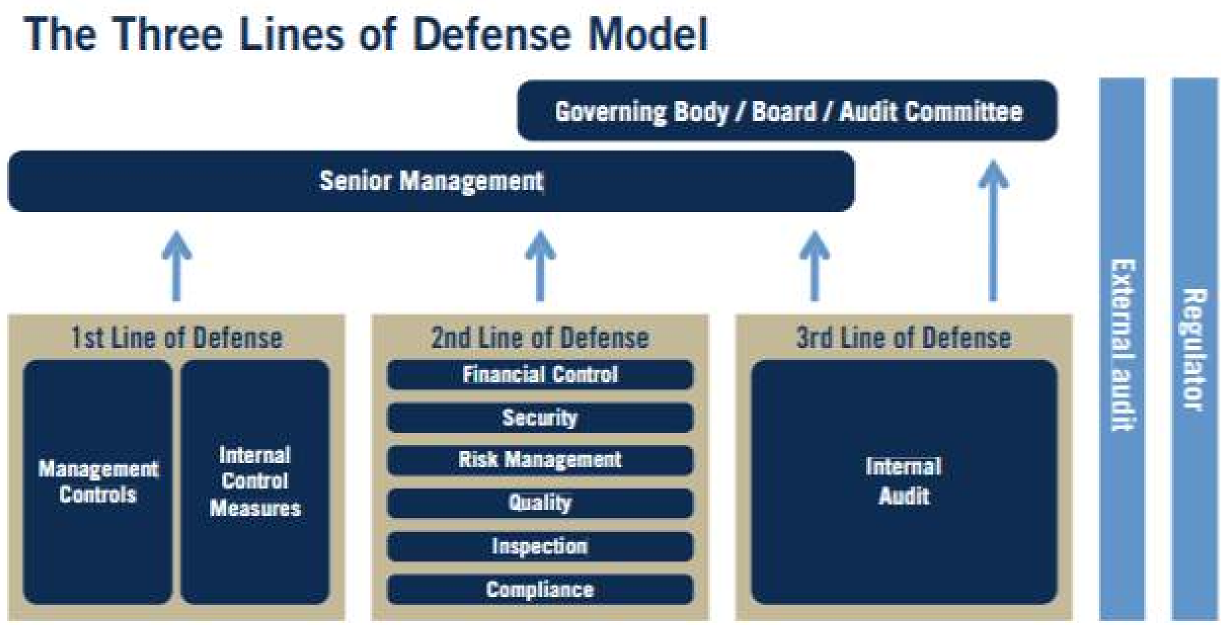
• • • *The Enterprise Information Hierarchy*



The integration of performance management and risk management in matters of strategic importance is where corporate performance management systems often fail. As a result, the organization is unable to monitor the vital signs that help anticipate emerging opportunities and risks. Effectively integrated with performance management, risk reporting is a key to evolving ERM from a '***risk listing'*** process to a risk-informed '***decision-making discipline'***.

Key 3 – Preserve reputation by maximizing your lines of defense. The question is how do organizations safeguard themselves against reputation-damaging breakdowns in risk and compliance management? The **three lines of defense** emphasizes a fundamental concept of risk management from the boardroom to the customer-facing processes, managing risk, including compliance risk, is everyone's responsibility. These **three lines of defense** in which the business unit management and process owners whose activities give rise to risk comprise the first line, independent risk and compliance functions are the second line, and internal audit is the third line, as shown in the schematic below.

"***Tone of the Organization***"

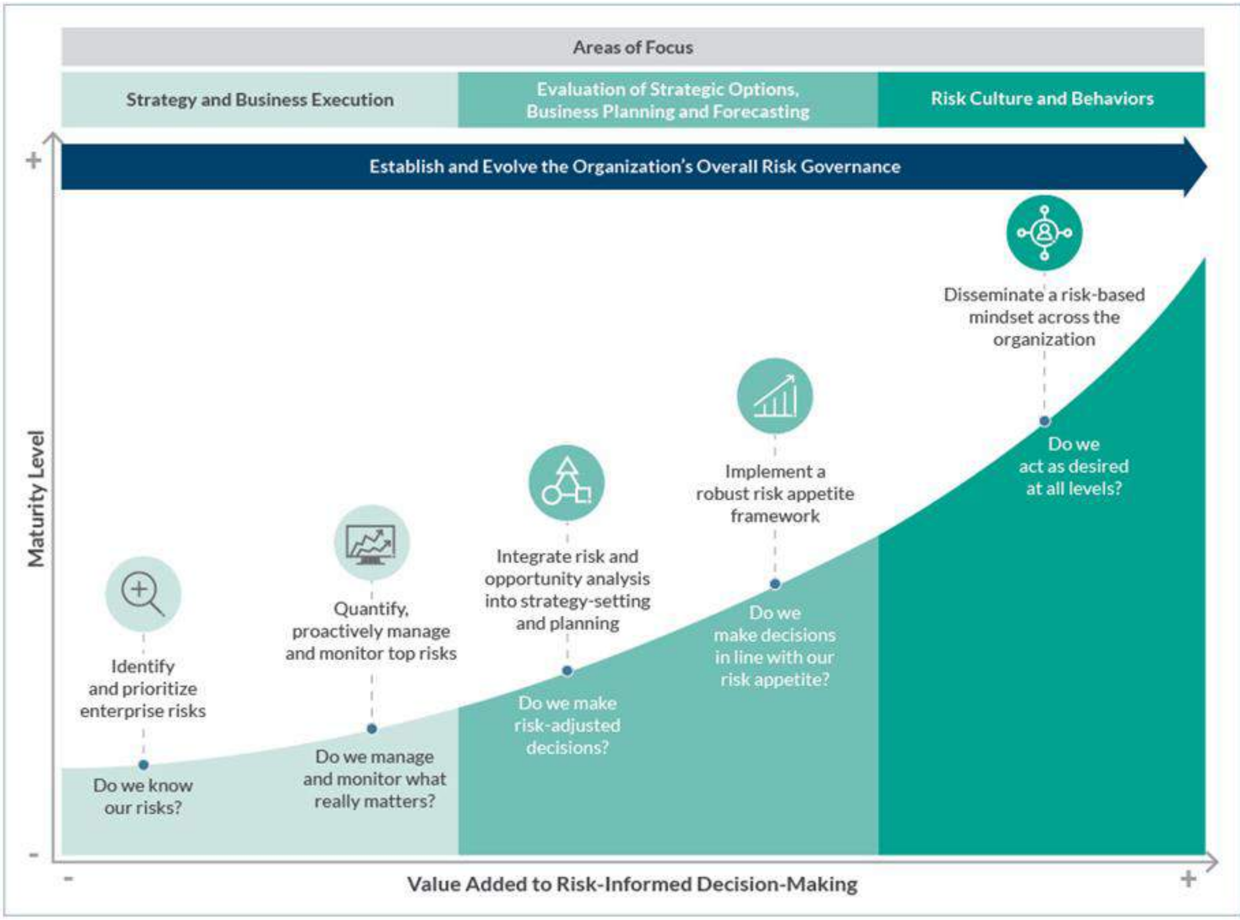


The tone of the organization – enables the **three lines of defense** depicted above to be effective. The tone at the top is vital. But when leaders communicate the organization's vision, mission, core values and commitment to appropriate behavior, what really drives behavior is what employees see and hear every day from the managers to whom they report. The proper tone has a significant influence on the organization's risk culture, which, in turn, affects the functioning of the **three lines of defense**.

The final line of defense from the viewpoint of the shareholders is senior management and the board of directors. Under the board's oversight, executive management balances the inevitable tension between business unit managers and process owners (**first line of defense**) and the entity's independent risk management functions (**second line of defense**) by ensuring that neither of these two activities are too disproportionately strong relative to the other. Top management acts on risk information on a timely basis when significant issues are escalated and involves the board in a timely manner when necessary.

The line-of-defense framework offers a powerful line of sight for companies seeking to strike the appropriate balance between creating and protecting enterprise value and avoiding irresponsible business behavior that can impair reputation and brand image.

The ERM Journey Continuum



At the far left of the ERM Journey is "identify and prioritize enterprise risks" migrates to the **second** option – "quantify, proactively manage and monitor top risks" – represents the current state of most ERM implementations. The current state answers the three questions: What are the risks, how are they being managed, and how do we know?

The **third** option is to "integrate risk and opportunity analysis into strategy-setting and execution" to facilitate a clearer understanding of major risks in strategy. It also enables more effective dialogue during decision-making processes about uncertainties and vulnerabilities relating to strategic assumptions and targets, as well as visualization of management's instincts in useful ways.

The **fourth** option is implementing a "robust risk appetite framework". Such a framework:

- **Identifies risks that should be accepted or rejected in strategy-setting and execution.**
- **Defines strategic, operational and financial parameters within which the business should operate, and**
- **Factors the defined parameters into performance management and decision-making in the form of tolerances. Although a company can develop a risk appetite framework at any time, there is a presumption that such a framework is more meaningful when based on risk management capabilities made possible through the other options on the ERM maturity continuum**.

The **last** option is to "disseminate a risk-based mindset across the organization". While this too can be attempted at any time, it is more influential in terms of shaping risk culture when predicated on the capabilities provided by the other options. It sets a stronger tone of the organization regarding risk, enables more effective risk escalation to senior management and/or the board, and enhances the emphasis on balancing entrepreneurial and control activities.

The **three lines of defense** addresses how specific duties related to risk and control could be assigned and coordinated within an organization, regardless of its size or complexity. Directors and management should understand the critical differences in roles and responsibilities of these duties and how they should be optimally assigned for the organization to have an increased likelihood of achieving its objectives. The responsibilities of each group are:

1. Own and manage risk and control (frontline operating management).
2. Monitor risk and control in support of management (risk, control, and compliance functions)
3. Provide independent assurance to the board and senior management concerning the effectiveness of management of risk and control (internal audit).

Figure 1. Relationship Among Objectives, The Framework and the Model

The **first line of defense** lies with the business and process owners whose activities create and/or manage the risks that can facilitate or prevent an organization's objectives from being achieved. This includes taking the right risks. The first line owns the risk, and the design and execution of the organization's controls to respond to those risks.

The second line is put in place to support management by bringing expertise, process excellence, and management monitoring alongside the first line to help ensure that risk and control are effectively managed. The second line of defense functions are separate from the first line of defense but are still under the control and direction of senior management and typically perform some management functions. The second line is essentially a management and/or oversight function that owns many aspects of the management of risk.

The third line provides assurance to senior management, and the board over both the first- and second-lines' efforts consistent with the expectations so the board of directors and senior management. The third line of defense is typically not permitted to perform management functions to protect its objectivity and organizational independence. In addition, the third line has a primary reporting line to the board. As such, the third line is an assurance not a management function, which separates in from the second line of defense.

The goal for any organization is to achieve its objectives. Pursuit of these objectives involves embracing opportunities, pursuing growth, taking risks, and managing those risks – all to advance the organization. Failure to take the appropriate risks, and failure to properly manage and control risks taken, can prevent an organization from accomplishing its objectives. There is, and always will be, tension between activities to create enterprise value and activities to protect enterprise value.

Senior management and the board of directors have integral roles. Senior management is accountable for the selection, development, and evaluation of the system of internal control with oversight by the board of directors. Although neither senior management nor the board of directors is considered to be part of one of the three lines, these parties collectively have responsibility for establishing an organization's objectives, defining high-level strategies to achieve those objectives, and establishing governance structures to best manage risk They are also the parties best positioned to make certain the optimal organizational structure for roles and responsibilities related to risk and control. Senior management must fully support strong governance, risk management and control. In addition, they have ultimate responsibility for the activities of the first and second lines of defense. Their engagement is critical for success of the overall model.

Oversight Responsibilities for the Control Environment

Governing Body/Board/Audit Committee

Senior Management

Control Environment

1. Demonstrates commitment to integrity and ethical values
2. Exercise oversight responsibility
3. Establishes structure, authority and responsibility

4. Demonstrates commitment to competence
5. Enforces accountability

The First Line of Defense: Operational Management

This handled primarily by front-line and mid-line managers who have day-to-day ownership and management of risk and control. Operational managers develop and implement the organization's control and risk management processes. These include internal control processes designed to identify and assess significant risks, execute activities as intended, highlight inadequate processes, address control breakdowns, and communicate to key stakeholders of the activity. Operational managers must be adequately skilled to perform these tasks within their area of operations.

Senior management has overall responsibility for all first line activities. For certain high-risk areas, senior management may also provide direct oversight of front-line and mid-line management, even to the extent of perform some of the first line responsibilities themselves.

COSO and the 1st Line of Defense

The second line of defense includes various risk management and compliance functions put in place by management to help ensure controls and risk management processes implemented by the first line of defense are designed appropriately and operating as intended. These are management functions; separate from first-line operating management, but still under the control and direction of senior management. Functions in the second line are typically responsible for ongoing monitoring of control and risk they often work closely with operating management to help define implementation strategy, provide expertise in risk, implement policies and procedures, and collect information to create an enterprise-wide view of risk and control.

The composition of the second line of defense can vary significantly depending on the organization's size and industry. In large, publicly traded, complex, and/or highly regulated organizations, these functions may all be separate and distinct. In smaller, privately owned, less complex and/or less regulated organizations, some of the second-line functions may be combined or nonexistent. For example, some organizations may combine the legal and compliance functions into a single department or may combine a health and safety department with an environmental function.

Under the oversight of management, second-line personnel monitor specific controls to determine whether the controls are functioning as intended.

The responsibilities of individuals within the second line of defense vary widely but typically include:

- Assisting management in design and development of processes and controls to manage risks
- Defining activities to monitor and how to measure success as compared to management expectations
- Monitoring the adequacy and effectiveness of internal control activities
- Escalating critical issues, emerging risks and outliers
- Providing risk management frameworks
- Identifying and monitoring known and emerging issues affecting the organization's risks and controls
- Identifying shifts in the organization's implicit risk appetite and risk tolerance
- Providing guidance and training related to risk management and control processes

Monitoring by the second line of defense should be tailored to fit the specific needs of the organization. Typically, these activities are separate from day-to-day operational activities. In many cases, monitoring activities are dispersed throughout the organization. In some organizations, however, monitoring functions may be limited to a single or a few areas.

Each second line function has some degree of independence from activities constituting first line of defense, but they are my nature, still management functions. Second-line functions may directly develop, implement and/or modify internal control and risk processes of the organization. They may also take a decision-making role for certain operational activities. To the extent that the role of second-line functions require them to be directly involved in a first-line activity, that function may not be fully independent from that first line of defense activity.
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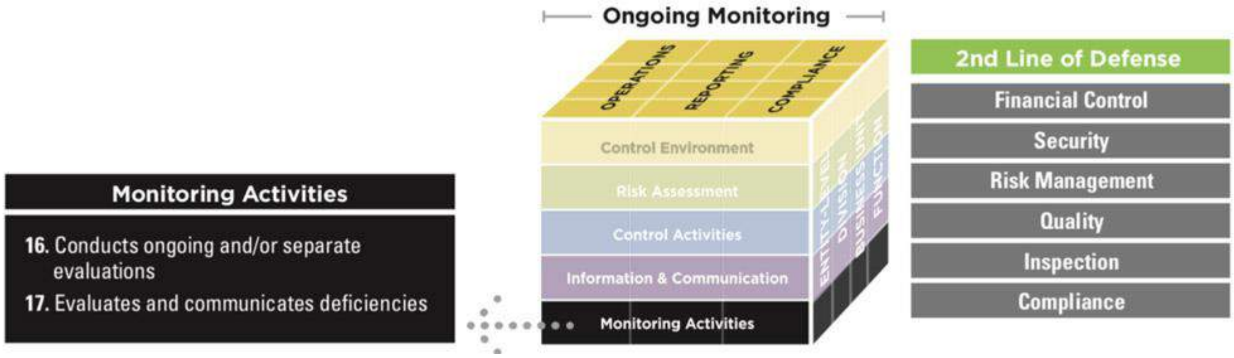
While not independent, the importance of strong, capable second-line functions cannot be overstated. They are expected to operate with an adequate degree of objectivity and provide important and useful information to senior management and the board of directors regarding the management of risk and control by the first line of defense. They may also provide entity-wide risk and control information to senior management and the board of directors that would not be expected from the first line. To be effective as a lie of defense, it must have sufficient stature with leaders and operating management across the organization. Stature comes from the authority and direct reporting lines that command respect.

COSO and 2nd Line of Defense



The Third Line of Defense

Internal auditors serve as an organization's third line of defense. Internal Audit is defined as an ''***independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by brining a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes***" (Institute of Internal Audit).

Among other roles, internal audit provides assurance regarding the efficiency and effectiveness of governance, risk management, and internal control. The scope of internal audit work can encompass all aspects of an organization's operations and activities.

What is the distinguishes factor between the third line of defense and the other two lines? It is the high level of organizational independence and objectivity. Internal auditors do not design or implement controls as part of their normal responsibilities and are not responsible for the organization's operations. In most organizations, internal audit independence is further strengthened by a direct reporting relationship between the chief audit executive and the board of directors. Because of this high level of organizational independence, internal auditors are optimally positioned for providing reliable and objective assurance to the board of directors and senior management regarding governance, risk and control.

COSO and the 3rd Line of Defense

Assessment of Design and Implementation

Control Environment

	Control Environment
1	Demonstrates commitment to integrity and ethical values
2	Exercise oversight responsibility
3	Establishes structure, authority and responsibility
4	Demonstrates commitment to competence
5	Enforces accountability
	Risk Assessment
6	Specifies suitable objectives
7	Identifies and analyzes risk
8	Assesses fraud risk
9	Identifies and analyzes significant change
	Control Activities

10	Selects and develops control activities
11	Selects and develops general controls over IT
12	Displays through policies and procedures
	Information & Communication
13	Uses relevant information
14	Communicates internally
15	Communicates externally
	Monitoring Activities
16	Conducts ongoing and/or separate evaluations
17	Evaluates and communicates deficiencies

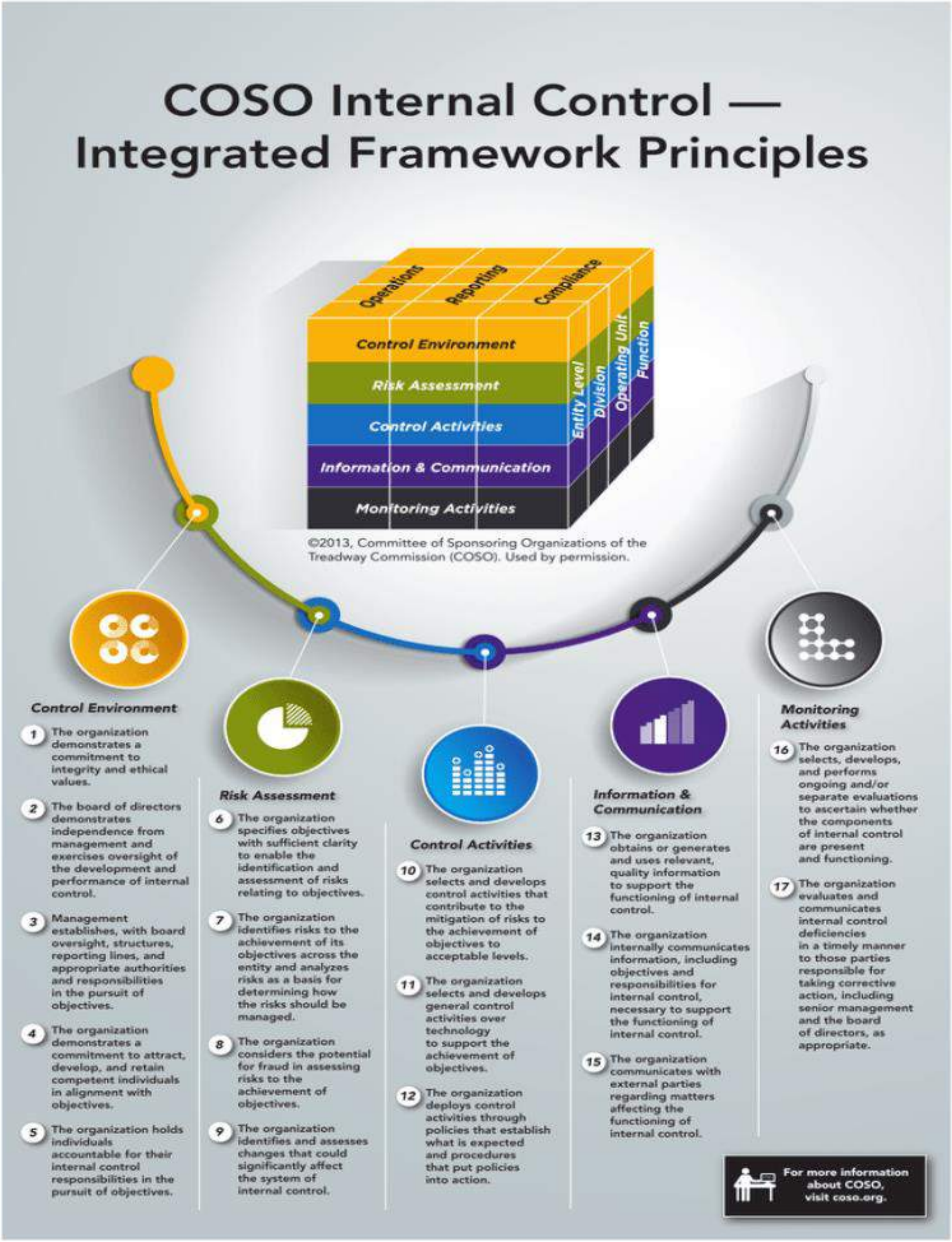
Internal audit actively contributes to effective organizational governance providing certain conditions fostering its independence and professionalism are met. Every organization should establish and maintain an independent, adequate, and competent internal audit staff, reporting toa sufficiently high level in the organization to be able to perform its duties independently, and operating in accordance with a suitable globally recognized set of standards.

External auditors, Regulators, and Other External Bodies

Although external parties are not formally considered to be among an organization's three lines of defense, groups such as external auditors and regulators often play an important role regarding the organization's overall governance and control structure. Regulators establish requirements often intended to strengthen governance and control, and they actively review and report on the organizations they regulate. Similarly external auditors may provide important observations and assessments of the organization's controls over financial reporting and related risks.

When coordinated effectively, external auditors, regulators, and other groups outside the organization could be considered as additional lines of defense, providing important views and observations to the organization's stakeholders, including the board of directors and senior management. However, the work of these groups has different and generally more focused or narrow objectives. For example, specific regulatory audits may focus solely on compliance issues, safety, or other limited scope issues, while the three lines of defense are intended to address the entire range of operational reporting and compliance risks facing an organization.

Every organization should clearly define responsibilities related to governance, risk and control to help minimize "gaps" in controls and unnecessary duplications of assigned duties related to risk and control. The three lines of defense provides an effective way to enhance communications regarding risk and control by clarifying essential roles and duties.



COMPLIANCE RISK MANAGEMENT

The evolution of compliance and ethics programs began after a series of events in the 1980s in the United States which led to the U.S. Sentencing Commission which published guidelines in 1991 for the punishment of organizations for violations of the law. The current U.S. Federal Sentencing Guidelines (USSG) identify the following seven elements of an effective compliance and ethics program:

1. Standards and procedures
2. Governance, oversight, and authority
3. Due diligence in delegation of authority
4. Communication and training
5. Monitoring, auditing, and reporting systems
6. Incentives and enforcement
7. Response to wrongdoing

The USSG also state that organizations should promote a culture that encourages ethical conduct and a commitment to compliance with the law. Although the USSG don't require organizations to have compliance and ethics programs, individual government agencies sometimes do. Many other countries have issued various forms of requirements for and guidance on compliance and ethics programs. In some jurisdictions guidelines on compliance and ethics programs is limited in application to specific areas of the law, such as bribery and corruption. In others, it is broader, like the US and applicable to many areas of the law.

