

**CHAPTER 2**  
**CONVENTIONAL RISK MANAGEMENT IN THE**  
**BANKING INDUSTRY**

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# **CHAPTER 2**

## **CONVENTIONAL RISK MANAGEMENT IN THE**

## **BANKING INDUSTRY**

### **SYNOPSIS**

The existence and viability of banks rely heavily on the management of risks with the responsibility on the board of directors and management to identify measure, monitor, control and verify different risks within the banking industry.

The objectives of this chapter is to give a background to risk management, by alluding to the nature of uncertainty; the characteristics of risk; the categories of risk in terms of strategic and operational; the role of risk management, corporate governance and it's relationship to risk and risk management culture in the banking industry.

Strategic and operational risk management is theorised according to latest theories in this field. The role of risk management in the banking industry is explored in detail in order to lay a proper foundation of risk management. The risk management process with reference to different areas namely supervisory, strategic, operational, policies and procedures, top down and bottom up, systems, oversight and control, assets and liabilities are explored and investigated in detail. The link between corporate governance and risk management is explored. Finally the role of risk management culture in the banking industry is investigated in detail and the link between risk and risk management culture is established.

The value of this chapter lies in obtaining an understanding of the conventional risk management concepts and processes within the banking industry that forms the basis of this study.

# CHAPTER 2

## CONVENTIONAL RISK MANAGEMENT IN THE

### BANKING INDUSTRY

*“Without risk we cannot get beyond risk.”* **Anonymous**

#### **2.1 INTRODUCTION**

One of the earliest references to risk management in the banking industry was cited in the (Harvard Business Review, 1965 : 123). At the time the authors proposed that someone within the banking environment should manage the business risk of banks. The term risk manager was furthermore suggested, and as a result the term insurance, lost it's traditional status as the standard approach to dealing with corporate risk. Instead the concept of risk management signalled a dramatic shift in business philosophy making it a vital component of business management in general and of the banking industry in particular (Lam, 2003 : 19).

Although risk management has had many shifts in focus during the modern banking era it remains important to - as a background - review the evolution of risk management and to revisit the basic concepts of risk and uncertainty in the banking industry. It is furthermore important to categorise risks and to attain an understanding of the existing strategies used by South African banks to manage risk. More importantly is the aspect of ascertaining whether existing strategies are relevant in managing banking risks efficiently and effectively. In doing so the deliberations in this chapter will be an attempt to achieve the second objective as stated in Chapter 1, Section 1.3.

#### **2.2 THE EVOLUTION OF RISK MANAGEMENT**

Williams (1995 : 17-27) as cited in Roux (1996 : 57) and Van Zyl, Botha and Skerritt (2006 : 77-86) tracks the evolution and development of risk management pertaining to the banking industry from the time period of the 1920s to the 1930s when the management of risk was characterised by conservative concern for safety and soundness. During the 1950s the focus

was still on safety of the asset portfolio with a shift from conservative asset management to aggressive liability management strategies in the late 1960s. Come the 1970s, with unforeseen elements such as the Arab oil embargo, exacerbated inflation and high interest rates, new strategies of risk management emerged in the financial industry with an urgency to understand financial risks, and techniques for controlling such risks. Since the 1980s the practice of risk management changed dramatically as a consequence of the growth in derivatives trading and the realisation that accounting data is inadequate to manage complex, highly leveraged financial positions. The 1990s witnessed a remarkable recovery in profits and concordant capital structures, with leading financial institutions - including banks - successfully developed new risk management strategies. The value at risk (VAR) approach was furthermore developed to quantify the outer limit of losses a bank could suffer from its myriad global trading positions and investments. Further changes in the recent past; including the globalisation and deregulation of the financial services industry have brought the industry to new levels of complexity.

Although banks have always dealt with risk and uncertainty, the twenty first century will present even greater challenges than before. Effective and efficient risk management as a central issue of corporate governance will require banks to have a clear view on their exposure to risk and the management of those risks in a manner that needs to surpass the conventional risk paradigm of the past. The next section investigates the relationship between uncertainty and risk.