A sampling of some of the guidance from outside the U.S. reveals a mostly consistent picture of what regulators expect from compliance and ethics program. For example, the U.K.'s Ministry of Justice has provided guidance on the Bribery Act describing procedures that commercial organizations can put in place to minimize the risk of bribery. Those procedures are summarized into the following six principles, closely aligning with USSG:

1. Proportionate procedures
2. Top-level commitment
3. Risk assessment
4. Due diligence
5. Communication including training
6. Monitoring and review

The ISO has also issued guidance for anti-bribery management systems:

1. Performance of a bribery risk assessment
2. Leadership and commitment to the anti-bribery management system
3. Establishment of an anti-bribery compliance function
4. Sufficient resources provided for the anti-bribery management system
5. Competence of employees
6. Awareness and training on anti-bribery policies
7. Due diligence in connection with third party business associates and employees
8. Establishment and implementation of anti-bribery controls
9. Internal audit of the anti-bribery management system
10. Periodic reviews of the anti-bribery management system by the government body

The ISO also issued guidance on compliance management systems describing five elements:

1. Compliance obligations (identification of new and changed compliance requirements)
2. Compliance risk assessment
3. Compliance policy
4. Training and communication
5. Performance evaluation

Compliance risks are common and frequently material risks to achieving an organization's objectives. A compliance and ethics framework is at Appendix II. ERM has been used by risk and other professionals to identify and mitigate a variety of organizational risks, including compliance risk. A compliance department should be separate from the legal and regulatory affairs department. This is a rapidly preferred practice due to the differing and sometimes conflicting responsibilities of the two functions.

What are compliance and compliance-related risks?

Risk is defined by COSO as "the possibility that events will occur and affect the achievement of strategy and business objectives". Risks in this definition include those relating to all business objectives, including compliance. Compliance risks are those risks relating to possible violations of applicable laws, regulations, contractual terms, standards, or internal policies where such violation could result in direct or indirect financial liability, civil or criminal penalties, regulatory sanctions, or other negative effects for the organization or its personnel.

Although the underlying acts (for failures to act) are carried out by individuals, compliance violations are generally attributable to the organization when they are carried out by employees or agents of the organization in the ordinary course of their duties. In some cases the employees may also bear liability as an individual

Most compliance violations either inherently cause harm or have the potential to result in direct harm to individuals, communities, or organizations. Examples of parties that may be harmed through compliance violations include customers (*e.g. violations of privacy or data security laws leading to a breach and theft of personal information, product safety violations resulting in injuries, antitrust violations resulting in inflated prices*), employees (*e.g. workplace safety regulation violations resulting in injury to a worker, antidiscrimination or whistleblower protection law violations*), or the general public *(e.g environmental violations resulting in illness or death*).

Although most compliance risks relate to specific laws or regulations, others do not. The other, compliance-related risks, may include risks associated with failures to comply with professional standards, internal policies of an organization (including codes of conduct and business ethics), and contractual obligations. For example, conflicts of interest represent violations of laws or regulations only in limited instances. Conflicts of interest are frequently prohibited by professional standards, and terms of contracts or internal policies and they are viewed as damaging to an organization if they are not disclosed and managed. As a result, conflicts of interest are commonly included within the population of compliance risks.

The scope of what an organization considers to be compliance risks is not an exact science, although most organizations use a similar list of compliance risk areas within their programs (environment, bribery, and corruption).

[*What is Regulatory Compliance?*

It is an organization's adherence to laws, regulations, guidelines and specifications relevant to its business process. Violations of regulatory compliance often resulting legal punishment, including fines. Regulatory compliance and reporting need to be viewed as a natural extension of the governance duties shouldered by top management and corporate boards. Only good governance can ensure that compliance is aligned with the company's business objectives and risk management strategies. The goal is to ensure that the spirit of compliance is embraced in every corner of the enterprises.]

Compliance violations often result in fines, penalties, civil settlements, or similar financial liabilities. However, not all compliance violations have direct financial ramifications. In some cases, the initial impact may be purely reputational. However, reputational damage often lead to future financial or nonfinancial harm, ranging from loss of customers to loss of employees, competitive disadvantages, or other effects (e.g. suspension)

Most non compliance stems from actions taken by insiders – employees, management or members of an organization's board of directors. Increasingly, risks also result from contractors and other third parties whose actions affect an organization. The most common examples involve vendors in an organization's supply chain (e.g. intermediaries that may pay bribes to government officials in order to obtain lucrative contracts for an organization).

Other legal and regulatory developments that do not directly reference compliance and ethics program, e.g. regulations aimed at providing new protections for whistleblowers. Similarly, data protection and privacy laws commonly differ from one country to another, but frequently have direct or indirect effects on compliance and ethics programs.

There is not a universally accepted definition for the scope of an organization's compliance and ethics program. It can vary from one organization to another. As a result, compliance with some laws and regulations may be primarily subject to the oversight of others, although the compliance function should always be prepared to serve an overarching role or to step in to assist or address issues if the others are unable or unwilling to properly manage the risk.

Another difference among organizations may involve where the compliance function 'sits' within the organization. Although a compliance and ethics program is organization-wide, involving employees and managers from all functional areas, the compliance function, consisting of a dedicated team of compliance and ethics professionals, may be positioned in a variety of locations whin an organization chart. In most organizations, it is an independent function, and this is considered the best practice. In others, it may be a part of, or report to, legal, internal audit, risk management, or another function. Regardless of where the compliance function is positioned on an organization chart, communication and collaboration with each of the preceding functions are essential to the success of a compliance and ethics program.

Ethics may be considered a function apart from compliance. In many organizations, however, compliance and ethics fall under a compliance and ethics officer.

It is important to understand that although virtually every employee plays a role in managing risk, the management/mitigation of compliance risk is primarily the responsibility of all management at all levels. The compliance function leads the development of the compliance and ethics program, but it is ultimately management's job to execute the program and for the board to provide oversight. The role of the compliance and ethics officer is to help management understand the risks, lead the development of the program to mitigate and manage those risks; evaluate how well the program is being executed, and report to leadership on gaps in coverage, execution, or material instances of noncompliance, including those by senior leaders.

In the diagram below the 20 principles of COSO ERM framework is mapped to the specific requirements and emerging practices of an effective compliance and ethics program.

Figure 1.3 **Risk Management Components - The 20 principles**

Source: COSO *Enterprise Risk Management—Integrating with Strategy and Performance*

Governance and Culture for Compliance Risks

Principle 1 – Exercise board risk oversight – the board of directors is responsible for oversight of the organization's compliance and ethics program, and management is responsible for the design and operation of the program. It is often advisable for the board to delegate responsibility for this oversight to a board-level standing committee, much like audit oversight is commonly delegated to an audit committee.

For oversight to be exercised properly, there must be an open and direct line of communication between the CCO and the board. This communication should include regularly scheduled, periodic meetings, including sessions in which the board meets privately with the CCO without other members of senior management present.

The board should also ensure that there is an effective compliance oversight infrastructure in place to support the compliance and ethics program, to include adequate staffing and resources, as well as appropriate authority and empowerment to achieve the objectives of the program. This infrastructure may also include an internal compliance committee. Often an internal compliance committee composed of individuals from key functions or business units is an effective way for the CCO to maintain open lines of communication to facilitate timely awareness of emerging compliance risk areas and to obtain important input and buy-in on how to mitigate and address risks.

Key Characteristics:

- **Require the board to oversee compliance risk management and the compliance and ethics program, including the approval of its charter**
- **Ensure that the board is knowledgeable of and demonstrates oversight of the compliance and ethics program (regular part of agendas, monitors compliance metrics, holds regular executive sessions with CCO and others)**
- **Require that the board includes a member who possesses compliance expertise**
- **Document evidence of board oversight of the compliance and ethics program in minutes**
- **Provide input or approve appointment/dismissal/reassignment of CCO and ensure independence**
- **Ensure that sufficient resources are provided for the compliance and ethics program**
- **Receive regular reports from the CCO**
- **Ensure that the board is informed about material investigations and remediation efforts and provides input**

Principle 2 – Establishes operating structures – The compliance function should be led by someone who is positioned to be effective, which typically means being a peer of other senior leaders. Moreover, the compliance function must have the practical authority, resources, and tools to effectively fulfil its mandate. Finally, the compliance function should be functionally separate and distinct from other functions, particularly those that are frequently perceived by regulators as having conflicting obligations or priorities (e.g. Legal, finance). It is best practice for the compliance to be functionally separate and report to the board.

Operating structure should also include documented policies and procedures covering the governance and decision-making processes associated wit the compliance and ethics program. From a governance standpoint, if oversight of the compliance and ethics program has been delegated by the board of directors to a board level compliance committee, the committee should operate in accordance with a board-approved charter. The charter describes in detail the responsibilities and key operating procedures of the committee (e.g. frequency and nature of meetings, reporting to the board) as well as the qualifications for committee members.

Increasingly, regulators and the enforcement community consider the stature of the compliance function relative to other executive functions as a signal of how seriously the compliance and ethics program, and therefore compliance with laws and regulations is viewed by the organization.

Operating structure should also include other key compliance policies and procedures, such as those that govern the methodology and performance of compliance risk assessments, consideration of forming an internal compliance committee with representation from across the organization and procedures for escalation when significant risk events occur, among other procedures.

Key characteristics –

- **Maintain independence of the CCO and the Compliance and ethics function**
- **Ensure that the CCO directly reports to and regularly communicates with the board**
- **Ensure that the CCO and Compliance and ethic program have high stature relative to other functional leaders**
- **Grant sufficient authority to the CCO to manage the program effectively**
- **Provide sufficient resources for the compliance and ethics program to be effective**
- **Address compliance and ethics program oversight in the charter (including delegation to a designated committee, if applicable)**
- **Document policies and procedures specific to the operation of the compliance and ethics program**
- **Establish protocol/procedures for escalation of significant and compliance risk events**

<u>Principle 3 – Defines desired culture</u> – It is critical for the organization to establish and maintain a culture of compliance and integrity. Culture begins with a sincere commitment to compliance and ethics at the leadership level. The commitment is reflected in several ways, beginning with its inclusion in a code of conduct or business ethics that is written in a manner that clearly articulates expectations of behavior. Another aspect in a culture of compliance is that of risk awareness, where employees are vigilant and willing to raise concerns when they see warning signs of risk.

Key characteristics:

- **Ensure that the board is knowledgeable of and approves a code of conduct/ethics and other key compliance policies**
- **Explain expectations relating to ethics and compliance in a code of conduct/ethics**
- **Provide and require training on the code of conduct and on ethical decision-making for all staff (including board members)**
- **Perform ongoing monitoring or assessment of organizational culture**

- **Develop objectively measurable compliance metrics tied to performance evaluations and compensation, where appropriate**
- **Adopt meaningful incentives to promote consistent execution of the compliance and ethics program**
- **Include references to organizational values, expectations, and importance of ethics in communications from leadership**

Principle 4 – Demonstrate commitment to core values – Studies show that there is a correlation between ethical culture and organizational performance, consistent with ERM's goal to creating value. The tone from the top plays an important role in managing compliance risks. The tone set by the executive team must set an example of compliance and ethical behavior, however, much more is required than setting the tone. Employees should be held accountable for their individual roles in managing compliance risks, and this should be reflected in job descriptions, performance evaluation, and incentives.

Key characteristics:

- **Actively promote a culture of compliance risk awareness, including setting an ethical and compliant tone by leadership**
- **Balance business incentives with material compliance incentives**
- **Incorporate accountability for the management of (1) compliance risks and (2) compliance program implementation into employee performance measurement, promotions, and incentive programs, particularly at senior levels**
- **Protect those who report suspected wrongdoing, with zero tolerance for retaliation**
- **Take allegations of wrongdoing seriously and investigate in a timely manner**
- **Promote organizational justice, including accountability for wrongdoing, fairness and consistency in discipline, and fairness in promotions**
- **Communicate lessons learned from compliance and ethics failures across the organization appropriate detail.**

Principle 5 – Attract, develop, and retain capable individuals – An effective compliance function should be led by a CCO with appropriate experience and qualifications. Throughout the entire organization, hiring individuals who respect compliance and make business decisions in an ethical manner is vital to the management of compliance risks. Indeed, being perceived as an organization that is committed to compliance and ethics helps companies attract and retain good people.

Just as training on a code of conduct and broad ethical issues helps to define an organization's desired culture, training on specific compliance risk topics further develops individuals' abilities to effectively recognize and manage compliance risks. Furthermore, the compliance team itself should continue to be developed with training on emerging practices for managing a compliance and ethics program and changes in the legal/regulatory environment.

Numerous compliance issues have been triggered by third parties (nonemployees), especially those that play integral roles in connection with supply chains, sales, delivery, and other key functions. Due diligence concepts described should also be applied when engaging third parties to carry out activities on behalf of the organization based on the level of compliance risk associated with each third party. The degree of background checking, other due diligence, and compliance-related performance measures should vary based on the assessed performance measures should vary based on the assessed level of risk, and due diligence should be repeated periodically as part of maintaining ongoing relationships with high-risk third parties. Due diligence in engaging with certain third parties, as well as ongoing training and monitoring of compliance performance of third parties, have become expected by regulators and are integral elements of this principle.

Key characteristics:

- **Hire and retain a CCO with appropriate experience/expertise to lead the compliance and ethics program**
- **Staff the compliance team with individuals that possess relevant expertise**
- **Perform background checks aimed at screening for compliance risk, tailored to he level of risk associated with each portfolio**
- **Consider employee execution of an adherence to the requirements and expectations of the compliance and ethics program in the preparation of performance evaluations**
- **Appropriately tailor compliance training based on the compliance risks encountered for specific roles in the organization**
- **Perform risk-based due diligence on third parties**

Strategy and objective-setting for Compliance Risks

This section describes the application of the strategy and objective-setting components of the COSO ERM framework, and the four principles associated with the management of compliance risks:

Principle 6 - Analyzes Business Context – Context is critical to understanding and managing compliance risks. Business decision-making is one of the drivers of compliance risk; decisions can create new risks, change existing risks, or eliminate risks. The CCO should have an appropriate level of involvement in the strategy-setting process to enable the compliance function to be positioned to identify and develop plans to manage compliance risks that emerge from changes in strategy. Likewise, the CCO should be informed of sudden shifts in strategy that may occur as an organization responds to change in its environment.

Effective compliance risk should take into consideration factors that can create new risks or change existing one. Some of the most important internal drivers of compliance risk include changes in people, processes, and technology. Another driver of compliance risk is management pressure, particularly when such pressure is not coupled with reminders regarding the expectation of compliance and appropriate incentives to adhere to the compliance and ethic program.

There are also external drivers of compliance risk involving the legal, regulatory, and enforcement landscape. For example, recent changes in data privacy and security laws have created entirely new compliance risks for me organizations. External drivers also include competitive, economic, and other factors may be at a macro level (e.g., industrywide competition, economic conditions) or micro level (e.g., changes in local or regional laws and regulations). Be reminded that an organization's responses to other risks (e.g., strategic, financial) may affect compliance risk in a positive or adverse way.

Key characteristics:

- **Consider and reflect organizational strategy in performing compliance risk assessments and managing compliance risk**
- **Consider how compliance risks are affected by internal changes, such as changes in people, structures, processes, technology, etc**
- **Evaluate effects of external factors (e.g. competitive, economic, enforcement trends, environmental, political, social forces) on compliance risks**
- **Identify and consider risk interdependencies I the development of strategy**

- **Give consideration to cultural and regional differences in legal frameworks based on locations where the organization operates**.

Principle 7 - Defines risk appetite – Understanding how much of a threat a compliance risk poses to the achievement of business objectives enables the CCO to effectively prioritize the deployment of preventive and detective resources.

Key characteristics:

- **Consider compliance risk as part of the organization's risk profile in determining risk appetite.**
- **Consider compliance risk by (1) type (e.g. anti-bribery), (2) business unit (e.g. human resources) and (3) location or region**
- **Determine and evaluate the relationships between compliance risks and the achievement of business objectives**
- **Discuss risk appetite on a regular basis and update as necessary based on changes in compliance risk**
- **Consider developing specific risk-centric appetite statements associated with compliance risks in support of organizational risk appetite and tolerance**

Principle 8 - Evaluates alternative strategies – The compliance function should be involved in strategy discussions from the standpoint of (1) understanding the strategy so that the compliance and ethics program can be designed to manage compliance risks appropriately and (2) advising strategic decision makers about possible compliance risks associated with strategies under consideration. Compliance risk assessment and management are most effective when the compliance function is fully informed prior to embarking on new strategic initiatives, enabling the compliance and ethics program to be prepared to proactively address new or changing compliance risks.

Once strategy has been decided, the compliance function should identify and understand the implications for the organization's compliance and ethics program. Begin by identifying and assessing compliance risks as well as suggesting modifications to internal controls aimed at mitigating compliance risk.

Key characteristics:

- **Ensure that the CCO has a seat at the table in discussions of strategies**
- **Solicit input and insight from the CCO regarding how strategy affects compliance risk**
- **Perform risk based due diligence on merger and acquisition targets prior to execution of the transaction**
- **Consider implications of strategic decisions (including subsequent changes in strategy) in the design of the compliance and ethics program**.

Principle 9 - Formulates business objectives – The compliance function should be consulted as part of the establishment of business objectives, to ensure that incentives are appropriately structured to minimize the promotion of bad behavior or that such incentives are balanced with appropriate compliance incentives. Ideally, compliance participates in the establishment of business objectives, at a minimum, it is well informed of such objectives and the performance metrics that are used for individual evaluations.

Key characteristics:

- **Identify and evaluate compliance risks associated with planned business objectives**

- **Consider establishing compliance as a separate business objective**
- **Incorporate compliance risk management and accountability into performance measures and related**
- **Consider interactions between compliance and other risks based on changes in business objectives**
- **Include objectively measured compliance metrics within business objectives, reflecting the management of compliance risk and the effectiveness of compliance and ethics program implementation, and carrying appropriate weight in incentive and other compensation decisions.**

PERFORMANCE FOR COMPLIANCE RISKS

For compliance and ethics programs to be effective, it is expected by regulators and others that organizations periodically assess the potential threat of legal, regulatory, and policy non-compliance, as well as ethical misconduct, so that the organization can take steps to manage these risks to acceptable levels.

Principle 10 – Identifies Risk

One of the most challenging tasks for the compliance and ethics program is the identification of the myriad compliance risks faced by the organization. Organizations are subject to thousands of laws and regulations ranging from antitrust, privacy, fraud and intellectual property rights/obligations to local sales tax, licensing requirements, and environmental standards. These threats constantly change with new and altered legal and regulatory requirements. To function effectively, the compliance and ethics program needs to have the processes in place to identify and tack these various risks across the organization.

Approaches for Identifying Risks

Types of Risk	Cognitive Computing	Data Tracking	Interviews	Key Indicators	Process Analysis	Workshops
Existing						
New						
Emerging						

Regardless of the approaches taken, the variety and complexity of compliance risks create the need for operations managers and risk owners to be involved in the risk-identification process. Information provided by regulators can also be helpful in identifying new and emerging risk, because many of these agencies issue alerts regarding where they see merging risks and have compliance concerns.

Key Characteristic:

- **Describe the compliance risk identification and assessment process in documented policies and procedures**
- **Identify compliance risks associated with planned strategy and business objectives**
- **Assess internal and external environments to identify risks**
- **Create process for identifying new and emerging risks**
- **Consider risks associated with use of third parties**
- **Consider information gathered through hotlines, other reporting channels, and rests of investigations.**

Principle 11 – Assesses severity of risk – Severity of a compliance risk is usually assessed primarily on the basis of likelihood and impact. Likelihood in the case of compliance, means the probability of specific noncompliance with law/regulation or ethical misconduct. Assessing the likelihood of compliance risk in most cases is a subjective judgment. One approach is to consider the frequency of noncompliance. Will the event occur once a year or once every five years? In the example below the likelihood of occurrence is measured from rare to almost certain. Control assumptions and frequency are given descriptive anchors that are then matched to the assessor's beliefs.

Likelihood of Occurrence

Scale	**Existing Controls**	**Frequency of noncompliance**
5 almost certain	• No controls in place • No policies or procedures, no responsible person(s) identified, no training, no management review	Expected to occur in most circumstances More than once per year
4 likely	• Policies and procedures in place but neither mandated nor updated regularly • Controls not tested or tested with unsatisfactory results • Responsible person(s) identified • Some formal and informal (on-the-job) training • No management reviews	Will probably occur At lease once per year
3 Possible	• Policies mandated, but not updated regularly • Controls tested only occasionally, with mixed results • Responsible person(s) identified • Training is provided when needed • Occasional management reviews are performed but not documented	Might occur at some time at least once in 5 years
2 unlikely	• Policies mandated and updated regularly • Controls tested with mostly positive results • Regular training provided to the identified responsible person(s), but not documented • Regular management reviews are performed, but not documented	Could occur at some time At least once in 10 years
1 Rare	• Policies mandated and updated regularly • Controls regularly tested with positive results • Regular mandatory training is provided to the identified responsible person(s), and the training is documented • Regular management reviews are performed and documented	May occur only unexceptional circumstances Less than one in 10 years

The second component of risk severity is impact. With compliance risk, one thinks immediately of civil and criminal fines and penalties, and the possible direct financial consequences of noncompliance. Another significant factor may be the reputational impact of compliance and ethical issues. This and other consequences (e.g. sanctions, suspension, and debarment) may have a material indirect financial impact, as well as an impact on morale and other factors that are difficult to measure.

Impact of Compliance Risks

Scale	**Legal**	**Financial**	**Operational**	**Reputation**	**Health & Safety**	**Ability to pursue strategic goals**
1 Insignificant	In compliance	<$1 million	< ½ day	No press exposure	No injuries	Little or no impact
2 Minor	Civil violation with little/no fines	$1-$5 million	< 1 day	Localized negative impact on reputation (such as a single large customer) but recoverable	Firs aid treatment	Minor impact
3 Serious	Significant civil fines/penalties	$5-$25 million	1 day-1 week	Negative media coverage in a specific U.S. region or a foreign country	Medical treatment	Major impact
4 Disastrous	Serious violation, criminal prosecution probable	$25-$100 million	1 weeek-1 month	Negative media coverage in a specific U.S. region or a foreign country	Death or extensive injuries	Significant impact
5 Catastrophic	Significant violation, criminal conviction probable, loss of accreditation or licensure	>$100 million	>1 month	Sustained U.S. national (and international) negative media coverage (front page of business section)	Multiple deaths or several permanent disabilities	Loss of accreditation or license

Assessment of each of the risks in the compliance risk inventory can be made by compliance staff or by compliance committee and can be conducted at different levels of the organization. In conducting assessments, steps should be taken to minimize bias by avoiding self-assessment and using multiple assessors from varied disciplines and experience to ensure that risks are appropriately evaluated.

Key Characteristics:

- **Adopt a uniform scale/scoring system for measuring severity of compliance risks**

- **Consider qualitative and quantitative measures**
- **Establish criteria to assess impact and likelihood of compliance risk event occurrence**
- **Assess severity of risk at different levels (organizational, regional, affiliate, etc)**
- **Consider design and operation of internal controls intended to prevent or detect compliance risk events**
- **Minimize bias and inadequate knowledge in assessing severity (e.g. minimize self-assessments, use multidisciplinary teams)**

Principle 12 – Prioritize risk

The assessments of compliance risks in terms of likelihood and impact allow for prioritization across the organization. One method used to capture and summarize the severity assessment is to construct a risk inventory matrix.

Key Characteristics

- **Prioritize compliance risks based on assessed level of risk relative to meeting of business objectives**
- **Use objective scoring based on assessment**
- **Consider use of other assessment criteria (trend, velocity, etc) in prioritizing compliance risks**
- **Consider possible effects of planned changes in strategy and operations**
- **Develop risk-based action plans for mitigation (risk responses, implemented in next step)**

Principle 13 – Implements risk responses - Risk responses are designed to manage the assessed level of risk and can take many forms. The most obvious response to an elevated level of risk is the design and implementation of improved internal controls over compliance. Many risk-specific policies involve internal controls. Internal controls over compliance may be preventive or detective in nature, and ideally a blend of both is in place.

Risk responses may involve many actions other than improvements to procedural internal controls. Training may also be more general in nature. If the observed behavior involves a weal culture of compliance, general training on the importance of compliance may be useful.

Key Characteristics

- **Consider potential need for modifications in each element of the compliance and ethics program when designing risk responses**
- **Design compliance risk responses that consider the impact on other (non-compliance risks and risk responses**
- **Assign accountability for each compliance risk response (including timeline, etc)**
- **Follow up to determine whether compliance risk responses have been properly implemented as designed**
- **Consider compliance risk responses when developing monitoring and auditing plans**

Principle 14 – Develops portfolio view –It is important to recognize the interrelationship among compliance risks, as well as the relationships between compliance risk and other organization risks. If risks are managed in isolation without consideration of other risks, inefficiencies – and possibly conflicts – can occur.

A consideration in developing a portfolio view is the extent to which compliance risks increase or decrease in severity as they are progressively consolidated to higher levels within the organization. A compliance risk that at first appears to be significant at a business unit level may be rather minor by the time it is consolidated with other risks and rolled up to a higher level within the organization.

Key Characteristics:

- **Consider risk interactions (i.e. how mitigating a compliance risk can affect other risks)**
- **Consider interactions of compliance risk responses with other risk responses**
- **Integrate compliance risk management with ERM**
- **Have regular meetings/communications between compliance and business units**.

Review and Revision for Compliance Risks – This area deals with the principles associated with the management of compliance risks. For compliance risk management to be effective, the organization must regularly review its compliance risk management practices and capabilities and take steps to continually improve its compliance and ethics program**.**

Principle 15 - Assesses substantial change – Changes in the organization's internal and external environment can have significant impacts on the organization's compliance risk profile. The CCO needs to identify potential drivers of changing compliance risk. The potential drivers include, but are not limited to the following:

- Changes to the organization's strategies and objectives
- Changes to people, process and technology
- Changes in regulatory requirements and/or societal expectations

As mentioned at Principle 6, the CCO should be involved in the strategy-setting processes to allow the compliance and ethics program to identify and manage the change in compliance risk resulting from significant shifts in business strategy and objectives. Changes in the internal environment in people, processes, and technologies can also result in changes to compliance risk.

Changes in the external environment affect the organization's compliance risks through changes to laws, regulations, enforcement priorities, and societal norms and values. Assessing the impact on compliance risk has become increasingly complex due to the proliferation of laws and regulations across jurisdictions, often with conflicting requirements. The compliance and ethics program needs to keep abreast of information from industry and professional groups as well as trends in enforcement and guidance provided by regulators.

Key Characteristics:

- **Identify drivers of change in compliance risk – internal and external**
- **Consider how implementation of new strategic initiatives affects compliance risks**
- **Consider how changes in senior personnel affect compliance risk and/or risk tolerance**
- **Evaluate changes in laws and regulations**
- **Consider developments in enforcement, guidance from regulators, and other trends**
- **Assess changes in local/regional environments**

Principle 16 - Reviews risk and performance – The goal of the compliance and ethics program goes beyond the assurance for the board and management to fulfill their responsibilities for managing compliance risk to acceptable levels; the goal is also to continually improve the compliance and ethics program. Regulators have become more explicit in their expectations regarding the review of compliance and ethics program performance as a critical element of an effective compliance program**.**

The expectation is for two types of review:

(1) A review of compliance risks that are considered to be a high priority based on their assessed likelihood and impact of noncompliance, and
(2) Periodic review of the overall performance and effectiveness of the compliance and ethics program.

The table below depicts the three lines Model and shows how this model can be used to design an auditing and monitoring plan for a high-risk area (conflict of interest in an academic medical center).

Auditing and monitoring plan for a high -risk area

	1st line	**2nd line**	**3rd line**
Risk Area	**Management**	**Management**	**Internal Audit**
As Identified during risk assessment	Structure and policies	Monitoring support	Independent auditing
Conflict of Interest (COI)	• Establish COI policies and procedures • Educate personnel about COI policies • Report non-compliance to COI Manager • Report unauthorized vendors representatives and displays • Advise personnel to contact Compliance with questions • Review annual COI disclosures	• Annual COI disclosure • Purchasing and Pharmacy vendor registrations • open payments database • research conflict database cross-check	• audit 10% of outside travel payments against Accounts payable travel reimbursements • level 2 review of COI disclosures • audit 10% of 'nothing to disclose' • 'for cause' investigations

To evaluate a compliance and ethic program there are three questions posed regarding the organizational compliance and ethics program can be answered (Evaluation of corporate Compliance Programs, DOJ)

(1) Is the organization's compliance and ethics program well designed?
(2) Is the program being applied earnestly and in good faith?
(3) Does the compliance and ethics program work in practice?

It is noted that the DOJ framework includes a measurement of the organization's culture of compliance, including seeking input from all levels of employees to determine how they perceive senior and middle management's commitment to compliance.

Key Characteristics:

- **Monitor performance against compliance and ethics metrics and report at the management and board levels**
- **Update compliance risk assessments on a periodic basis**
- **Develop monitoring plans for high-priority risks, assign assurance responsibilities clearly across the three lines and set clear performance expectations**
- **Ensure that internal audit considers compliance risk in connection with its review of entity risk and performance**
- **Periodically assess the organization's culture of compliance**
- **Ensure that annual compliance and ethics program work plans reflect risk assessment**
- **Include appropriate audit rights clauses in third-party contacts to facilitate monitoring and auditing**
- **Obtain feedback from participants incompliance training, hotline reports employee surveys and exit the board**
- **Perform root cause analyses for compliance risk events experienced**.

Principle 17 - Pursues improvement in enterprise risk management – Merely identifying issues is not enough, however, action must be taken to adjust and improve the compliance and ethics program. Increasingly, regulators emphasize the importance of the organization demonstrating its efforts to review the program and take action to ensure that it does not become stale. For many regulators, proactive efforts by the organization may be rewarded with reduced fines and requirements in resolution agreements and prosecution decisions.

The CCO should meet periodically with the board, as well as the organization's internal compliance committee. Together they should address the results of performance reviews and the compliance and ethics program's proposed action plan to address identified gaps in compliance and ethics program performance, as well as proactive improvements to the program**.**

Other mechanisms that can be used to provide feedback on the performance of the compliance and ethics program are:

- ➢ Confidential reporting mechanism through which employees and others can report suspected misconduct involving the organization
- ➢ Exit interviews, periodic employee surveys and feedback from participants in compliance training
- ➢ Benchmarking against the practices of other organizations.

Key Characteristics:

- **Maintain awareness of current trends in compliance risk management (through training, review of regulatory guidance, etc)**
- **Ensure that compliance periodically self-asses the compliance and ethics program's performance**
- **Obtain feedback from the board on the quality and usefulness of compliance risk information shared**
- **Consider obtaining periodic independent evaluation of the compliance and ethics program**
- **Consider benchmarking the compliance and ethics program against similar organizations**
- **Review efficacy of the compliance risk assessment process on a periodic basis**

- **Ensure that internal audit plays an active role in periodically evaluating the effectiveness of the compliance and ethics program**

<u>Information, communication, and reporting or compliance Risks - T</u>his section deals with the application of the information, communication, and reporting component of the COSO ERM framework and the principles associated with compliance risks.

<u>Principle 18 – Leverages information and technology -</u> For a compliance function to effectively manage a compliance and ethics program, it must have timely access to information pertaining to each of the elements of the compliance and ethics program. Technology can be a vital asset in connection with several aspects of a compliance and ethics program. Technology-assisted training is often easy to update in order to rapidly address new issues or simply to keep training fresh. Nowhere is technology more useful to compliance than in the monitoring and auditing component of the compliance and ethics program.

Key Characteristics:

- **Ensure that compliance has access to all information relevant to effectively manage compliance risk**
- **Provide compliance with relevant information technology/data analytics skills or access to such skills**
- **Utilize data analytics in monitoring/auditing (monitor compliance and performance of internal controls)**
- **Create automated dashboards/reports for monitoring compliance**
- **Leverage technology to provide the delivery of effective compliance and ethics training**
- **Utilize technology to facilitate risk assessment process (scoring, reporting etc)**

<u>Principle 19 – Communicates risk information –</u> The compliance function should interact with virtually every business unit and function within the organization, acting as a partner in identifying and managing compliance and ethics risks that threaten the organization, delivering quality training and information regarding compliance and ethics risks, and responding to allegations or concerns about compliance matters.

The partnership between compliance and individual business units is essential to the effectiveness of the compliance and ethics program. Just as the business units know their operations better than anyone, nobody is better positioned to help the business unit understand the ramifications of compliance and ethics issues than the CCO and the compliance team. Accordingly, the management of compliance risks is most effective when there is a regular dialogue between compliance and each business unit, resulting in a shared mission of balancing compliance with operational efficiency. This communication is a two-way street, not simply communication from compliance to operations. Operations must be able to engage with compliance in a way that ensures that solution are both effective and practical, and built with the real-world insights that operations leaders bring to the table.

Effective compliance-related communication also has an important cascading effect. Broad statements about ethics and compliance awareness should come from the most senior levels of management and the board of directors. From there, communications that re more tailored to individual departments, functions, and even specific jobs should be developed and delivered by managers and supervisors.

Communications may take a variety of forms, from emails, posters, and other recurring means to town halls, meetings, and other events. Informal communications from managers and supervisors are another effective means of articulating employees' roles and responsibilities in connection with the compliance and ethics program.

One commonly overlooked area of compliance communication pertains to an escalation policy or protocol. The final step in communications involves the board or its designated committee. Much of this communication is done through reporting (Principle 20). In-person explanation of issues addressed in the report, delivering meaningful information, and discussing actionable plans for improving the program are all steps that are important to effective management of compliance risk.

Key Characteristics:

- **Ensure that employees receive clear and regular communications on their roles regarding compliance and ethics**
- **Require periodic reporting to the board by the CCO**
- **Establish protocols and ensure a clear understanding of an escalation policy**
- **Provide compliance risk communications that support and relate to training and job responsibilities**
- **Engage in effective two-way communication between operations management and compliance**

Principle 20 – Reports on risk, culture, and performance – Closely related to the communication of risk information is reporting on risk, culture, and performance associated with compliance-related risks. These stakeholders include the board of directors, and board-level committee delegated the responsibility of compliance risk oversight, the senior executive team, any internal compliance committee, and appropriate managers/heads of departments or functions within the organization. Reporting to these groups should be tailored to the unique needs and responsibilities of each as should the frequency of reporting.

Reporting to the board should focus on what is needed for the effective oversight of the entire compliance and ethics program- information about the risk assessment process, identification of the most material risks and actions being taken n response to those risks, meaningful compliance metrics addressing both the structural and substantive performance of the program, information about compliance-related investigations, resource allocations and needs, etc. Reporting to the board should also periodically address culture as it pertains to compliance and ethics. Culture can be a difficult area to assess; however, efforts should be made to provide the board with same perspective and trends on organizational culture associated with compliance and ethics. This may be accomplished through employee surveys; data associated with culture; and other less formal methods, such as interviews and focus groups.

Reports on compliance risk management should address externally generated risk as well as those that result from the internal risk universe (e.g. employee acts) third-party risk management is an important element of a compliance and ethics program. Accordingly, report should be prepared and distributed to appropriate stakeholders on the status of third-party suppliers, sales agents, and others who could create risk for the organization.

Effective documentation is critical to compliance and ethics program. Typically, documentation involving investigations is maintained and reviewed only by the compliance, legal, and//or investigations team. It is crucial to properly handle, reserve, and maintain these materials and records in the event of legal action or government inquiry. Each compliance-related investigation should be well documented, include a timeline of events and key steps/actions taken along the way, and summarize any remedial steps. These records, useful reports can be generated from them that provide insight into the needs and effectiveness of the investigations element of compliance risk management.

Key Characteristics

- **Provide periodic reports on compliance and ethics risk assessments and related remediation efforts tailored to key stakeholder need**
- **Develop and report on meaningful operational substantive metrics associated with the effectiveness of the compliance and ethics program**
- **Provide managers with reports on completion and results of training of their direct reports**
- **Use a case management and reporting system for investigations and outcomes**
- **Establish and follow a policy that clearly articulates the nature of reporting on all significant remediation efforts.**

APPENDIX

How to Manage Compliance Risk

1. **Always start with a Risk Assessment**

You cannot manage compliance risks if you do not understand what our risks are. Without a thorough and scientifically justified risk assessment all the elements that make up your compliance program; your policies, due diligence, and tone at the top, will accomplish little if they do not address the right risks.

There is no one-size-fits all approach to risk assessment. Compliance departments typically have limited resources; applying the same approach to the entire organization will inevitably lead to resources being spread too thin as they will end up being over-allocated to low-risk markets. It is key to assess the risks faced by your business first to prioritize and address them appropriately.

2. **Managing Compliance Risk is all About Third Parties**

Every business deal with a large number of third parties, however, that number will vary depending on the size and type of business. Performing at least some level of due diligence on all your third parties is essential as many of the biggest and most prominent compliance risks are associated with interacting with third parties. Under most prominent foreign bribery legislation, companies face liability for bribes paid by intermediaries to foreign officials.

A strong due diligence process should be a central part of an attempt to manage compliance risks. As you may deal with a large number of third parties, it is essential that the due diligence process is streamlined, integrated, and as automated as possible. Using an end-to-end due diligence solution will enable you to automatically screen and categorize third parties.

3. **Understand the latest Enforcement Policies**

Compliance risks typically encompass a number of areas including data protection, export control, and anti-corruption law. As part of your risk assessment, you should ensure that you understand the requirements imposed by all applicable laws and regulations. However, beyond understanding the letter of the law, it is important that you stay up to date with the latest guidance and enforcement policies released by the enforcement agencies as prosecutors wield significant discretion when deciding whether to prosecute misconduct. Doing so could potentially be enormously beneficial if problems do arise, as you will have been able to tweak your compliance program to qualify for leniency.

As a case in point, the corporate enforcement policy for the U.S/ Foreign Corrupt Practices Act (FCPA) saw its last major revision in late 2017. Under this policy, the U.S. Department of Justice (DOJ) holds that companies that voluntarily self-disclose FCPA violations in a timely manner, and subsequently fully cooperate and appropriately remediate the misconduct, will as a matter of resumption, absent aggravating circumstances, receive a declination.

4. **Do not forget to Build a culture of Ethics and Compliance**

In the process of trying to manage compliance risks, it is easy to lose yourself in managing complex problems or, indeed, trying to tailor your compliance program to the latest enforcement policies. Hui Chen, the DOJ's former Compliance Counsel Expert, right pointed out in an op-ed that the conversation around compliance programs has increasingly focused on the question "what does the DOJ/SEC expect?" rather than "what actually works?"

Of course, every compliance officer worth their salt wants to run a compliance program meeting the highest expectations set by the authorities. And that is fine, but a problem arises when that results in a myopic focus on managing compliance risks as a tick-box exercise. It requires a much broader, organization-wide effort to drive compliance and ethic to the core of the business.

The tone at the top of your organization is crucial. Senior leadership should clearly communicate to middle managers, and the rest of the organization, the type of ethical conduct expected from each employee-themselves included. Beyond words, actual conduct matters, mere lip service has never convinced anyone.

On a more practical level, you should ensure that you deliver training in a way at is easily accessible to employees and engages them in a way resulting in them retaining the message. Failing to do so might render training meaningless. In the same vein, using technology to easily collect conflict of interest declarations and signatures on important polices reduces the "annoyance factor" of manual processes and will drive engagement with your compliance efforts.

5. **Ensure People feel free to speak up**

Strong ethics and compliance culture in your organization is essential to ensure people feel free to speak up if they see misconduct in the organization. No matter how many procedures you have in place, employees will not feel free to blow the whistle on misconduct in the organization if they are not confident, they can do so anonymously and without fear of retaliation. Unfortunately, even the strongest internal controls can occasionally be circumvented by ill-intentioned employees. Once internal controls have failed, the only defense against the misconduct escalating further is a culture where employees are able to speak up. In an organization with a strong ethics and compliance culture, employees are your allies in ensuring that misconduct, when it does occur, is reported.

6. **Continuously Monitor and Update your compliance efforts**

As business are continually changing, your compliance efforts should change in lock-steps. It would be a mistake to think of managing compliance risks as a one-time exercise of writing policies and setting up processes. You will only know whether your policies and procedures are effective if you evaluate them on a regular basis. Always ask yourself how you can best measure your impact. One key benefit of compliance technology is that it can give you insight into large amounts of data at a glance via useful dashboards and automatic ally generated reports.

Similarly, compliance officers should periodically ask themselves whether it is time to elevate their compliance program. A good moment to do so can be when the business is about to expand into new high-risk markets or when the business is about to acquire another company.

7. **Free up time and resources using automation**

It is evident that managing compliance risks is not an easy task; it requires managing lots of complicated processes, a myriad of stakeholders, as well as fostering a culture of ethics and compliance. However, compliance also involves a number of mundane tasks. Many compliance officers will recognize they waste a lot of time chasing employees for signatures or trying to retrieve records from a multitude of non-centrally stored spreadsheets and documents.

Automating these processes does not only eliminate these frustrations; it can also give you much grater insight into your data, which allows you to improve your program. Moreover, you can use the time freed up t engage in strategic planning, advocate for changes internally to company stakeholders, and conduct in-person training to the most high-risk employees, to name just a few examples.

Bottom Line

Managing compliance risks is no easy feat; it involves a number of complicated processes as well as a concerted effort to create an ethical culture to be successful.

htttps://www.ganintegrity.com/how-to-manage-compliance-risks/

APPENDIX

What is Compliance Reporting?

Providing reports about corporate compliance is one of the most important duties that a compliance officer performs.

A compliance report documents how well a company is or is not complying with some regulation that applies to the business. The compliance officer usually (but not always) writes the compliance report, and it can go to several audiences – the board, senior executives, regulators, business partners and others.

Broadly speaking, a compliance report tries to answer three questions:

- Is the organization in compliance with the regulation?

- Does the company have a reliable process to be in compliance?
- What else could or should be done to improve compliance?

Why Compliance Reporting is Important

Compliance reporting is important for many reasons:

First, some compliance reports can be required by regulatory obligation. For example, banks must file certain reports with their industry regulators to demonstrate compliance with rules governing liquidity risk. A business working under a settlement for antitrust or FCPA infractions might need to file reports with the Justice Department about corporate compliance. An inability to generate those reports could invite serious trouble.

Second, even where a compliance report is not required by regulation, compliance reports can inform your regulatory reporting. For example, in the sate of New York, financial firms need to certify the effectiveness of their cybersecurity programs. That certification is not a compliance report in the strictness sense – but about every Chief Information Security Officer (CISO) would want an internally generated report about the firm's compliance with cybersecurity regulations before he or she certifies anything.

To put it another way, compliance reports are important because they document the current state of your company's compliance posture.

Whether you are documenting compliance with anti-corruption, privacy, human trafficking, or anything else, inevitably you will fund shortcomings. A compliance report identifies those shortcomings and provides a roadmap to remediation.

Third, compliance reports can often be queried by customers. For example, a customer might want to understand your company's cybersecurity or anti-corruption programs, before it agrees to d business with you. A compliance report can answer those questions.

Examples of compliance reports

Compliance reports come in all shapes and sizes, on many subjects. Some might have a designated structure if they are driven by specific regulatory requirements. Many, however, take whatever form and structure makes the most sense for the organization's needs; the content of the report is what matters most.

Examples:

A review of due diligence programs or internal accounting controls for FCPS compliance

A summary of the documentation and testing of security controls for PCI Compliance

A report on policies and procedures necessary for GDPR compliance

A review of policies and internal controls for AML compliance

What a compliance Report should Include

A compliance report should include four main components:

- A statement regarding the regulation in question

- A discussion around the scope of the report that is, precisely what the compliance officer reviewed, and what he or she did not. in many instances, affirming what was not reviewed is just as important as stating what was
- A review of the compliance process itself. For example, if reporting about the effectiveness of third-party due diligence, describe how those procedures are supposed to work.
- A summary of the findings of your analysis. How well is the company meeting the stated compliance obligation, or not?

A compliance report can, and usually should, also include action items to improve compliance. In some instances, however, such a regulatory report with a fixed structure, which might not be the case.

What makes Compliance Reporting Effective

First, effective compliance reporting makes reports that are useful to the reader. Remember that many compliance reports go to senior executives or board directors. While they might understand the concepts for regulatory compliance, they will not necessarily know all the lingo or terms of art that compliance officers might use internally.

A compliance report should anticipate that reality and be written in such way that its readers can put the report to good use. To that end, all compliance repots should:

- Use clear language and sentence structure
- Be concise
- Include an executive summary
- List action items or timelines for improvement. State any necessary action from executives or the board, such as decisions that only they should make

Second, effective compliance reporting generates reports as quickly as possible. This quality is more important for the compliance officer making the reports, rather than for the executive reading the report – but it is still important. Manual creation of compliance reports is expensive, painstaking, and more prone to error.

For example, all useful compliance repots include data. So, one place for a compliance officer to start is to consider which parts of data collection and analysis can be automated and then fed into a pre-existing compliance report (quarterly analysis).

That only means the compliance officer should consider the design of their compliance reports., and how much of the report can be pre-formatted so data flows into the report automatically. One thing you should not automate: the analysis of weak spots in your compliance program, and recommendations for improvement. Some things are still better left to good old human judgment.

https://www.ganintegrity.com/blog/what-is-compliance-reporting/

APPENDICES

1. COSO's Updated Enterprise Risk Management Framework

2. Elements of an effective Compliance and Ethics Program

3. U.S. Department of Justice Criminal Division Evaluation of Corporate Compliance Programs

4. What is Compliance Reporting?

5. How to Manage Compliance Risk

6. Sanctions Enforcement: A new Era

7. Assessing your exposure to Compliance Risk, Deloitte; CFO insights Compliance Risks: What you don't contain can hurt you

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Sanctions enforcement: A new era

U.S. Deputy Attorney General Lisa Monaco has called sanctions "the new FCPA."[1] The EU has issued a proposal that would make sanctions evasion an EU crime.[2] The U.K.'s Office of Financial Sanctions Implementation (OFSI) is under pressure from key global partners to step up its enforcement activity.[3] These developments are just a few of the signs that the national security considerations of the Russian sanctions have coalesced the Western allies and are ushering in a new era of sanctions enforcement for sanctions evaders and facilitators — including financial institutions.