### **2.3 UNCERTAINTY AND RISK**

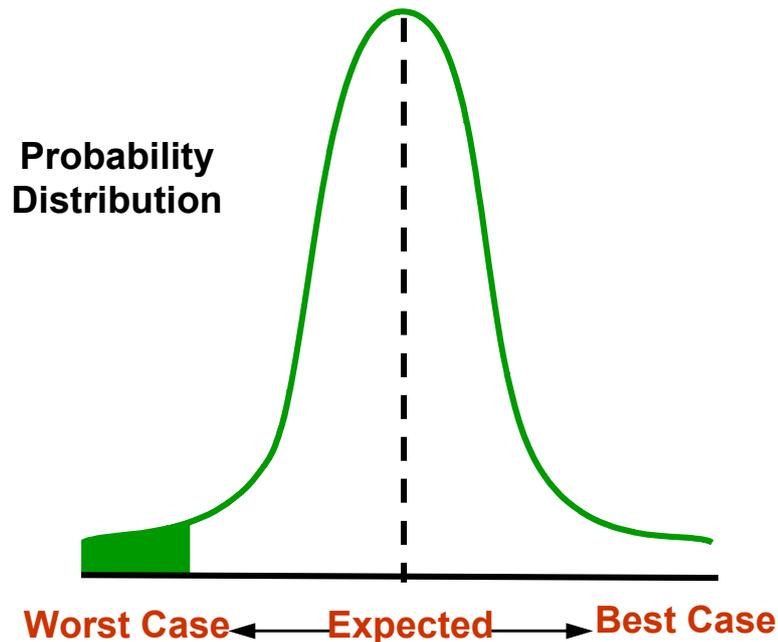
A number of authors such as Bank of England (2000 : 117, Shimpi (2002 : 128), Van Dam (2001 : 141), Vaughan and Vaughan (2004 : 487-520), are of the opinion that risk is a state of uncertainty. Barton (2002 : 19), however, argues that risk pertains to situations for which previous probability data exists that are useful in predicting future outcomes, whereas uncertainty pertains to situations where there is no suitable past data on which to estimate the chance of an occurrence. A risk situation is therefore a situation in which a probability distribution for outcomes is made on a meaningful basis and is

therefore known. Uncertainty exists therefore when there is an unknown, undefined probability distribution on a set of outcomes. Risk is furthermore insurable, whereas, uncertainty can only be described by intuition. Considering the views of Bank of England (2003 : 371), Shimpi (2002 : 128) Van Dam (2001 : 141), and Vaughan and Vaughan (2004 : 487-520), risk can be identified as being objectively conceived, and uncertainty as a relationship between subjective probability distributions. The same authors furthermore believe that "subjective" is equivalent to "less objective". This view point asserts the argument of Lam (2003 : 284) that there is a grey area of 'uncertain risk', which belongs to both risk and uncertainty. In view of this argument and the notion that risk and uncertainty are both areas where substantial and severely detrimental losses can be incurred, this research study will view risk and uncertainty as inextricably linked. The two concepts will therefore be used interchangeably.

Regester and Larkin (2005 : 237) introduce another aspect called uncertainty drives risk, consisting of worst case scenario, expected scenario, and the best case scenario. Management of the bank will budget for expected risk and will try to drive towards the best case scenario on the uncertainty drives risk curve as illustrated in EXHIBIT 2 : 1. However, as indicated in EXHIBIT 2 : 2 the environment, nature, human error, and lack of planning and proper strategy will drive the bank to the worst case scenario on the uncertainty drives risk curve, hence the need for the management of risk.

This is illustrated in EXHIBIT 2 : 1.

**EXHIBIT: 2 : 1 UNCERTAINTY DRIVES RISK**



Source: Source: Adapted from Regester and Larkin (2005 : 237)

**EXHIBIT: 2 : 2 BEST CASE AND WORST CASE RELATIONSHIP**

| <b>Risk</b>       | <b>Worst Case</b> | <b>Expected</b> | <b>Best Case</b> |
|-------------------|-------------------|-----------------|------------------|
| <b>Market</b>     | Price % down      | 0% or Bid/Ask   | Price % up       |
| <b>Credit</b>     | Unexpected loss%  | Average Loss%   | 0 Loss %         |
| <b>Operations</b> | Unexpected error% | Average Error%  | 0 Error %        |

Source: Adapted from Regester and Larkin (2005 : 237)

Exhibit 2:2 illustrates what would happen to market risk if the price of the commodity or share price goes down. The same applies to credit risk and operations risk if the unexpected loss and the unexpected error happens respectively. The up-side is that the share price goes up in terms of market risk, no losses in terms of credit risk and no errors on the operations risk side. However, the unexpected will always happen taking into account Murphy's law. Murphy's law is any of various aphoristic expressions of the apparent perverseness and unreasonableness of things.