In the coming months and years, global sanctions enforcement regimes will sharpen their focus on sanctions compliance programs of financial institutions — and the identification of sanctions risk in particular — as the Russian sanctions raise the stakes for accountability among institutions to preempt prohibited activity.

Although Western allies historically have been more aligned on sanctions enforcement in sentiment than in practice, countries with historically loose enforcement regimes, alongside their regulators, are strengthening their stances, undoing the disconnect that has enabled global financial institutions to manage sanctions risk differently across the enterprise. Institutions should recognize this shifting dynamic and plan for convergence in enforcement activity.

Below, we highlight the advances in sanctions enforcement in the U.S., the EU and the U.K. We focus on these jurisdictions specifically because they serve as domiciles and/or strategic markets for such a substantial number of organizations, broadening the reach of their sanctions programs.

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[1] "Deputy Attorney General Lisa O. Monaco Delivers Keynote Remarks at 2022 GIR Live: Women in Investigations," U.S. Department of Justice, June 16, 2022, https://www.justice.gov/opa/speech/deputy-attorney-general-lisa-o-monaco-delivers-keynote-remarks-2022-gir-live-women.

[2] "EU to Make Breaking Sanctions Against Russia a Crime, Seizing Assets Easier," by Jan Strupczewski, *Reuters*, May 25, 2022, https://www.reuters.com/world/europe/eu-make-breaking-sanctions-against-russia-crime-seizing-assets-easier-2022-05-25/.

[3] "U.K. Accused of Being Toothless in Sanctions Enforcement," by Rupert Neate and Jessica Elgot, *The Guardian*, February, 24, 2022, https://www.theguardian.com/politics/2022/feb/24/uk-sanctions-enforcement-toothless-russia-deterrent.

U.S. enforcement

The U.S. has a long track record of aggressive sanctions enforcement. Since 2017, the Office of Foreign Assets Control (OFAC) has issued 87 fines totaling $1.53 billion.[4] Still, the aggregate amount reflects a $1.3 billion single fine[5] that the U.S. levied against an individual financial institution that was charged with willful violations of U.S. sanctions in 2019 and is overshadowed by an $8.9 billion single fine[6] in 2014.

Monaco's comparison of sanctions to the FCPA highlights sanctions evasion as a corporate crime, which, like terrorist financing and cybercrime, threatens national security and is therefore likely to receive heightened attention from a number of U.S. agencies, including the Department of the Treasury (DOT), the Department of State (DOS), the Department of Commerce (DOC) and the Department of Justice (DOJ).

Since the onset of the war in Ukraine, the world has observed the DOJ's resources at work, notably via the creation of Task Force KleptoCapture, which complements the transatlantic task force launched by the U.S., leaders of the European Commission, France, Germany, Italy, the U.K. and Canada to identify and seize the assets of sanctioned individuals and entities globally. OFAC has broadened its enforcement scope beyond the financial services industry to the freight[7] and mining[8] industries.

EU enforcement

The EU faces a fundamental obstacle in its administrative structure. Unlike the U.S., the 27-nation bloc lacks a central enforcement agency. The EU framework divides sanctions enforcement powers between Brussels — which, as the de facto EU capital, sets the EU's sanctions policy — and the member states, ministries and supervisors, which are required to interpret the EU's sanctions obligation and draft and implement their own guidance. Member states are expected to have in place effective, proportionate and dissuasive penalties, and to enforce them when EU sanctions are breached.[9]

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[4] Civil Penalties and Enforcement Information, U.S. Department of the Treasury, https://home.treasury.gov/policy-issues/financial-sanctions/civil-penalties-and-enforcement-information.
[5] "U.S. Fines Italian Lender UniCredit $1.3 Billion in Sanctions Probe," *Arab News*, April 16, 2019, https://arabnews.com/node/1483306/business-economy.
[6] "BNP Paribas Admits Guilt and Agrees to Pay $8.9 Billion Fine to U.S.," Iran Watch, June 30, 2014, https://www.iranwatch.org/news-brief/bnp-paribas-admits-guilt-agrees-pay-89-billion-fine-us#:~:text=BNP%20Paribas%2C%20France%27s%20largest%20bank%2C%20agreed%20to%20pay,when%20processing%20transactions%20through%20the%20U.S.%20financial%20system.
[7] "OFAC Settles with Toll Holdings Limited for $6,131,855 Related to Apparent Violations of Multiple Sanctions Programs," Department of the Treasury, April 25, 2022, https://home.treasury.gov/system/files/126/20220425_toll.pdf.
[8] "Treasury Sanctions Nicaraguan State Mining Company," U.S. Department of the Treasury, June 17, 2022, https://home.treasury.gov/news/press-releases/jy0822.
[9] "EU Sanctions Enforcement," by David Savage, Global Investigations Review, July 13, 2021, https://globalinvestigationsreview.com/guide/the-guide-sanctions/second-edition/article/eu-sanctions-enforcement.

The weaknesses in the EU's federated approach to enforcement and the narrow application of EU sanctions, which generally require compliance only by a subject and/or entity with a clear EU nexus, jurisdiction, nationality or incorporation, have been on display particularly this year amid the global rollout of the Russian sanctions.

Marking an inflection point, in May, the EU proposed criminalizing sanctions violations, a strategically important move that would unify the EU's fragmented sanction policy. Under the proposal, EU governments would have authority to confiscate assets of subjects and entities that evade EU restrictions against Russia, while service providers that advise Russians on masking control and ownership and/or circumventing restrictions would be penalized.

U.K. enforcement

As the war in Ukraine has progressed, the U.K. has been criticized for being less active in its censure of sanctions breaches than other countries and is under global scrutiny and pressure to make policy and implementation improvements. Since its creation of OFSI in 2016, the U.K. has issued just six fines totaling approximately £21 million. Recognizing that it is out of step with allies, the U.K. has sought to change the legal tests and powers of sanctions enforcement.

Notably, in June, the U.K. passed the Economic Crime (Transparency and Enforcement) Act 2022 to operate its sanctions enforcement program on a strict liability basis. Under the legislation, enforcement action is triggered by evidence of a sanctions violation, rather than a subject or entity's awareness of it. Previously, the test required that the subject or entity "knew" or had "reasonable cause to suspect" that its conduct breached a financial sanction or that it had failed to comply with its obligations under the regime. This change is significant, as it not only aligns the U.K. sanctions regime more closely with the U.S. model but also removes the incentive for entities to avoid conducting due diligence to protect themselves. Further, the bill allows OFSI to publicize cases of sanctions violations that do not result in a penalty.

The role of the financial services regulators

As financial institutions continue to face significant legal, regulatory, operational and reputational risks related to their implementation of the Russian sanctions, financial services regulators globally will play an increasingly significant role in identifying and referring to law enforcement potential violations of law.

Exacerbating the situation is the reach of sanctions risks, which spans the enterprise-wide financial crime compliance program and overlaps with other areas such as know your customer (KYC), transaction monitoring (TM) and investigation, and reporting. Moreover, sanctions control breakdowns, such as a growing sanctions-alert backlog, may expose program deficiencies that result in additional penalties and/or fines. Cooperation with regulators, including self-disclosures and timeliness of disclosures, will remain key to global strategies for navigating potential violations, fines and exposure.

Actions financial institutions should take

The adaptation of global sanctions enforcement policies has implications for sanctions risk management in the current climate, and financial institutions should reposition themselves accordingly, beginning with the following actions:

- **Refresh risk assessments and socialize results:** Refresh your annual sanctions-specific risk assessment, and review results to determine whether they are in line with the institution's risk appetite. Adequately identify the institution's current sanctions risk profile quantitatively and qualitatively. Report results and risk trending to senior management and the board.
- **Review due diligence processes:** Review your direct and indirect sanctions risk exposure frequently and consistently. Ensure that policies and procedures applied during the due diligence process are risk appropriate and teams are adequately skilled up to identify and address the risks.
- **Optimize use of data and technology:** Review what sanctions technology is in place and assess what is working and failing. Boards and senior management should conduct internal reviews to assess what business units and/or legal entities need to enhance its sanction screening capabilities, including internally developed tools, vendor-supported technology and third-party data sources.
- **Instill a strong culture of compliance:** Promote sanctions compliance through a strong tone at the top. Consider deploying global surveys to gain an understanding of where your workforce identifies strengths and weaknesses within the sanctions program. Couple the results with peer industry benchmarking to identify trends and emerging risks.
- **Promote the importance of self-disclosures:** Review and socialize self-disclosure process, policies and training across all three lines of defense. When assessing penalties, regulators consider the nature of noncompliance, and self-disclosure can help lessen the severity of a fine. Senior compliance and legal stakeholders should be actively engaging with their regulators on expectations, examination themes and focus areas.
- **Conduct targeted audits and testing:** Perform frequent periodic and targeted sanctions-specific audits and quality assurance and control testing to ensure that the sanctions control inventory is complete, mapped to risk and working effectively.

Conclusion

The impact of the Russian sanctions is not fully realized and many policy amendments under development have yet to gain momentum and/or are modest in scope. However, the changes over the last several months are a significant step in the right direction to ramp up pressure on Russia to end its war against Ukraine.

Sanctions risks for compliance programs will remain elevated. And though not all financial institutions face the same challenges managing the current sanctions environment, many will be tested as they maneuver though this unchartered territory. More than ever before, financial institutions need to ensure that their sanctions compliance controls are not only robust but also in line with global requirements, and undertake practices to manage the pressures that will continue to present themselves for the foreseeable future.

About Protiviti's Financial Crimes Practice

Protiviti's Financial Crimes practice specializes in helping financial institutions satisfy their regulatory obligations and reduce their financial crime exposure using a combination of AML/CTF and sanctions risk assessment, control enhancements and change capability to deliver effective operational risk and compliance frameworks. Our team of specialists assists organizations with protecting their brand and reputation by proactively advising on their vulnerability to financial crime, fraud and corruption, professional misconduct, and other financial business risk issues.

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APPENDIX A. COSO's Updated Enterprise Risk Management Framework

The 2017 COSO ERM Framework consists of the five inter-related components of enterprise risk management. The five components are supported by 20 principles which identify fundamental concepts associated with each component and describe things that organizations would do under each component. This principles-based Framework provides guidance that allows organizations to develop and implement specific ERM action steps that best fit their organization's governance structure and culture consistent with the 20 principles. Organizations can also use the Framework to assess the adequacy and completeness of their enterprise risk management processes and that those processes are present and functioning in an integrated manner.

More detailed information on enterprise risk management, the COSO Enterprise Risk Management Framework and related practices and activities is available through the COSO website at COSO.org.

Figure7. The COSO Risk Management Components and Principles

Governance & Culture	Strategy & Objective-Setting	Performance	Review & Revision	Information, Communication, & Reporting
1. Exercises Board Risk Oversight 2. Establishes Operating Structures 3. Defines Desired Culture 4. Demonstrates Commitment to Core Values 5. Attracts, Develops, and Retains Capable Individuals	6. Analyzes Business Context 7. Defines Risk Appetite 8. Evaluates Alternative Strategies 9. Formulates Business Objectives	10. Identifies Risk 11. Assesses Severity of Risk 12. Prioritizes Risks 13. Implements Risk Responses 14. Develops Portfolio View	15. Assesses Substantial Change 16. Reviews Risk and Performance 17. Pursues improvement in Enterprise Risk Management	18. Leverages Information and Technology 19. Communicates Risk Information 20. Reports on Risk, Culture, and Performance

Source: COSO ERM Framework 2017

APPENDIX B. Where to Start: Draft Action Plan for an ERM Initiative

Outlined below is an initial, draft high-level action plan to implement the ERM approach described in this thought paper. The draft action plan highlights key events and actions that organizations should consider when starting an ERM effort. The draft is not intended to be used as a complete action plan but rather as a starting point that would be tailored and expanded prior to use. The draft action plan adds details to the action plan detailed in section II above. This draft action plan reflects useful information and is a practical basis for developing an organization-specific action plan.

1. **Seek Board and Senior Management Involvement and Oversight**
   a. Set an agenda item for the board and senior management to discuss ERM
      i. Clarify and establish the overall objective of ERM to enhance the performance of the organization not just to identify risks
      ii. The relationship of ERM to achieving the organization's business objectives and strategies
      iii. The need to integrate ERM with the organization's strategy and performance processes
      iv. The expected benefits from an integrated ERM approach
      v. The expected change in the culture of the organization
   b. Agree on high-level objectives and expectations regarding a risk management initiative
   c. Understand the process to communicate and set the tone and expectations of ERM for the organization
      i. Setting and communicating the "tone at the top" is an essential element of establishing and achieving the desired change in the culture
   d. Agree on a high-level approach, resources and target dates for the initial ERM effort

2. **Identify and Position a Leader to Drive the ERM Initiative**
   a. Identify a person with the right attributes to serve as leader of the risk management initiative
      i. In-depth knowledge of the organization's overall business objectives and strategies
      ii. Does not have to be a newly created CRO (Chief Risk Officer) position or full-time equivalent; it often is led by an existing member of management who takes on the role of ERM leader in additional to their current responsibilities
      iii. Use existing management resources

b. Set authority, objectives and expectations for the leader
c. Allocate appropriate resources to enable success
   i. Review Principle 5: Attracts, Develops, and Retains Capable Individuals, of the COSO ERM framework, for additional ideas and information regarding human capital

3. **Establish a Management Working Group**
   a. Establish a management working group to support the risk leader and drive the effort across the organization
   b. Have the right, key people in the group
      i. Sufficient level and stature
      ii. "C-suite" representation
      iii. Business unit management
      iv. Strategic planning head
   c. Agree on objectives for the working group
      i. Build ERM using incremental steps
      ii. Define some sought-after benefits to evaluate each step
      iii. Establish reporting process for management and the board

4. **Inventory the Existing Risk Management Practices of the Organization**
   a. Identify and inventory existing risk practices, whether formal or informal
   b. Consider how those practices fit or align with the organization's strategy setting and performance review process
   c. Identify gaps and opportunities to further integrate the organization's strategy and risk processes
      i. Identify initial opportunities for further integration
   d. Develop specific action steps to close gaps and implement opportunities

5. **Conduct an Initial Assessment of Key Strategies and Related Strategic Risks.**
   a. Start by identifying the organization's key strategies and business objectives
   b. Discuss and identify the events/risks that could impair the success of each core strategy
   c. Consider risk factors beyond just probability and impact, for example, organizations have considered factors such as;
      i. Velocity of risk
      ii. Preparedness
      iii. Other factors
   d. For the most significant risks;
      i. Assess exposure to the risk
      ii. Assess adequacy of existing risk management responses
      iii. Identify opportunities to enhance risk management responses
   e. Develop action plans to enhance risk management practices related to the risks identified
      i. Identify actions to implement the opportunities identified above
      ii. Establish target dates and responsibilities
      iii. Develop process to monitor and track implementation

6. **Develop Consolidated Action Plan and Communicate to Board and Management**
   a. Consolidate the action plans developed in the above steps
   b. Prioritize actions and allocate resources across the actions
   c. Assign responsibility for actions and monitoring
   d. Present consolidated initial action plan to Board and management
   e. Develop communications plan to communicate risk initiative and results across the organization

7. **Develop/Enhance Risk Reporting**
   a. Assess adequacy and effectiveness of existing risk reporting
   a. Consider integration of risk reporting with existing performance reporting
   b. Develop new reporting formats
      i. Consider extensive use of graphics and colors to indicate risk trending and significance
      ii. Consider developing a risk "dashboard" for the board
      iii. Consider use of strategy maps or other visuals to link strategies to risks
   c. Develop process for periodic reporting of emerging risks
   d. Assess effectiveness of new reporting with stakeholders and revise as appropriate

8. **Develop the Next Phase of Action Plans and Ongoing Communications**
   a. Conduct a critical assessment of the accomplishments of the working group
      i. Identify benefits to date
      ii. Assess the level of integration with strategic planning and performance measurement processes
      iii. Assess impact on the culture of the organization
   b. Revisit the COSO ERM Framework and identify next risk management processes for enhancement
      i. Consider actions related to establishing or articulating the risk appetite of the organization
      ii. Consider organizational or strategic changes in the organization

APPENDIX B. (cont.)

iii. Consider how the ERM process can be enhanced to identify opportunities not just threats
iv. Identify tangible steps for a new action plan including benefits sought and target dates
v. Review with executive management and the board

c. Implement with appropriate resources and support
d. Schedule sessions for updating or further educating directors and executive management
e. Assess progress and benefits of ERM initiative against objectives and communicate to target audiences
f. Continue organization-wide communication process to build risk culture

APPENDIX C. Frequently Asked ERM Questions

- **Is *Enterprise Risk Management – Integrating with Strategy and Performance* applicable only for large, public companies?**
  No, the principles contained in *Enterprise Risk Management – Integrating with Strategy and Performance* are applicable to all organizations, including not-for-profit and governmental organizations regardless of size. All entities face uncertainty in the pursuit of value or in the case of not-for-profits or governmental agencies the achievement of their missions. Risk then affects any organization's ability to achieve its strategies and business objectives. Accordingly, while some small and mid-size organizations may implement the principles of enterprise risk management differently than large organizations, the principles remain applicable to every entity because every entity faces risks.

- **What is the real benefit to our organization of an investment in ERM?**
  The real benefit of an investment in integrated ERM is that it helps organizations enhance their performance and increase the likelihood that they can be successful in achieving their strategies and business objectives. The benefit is much broader than simply identifying risks or providing a supporting staff activity. By integrating ERM into the organization's strategy setting and performance processes, boards and management can optimize outcomes and ultimately enhance value by better understanding and managing the risks that are present in any strategies. This enhanced process of ERM enables boards and management to make better informed decisions about both their strategies and potential risks to those strategies.

- **What is the role of ERM related to the strategies of the organization?**
  ERM does not create the strategies of the organization; however, when integrated with the strategy setting process it provides management and the board with risk information that should be considered as they evaluate alternative strategies and finally select its strategies. This risk information enhances the board's decision-making process. ERM then provides an ongoing process to assist management and the board with monitoring and managing those events that could impair the ability of the organization to be successful with its chosen strategies. The role of ERM therefore is integral to both the decision-making process for the selection of strategies and the ongoing monitoring of the strategies be implemented.

- **Does the organization need to make a significant investment to achieve any benefit from ERM?**
  No, many organizations have found that they can begin to realize benefits from ERM by implementing simple steps based on the ERM principles with their existing resources and risk management activities. For example, organizations already have processes in place for strategy setting and budgeting. By taking simple steps to integrate some basic risk management actions into those existing processes, organizations can begin to achieve benefits. As a principles-based framework, the COSO ERM framework provides a structure that organizations can use to develop and implement basic risk management practices appropriate for their organization.

- **Does an implementation need to form a separate, functional ERM unit?**
  No, ERM as defined by COSO is the "culture, capabilities, and practices, integrated with strategy-setting and its performance that organizations rely on to manage risk in creating, preserving, and realizing value." It is more of a process than a functional group. Many organizations have started ERM using management committees or working groups of their existing personnel. These groups can take the lead in developing the organization's initial approach to ERM. It is critical to the success of these groups or committees to have the right people on the committee, especially those who understand fully the key strategies of the organization and the related risks. This means that the groups must include key business unit leaders, not just staff personnel. Typically, these groups also must have a strong, credible leader, such as the head of strategic planning or chief financial officer, and support from top management.

APPENDIX C. (cont.)

- **If the organization already manages risks on a day-to-day basis, what's wrong with just continuing those informal risk management processes?**
While most organizations currently have some informal risk management processes, those processes are often lacking transparency and frequently not aligned or integrated to the strategies and business objectives of the organization. As a result, the organization is not gaining the full benefits of an enterprise-wide risk management process. The lack of transparency is a major short-fall as increasingly, boards and other stakeholders, such as rating agencies, are looking for ERM processes that are transparent, repeatable and aligned with the overall business and strategies of the organization. Also, informal risk activities are most likely to be performed on an ad hoc basis and done separately and, therefore, lacking consistency and enterprise-wide communications and knowledge sharing. This can create "silos of knowledge" which can delay decision making and jeopardize the organization's ability to make timely decisions or react to urgent events.

- **Does an organization need to appoint a "Chief Risk Officer" or have dedicated ERM staffing?**
No, many organizations have started ERM using existing staff and appointed one of their key, senior level personnel as the leader of their initiative. For example, given the linkage between strategies and risk, some organizations have used their Head of Strategic Planning to begin their ERM project. Organizations have also used their CFO, General Counsel, Chief Operating Office, or Chief Audit Executive in that role. Regardless of title, the person selected to lead the ERM initiative must have the stature, authority, business knowledge, and senior leadership skills to effectively serve as the catalyst for the ERM initiative. As their ERM processes mature, some organizations reach a point where they believe they need a dedicated Chief Risk Officer; however, organizations do not need to create a CRO position to get started nor does a more mature ERM process necessarily require a dedicated CRO.

- **Do I need to use technology or quantitative models or metrics to start ERM?**
No, the use of technology or quantitative models and metrics may ultimately be useful in a more robust ERM environment, but they are not necessary to launch an ERM effort. Consistent with the ERM principles, many organizations have started with ERM process by undertaking an assessment of the top risks related to their organization's strategies and then reviewing how those risks are managed and monitored. Depending of the size and complexity of the organization, quantitative modeling may, in the long run, prove helpful and even necessary to address certain types of risks, such as financial and market risks; however, the identification and quantification of all risks is not the goal. Management and the board need to develop a solid understanding of how an ERM effort can be integrated into their business processes to enhance the overall performance of the organization.

- **Must an organization implement the entire COSO ERM framework to achieve any benefit from ERM?**
No, as noted in this thought paper, many organizations are taking a step-by-step approach to ERM to facilitate building their understanding and experience with the components and principles of ERM. This approach allows the board and management to come up a learning curve about ERM and to achieve specific benefits at each step of the process. Some organizations may use some form of maturity model under this approach. While this step-by-step approach to ERM has merit, care must be taken to maintain momentum. If an organization loses momentum, and only implements a few initial ERM steps, it will fall short of realizing the full benefits that it could achieve from a fully integrated ERM process.

- **How to know if ERM is making a difference?**
ERM is making a difference when management and the board feel that, as a result of their ERM activities, they are making better informed decisions that ultimately result in enhanced performance. Also, that the board and management believe they are more aware of the risks facing the organization because of transparency created by the ERM process. This difference is more than just the absence of a negative event, but it is a positive, cultural change in how the organization has integrated the consideration of risk into its planning and performance processes. Indications that are reflective of this culture change can be actions such as seeing a discussion of risk naturally flowing from any discussion of possible strategies or the identification of possible risk events that would not have occurred without the ERM processes being in place. Other indications are the presence of strategic planning staff on risk committees or even heading the risk committee and discussions of possible opportunities to enhance performance by taking additional levels of risk that are within the organization's risk appetite.

APPENDIX D. Examples of the Relationship between Strategies and Risks

In Step 4, of Section III, *Initial Action Steps and Objectives,* this paper discusses identifying the core strategies of the organization and then assessing the related strategic risks. In that section, two related models are presented to aid in these assessments: Figure 4, The Return Driven Strategy Model, displays a set of tenets and three foundational elements, while Figure 5, The Strategic Risk Management Model, displays various strategic risks related to each of the tenets and foundational elements. These frameworks are used in tandem first to identify core strategies and then to identify the risks corresponding to the specific tenets.

Displayed below are two examples of how these models can be used. In each example, core strategies are considered for the strategy tenet and then possible strategic risks corresponding to the strategies identified. Consistent with the updated COSO ERM Framework, the sequence is strategies first then the related risks. Such a sequence is important and ensures that organizations are not just trying to identify risks but are focused on those risks most critical to the success of their key business strategies.

It is also important to view these models as aids to foster discussion, not as simple templates to be used or filled out. The identification of strategy and related risks is a thought process and a mindset. The models should be used to prompt analyses and in-depth discussions on the strategies and their related risks.

Examples of the Linkage between Strategy Tenets and Strategic Risks	
Partner Deliberately	**Partnering Risk**
• Consider a wide range of potential partnerships and be creative in developing new types of relationships that can support the competencies of the firm • Deliberately choose partners based on an assessment of the Genuine Assets brought by each partner and how that can help the firm to build unique offerings as the competency tenets require • Create performance measures that bring incentives to the partner	• Significant failure in the supply chain by a strategic partner • Damage to reputation and value because of ethical, legal or regulatory matters of a strategic partner - Cyber-risk through a strategic partner a particular concern right now. • Losses due to fraud on the part of a strategic partner • Loss of intellectual property or proprietary processes

Source: Adapted from Frigo, Mark L. and Richard J. Anderson, *Strategic Risk Management for Directors and Management Teams* (2011). Used with permission.

Examples of the Linkage between Strategy Tenets and Strategic Risks	
Engage Employees and Others	**Employee Engagement Risk**
• Realize the existence of the complete end-to-end employee life cycle, including firm awareness and recruiting at one end and alumni or even customer status at the other end of the cycle • Create incentives, compensation plans, and other offerings throughout the entire employee life cycle that will create *employee engagement* toward the firm's goals • Create performance measures that are aligned with the achievement of the higher tenets	• Loss of investment and capital because of the lack of an adequate workforce to execute the strategy or staff growth plans. • Losses in revenue or opportunity losses because of; - Inability to attract and retain talent - Inability to attract a global workforce - Inability to provide the right incentive

Source: Adapted from Frigo, Mark L. and Richard J. Anderson, *Strategic Risk Management for Directors and Management Teams* (2011). Used with permission.

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APPENDIX 1.

Elements of an Effective Compliance and Ethics Program

Introduction

The seven elements of an effective compliance and ethics program are described in the U.S. Federal Sentencing Guidelines (USSG), ¶8B2.1, subsection (b) as follows:

(1) The organization shall establish standards and procedures to prevent and detect criminal conduct.

(2) (A) The organization's governing authority shall be knowledgeable about the content and operation of the compliance and ethics program and shall exercise reasonable oversight with respect to the implementation and effectiveness of the compliance and ethics program.

(B) High-level personnel of the organization shall ensure that the organization has an effective compliance and ethics program, as described in this guideline. Specific individual(s) within high-level personnel shall be assigned overall responsibility for the compliance and ethics program.

(C) Specific individual(s) within the organization shall be delegated day-to-day operational responsibility for the compliance and ethics program. Individual(s) with operational responsibility shall report periodically to high-level personnel and, as appropriate, to the governing authority, or an appropriate subgroup of the governing authority, on the effectiveness of the compliance and ethics program. To carry out such operational responsibility, such individual(s) shall be given adequate resources, appropriate authority, and direct access to the governing authority or an a ppropriate subgroup of the governing authority.

(3) The organization shall use reasonable efforts not to include within the substantial authority personnel of the organization any individual whom the organization knew, or should have known through the exercise of due diligence, has engaged in illegal activities or other conduct inconsistent with an effective compliance and ethics program.

(4) (A) The organization shall take reasonable steps to communicate periodically and in a practical manner its standards and procedures, and other aspects of the compliance and ethics program, to the individuals referred to in subparagraph (B) by conducting effective training programs and otherwise disseminating information appropriate to such individuals' respective roles and responsibilities.

(B) The individuals referred to in subparagraph (A) are the members of the governing authority, high-level personnel, substantial authority personnel, the organization's employees, and, as appropriate, the organization's agents.

(5) The organization shall take reasonable steps—

(A) to ensure that the organization's compliance and ethics program is followed, including monitoring and auditing to detect criminal conduct;

(B) to evaluate periodically the effectiveness of the organization's compliance and ethics program; and

(C) to have and publicize a system, which may include mechanisms that allow for anonymity or confidentiality, whereby the organization's employees and agents may report or seek guidance regarding potential or actual criminal conduct without fear of retaliation.

(6) The organization's compliance and ethics program shall be promoted and enforced consistently throughout the organization through (A) appropriate incentives to perform in accordance with the compliance and ethics program; and (B) appropriate disciplinary measures for engaging in criminal conduct and for failing to take reasonable steps to prevent or detect criminal conduct.

(7) After criminal conduct has been detected, the organization shall take reasonable steps to respond appropriately to the criminal conduct and to prevent further similar criminal conduct, including making any necessary modifications to the organization's compliance and ethics program.

¶8B2.1, subsection (c) follows by stating:

In implementing subsection (b), the organization shall periodically assess the risk of criminal conduct and shall take appropriate steps to design, implement, or modify each requirement set forth in subsection (b) to reduce the risk of criminal conduct identified through this process.

This final provision requiring periodic compliance risk assessments and continuous improvement of the C&E program, which was added in 2004, is often referred to as the eighth element of a C&E program.

All seven elements of a C&E program, along with periodic risk assessments and ongoing program improvement, must be in place and functioning well in order for the program to be considered effective. It should be noted that the USSG, which set forth the seven elements, are guidelines for federal judges, but they may be much more than "guidelines" for organizations. The word "shall" appears 17 times in connection with the elements, and many believe the guidelines represent the minimum standards for building an effective C&E program, at least for U.S. organizations and others operating in the U.S., as well as U.S.-based multinational companies.

This appendix is devoted to an overview of each of these elements, forming the basis for understanding the guidance on its application to ERM found in earlier sections of this publication.

Standards and procedures

Standards of conduct demonstrate an organization's commitment to an ethical workplace and a culture of compliance with laws and regulations. This begins with a code of business conduct and ethics. The code should be designed to apply to all employees, management, and the board. The code is supported by many policies and procedures. A code should also apply to certain third parties, such as vendors and suppliers, although this code is often different and more abbreviated than the code that applies to employees.

Two types of policies and procedures are essential to a C&E program: structural and substantive. Structural policies create the framework for how the program operates. Substantive policies address the organization's positions on the key laws, regulations, and standards that apply to its business activities.

Examples of structural policies and procedures are those that define the roles and responsibilities of the compliance officer, compliance committee, and the board; methods for reporting suspected wrongdoing; processes used for auditing and monitoring; investigative responsibilities and procedures; and many others.

Substantive policies focus on preventing and detecting specific compliance violations (e.g., bribery, false claims, antitrust, environmental, record retention) by communicating the organization's expectations for employee behavior in connection with individual risk areas.

Governance, oversight, and authority

The compliance and ethics function should be subject to effective oversight at the board, management, and compliance officer level.

The board has a clear responsibility to ensure that an effective C&E program is in place and to provide adequate oversight of the program by being knowledgeable about the content and operation of the program. The board must also ensure that the CCO is positioned at a senior level within the organization and has adequate resources and authority to effectively manage the program.

In some instances, compliance oversight at the board level is delegated to a committee, such an audit or compliance committee. In other cases, compliance oversight is handled by the board as a whole. Either way, the CCO should have a reporting relationship with the board or a committee of the board, even if there is also a reporting line to another executive position, such as to the CEO.

In this respect, the compliance function is similar to an internal audit function, where independence and autonomy are important. From a day-to-day operational standpoint, the top compliance professional may report to another member of the senior management team, but there should always be a direct reporting line to the board as well so that the compliance officer can have candid discussions without interference from other members of management.

Although the board provides oversight, management is responsible for executing the program — ensuring that employees complete training, report concerns, fix problems, or perform work activities consistent with program requirements. The USSG recognized that it is ultimately management that is responsible for the ensuring the program is effective.

The CCO has day-to-day responsibility for operating the C&E program and must have the necessary resources and access to information to operate the program. Sufficiency of resources was added to the list of factors the DOJ considers when evaluating compliance programs in the June 2020 revision to its Evaluation of Corporate Compliance Programs guidance.

There may also be an internal compliance committee, with representatives from major functional areas and/or operating divisions. Although the CCO may be the most visible leader of a C&E program, an internal compliance committee can be a very effective method of program management, ensuring that each operating division approaches compliance similarly. An additional benefit of such a compliance committee is the value created by collaboration and input across functional areas to support the overarching objectives of the C&E program.

The final critical element of compliance oversight involves making sure there is a clear and written understanding of the roles and responsibilities of each of these functions or committees. This may be documented in the form of a charter or policy.

Due diligence in delegation of authority

Organizations should perform background checks before hiring new employees and additional periodic checks when permitted or required by law. In addition, the organization should consider the person's past support of (or failure to support or execute) the organization's C&E program when promoting employees to positions of greater authority. The level and type of background check should correspond to the position of each employee, based on the role that person has, or will have, in relation to compliance risks.

The USSG refer to this expectation in connection with "substantial authority personnel," a term defined in the application notes as "individuals who within the scope of their authority exercise a substantial measure of discretion in acting on behalf of an organization," noting that these individuals may or may not be considered management. The clear inference is that the scope of diligence should grow as the level of responsibility grows. Compliance may wish to work with human resources and other functions to make these determinations.

Though not explicitly stated in the USSG, regulators have grown to expect that organizations perform appropriate levels of due diligence on third parties that create or involve compliance risk for the organization. For example, if a company utilizes a third party located in another country to represent the organization, or to sell to customers in that country, an appropriately scaled background check — based on the assessed level of compliance risk involved — would be expected.

Communication and training

Communication and training, when done effectively, contribute to the prevention and detection of compliance issues. Every employee and member of the board of directors should receive training on general topics that are important to the program, and more focused training on specific compliance matters should be provided to personnel involved in activities relevant to each compliance risk.

General training, done on at least an annual basis, for all employees and the board of directors is a hallmark of a robust and effective program. General training covers the code of conduct, maintaining a culture of compliance and ethics, how to seek guidance and report suspected problems, the organization's nonretaliation policy, what the organization does when suspected compliance issues are reported, and any other relevant aspect of the program that affects everyone.

Focused training dives deeper into specific compliance risk areas, critical internal controls, and other procedures associated with specific risks. Consequently, only those employees who play key roles involving those risk areas are typically required to participate in this type of training. An example of focused training is a program aimed at sales personnel of an international company on compliance with the Foreign Corrupt Practices Act. It is not necessary for every employee to understand what constitutes a violation of the act, but it is critical for individuals involved in international sales (and relevant support and finance teams) to have a sound understanding of this risk as well as the controls and procedures the organization has implemented to prevent misconduct.

To be effective, training must be more than simple delivery of educational content. In its June 2020 guidance, DOJ emphasized the importance of (1) allowing employees to ask questions during training and (2) evaluating whether training affected employee behavior.

Although much of the training that involves compliance topics is in the form of either traditional classroom style presentations or online, web-based programs, training may also involve other forms of education and communication. For instance, an email message or a company newsletter may be used to inform the workforce or reinforce traditional training on new or changed compliance requirements. Communications may also address lessons learned from compliance failures the organization has experienced.

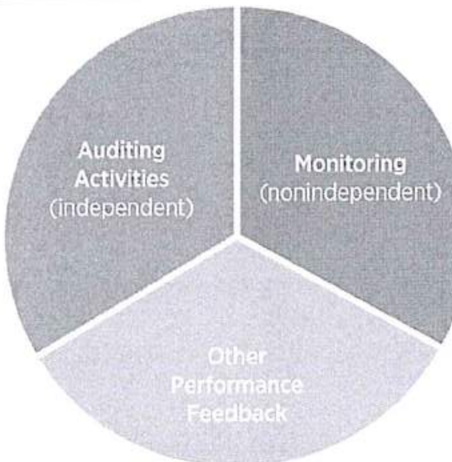
Organizations can sometimes be held accountable for compliance failures of third parties. Accordingly, training should be considered for each third party based on an assessment of the associated type and level of compliance risk.

Finally, other forms of general communications also help to create and maintain a culture of compliance and ethics. Examples include supportive messages from the CEO, informative articles in company newsletters, and many others.

Monitoring, auditing, and reporting systems

Monitoring, in the broad sense, refers to the assessment of whether processes are operating as intended in pursuit of the system's improvement. Sometimes the term "monitoring" is used more narrowly to contrast with "auditing," where auditing refers to an assessment by individuals independent of the system. Both auditing and monitoring draw on the same set of methods and techniques, with a goal of obtaining assurance on the quality of the system's performance over time and contributing to its continuous improvement (see figure A.1).

Figure A.1 **Auditing, monitoring and reporting**



Accordingly, auditing is performed by individuals independent of the function being reviewed. Auditing may be performed by an internal audit department, other third parties, or by individuals within the compliance function if structured so as to maintain their independence. Monitoring is often performed by a quality assurance function or managers, supervisors, and other employees within the function being reviewed.

A monitoring and auditing plan is an important driver of compliance program effectiveness, and it should be designed and updated based on periodic risk assessments. Monitoring and auditing activities should be aimed at both (1) detecting noncompliance (or signs of noncompliance) and (2) identifying breakdowns in internal controls over compliance, such as areas in which a preventive or detective control is not functioning as designed. A wide variety of techniques may be used in monitoring and auditing. Examples include observation and site visits, surveys, questionnaires and checklists, interviews, reviewing transactions and documentation, data analytics, and reviewing digital evidence. The audit function may also provide assurance to the board regarding the overall effectiveness of a C&E program.

Another important mechanism of an effective C&E program involves maintaining a trusted system for seeking guidance and reporting suspected wrongdoing by employees (and others). Employees should have multiple avenues for seeking guidance regarding compliance and ethics issues and for reporting what they perceive as potential violations of laws, regulations, or the organization's policies and procedures.

Although employees may be encouraged to report matters to their supervisors, organizations must recognize that there may be situations in which that is not desirable or practical. Accordingly, making employees aware of other options for reporting is important. Other options may involve telephone- or email-based systems (internal or operated by independent third parties) or direct reporting to others within the organization, such as human resources, compliance, internal audit, an investigations unit, certain members of senior management, or even the board or audit/compliance committee.

Characteristics of an effective reporting system include user options that allow for the following:

1. **Anonymous reporting** — The reporter's identity is not known (where allowed by law), often achieved through a hotline or similar mechanism
2. **Confidential reporting** — The reporter's identity is known only to a select few, and those few are expected to take reasonable steps to maintain that confidentiality while pursuing the matter
3. **Open reporting** — The reporter is willing or desires to have their identity disclosed without limitations

These and any other methods of reporting should be developed with consideration for federal, state, and local laws in the countries and regions in which the reporting system operates.

For any reporting to be effective, it must be trusted. Trust is driven by many factors, but the most important two are (1) a belief that the organization will take allegations and concerns seriously and perform a proper assessment in response and (2) that reporters can expect to be free from retaliation after they have reported their observations and concerns in good faith.

Finally, DOJ encourages publicizing reporting systems to third parties, in addition to employees. Vendors, suppliers, and other third parties are often in a unique position to observe signs of possible violations that might not immediately be observable by employees.

All matters reported should be reviewed and assessed in a timely manner. The assessment of a report should consider whether further investigation is necessary based on the information provided by the reporter, the nature and seriousness of the possible violation, and any other information known that is relevant to the report.

Even in the most trusted of systems, some employees may not feel comfortable reporting wrongdoing until they are leaving an organization. As a result, exit interviews of departing employees should provide one final opportunity for the employee to report suspected wrongdoing and to provide feedback in other areas related to the C&E program.

Investigations may result from information obtained via the reporting system, but may also stem from an organization's auditing and monitoring activities or even outside parties (e.g., customers, competitors, suppliers). Regardless of what event triggered the concern, an investigation should be prompt, thorough, and independent of the affected function or person, and it should be performed in accordance with written policies and procedures. Case files or other documentation should be maintained and protected to ensure the integrity of each investigation. Investigations are described further in the section on responding to wrongdoing.

It is important to note that the investigation and resolution of allegations are not the only goals of these reporting mechanisms. An equally important goal is the feedback provided on the C&E program's performance so that the program can be improved. This requires tracking and analysis of the trends in issues being reported and the areas where guidance is being sought so that appropriate steps can be taken to increase the C&E program's effectiveness.

Incentives and enforcement

Noncompliance can be entirely unintentional — often the result of ineffective controls, ineffective training or new employee orientation, misunderstanding of procedures, a deteriorating culture, or simply carelessness. A natural deterioration in processes and internal controls occurs over time, unless the processes or internal controls are consistently enforced. Noncompliance can also be intentional — carried out by employees who know they are violating organization policies and who may understand that they are violating laws and regulations in the process.

The USSG require the use of incentives and similar tools to promote consistent participation in and/or execution of the C&E program. Just as boards and executives use financial and recognition incentives to promote sales, safety outcomes, customer or employee satisfaction, and other strategic goals, the USSG state that incentives should be a component of an organization's compliance efforts. Incentives can be particularly effective in motivating leaders to embrace and execute on the compliance program but can also be used effectively at all levels in the organization. Incentives can be financial or nonfinancial in nature and can be effectively integrated with an organization's performance management system.

In its explanation of enforcement, the USSG recommend appropriate consequences for ignoring compliance obligations or violations of law or policy. Such discipline should consider whether acts of noncompliance, or the failure to act, was intentional or unintentional, as well as the severity of the noncompliance. The organization should provide for a range of potential disciplinary actions, from verbal and written warnings up to termination of employment.

Organizational justice is critical to the success of a C&E program. Accordingly, enforcement and discipline must be consistent across all levels of the organization, perhaps most importantly at the highest levels. If the noncompliance of a highly successful salesperson, an executive, or an influential employee is tolerated while another employee is disciplined for the same violation, the C&E program's credibility will be undermined, and the organization's culture can be harmed.

As with all elements of a C&E program, discipline should always consider the local/regional legal environment, as well as contractual or labor union provisions.

In connection with incentives and enforcement involving vendors, suppliers, and other third parties that may create liability, the organization should ensure that there are appropriately tailored contract provisions imposing relevant compliance obligations and addressing the consequences of noncompliance, including penalty provisions and contract termination clauses.

Response to wrongdoing

No C&E program guarantees a lifetime of compliance for an organization. If an organization is around long enough or is large enough, noncompliance is inevitable regardless of how effective the program is.

What an organization does in response to noncompliance is an important factor that distinguishes effective programs from ineffective programs. There are two key aspects of responding to wrongdoing: investigating and remediating.

A compliance investigation must be prompt and thorough, fair to all parties, and conducted by individuals who are independent from the subjects and not otherwise conflicted. Other key considerations in conducting a compliance investigation include the following:

1. **Notifications** — Who should be informed about the investigation (e.g., leaders, legal, outside parties)?
2. **Expertise** — Does the organization have all the expertise needed to conduct the investigation, or should outside assistance be brought in?
3. **Involvement of compliance** — Regardless of whether the compliance officer is conducting the investigation, the compliance officer should be informed and involved along the way.
4. **Documentation** — Collect, protect, and preserve evidence and other documentation gathered as part of an investigation.
5. **Oversight and management** — The larger the investigation, the more important it is to establish an appropriate chain of command (including the involvement of legal counsel where appropriate), for all parties involved to have their work overseen and reviewed, and for the scope of the investigation to be well managed.

6. **Scope** — Understand what the scope of an investigation is from the outset and gear the investigation plan accordingly.

There are many steps to an investigation (e.g., gathering documents, identifying electronic records, conducting interviews of personnel). And in the end, there may or may not be any need or desire for a written report. But the case file should always be closed out properly.

If the investigation uncovers compliance failures, a root cause analysis should be performed to fully understand where any breakdowns or omissions in internal controls occurred, or whether weaknesses in the design of internal controls were identified. Once this is done, the organization must turn its attention to remediating the underlying problems. In cases in which existing policies and procedures were well designed, but the execution of those controls failed, remediation may require nothing more than training (or retraining) certain groups of employees on those controls and the reinstatement or introduction of the appropriate monitoring processes.

In other cases, remediation involves significantly more effort. Modifying policies and procedures, improving preventive controls, changing business processes or incentives, and any other remediation efforts should all be aimed at making sure a particular act of noncompliance does not happen again. In cases where prevention is costly or impractical, remediation might involve adding or modifying detective controls so that if noncompliance occurs in the future, it will be detected and corrected sooner, resulting in reduced losses or penalties. Regardless of the nature of planned actions, accountability for fully implementing remediation plans should be established and monitored.

Risk assessment and program improvement

Regulators consistently emphasize the importance of taking a risk-based approach to training, monitoring and auditing, and the other elements of a C&E program. As such, a sound risk assessment process is critical. Approaches and considerations for assessing the risk of compliance and ethics events are generally very similar to assessing other types of risks. For example, a typical approach would include the following steps:

1. Identify compliance risks that are inherent to the organization's activities
2. Map compliance risks to existing internal controls
3. Assess the effectiveness of internal controls
4. Assess the likelihood and impact of each compliance risk
5. Prioritize (via scoring, heat maps, or other methods) compliance risks based on the assessment
6. Design risk responses (e.g., improvements to internal controls, training) to reduce risk to an acceptable level
7. Assign responsibility and monitor implementation of risk responses

Although these are the core elements of a typical risk assessment, many additional factors can be considered to further enhance the quality of a risk assessment. Risk assessments should be updated periodically, either on a fixed time interval or when relevant new information comes to light indicating a change may have occurred that affects a risk.

Another 2004 addition to the USSG involves an expectation that efforts are made to continuously improve the C&E program. Periodic risk assessment is one method of identifying needed improvements to the program. But there are many other ways of identifying improvements: a thorough root cause analysis at the conclusion of an investigation, feedback mechanisms, auditing and monitoring, and others. Benchmarking against other organizations is also an effective method of assessing program effectiveness. Assessing program effectiveness can be performed internally or by third parties (e.g., consulting firms). Additionally, looking outside the organization — attending conferences, reading publications, and monitoring government guidance — is an excellent way to identify emerging practices that can be adopted to improve a program.