## 2.4 THE NATURE OF RISK

Risk, as defined in the Concise Oxford Dictionary (1982 : 900), is stated as the possibility of loss, injury, or other adverse circumstances. Kerzner (1998 : 82) describes risk as the uncertainties of running a business and Baliman (1999 :111) claims that risk is the results of a dive of faith into the unknown. Van Greuning and Bratanovic (2000 : 425-453) maintain that risk is the result of getting out of your comfort zone and Vaughan (2001 : 92) views risk as the chance of a loss or gain. Towers (2002 : 36-78) on the other hand refers to risk as the probability of adverse deviation from the desired goal. Shimpi (2002 : 10) emphasises that risk is the dispersion of actual from the expected results, whereas Regester and Larkin (2005 : 114) propose that risk should include any event or action that will adversely or negatively affect an organisation's ability to achieve its business objectives and execute its strategies successfully.

Recent sets of philosophies on risk are documented by authors such as Roux (1996); Barton (2002); Shimpi (2002); Vaughan and Vaughan (2004); Van Zyl, Botha and Skerritt (2006); and Young (2006). The common viewpoint that emerges is that risk describes the possibility of loss, injury, disadvantage or destruction. Roux (1996 : 51) questions whether all risks are important, and concludes that only those risks with a great possibility of occurring are important risks. However, Roux (1996 : 125) does not differentiate between strategic and operational risks. Barton (2002 : 60) suggests that risk should be looked at from a bigger picture. Shimpi (2002 : 171) concurs that the possibility of loss, injury, disadvantage or destruction should be looked at in total. Young (2006 : 70) asserts this viewpoint by stating that the overall assessment of the likelihood of risk occurring, and the impact of a loss for a business need to be done in order to prioritise the risk attention of management. However, Young (2006 : 118) does not give a reason why some risks are more important than others. This study indicates the importance and difference between strategic and operational risks among other things.

From a business management point of view every organisation faces risk that could result in considerable losses to the bank or that something negative can

occur. The converse, however, is also true in that something positive does not occur, that is, the opportunities are not seized or that assets may be under-utilised. The latter viewpoint is often regarded by entrepreneurial managers and leaders as the bigger business risk of the two.

From a banking perspective a number of definitions have been included in the Banks Act. (1990) as guidelines for the conduct of directors of banks as public institutions; these guidelines relate to their strategic decision making skills, their knowledge of banking operations, and the exercising of their fiduciary responsibilities as bankers. Articles 39 to 45 deal with the operational risk aspects such as different risk-related items and returns that are required from banks and that banks have to report to the South African Reserve Bank (SARB) on a regular basis. The SARB focuses on a whole range of risks, which may include the following types of risks, namely-

- solvency risk
- liquidity risk
- credit risk
- currency risk
- price risk
- interest rate risk
- counterparty risk
- technology risk
- operational risk



These risk classifications have been in the Banks Act since its inception (the new act of 1990). The SARB has on an annual basis chosen a so called “flavour of the year” theme, for instance in 1994 operational risk was featured. The intention of this is to obtain inputs from all interested parties (banks, Cosab, brokers and the like) to further define the risks (Roux, 1996 : 64).

## **2.5 CATEGORIES OF RISK**

Various authors such as Kerzner (1998 : 82); Baliman (1999 : 111); Van Greuning and Bratanovic (2000 : 425-453); Kloman (2000 : 81) Vaughan (2001 : 92); Lam (2003 : 162); Towers (2002 : 36-78); Shimpi (2003 :10); Regester and Larkin (2005 : 114); Van Zyl, Botha and Skerritt (2006 : 93); and

Young (2006 : 71) provide different approaches to risk. These approaches can broadly be viewed as being of tactical and/or functional nature. Prof Willie Pietersen (2006) from the Columbia School of Business who emphasises the differences between tactical and operational planning furthermore supports this notion. According to him the former implies the right choice of decisions, for example “laying train rails in the right direction by doing the right things”. Operational planning on the other hand implies “doing things right by making trains run on time.” (Pieterse, 2006).