Module VI

Reputational Risk & Corporate Governance

- Reputational Risk – what it is and how to manage it
- Working with professionalism and Ethics – some ethical dilemmas
- Corporate Governance – Duties of Board and management
- Independent Directors. Executive and Non Executive Directors
- Relations with Shareholders and other Stakeholders
- Financial Disclosure and Non Financial Disclosure

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Module VI – Reputational Risk & Corporate Governance

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Second Edition, July 2015

Table of Contents

Reputation Risk & Corporate Governance – An Overview

1. <u>Reputation Risk – What is it?</u>

First, some general definitions about reputation:

- Reputation is public information regarding a player's trustworthiness. A player's reputation reflects the information that third parties have on how trustworthy his behavior has been in the past.
  (Ripperger 1998)

- A corporate reputation is a collective representation of a firm's <u>past actions</u> and <u>results</u> that describe the firm's ability to deliver outcomes to <u>multiple stakeholders</u>. It gauges a firm's relative standing both internally and externally.
  (Fombrun & Foss: Developing a Reputation Quotient, 2000)

- Any organization's reputation derives from a mix of the rational and emotional attachments that stakeholders form with it. Unlike image, which is a more immediate external perception of an organization and may be one element of reputation, reputation is built up over a longer period and is about the integrity of an organization. It is the result of a collection of memories, perceptions and opinions, influenced by every event, contact, public statement, media reference, rumour or leak about that organization. It is as much about impressions, beliefs and feelings as about experiences and knowledge. But perception strongly influences – or can become – reality.
  A good reputation means the business is perceived to match stakeholders' values, while a bad one means it is not.
  (Marion Turner - Reputation, Risk and Governance, February 2004)

Some Quotes:

- "It takes twenty years to build a reputation and five minutes to destroy it."
  Warren Buffet, USA Financier
- "If you lose dollars for the firm, I will be understanding. If you lose reputation, I will be ruthless." ***Warren Buffet, USA Financier***
- "Assets are people, capital and reputation. If any of these are ever diminished, the last is the most difficult to restore." ***Goldman Sachs Business Principles***
- "A good name is more desirable than great riches; to be esteemed is better than silver and gold." ***Old Testament proverb***
- "It's what people say about you when you leave the room. It is determined not by what you want to be, but what you are." ***Anthony Baynes***
- "Who steals my purse steals trash…But he that filches from me my good name, robs me of that which not enriches him, and makes me poor indeed." ***William Shakespeare***

2. Reputation vs. Image

- **Reputation:**
  - Corporate actions and conduct that create trust as experienced by different stakeholders
  - Serves as a reservoir of goodwill in time of crisis
  - It's what you are, not what you want to be
- **Image:**
  - Belief in and personal evaluation of a firm or brand
  - Tied to the firm or brand directly, not to a firm's actions
- **Correlation between Reputation and Image:**
  - If image is positive, reputation may improve.
  - If reputation is positive, image will improve
  - Reputation evolves more slowly than image because reputation is tied to actions.

(Anthony Baynes, Hellenic Coca Cola presentation, October 24, 2008)

3. Reputation vs. Brand

- **Brand:**
  - What differentiates us from the competition
  - Marketing of the company including advertising and publicity
  - Refers to logos and names of companies
  - How we present ourselves – what we create

- **Reputation:**
    - Cannot be enhanced by just a name change
    - Larger concept as it includes other elements
    - Often referred to as "Emotional Capital" of the firm
    - Thus, if capital, it is subject to risk
    - Our status in the minds of others – what we earn

  (Michel Rochette, Towers Perrin, May 9, 2007)

4. So, What is Reputation Risk?

- Risk – Has two (2) components:
    - Uncertainty
    - Exposure

- Risk is about uncertainties – that may have either a positive (constructive) <u>or</u> negative (destructive) impact. So, a risk is an opportunity that will not be realized <u>or</u> a threat that an event or action will materialize. That missed opportunity or unmanaged threat in turn damages an organization's ability to deliver results for stakeholders and to achieve business objectives.
  (Marion Turner - Reputation, Risk and Governance, February 2004)

- Reputational risk is the potential that negative publicity, whether true or not, will result in loss of customers, severing of corporate affiliations, decrease in revenues and increase in costs.
  (Dr. Linda Eagle, The Edcomm Group Banker's Academy)

- Reputation risk should be regarded as a generic term embracing the risks, from any source, that can impact reputation, and not as a category of risk in its own right. Regulatory noncompliance, loss of customer data, unethical employee behavior, or an unexpected profit warning, can all damage reputation and stakeholder confidence.

  Reputation risk is not only about downside threats, but also about upside opportunities. Climate change, for example, is a potential business threat, but many firms have spotted and exploited the flip-side opportunity for competitive advantage by developing green technologies and promoting themselves as environmentally friendly, thereby enhancing their reputation.

  Reputation risk can therefore be defined as:
  "Any action, event or situation that could adversely or beneficially impact an organization's reputation."

- Reputational risk can be defined as the risk arising from negative perception on the part of customers, counterparties, shareholders, investors or regulators that can adversely affect a bank's ability to maintain existing, or establish new business relationships and continued access to sources of funding (e.g. through the interbank or securitization markets). Reputational risk is multidimensional and reflects the perception of other market participants. Furthermore, it exists throughout the organization, and exposure to reputational risk is essentially a function of the adequacy of the bank's internal risk management processes, as well as the manner and efficiency with which management responds to external influences on bank-related transactions.
  (Basel Committee on Banking Supervision: Proposed Enhancements to the Basel II Framework, January 2009)

5. The Emerging Importance of Reputation as a Key Risk

- **Why Corporate Governance?**
  One may ask the following questions, "Why focus on corporate governance?" or, "Why the new/renewed quest for a set of rules to direct how we operate business on a daily basis nowadays?"

  The answers to these questions seem to be tied to the fact that as a society we appear to have lost our way…our moral compass…our sense of right and wrong. Issues that were once 'black and white' have become 'gray'.

- **What has reputation to do with governance?**
  One of the primary causes of the loss of reputations in the business world, is poor governance. Poor governance can destroy the reputation of a business and the personal reputations of board members and management. There are many cases of board-room casualties and damaged personal reputations. There were Marks & Spencer, BCCI, Hollinger and Equitable Life, to name a few.

  Most corporate governance disasters happen because the non-executives become too close to, or blindly trust, the executive management team.

6. The Key Link Between Corporate Governance and Reputational Risk

In the wake of corporate collapses and lapses in leadership, it' become very clear that there is a strong link between reputation, governance and risk. Risk needs to be given a higher profile at board level, and directors and top management need to be aware that it is their responsibility to be alert to new and emerging risks, particularly reputational risk. Good governance should facilitate efficient, effective and entrepreneurial management that can deliver shareholder value over the longer term within appropriate risk parameters that are established, understood and engaged in by the board.
(Arif Zaman – Reputation Institute, and Henley Business School)

7. Examples of Reputation Risk in Recent Years

- **Mercedes –** In 1997, the company was caught off guard when its new A-class car embarrassingly rolled over during a test to simulate being hit by an elk.

- **WorldCom –** When this company collapsed in 2002, its investors lost billions, and so did shareholders of Citigroup. Markets punished the financial giant for its part in the scandal. Citigroup had risked its reputation by developing a web of intimate business relationships with the fraud-ridden telecoms firm.
  Citigroup equity analysts had been apparently writing reports on WorldCom for Citigroup customers, while at the same time the financial services group had been advising WorldCom's Board on strategy. Citigroup also lent money to WorldCom, issued and underwrote securities and advised its pension fund. Citigroup's asset managers held a large chunk of WorldCom shares. Citigroup even lent money to private businesses run by WorldCom's head, Bernie Ebbers (who was sentenced to a 25-year jail term)
  (Professor Ingo Walter – INSEAD)

- **Enron's experience with risk management**
  - Maintained a <u>risk management</u> function
  - Lines of reporting were reasonably independent
  - Mark-to-market valuations were subject to adjustments by management
  - Few career risk managers
  - Fluid workforce
  - Employees constantly looking for next transfer

  (The Edcomm Group Banker's Academy)

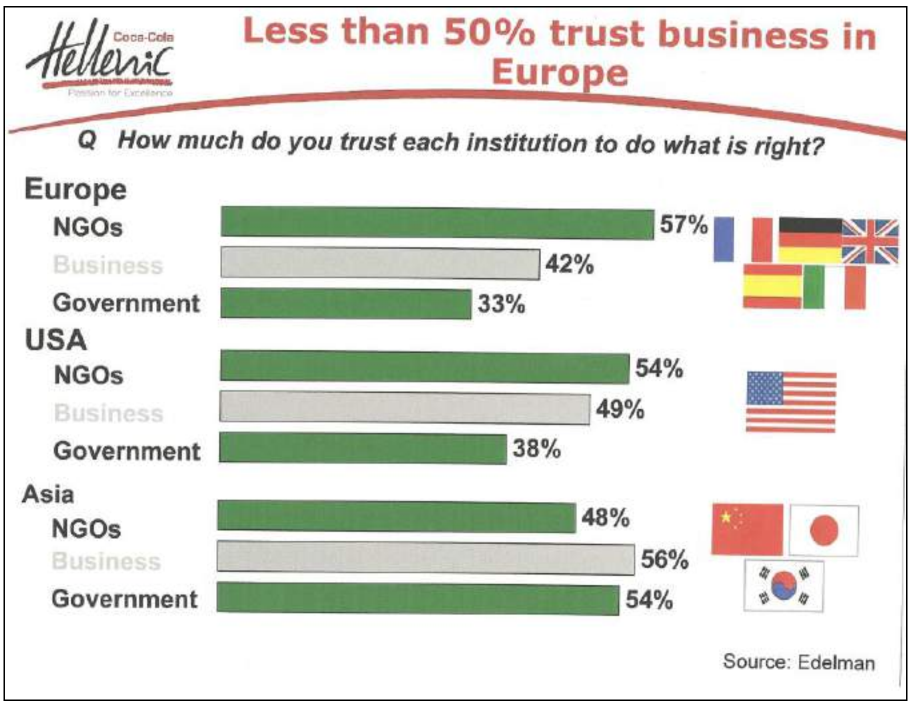
- **Some other examples that you may wish to read up on (via the internet):**
  - **Marks & Spencer**
  - **British Airways, Reuters**
  - **Dell**
  - **FedEx**
  - **Barclays**
  - **Perrier – Toluene traces (used to make benzene)**
  - **Exxon – Valdez spill**
  - **Union Carbide – Bhopal, India**
  - **Arthur Andersen – Enron shredding**
  - **Firestone – Tires**

8. The Court of Public Opinion – Reality or Perception?

- "We judge ourselves by our intentions: We judge others by their actions."

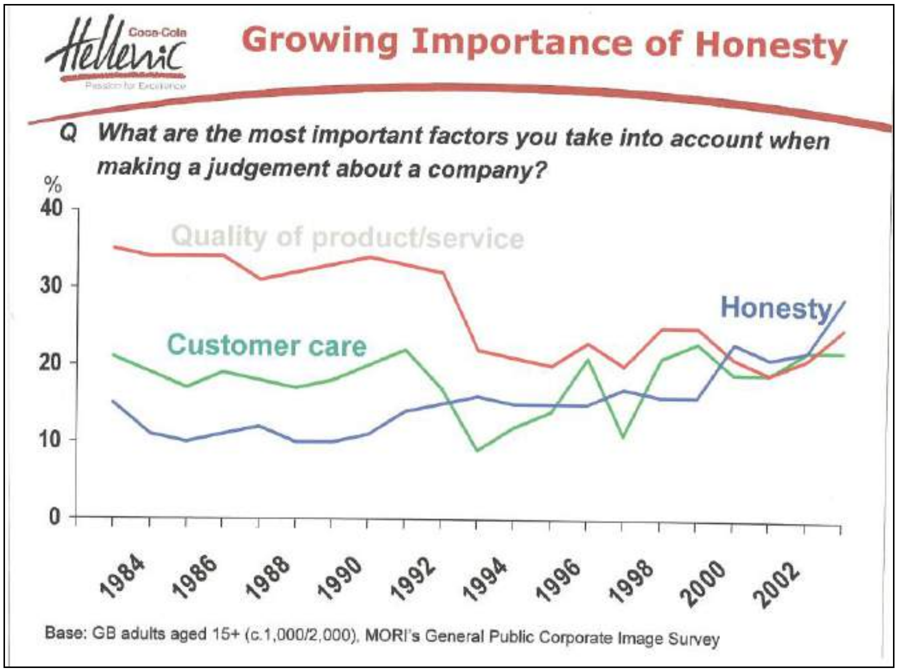
  Viz. Story of father dressing 3 year-old daughter who didn't want to put on dress he had picked out. The mother overheard and was about to come in to rescue her as she knew the father had little patience for this kind of stuff. As the mother entered the room, she saw the father slap the daughter on her back. Wondering what the father had done, he then showed the mother his bloodied hand where he had killed a mosquito that was "terrorizing" his daughter.
  (Anonymous speaker at the 28th Annual ICAC (Accountants) Conference, 2010 addressing the issue of Business Ethics.)

- **A Case of Trust**



(Chart: Anthony Baynes, Hellenic Coca Cola presentation, October 24, 2008)

- **A Matter of Honesty**



(Chart: Anthony Baynes, Hellenic Coca Cola presentation, October 24, 2008)

- **What the Public Thinks**

(Chart: Anthony Baynes, Hellenic Coca Cola presentation, October 24, 2008)

- **The Cost of Reputation**
  - Companies have found that reputational problems are the most costly in financial terms relative to other risks.
  - Among those that faced reputational problems:
    - ✓ 28% described the financial toll as major
    - ✓ 18% described the loss of key skills and talent as the next severe problem (although 52% identified this as a source of minor losses)
  - Many companies allocate up to 70% of the value of their companies as “goodwill”; so, it is no wonder that reputation ranks high among the risks they face.

9. Who Are The Key Stakeholders of Reputation Risk?

- **Class Exercise –** Participants will be asked to identify the various stakeholders (first column), and will then separate into 2 to 3 groups of four or more persons to determine the risk related to each of the agreed stakeholders (2nd column). Thereafter, each group will orally present their list of corresponding related risks which will be discussed as necessary.

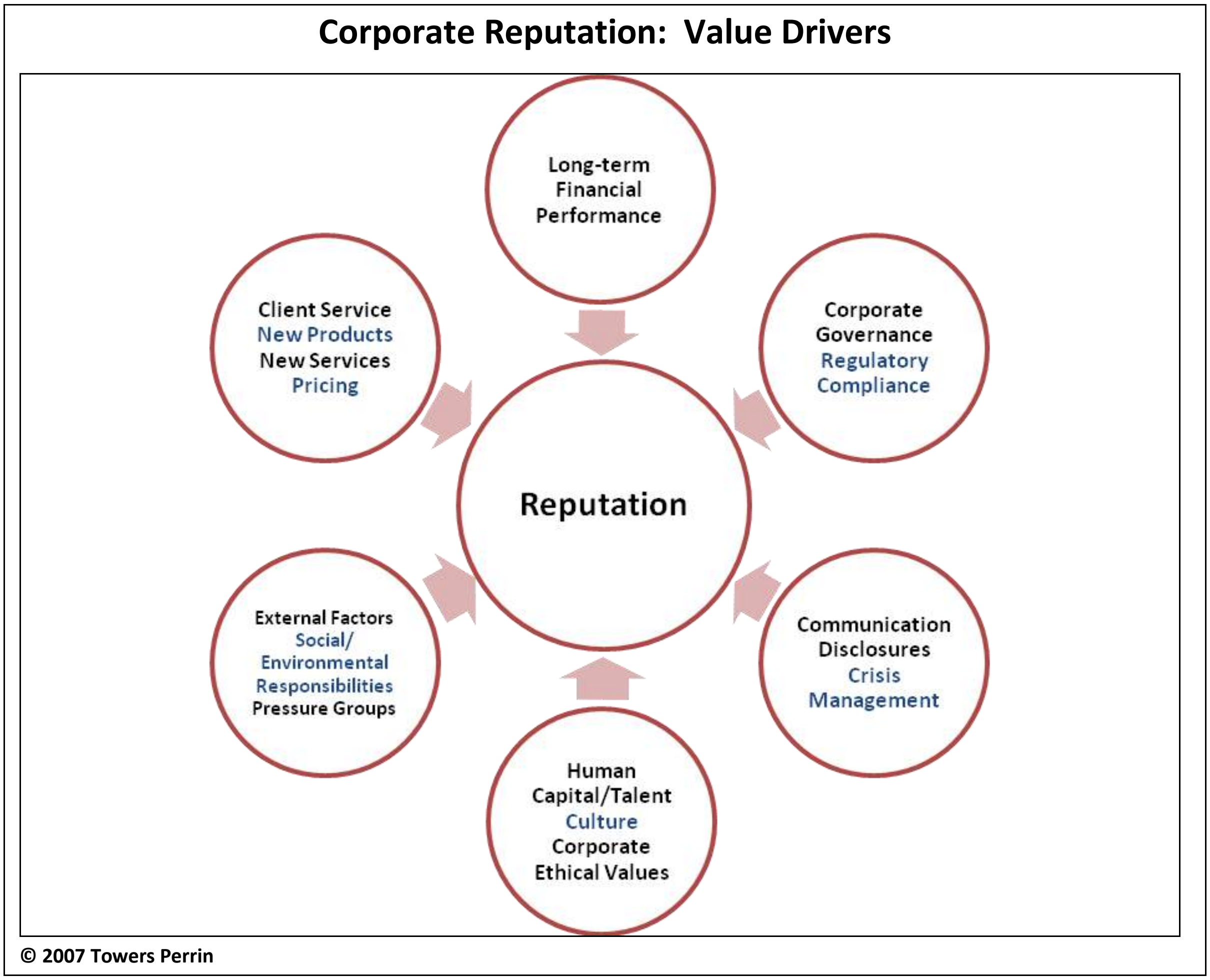
  Participants will use the spreadsheet provided overleaf. The first key stakeholder and the related reputation risk has been completed.

The Key Stakeholders of Reputation Risk

	Stakeholders	Related Risk
1	Clients/Customers	clients/customers look elsewhere to fulfill needs

10. What Drives Reputation?

- **The Value Drivers of Reputation:**



- Long-term Financial Performance (& Long-term Investment Value)
- Corporate Governance, Regulatory Compliance & Leadership
- Communication, Disclosures & Crisis Management
- Human Capital/Talent, Culture & Corporate Ethical Values
- External Factors, Social/Environmental Responsibilities & Pressure Groups (i.e. Corporate Responsibility)
- Client Services, New Products, New Services, & Pricing (Customer Service Delivery)

- **Reputation Drivers Create Value to the Firm**
  - A good reputation encourages consumers to buy products and services
  - Suppliers are willing to do business with you, thus expanding opportunities
  - Top notch employees want to join and stay with your organization, thus enhancing its innovation capabilities and value
  - Favorable outlook from regulators and rating agencies, thus decreasing financing cost and increasing value
  - Investors want to hold shares, thus increasing value
  - Positive feedback from media and pressure groups increase value
  - In a crisis mode, investors give the company the benefit of the doubt, thus easing short-term decrease in value

  (Michel Rochette, Towers Perrin, May 9, 2007)

11. Benefits of Effective Reputation Management

- Improves relations with shareholders
- Creates a more favorable environment for investment
- Recruits/retains the best employees
- Reduces barriers to development in new markets
- Secures premium prices for products
- Minimizes threats of litigation

(The Edcomm Group Banker's Academy)

12. Reputation & Reputation Risk Management

- Unlike the scenario depicted in the "Dogbert" cartoon above, the <u>key</u> to managing reputational risk is <u>sound</u> RISK MANAGEMENT, coupled with straightforward communication about the problem that the organization is facing.

- **All crises are unique, but share the following traits:**
    - The element of surprise
    - Insufficient information
    - Quick pace of events
    - Intense scrutiny

- **Key steps required for a strategic response to a crisis:**
    - Defining the situation
    - Setting the objectives
    - Developing messages
    - Organizing the response process
    - Delivering a response

Successful reputation management involves identifying key stakeholders and understanding them and those who influence them. This involves identifying the issues that need managing and the opportunities for getting news and information to the right audiences.

Managing issues is often about:

- Closing gaps between stakeholders' awareness and actual performance;
- Managing stakeholders' expectations by:
    - Nurturing and promoting the association's strengths;
    - Identifying, addressing and managing weaknesses.

The key is to recognize and define the issues before they impact and to take positive, planned action to defuse them rather than having to react hurriedly and defensively. So, to avoid being taken by surprise, organizations should scan, monitor and track potentially influential external forces. They should analyze those forces in terms of their effects on an organization's image, financial performance and ability to deliver. Based on that analysis, an organization can develop and implement a strategy for managing its reputation.

To monitor, report and review reputation and reputation risk, any organization needs to analyze and understand the strengths, weaknesses, opportunities and threats of and to its reputation.

13. A Checklist for Mitigating Reputational Risk

- **General:**
  - ☑ Clear and well-communicated business vision, values, and strategy that set the right ethical and stakeholder-awareness tone for the business
  - ☑ Supporting policies and codes of conduct that guide employee behavior and decision-making so that goals are achieved in accordance with business values
  - ☑ Extension of the business' values and relevant policies to key partners in the supply chain
  - ☑ Dialogue and engagement to track the changing perceptions, requirements, and expectations of major stakeholders continuously
  - ☑ An effective enterprise-wide risk management system that identifies, assesses, responds to, monitors, and reports on threats and opportunities to reputation
  - ☑ A culture in which employees are risk-aware, are encouraged to be vigilant, raise concerns, highlight opportunities, and act as reputational ambassadors for the business
  - ☑ Transparent communications that meet stakeholder needs and build trust and confidence
  - ☑ Robust and well-rehearsed crisis management arrangements

- **Specific Risks:**
  - ☑ Evaluate the risk in the usual way, by considering the likelihood of the risk occurring and the impact if it does
  - ☑ Identify the key stakeholders – Understand them and what they regard as current and emerging major issues. Also, what do they expect of us?
  - ☑ Quantify the risk in monetary terms – e.g. expected reduced income resulting from loss of customers, or impact on share price
  - ☑ Develop and document a response plan to manage the specific risk that presents unacceptable exposure for the business. Identify possible gaps between customer experience and expectation and our values and delivery
  - ☑ Regularly measure external perceptions of the company
  - ☑ Systematically track reputational threats
  - ☑ Train employees to identify and manage the specific reputational risk
  - ☑ Publically set standards on environmental, human rights and labor practices
  - ☑ Establish relationships and trust with pressure groups and other potential critics

14. Asking the Following Questions May Also Help to Uncover Reputation Risks:

- What newspaper headline about your business would you least (or most) like to see? What could trigger this?
- What could threaten your core business values or your license to operate? Such risks can seriously damage reputation and lead to an irreversible loss of stakeholder confidence.
- Could there be collateral risk arising from the activities of another player in your sector? If so, the reputation of your own business may be vulnerable and come under intense stakeholder scrutiny.
- Could reputation risk exposure arise from an acquisition, merger, or other portfolio change? A mismatch of values, ethos, culture, and standards resulting in inappropriate behavior could seriously damage reputation. Conversely, if the acquisition target enjoys a superior reputation, it could provide a competitive edge.

15. Reputation: Who is Responsible?

- The board of a business is the ultimate custodian of a business's reputation. However, managing reputation risk successfully requires a team effort across the business from executive and nonexecutive directors, senior and middle managers, public relations staff, risk and audit professionals, and key business partners.
- Everyone employed by and indirectly working for a business should be expected to uphold the business' values and bear some responsibility for spotting emerging risks that could impact reputation. The telltale signs of an imminent crisis are often missed because personnel are not risk-aware: A spate of customer complaints, safety near-misses or supplier non-conformances, a sudden rise in employee turnover, or pressure group activity - these can act as crucial early warning indicators which allow a business to take corrective action and avert disaster.

16. Case Study 1

- **Citigroup**
  In September 2004 the Financial Services Agency (FSA), Japan's bank regulator, ordered Citigroup to close its private banking business in the country following "serious violations" of Japanese banking laws. An FSA investigation found that inadequate local internal controls and lack of oversight from the United States had allowed large profits to be "amassed illegally." The bank had failed to prevent suspected money laundering and had misled customers about investment risk. The punishment meted out by the FSA was particularly severe, as a previous inspection in 2001 had exposed similar compliance weaknesses, which Citigroup had not corrected.

Citigroup's then chief executive, Charles Prince, visited Japan in October 2004 in an attempt to repair the company's tarnished image. Bowing, he apologized for the activities of his senior staff, saying that they had put "short-term profits ahead of the bank's long-term reputation." He pledged to improve oversight, change the management structure, increase employee training on local regulations, and set up an independent committee to monitor progress. He said: "Under my leadership, lack of compliance and inappropriate behavior simply will not be tolerated and we will take direct action to ensure that proper standards are upheld and that these problems do not reoccur."

That same month French retailer Carrefour fired Citigroup as a financial adviser on the sale of its Japanese operations to prevent its own reputation from being tarnished by association.

17. Case Study – Class Exercise(s)

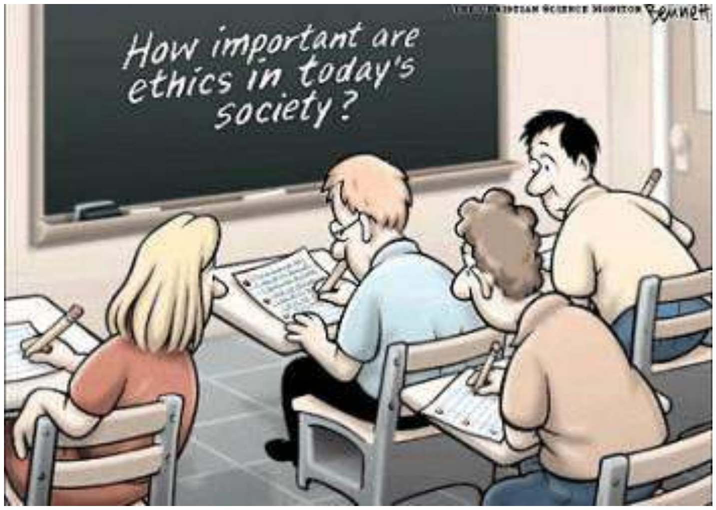
At least one case scenario will be presented by the lecturer as an in-class discussion activity. The Lecturer will divide the class into at groups of four persons with each group presenting the results of their discussions. CIRM participants will read the information presented, identify the flawed situation(s), and render an opinion as to what ought to have happened, and/or what ought to happen going forward.

18. Conclusion

- A good reputation hinges on a business living the values it claims to espouse and delivering consistently on the promise to its stakeholders.
- Successfully managing reputation risk is both and inside an outside challenge. The inside component requires business leaders to establish an appropriate vision, values and strategic goals that will guide actions and behaviors throughout the organization.
- Active and systematic management of the risks to reputation can help to ensure that perception is aligned with reality, and that stakeholder experience matches expectations.

(Jenny Raynor, Understanding Reputation Risk and its Importance)

Ethics and Professionalism



1. What is Business Ethics?

- **Some Definitions:**
  - ❖ Also known as Corporate Ethics, it is a form of applied ethics or professional ethics that examines ethical principles and moral or ethical problems that arise in a business environment. It applies to all aspects of business conduct and is relevant to the conduct of individuals and entire organizations. ***(Wikipedia)***
  - ❖ Made up of a society's (cultural) values, norms and laws. ***(Anonymous)***
  - ❖ A system of moral principles. The rules of conduct recognized in respect to a particular class of human actions or a particular group, culture, etc. (e.g. Medical ethics, Christian ethics). ***(www.dictionary.reference.com/browse/ethics)***

- **Some Quotes:**

  "Can you tell me, Socrates, whether virtue is acquired by teaching or by practice, or if by neither by teaching nor practice, then whether it comes to man by nature, or in what other way?"
  (Plato's Meno: Question to Socrates)

  "We judge ourselves by our intentions: We judge others by their actions….
  "If a man cheats on his wife, imagine what he'll do to you as a partner in your business."
  [Anonymous speaker at the 28th Annual ICAC (Accountants) Conference, 2010 addressing the issue of Business Ethics.]

- **So, What is Business Ethics?**

  Business ethics focuses on identifying the moral standards of right and wrong as they apply to behavior within and across business institutions and other related organizations.

  Corporations sometimes behave unethically, having a harmful effect on people or the environment.

  Unethical behavior is typically not caused by a single "bad apple," but is a result of complex interactions between individuals, groups, and organizational cultures.

  Ethical behavior can be defined either as behavior that maximizes happiness and minimizes harm, or as behavior that is motivated by principles of duty.

  While behaving unethically may have some short-term benefit for a company, in the long term it will harm stakeholder support.

  Long-term sustainability comes from concentrating on the *triple bottom line: that is, social,* environmental, and financial performance (Elkington, 1998).

  (Sue Newell, QFINANCE (www.qfinance.com), "Business Ethics".)

2. The Cost of Poor Ethical Decisions in Businesses

In his address at the 19th World Conference of Bankers Institutes (WCBI) held in the Bahamas in 2011 on the topic, "Integrity Matters – You be the Judge", Simon Culhane of the Chartered Institute for Securities and Investment (CISI), stated that many of the corporate failures were due to a lack of integrity.

Mr. Culhane cited the example of **Satynam**, an Indian Computer Company based in the United Kingdom. The company had indicated that they employed 54k people, but there were only 40k in reality. The executives pocketed the salaries of the 14k supposed employees.

When making a business decision, Culhane's philosophy is to ask four questions. Is it:

- Honest?
- Open?
- Transparent?
- Fair?

Poor ethical decisions cost corporations millions and millions of dollars, both in terms of opportunities lost, due to loss of sales as a result of unfavourable public opinion and in payouts to executives whose contracts must be terminated as a result of the unethical decision(s) made.

The chart below indicates the massive amounts of money paid out in severance packages to CEOs of ten corporations where CEO decisions were, to say the least, questionable, if not outright unethical.

	COMPANY	CEO	YEAR	ESTIMATED SEVERANCE PAYOUT
1	ExxonMobil	Lee Raymond	2006	$351 million
2	Pfizer	Hank (Henry) McKinnell	2006	$213 million
3	Home Depot	Robert Nardelli	2007	$210 million
4	Gillette	James Kilts	2005	$165 million
5	Merrill Lynch	Stanley O'Neal	2007	$161.5 million
6	UnitedHealth	William McGuire	2006	$153 million
7	Wellpoint Health Networks	Leonard Schaeffer	2005	$137 million
8	South Trust Bank	Wallace Malone	2006	$135 million
9	Morgan Stanley	Philip Purcell	2005	$94 million
10	Conseco	Stephen Hilbert	2000	$72.5 million

(Source: Corporate Library) - Courtesy of: http://www.bloomberg.com/

3. Common Business Ethical Problems

"Given the increasing social impact of business, business ethics has emerged as a discrete subject over the last 20 years. Business ethics is concerned with exploring the moral principles by which we can evaluate business organizations in relation to their impact on people and the environment. Trevino and Nelson (2004) categorize four types of ethical problems that are commonly found in business organizations.

First are the *human resource problems*: These relate to the equitable and just treatment of current and potential employees. Unethical behavior here involves treating people unfairly because of their gender, sexuality, skin color, religion, ethnic background, and so on.

Second are ethical problems arising from *conflicts of interest*, when particular individuals or organizations are given special treatment because of some personal relationship with the individual or group making a decision. A company might get a lucrative contract, for example, because a bribe was paid to the management team of the contracting organization, not because of the quality of its proposal.

Third are ethical problems that involve *customer confidence*. Corporations sometimes behave in ways that show a lack of respect for customers or a lack of concern with public safety. Examples here include advertisements that lie (or at least conceal the truth) about particular goods or services, and the sale of products, such as drugs, where a company conceals or obfuscates negative data about safety and/or efficacy.

Finally, there are ethical problems surrounding the *use of corporate resources* by employees who make private phone calls at work, submit false expense claims, take company stationery home, etc.

The financial scandals that have rocked the corporate world in recent years (Enron, WorldCom, Parmalat, Lehman Brothers, for example) have involved a number of these different ethical issues. In these cases, senior managers have engaged in improper bookkeeping, making companies look more financially profitable than they actually are. As a consequence the stockholder value of the company increases, and anyone with stock profits directly. Among those profiting will be those making the decisions to manipulate the accounts —and so there is a conflict of interest. However, the fallout from the downfall of these companies affects stockholders, employees, and society at large negatively, with innocent people losing their retirement reserves and/or savings, and employees losing their jobs.

Another category can be added to this list—ethical problems surrounding the *use of the world's environmental resources*. Many organizations have externalized the costs associated with their negative impact on the environment, whether in relation to their own operations to produce goods and services, or in terms of the use and later the disposal of the goods that they have sold.

Externalizing means that organizations do not themselves pay for the environmental costs that they create. For example, carbon dioxide emissions, a by-product of energy use for all kinds of organizations, are now recognized as contributing to global warming; computer equipment contains toxic waste that pollutes the land where it is dumped; and packaging of all kinds, including plastic bags that are handed out by supermarkets, are creating mounting problems as local authorities run out of landfill sites.

Increasingly, ethical business is seen to require that a business takes into account and offsets its "environmental footprint" so that it engages in sustainable activity. Sustainability broadly means that a business meets the needs of the present without compromising the ability of future generations to meet their needs.

Accounting for Ethical and Unethical Behavior:

While it may be very easy to identify and blame an individual or small group of individuals, to see these individuals as the perpetrators of an unethical act—the "bad apple"—and hold them responsible for the harm caused, is an oversimplification. Most accounts of unethical behavior that are restricted to the level of the individual are inadequate. Despite popular belief, decisions harmful to others or the environment that are made within organizations are not typically the result of an isolated, immoral individual seeking to gain personally. Although an individual's level of moral maturity or the locus of control (for example, the degree to which they perceive they control their behaviors and actions) are factors, we also need to explore the decision-making context—the group dynamics and the organizational practices and procedures—to understand why an unethical decision was made.

The degree to which decisions are ethical is also influenced by organizational culture or climate. Organizational ethical climates can differ; some are more egoistic, others are more benevolent, still others are highly principled, and these contexts can shape a manager's ethical decision-making.

Smith and Johnson (1996) identify three general approaches that organizations take to corporate responsibility:

- **Social obligation**: The corporation does only what is legally required.
- **Social responsiveness**: The corporation responds to pressure from different stakeholder groups.
- **Social responsibility**: The corporation has an agenda of proactively trying to improve society.

In a company in which the dominant approach to business ethics is social obligation, it is likely to be difficult to justify a decision based on ethical criteria; morally irresponsible behavior may be condoned as long as it does not break the law. Legal loopholes, for example, may be exploited in such a company if these can benefit the company in the short term, even if they might have a negative influence on others in society.

Ethical Dilemmas:

Sometimes it is clear that a business has behaved unethically—for example, where a drug is sold illegally, the company accounts have been falsely presented, or where client funds have been embezzled. Of more interest, and much more common, are situations that pose an ethical dilemma—situations that present a conflict between right and wrong or between values and obligations—so that a choice is necessary. For example, a corporation may want to build a new factory on a previously undeveloped and popular tourist site in a location where there is large-scale unemployment among the local population. Here we have a conflict between the benefits of wealth and job creation in a location in which these are crucial and the cost of spoiling some naturally beautiful countryside. Philosophers have attempted to develop prescriptive theories providing universal laws that enable us to differentiate between right and wrong, and good and bad, in these situations.

Prescriptive Ethical Theories:

Essentially there are two schools of thought. The Consequentialists argue that behavior is ethical if it maximizes the common good (happiness) and minimizes harm. The opposing Nonconsequentialists argue that behavior is ethical if it is motivated by a sense of duty or a set of moral principles about human conduct —regardless of the consequences of the action.

- **Consequentialist Accounts of Ethical Behavior**
  Philosophers who adopt the consequentialist approach (sometimes also referred to as utilitarianism) consider that behavior can be judged ethical if it has been enacted in order to maximize human happiness and minimize harm. Jeremy Bentham (1748–1832) and John Stuart Mill (1806–73) are two of the best-known early proponents of this view. Importantly it is the common good, not personal happiness, that is the arbiter of right and wrong. Indeed, we are required to sacrifice our personal happiness if doing so enhances the total sum of happiness. For someone faced with a decision choice, the ethical action is the one that achieves the greatest good for the greatest number of people after weighing the impact on those involved. Common criticisms of this approach are that it is impossible to measure happiness adequately, and that it essentially condones injustice, if this is to the benefit of the majority.

- **Nonconsequentialist Accounts of Ethical Behavior**
  Philosophers who adopt a nonconsequentialist approach (also referred to as deontological theory) argue that behavior can be judged as ethical if it is based on a sense of duty and carried out in accordance with defined principles. Immanuel Kant (1724–1804), for example, articulated the principle of *respect for persons*, which states that people should never be treated as a means to an end, but always as an end in themselves, leading to the easy to remember maxim – do as you would be done by. The idea here is that we can establish moral judgments that are true because they can be based on the unique human ability to reason. One common criticism of this approach is that it is impossible to agree on the basic ethical principles of duty or their relative weighting, in order to direct choices when multiple ethical principles are called into question at the same time, or when decisions cut across cultures with different ethical principles.

Why Behaving Ethically Is Important for Business:

Choosing to be ethical can involve short-term disadvantages for a corporation. Yet in the long term it is clear that behaving ethically is the key to sustainable development. When you're faced with an ethical dilemma in which the immoral choice looks appealing, ask yourself three questions:

- **What will happen when (not if) the action is discovered?**
  Increasingly, the behavior of corporations is under scrutiny from their various stakeholders—customers, suppliers, stockholders, employees, competitors, regulators, environmental groups, and the general public. People are less willing to keep quiet when they feel an injustice has been done, and the internet and other

media give them the means to make their concerns very public, reaching a global audience. Corporations that behave unethically are unlikely to get away with it, and the impact when they are discovered can be catastrophic. This leads to the second question.

- **Is the decision really in the long-term interests of the corporation?** Many financial services companies in the United Kingdom generated short-term profits in the 1990s by miss selling personal pensions to people who would have been better off staying in their company's pension plan. However, in the long term these companies have suffered by having to repay this money and pay penalties. Most significantly, the practice has eroded public confidence. The same is true of many banks and mortgage brokers in the first part of the 21st century, when they sold mortgages to individuals who could not afford to repay their debts. The eventual result was that large numbers defaulted, causing a meltdown in the global financial system beginning in 2008.

- **Will organizations that behave unethically attract the employees they need?** Corporations that harm society or the environment are actually harming their own employees, including those who are making the decisions. For example, corporations that pour toxins into the air are polluting the air their employees' families breathe. Ultimately, a business relies on its human resources. If a company cannot attract high-quality people because it has a poor public image based on previous unethical behavior, it will certainly flounder.

Behaving ethically is clearly key to the long-term sustainability of any business. Focusing on the triple bottom line—the social and environmental as well as the economic impact of a company—provides the basis for sound stakeholder relationships that can sustain a business into the future".

(Sue Newell, QFINANCE (www.qfinance.com), "Business Ethics".)

4. Making Sound Ethical Decisions – A Checklist

"While the two approaches to evaluating behavior described above are clearly different *(i.e. Consequentialists and Nonconseqeuntialists)*, they can be integrated to create a checklist that will help an individual or group make sound ethical decisions.

☑ **Gather the facts:** What is the problem, and what are the potential solutions?

☑ **Define the ethical issues.** This is a step that is often neglected, so that the ethical dilemmas raised by a particular decision are never even considered.

☑ **Identify the various stakeholders involved.**

- ☑ **Think through the consequences of each solution:** What happiness or harm will be caused?
- ☑ **Identify the obligations and rights of those potentially affected:** What is my duty here? Can I uphold my duty to avoid doing harm and make reasonable efforts toward that end?
- ☑ **Check your gut feeling.**

The last step is crucial. Those involved need to ask themselves what they would feel like if friends or family found out they had been involved in making a particular corporate decision, whether personally or collectively".

(Sue Newell, QFINANCE (www.qfinance.com), "Business Ethics".)

5. The 10-Step Method of Ethically-based Decision-making

- Short Version (last updated: August 17, 2009) – ***APPENDIX A***
- Detailed Worksheet Version (last updated: March 22, 2010) – ***APPENDIX B***

[Both versions - used by the express permission of the authors, Jon Pekel and Doug Wallace]

6. Class Exercises: "Making the Right Decision – Ethical Dilemmas in the Workplace"

- Three business ethical dilemma scenarios (exercises) presented:
  - Identify the ethical dilemma for each scenario
  - Make one of several choices as to how to deal with the dilemma
- Each CIRM participant completes the 3 exercises on his/her own
- Then, participants placed into groups to complete the exercise again
- Compare the decisions of the individual to those of his/her group for each of the three scenarios
  - To what extent is the individual decision the same as/different from the groups? i.e. What is the effect of collaboration, if any?
- Finally, compare the decisions of the groups:
  - To what extent are they the same/different?

7. <u>Corporate Social Responsibility (CSR)</u>

According to the IC9900 Certification, there are four (4) key areas of corporate social responsibility. *[Note: The IC9900 Certification is the highest level of certification issued by the International Charter.]*

The <u>four</u> main areas assessed are:

- **Social Responsibility**
    - Community Relations -
        - The company should have a formal policy and operation towards community relations
    - Impact on local communities -
        - The impact on the local community and areas in close proximity to a company's operation should be continually monitored.
    - Participate in local community in a positive manner -
        - Companies are encouraged to participate in local communities, encouraging their employees to volunteer for local schemes as well as sponsoring local events.
    - Management of Human Rights issues in the supply chain forms part of/should form part of the company's commitment to Social Responsibility and as such is an integral part of the sourcing process. Minimum requirements expected from suppliers on their commitment to Human Rights should be included in all contracts.

- **Environmental Responsibility**
    - Limit impact on the environment -
        - The Company must ensure that any impact on the local environment of its operations are fully assessed and action taken to limit such impact, where possible.
    - Energy awareness -
        - The Company must make efforts towards reduction of energy consumption and carbon emissions.

- **Corporate Ethics**

  IC9900 companies demonstrate a clear understanding of the importance of ethical conduct, encouraging employees to participate in this and having internal measures and systems to ensure consistency.

    - Encourage the highest standards of ethical conduct among its employees -
        - The Company must show integrity when recruiting new staff.
    - Recruit and retain staff in accordance with ethical standards.
    - Meet the requirements of the Fair Pay scheme -
        - Pay a reasonable wage
        - Protect the rights of employees, whether permanent or contract.

- Provide a safe and secure environment for employees to work -
  - ☑ Environments should be free from external threats and dangers, other than those generally accepted by process.
  - ☑ Environment should be free from internal threats and harassment by other members of staff -
    - ❑ A clear process must exist for staff to raise grievances; this process must be enforced and disciplinary action supported by any findings.
- Comply with local employment laws.
- Comply with International Charter HR best practice policies.

- **Leadership Values and Integrity**
  - Companies are encouraged to develop leadership essentials, and begin a program of work with employees to ensure these qualities are found at all levels of the organization.
  - The company should undertake an annual leadership survey, polling staff on their opinions and suggestions; based on this feedback, a leadership strategy should be developed.
  - The company's leaders must indicate a clear direction with viable strategy.
  - They must not abuse market dominance and not create false barriers to entry.
  - End of year reports, such as financial reports, must be validated by both the Chief Executive Officer and Chief Financial Officer. In their absence, approval must be sought from the Board of Directors.

(Ethical Corporate Governance – Why Does It Matter? ***© International Charter 1997-2010 http://www.icharter.org/certification/ic9900/)***

8. The Legal Vs. Ethical Debate

Every decision that can be made falls into one of the following categories:

- Legal and Ethical
- Legal but not Ethical
- Not Legal, but Ethical
- Neither Legal nor Ethical

Corporate Governance

"We will still get our bonuses, provided we can raise an extra $50 million from our bake sale."

1. Definition: Corporate Governance

The Organization for Economic Co-operation and Development's (OECD) definition of ***Corporate Governance***:

> **"…involves a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined."**

2. Corporate Governance Initiatives: A Global Response

- **OECD (2004) - 4 Pillars *[see APPENDIX C]*:**
  These four pillars are essential to the successful implementation of the OECD Principles of Corporate Governance.
  - **R**esponsibility
  - **A**ccountability
  - **F**airness
  - **T**ransparency

  (USAID, July 16, 2008)

- **OECD (2004) – 6 Principles of Corporate Governance *[See APPENDIX D]*:**
  - ❖ Ensuring the Basis for an Effective Corporate Governance Framework
  - ❖ The Rights of Shareholders and Key Ownership Functions
  - ❖ The Equitable Treatment of Shareholders
  - ❖ The Role of Stakeholders in Corporate Governance
  - ❖ Disclosure and Transparency
  - ❖ The Responsibilities of the Board

  (http://www.oecd.org/dataoecd/32/18/31557724.pdf)

- **OECD (2009) – 8 Strategic Reform Principles *[See APPENDIX E]*:**
  - ❖ Streamline the regulatory framework, emphasize prudential and business conduct rules, and strengthen incentives for their enforcement.
  - ❖ Stress integrity and transparency of markets; priorities should include disclosure and protection against fraud.
  - ❖ Reform capital regulations to ensure much more capital at risk (and less leverage) in the system than has been customary. Regulations should have a countercyclical bias and encourage better liquidity management in financial institutions.
  - ❖ Avoid impediments to international investment flows; this will be instrumental in attracting sufficient amounts of new capital.
  - ❖ Strengthen governance of financial institutions and ensure accountability to owners and creditors with capital at risk. Non-Operating Holding Company (NOHC) structures should be encouraged for complex financial firms.
  - ❖ Once the crisis has passed, allow people with capital at risk, including large creditors, to lose money when they make mistakes. This will help to reduce moral hazard issues arising from the exceptional emergency measures taken, and guarantees provided.
  - ❖ Strengthen understanding of how tax policies affect the soundness of financial markets.
  - ❖ Respond to the increased complexity of financial products and the transfer of risk (including longevity risk) to households with improved education and consumer protection programs.

  (The Financial Crisis: Reform and Exit Strategies, OECD 2009)

- **Basel II (Feb. 2006) – 8 Key Principles *[See APPENDIX F]*:**
  - ❖ **Principle 1:** Board members should be qualified for their positions, have a clear understanding of their role in corporate governance and be able to exercise sound judgment about the affairs of the bank.
  - ❖ **Principle 2:** The Board of Directors should approve and oversee the bank's strategic objectives and corporate values that are communicated throughout the banking organization.
  - ❖ **Principle 3:** The Board of Directors should set and enforce clear lines of responsibility and accountability throughout the organization.
  - ❖ **Principle 4:** The Board should ensure that there is appropriate oversight by senior management consistent with board policy.
  - ❖ **Principle 5:** The Board and senior management should effectively utilize the work conducted by the internal audit function, external auditors, and internal control functions.
  - ❖ **Principle 6:** The Board should ensure that compensation policies and practices are consistent with the bank's corporate culture, long-term objectives and strategy, and control environment.
  - ❖ **Principle 7:** The bank should be governed in a transparent manner.
  - ❖ **Principle 8:** The Board and senior management should understand the bank's operational structure, including where the bank operates in jurisdictions, or through structures, that impede transparency (i.e. "know-your-structure").

3. Corporate Governance Initiatives: USA Response

- **Sarbanes-Oxley Act (SOX), 2002**

  This Act places considerable emphasis on correcting the following most critical manifestations of lax corporate governance practices.

  - Management dealing in an environment full of pervasive conflicts of interest;
  - Lack of strict transparency, reliability, and accuracy standards in financial reporting;
  - Lack of independence between the key players in corporate governance (the board of directors, management, and auditors);
  - Lack of adequate enforcement tools at the disposal of regulators; and
  - Widespread conflicts of interest influencing securities market transactions.