Taking the different abovementioned views into consideration and considering the approach of the SARB to risk, as mentioned in the previous section, it would seem that risks could be broadly divided into two categories, namely strategic and operational risks. The next section investigates the various forms of strategic risks in the banking industry.

### **2. 5.1 Strategic risks**

Strategic risks at top management and / or corporate and business levels relate to amongst others the risks associated with the business environment, the product range, geographical expansion and integration strategies. These may have long-term positive or negative impact on the survival of a bank business as what happened with Saambou Bank. Saambou Bank entered the Internet banking market, resulting in losses that eventually contributed to the demise of the business on 9 February 2001 (Regester and Larkin 2005 : 162). Business Day (2001 : 14) reported that Saambou Bank was poorly managed at group level with no proper group risk management strategy in place.

Some of the major strategic risks confronting banks are briefly described in the following paragraphs:

- Solvency risk

Solvency risk occurs when there is a possibility that the total liabilities of a business could exceed its total assets (Towers, 2002 : 36-78). However, the mere fact that a business owns more than what it owes does not necessarily

mean that the bank is able to settle its debt. It is quite possible that the bank can own buildings or assets that are worth far more than the total of amounts that it owes. Solvency ratios such as debt and gearing ratios indicate the ability of a business to repay its debt from the sale of assets on cessation of its activities. Capital lenders usually show strong interest in solvency ratios because these indicate the risk level of an investment in the business. From a strategic view point solvency can be managed by structuring the assets and liabilities on the balance sheet to ensure access to additional loan capital and to reduce the extent of risk in its current financing (Kloman, 2000 : 81).

- Capital Adequacy Risk

Capital adequacy risk relates to the minimum amount of share capital and reserve funds to be held against an asset or activity which is determined by the corresponding level of risk (Lam, 2003 : 161). Banks have an inherent characteristic of a relatively low capital-to-liabilities ratio. In order to encourage the prudent management of risks associated with this unique balance sheet structure, regulatory authorities have introduced certain capital adequacy requirements in many countries and South Africa in particular. The key purpose of capital is to provide stability and to absorb any losses, thereby providing a measure of protection to depositors and other creditors in the event of liquidation (Van Greuning and Bratanovic, 2000 : 425-453). In this regard capital serves as a buffer for unforeseen losses. Banks are therefore required by regulators to maintain a specific level of capital. The riskier the business activities the higher the capital required. Large corporate businesses are normally aware of the bank's capital adequacy ratio affecting the amount they are prepared to invest with a particular bank. Others may even reduce their deposits should the bank's capital position deteriorate. Without adequate capital a bank might be in danger of a flight of investments to other banking institutions with adequate capital.

- Market risk

A definition of market risk according to the annual report issued by the Asahi Bank (2001 : 31) is the contingency that banks may incur losses due to movements in interest rates, foreign currency exchange rates, stock prices,

and other market indicators. Market risk is therefore the risk that a bank may experience a loss in (on and off) balance sheet positions arising from unfavourable movements in market prices. It is a result of changes in prices of equities, commodities, money, and currencies. In recognition of the increased exposure to market risk, and to benefit from the discipline that capital requirements normally impose, the Bank of International Settlements (BIS) amended the 1988 Capital Accord in January 1996 by adding specific capital charges for market risk. The BIS has furthermore approved that value at risk (VAR) be used to measure market risk in banks. VAR measures the maximum loss that a portfolio is likely to sustain over a particular period, given specific assumptions about the behaviour of security prices (Kaplan and Leftwich, 2000 : 19).

- Country risk

Country risk is one of the most complex issues facing the banking industry today. No other single risk has had such material and continuing adverse impact on so many banks on a global basis in general and South Africa in particular. Sutin (2001 : 24) strongly believes in the need to integrate country and industry studies whenever an international bank sustains significant exposure to particular business sectors within a country. Country risk contains elements of political, economic and foreign exchange risks, which should be analysed fully before a bank decides whether, or, not to lend money to a particular industry within a particular foreign country. The counterparty may be unable to meet financial contractual obligations due to the country not being able to meet its financial obligations. A shortage of foreign reserves to pay for imports may result in default from companies operating in that country. This may result from shortage or rationing of foreign currency resources. The country may be politically unstable. Country risk encloses aspects of political, economic and foreign exchange risks, which should be fully analysed prior to establishing whether, or, not to lend money to a specific industry within a particular country (Shimpi, 2002 : 114). Failure to manage country risk will result in losses to the lending bank.