  (The CPA Journal, March 2004)

4. Corporate Governance Initiatives: U. K. Response

- **Cadbury Code of Corporate Governance, Dec. 1992**
- **The Greenbury Report, 1995**
- **The Combined Cadbury and Greenbury Reports, 2003**
- **The U.K. Corporate Governance Code, 2010**

5. Corporate Governance Initiatives: Bahamas Response *[See APPENDIX G]*

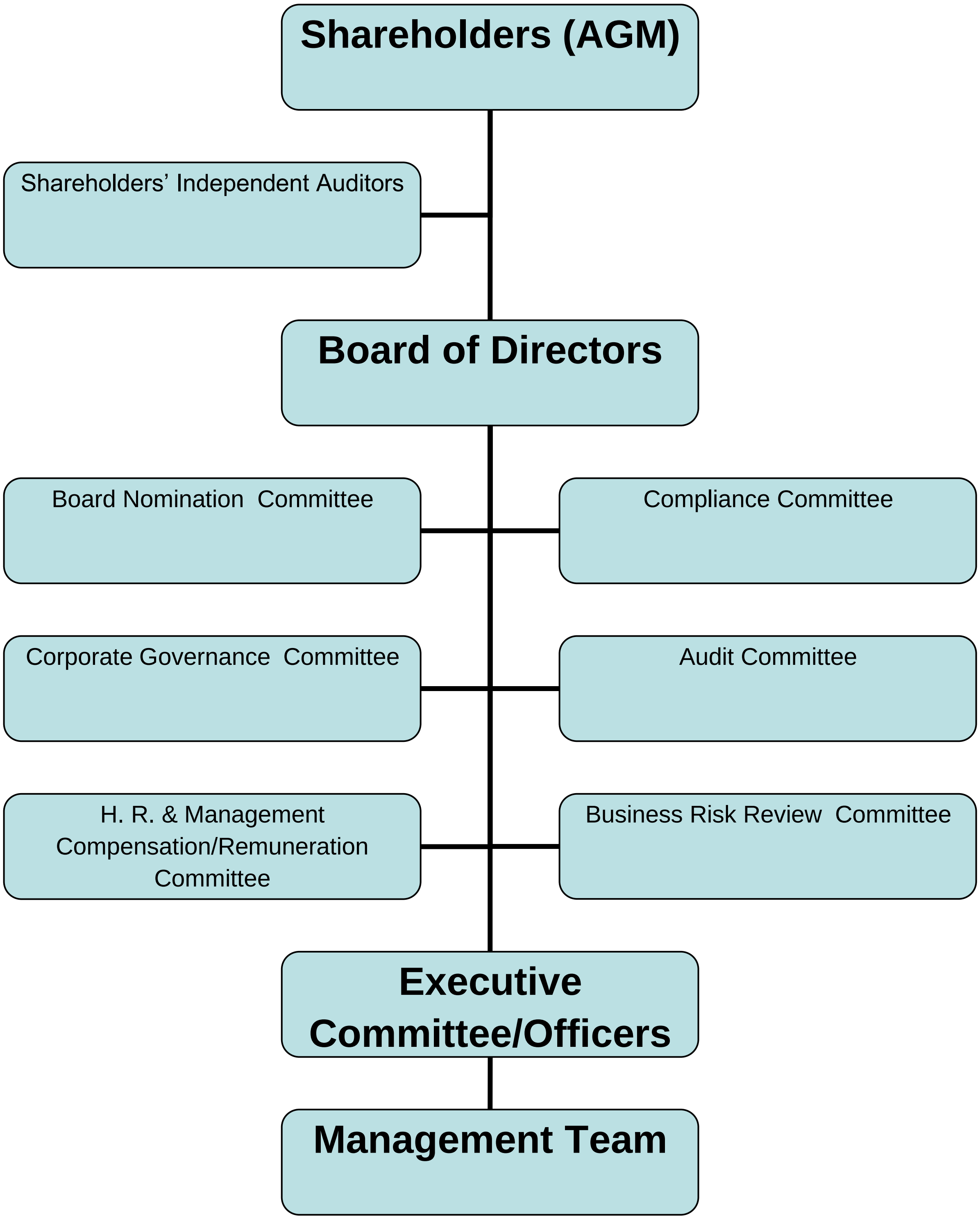
- **Central Bank of the Bahamas (CBOB) – Guidelines (Dec. 2001, with Feb. 2010 amendments):**
  - Responsibilities of the Board of Directors (page 7)
  - Duties of Directors (pages 14 & 15)
  - Key Specialized Committees of the Board of Directors (pages 19 – 21)
  - The Role of Independent Non-Executive Directors (page 12)

6. Corporate Governance Checklist

- ☑ Does it have management oversight?
- ☑ Does the Board add value?
- ☑ Does it promote ethical behavior?
- ☑ Does it safeguard the organization's financial integrity?
- ☑ Does it require disclosure?
- ☑ Does it respect shareholder rights?
- ☑ Does it manage risk?
- ☑ Is remuneration fair?
- ☑ Does it monitor Board performance?
- ☑ Does it recognize legitimate interests of stakeholders?

(http://www.ehow.com/list_6773290_corporate-governance-checklist.html

7. A Sample Corporate Organizational Structure (Chart)



8. Case Study

"Reputation Risk & Corporate Governance: A Bahamian Scenario – What Would You Do?"
Written by Glen R. Nottage.

Disclaimer: The following is a totally fictitious story. While set in the Bahamas, it is completely made up for classroom discussion only. It has no basis in fact, either related to any person(s), living or dead, or event(s), whether current or past.

Profile:
Mr. Alfred M. Bishus, is the CEO of Breezy Shore Financial Co. Ltd., located in Nassau, Bahamas. He migrated to the Bahamas from the USA in 1969, and obtained permanent residency in 1978. He is the brother of a sitting USA politician, who is the ranking member and Chairman of the House Ways and Means Committee. He is married to a born-Bahamian, who is the niece of a former Governor General. Her aunt is a sitting Justice of the Bahamas Supreme Court. Mr. and Mrs. Bishus reside on Paradise Island. They have two adult children, both are senior partners in their respective world-renowned accounting firms. The son resides in the USA and the daughter resides in Canada.

Mr. A. M. Bishus has worn many hats. He is a former boy scout leader, has sat on various Government Boards since 1973 through successive governments, is an Associate Minister in his Baptist Church, a Grand Master in his lodge, and a Past Area Governor of Rotary. He currently sits on the advisory board for the Salvation Army and the Ranfurly Homes for Children. Additionally, he is extremely well-liked by the Bahamian public, as he was very instrumental in granting loans to persons who would not ordinarily qualify for them when he was a branch manager. Further, he rushes with one of the major Junkanoo groups (of which he and the bank are sponsors).

Mrs. Bishus is a housewife, and currently sits as the Chair of the Bahamas Red Cross Committee.

Case Scenario:
Breezy Shore Financial Co. Ltd. is a publicly traded subsidiary company on BISX, with 20% of its common shares owned by various Bahamian individuals or companies. The remaining 80% is owned by the parent company located in the U.K. The parent company is desirous of selling 5% of its shareholdings to another foreign financial institution, based in Switzerland, but has not publicized the pending sale. Due to the current economic environment, the Swiss investor (i.e. financial institution) has requested that a forensic audit be conducted. The acquisition by the Swiss investor has the potential to boost the share price of Breezy Shore by 53% at least. Once the acquisition occurs, it is expected that Breezy Shore would conduct a 3-for-1 stock split. As a

result of the audit, some fraudulent activity has been uncovered involving Mr. A. M. Bishus, the CEO.

The CEO gave himself multi-million dollar loans to facilitate the construction of two sets of condominium complexes on Paradise Island, as well as loans to facilitate investment capital into several well-established businesses. The complexes were put in company names. One of the businesses invested in is owned by a former PLP Parliamentarian (whose brother is a sitting PLP Senator), and another is owned by a former senior FNM Parliamentarian.

Additionally, he arranged to purchase a large block of shares from current Bahamian shareholders who have been financially struggling since the economic downturn.

Mr. A. M. Bishus was able to conduct the above activities with the assistance of his CFO, Mr. Michael Dorightin, his V. P. Lending, Mr. Jason Gonehome, and the Corporate Secretary, Ms. Thelma Itover.

Mr. Dorightin was brought into the bank by Mr. Bishus, firstly as Finance Manager, at a time when he (Dorightin) had lost his job at another financial institution due to redundancy.

Ms. Itover is the Godmother of Mr. Bishus' son, and a long-time friend of Mrs. Bishus. Staff are unaware of the relationship.

Mr. Gonehome is Mrs. Bishus' nephew (her sister's son). He came to Nassau from Eleuthera at the age of 13 in order to attend St. Andrew's High School, and lived with another aunt. Mr. and Mrs. Bishus paid for his high school tuition as well as for his college education, up to the Master's level. This relationship is also unknown to staff.

The Board of Directors is aware of the above three connections/relationships.

Proposed Action:

- What are the implications for the institution?
- What are the implications for the various stakeholders?
- What are the international implications, if any?
- What action(s) should the board take, if any?
    - Examine the various options and the pros and cons for each
    - Justify your decision(s)

List of Appendices

Wells Fargo Just Changed Your Life: Here's How

Krish Neelamraju FCA

Whether you are a banker or a customer, you will most likely look back in a few years' time at that scandal at Wells Fargo and say, this was the trigger that changed retail banking; this was the moment that brought bottom-up change to the industry.

After the questionable risk-taking practices that led to the global financial crisis (GFC) in 2008 (which by the way is still hurting people across the world), optimistic folks were under the false impression that big banks started paying more than lip service to their published codes of ethics. 5,300 ex-employees of Wells Fargo have proved those assumptions wrong. 1.5 Mn phony accounts, 565,000 unsolicited cards, over $1.7 Mn pilfered in the name of 'fees' represent just the tip of an iceberg. Deep within the industry lies a culture of questionable practices, selling unwanted products and services, and pressurising employees with unrealistic sales goals.

Wells Fargo, US' fourth largest bank and a stock market darling, was considered a role model for cross-sell across the world, implying that it earned customers' trust and made them come back for more. So formidable was that reputation that when a customer sought a class action against the bank's high-pressure sales culture in 2015, its stock price actually went up. Analysts brushed off the lawsuit saying that if the culture were really toxic, the customers would migrate to competitors in a free market. Until the Customer Financial Protection Bureau (CFPB), an agency established in response to the GFC, got the bank to admit guilt and levied record penalties, the tide was in favour of continuing the culture as it is in spite of employee protests and law suits. In a sad outcome, the entire blame was shifted to 5,300 employees who were probably unwilling participants in what was essentially a top-down culture. Carrie Tolstedt, the Executive who oversaw the practices is walking away free and richer after the firing.

It is this seismic event of mass firing of field staff and a free pass to the top management that will raise self-preservation instincts among personal bankers and change the industry.

The top management's culpability appears to be a foregone conclusion now. Firstly, a fraud of this scale and for this long couldn't have happened without the top management driving it and without the internal+external control groups supporting it. A lot of blame is being placed on *unrealistic sales goals* because it conveniently fits in to the story of 'a few bad apples'. When the dust settles and the full story is available for post-mortem, we will see the full extent of the organisational involvement. If you break down the number of fake accounts and unsolicited cards, you will likely find what I call '**trojan-horse products**' that enabled opening accounts without customers being fully aware of them, and that the employees were just doing what they were expected to do.

How do trojan-horse products work? Bankers in my network may find the following hypothetical scenario all too familiar:

An applicant for a mortgage loan submits income statements, credit file, KYC documents etc. That information is enough for a banker to open any type of account - let's say a credit card with a credit limit equal to 2% of the mortgage value. Who wouldn’t need a credit card? Especially, when they are in the middle of a bank-breaking property purchase. And if the customer is good enough for a big mortgage loan, what is the risk in 2% additional exposure?

To 'sell' the card, the bank only needs the borrower's signature on a piece of paper that effectively says, ‘I want a credit card too, thank you!’ The easiest way to achieve this is to integrate an obscure 'card application' section into the mortgage application, killing two birds at one shot.

Most customers don’t read anything written on their applications. Especially when the pushy personal banker is asking them to hurry up and sign near the X mark. Fifteen days later the customer receives a shiny credit card with a healthy credit limit that they never wanted. Some keep the card, some forget about it and very few return it. There is probably a minuscule fee on it, which adds straight to the bank’s bottom-line without additional cost.

Every bank I have known has a variation of this trojan-horse trick to sell additional products. It isn't restricted to cards and loans. It’s called a product bundle or acquisition-stage cross selling in marketing jargon. Remember that accident insurance you bought with your auto loan? That's a trojan horse product.

As harmless as it may seem, this is exactly the kind of culture that leads to half a million unsolicited cards. Is there fraud involved in it? Definitely not. There is a proper audit trail all the way to the application stage that proves, on paper at least, that the customer wanted the card.

Why would the customer feel it was ‘unsolicited’ then?

Why would any personal banker lose a job because of a process that passed audit?

Why would the bank admit to wrongdoing and pay hundreds of millions in penalties when consumer watchdogs come calling?

These are legitimate questions that every bank needs to ask itself. Very likely, the answer is, a legally acceptable transaction isn't always ethical. Corporations have publicly accessible codes of ethics and conduct precisely for this reason. Of course, Wells Fargo’s hefty penalties were also because there was genuine fraud involved. Some of the accounts were seemingly opened out of thin air. If banks avoid trojan-horse products, instil a culture of fully educating customers before making sale, stop bundling products in the name of convenience, then fraud becomes easily detectable. I am aware that what I described is an idealist’s dream that will perhaps never materialise.

What will change though, after Wells Fargo, is the employees' awareness of risks that they are subjected to by implementing those practices. So far, banks and senior managers got away with shady sales practices by either encouraging them or looking away.

When the employees are told that the risk is totally on them and their managers walk away richer, there will be resistance to this culture. The CFPB, by insisting on mass firing of people involved, sent a much larger message than the penalties.

We haven't seen the last of the scandal because the next episode will involve the fired employees coming together to hit back at the bank for scapegoating them. There is already a class action lawsuit brewing. I can also see a sequel to The Wall Street in there somewhere. Even if the employees don't strike back, perhaps settling for compensation privately, enough ripples have been sent across the industry to make everyday personal bankers sit up and take notice of the risks. That will trigger a behaviour of self-preservation among them which will push back at the questionable practices, subtly at first, and lead to an overall change.

Now is the time for banks and regulators across geographies to weed out such practices and set their houses in order. Because, believe it or not, this is a massive legal precedent that won't stop with one bank. A well respected bank paid penalties for behaviours which were totally acceptable to the markets before. *What behaviours will the likes of CFPB discover in the not-so-reputable banks then?*

metricstream

EBOOK

THE THREE DIMENSIONS OF RISK

BY GUNJAN SINHA,
FOUNDER AND EXECUTIVE CHAIRMAN,
METRICSTREAM

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INTRODUCTION

2021 has been a watershed year in more ways than one. Risk is all around us—be it the extreme weather events, geopolitical tensions, or the pandemic we are experiencing—posing enormous challenges to businesses, but more so, to the survival of the human species.

As the world steps up its efforts to stay resilient, businesses are increasingly being held to higher standards of Environmental, Social, and Governance (ESG) accountability. Doing well isn't enough of an objective anymore. Companies are also expected to do good—whether that means eliminating the use of fossil fuels, or preventing the spread of fake news on their platforms, or building greater ethics and explainability into AI applications.

Now, more than ever, boards and leadership teams need a robust governance, risk, and compliance (GRC) program to navigate what's next. Decision-makers need real-time risk intelligence to anticipate and tackle those "unknown unknowns", while also capitalizing on growth opportunities.

Essentially, GRC offers a way for organizations to build more resilient, risk-aware, and better-governed enterprises that truly thrive on risk. Because it is ultimately these kinds of organizations that will succeed in a post-COVID-19 world and beyond.

THE THREE DIMENSIONS OF RISK

THE THREE DIMENSIONS OF RISK

Today, there are more risks than ever. These risks include globalization, cyber breaches, health crises like COVID-19, and climate change. That's why ESG concerns are increasingly becoming a top priority of every organization. These concerns require a greater emphasis on governance, risk management, and compliance (GRC) software that can assist organizations in quickly identifying and mitigating risk. Indeed, GRC is the key to building resilience, seizing new growth opportunities, and successfully navigating the future.

This eBook will outline the three dimensions of risk and how organizations can successfully navigate the expanding risk universe with an agile and innovative mindset.

DIMENSION ONE: THE FOUR WAVES OF GRC

DIMENSION ONE:
THE FOUR WAVES OF GRC

Here are the four most serious risks that every organization faces today:

Wave 1: Financial Risks

The Great Recession of 2008 was the biggest economic meltdown since the 1929 Great Depression. It was a shocking—and eye-opening—risk event for many organizations. We all quickly learned that even though the world is an interconnected place, a high level of interconnectedness can also create more extreme risks – both financial and non-financial. The Great Recession had a domino effect. When one part of the financial system toppled, it quickly pushed over other pieces. That's why seemingly impervious financial giants like Bear Stearns and Lehman Brothers were instantly obliterated. Protecting against these kinds of global, macroeconomic risks is now essential for every organization.

Wave 2: Cyber Risks

The cyber wave surged in 2015 with the meteoric rise of mobile phones and social media platforms, with billions of people around the world connected like never before. We are all enjoying the benefits of this digital era, yes, but it has an ominous underbelly: cyber risk and threats to data privacy. Cyber attacks are now a serious danger to businesses, with hackers relentlessly focused on gaining access to personal and corporate information. Data is the new oil—it is what powers the digital economy. And it is the responsibility of every organization to ensure the right data privacy and security standards are in place.

Wave 3: Human Health Risks

In the past year, the lives and livelihood of people around the world have been battered by the Covid-19 pandemic. It's one of the most challenging events in modern times. And it's made worse by the fact that the world is largely interconnected, which has allowed the virus to quickly spread far and wide. Of course, an interconnected world brings many benefits but, as the virus shows, it also brings tremendous health and economic risks—which all organizations must be prepared for moving forward.

Wave 4: Environmental Risks

The next wave bearing down on us could be the most serious of all: environmental risks due to climate change. Our world is increasingly besieged by hurricanes, floods, wildfires, and many other natural disasters as a result of a warming planet. These events are also taking an economic toll on businesses around the world. That's why, for example, a leading company like Amazon has committed to being carbon neutral by 2040 and operating 100,000 electric delivery vans going forward. We have to make sure that our planet survives for generations to come, otherwise, we are lost as a civilization.

DIMENSION TWO: SERVING KEY STAKEHOLDERS

DIMENSION TWO:

SERVING KEY STAKEHOLDERS

In a world of increasingly volatile and interconnected risks, it is critical to empower key stakeholders, such as employees, partners, and customers—as well as the technology we all use—to harness frontline intelligence and make real-time, risk-aware decisions that unlock new growth opportunities.

Employees: Employees are the first key stakeholder and they must be intimately involved with their organization's GRC initiatives. Pharmaceutical giant Novartis, for example, has crowdsourced its new code of ethics based on shared ideas and insights from more than 2,500 global employees. Novartis calls it the "unbossing" of their code of ethics because the effort is not driven top-down but rather bottom-up.

Partners: Third-party partners, such as vendors, suppliers, and customers, are the next key stakeholder group. These partners must be a part of any GRC strategy. Organizations need to enable a comprehensive process to identify, assess, mitigate and monitor third-party risks, as well improve third-party risk visibility with quick, frequent risk assessments.

AI and machine learning: The next emerging GRC stakeholders are not humans but AI and bots. Many companies now have thousands of bots and virtual agents to help run their operations. These agents can't be ignored. Indeed, the next big risk event could be caused by technological malfunction, whether due to malicious design or accident. AI cannot be left alone as an ungoverned activity.

DIMENSION THREE: FEDERATION AND FLEXIBILITY

DIMENSION THREE:

FEDERATION AND FLEXIBILITY

An agile organization is built on the foundations of federation and flexibility.

The first part of an agile organization is federation. Federation means having an architecture that is decentralized. Being centralized doesn't work these days. Leadership must be distributed across the entire organization, with business units and regional groups empowered to make critical decisions.

The second part of an agile organization is flexibility. Flexibility means the ability to evolve as necessary and rapidly reconfigure your business. As Darwin discovered long ago, it's not the strongest species that survive and thrive but those that are most adaptable.

The best organizations today are not monolithic. They are not majestic, slow-moving cruise ships. Rather, they are a fleet of speedboats, all moving in the same direction and guided by common goals and metrics.

THE THREE DIMENSIONS OF RISK

TONE FROM THE TOP

TONE FROM THE TOP

Business leaders need a comprehensive risk management platform that can give them a unified view of risk that encompasses all four waves of GRC and every stakeholder—as well as emerging technologies like AI.

CEOs and boards need to set the right tone from the top. They must start by embracing GRC and assessing and reassessing their readiness quotient, with emphasis on adapting to changing business requirements. An effective and agile framework can help the board look at the total impact of their company's ESG strategy and operations.

When GRC is viewed as a competitive advantage rather than a checklist item, that's when companies can not only stay in alignment with sustainability processes but can also inspire trust and build a positive relationship with customers, investors, and stakeholders, which is an essential part of organizational growth.

THE METRICSTREAM PLATFORM

THE METRICSTREAM PLATFORM

The MetricStream Platform empowers organizations to make real-time, risk-aware decisions that boost business performance, strengthen resilience, and enhance brand reputation. MetricStream's simple purpose-built platform is proven with over a million global users. The platform is designed to serve integrated GRC use cases across industries and is infused with deep domain expertise, rich context, integrated data, and explainable AI. With the MetricStream Platform, organizations can:

- Intuitively harness real-time risk intelligence across the extended enterprise.
- Break down silos to accelerate decision-making and gain a 360-degree view of GRC programs.
- Quantify risk in monetary terms and rate risks using advanced analytics.
- Achieve present and future GRC needs with an expandable foundation.
- Collate data from internal and external information systems to the central GRC hub.
- Meet specific requirements with a highly configurable platform.
- Drive adoption across the organization, accelerating productivity and frontline insights leveraging a simple, intuitive user interface.
- Work smarter and faster using explainable AI.

WHAT’S NEXT

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With the proper Integrated Risk Platform in place, risk and performance become the opposite sides of the same coin. Risk management is no longer viewed as a brake on the business. Rather, it becomes an accelerator so that you can smoothly navigate any turns and obstacles at maximum velocity while remaining firmly on the road to success.

ABOUT THE AUTHOR

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Gunjan Sinha
Founder and Executive Chairman

Gunjan Sinha is a visionary, entrepreneur, and business leader. He currently serves as the founder and executive chairman of MetricStream. He is probably still best known as the founder of WhoWhere?- an internet search engine which he sold to Lycos in 1998. He is also the co-founder and board member of the customer engagement software company, eGain (NASDAQ: EGAN). Throughout his career, he has been an active investor and board member in numerous successful Silicon Valley start-ups and venture funds.

Gunjan is a strong believer in social entrepreneurship, having helped create Child Family Health International, a United Nations recognized public non-profit, to transform global health education.

From 2010 to 2017, Gunjan became the founding board member of the US India Endowment Board - started by the US State Department along with the Office of Science and Technology at the White House – an endowment fund that supports innovation and commercialization of science and technology for social good in the US and India.

Gunjan is passionate about social innovation, diversity, inclusiveness, and global risk management. He envisions a world that brings the power of socially conscious innovations to better disrupt its risks, and create opportunities for all.

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