- Reputation risk

The Office of the Controller of Currency US. (2003 : 32-56) defines reputation risk as the current and prospective impact on earnings and capital arising from negative public opinion. This affects the institution's ability to establish new relationships or services or continue servicing existing relationships. This risk may expose the institution to litigation, financial loss, or decline in its customer base. Reputation risk exposure is present throughout the bank and includes the responsibility to exercise an abundance of caution in dealing with its customers, the community, and the government. According to Price (2000 : 299-330), one of the most serious potential problems is that of inside dealing, when an employee or associate uses confidential knowledge for his or her own gain contravenes the letter and spirit of his contract, breaks the law and throws the bank open to investigation and suspicion by financial regulatory bodies and law enforcement authorities. The mere rumour that investigations of this nature are going on is sometimes enough to sound the death knell to a bank. At the very least it will send shivers of no confidence up the spines of your shareholders and investors and can wipe out millions off the value of the bank within a few hours. Risk managers will increasingly have to deal with risks associated with corporate social responsibility, as these are becoming some of the biggest risks that can quickly impact on the bank's reputation in the community.

- Management risk

According to Deming (1989 : 63) management risk is the lack of consistency of purpose, the emphasis on short-term profits, the evaluation of performance and merit ratings on an annual basis and therefore running the bank on visible figures alone. The effects of performance rating or annual review of performance are devastating, with teamwork destroyed, rivalry fumed and mobility of management encouraged. Deming (1989 : 64) furthermore believes that management is not the protection of old structures but the dismantling of the old structures of management styles, resistance to change, reliance on quality controls, blaming the workforce for problems, and blaming the system. A study conducted by Shapira (1995 : 326-330) in respect of managerial viewpoints on risk taking, established that managers refer to two

distinct areas when considering risk. The first is performance related to where managerial thinking is strongly aligned with the necessity to take risk. For example: If the performance measure is attained, there is no need to take any further risks and when management is faced with failure to obtain set goals more exposure to risk is accepted. It therefore becomes a fine balance between “risky and conservative” actions. Cummins (1999 : 11) delineates managerial risk as providing alternative rationales for corporate hedging behaviour, i.e., instead of maximising the value of the bank, managers may maximise their own utility in fear of losing their jobs. Therefore, it is imperative that banks manage strategic risk in a proactive manner by accepting change.

- Liquidity Risk

Liquidity is necessary for banks to compensate for expected and unexpected balance sheet fluctuations and funds for growth. Assets and Liability Committee (ALCO) of a bank normally manages the liquidity risks. Vaughan (2001 : 28) states that liquidity risk generally gets bundled up with market risk more broadly, though regulators are now putting pressure on banks to assess cash flow risk separately. A big imponderable remains investment banking. Here, liquidity is mainly synonymous with ability to liquidate risk, which is actually easier to assess than the maturity transformation which commercial banks practise and which renders them illiquid by definition Coman (2002 : 132). Liquidity can wipe the bank out of the banking landscape within a matter of hours. In banking terms this kind of risk is also known as liquidity flight.

- Systemic risk

Systemic risk according to Barton (2002 : 65) refers to the scenario that a disruption at a bank, in a market segment, or to a settlement system could cause a “domino effect” throughout the financial markets toppling one financial institution after another or a “crisis of confidence” among investors, creating illiquid conditions in the marketplace. Systemic risk encompasses the risk that failure in one bank or one segment of the market would trigger failure in segments of or throughout the entire financial markets. Over-the-counter derivatives illustrate the supervisory concern with respect to systemic risk. The fact that some financial and securities activities are concentrated in a

small number of financial institutions and can be used for unhedged, proprietary speculation creates the potential for a domino effect of systemic risk if a major financial institution is collapsing (Kloman, 2000 : 121). This risk is more than a possibility due to the potential for substantial market and trading losses, which can result in rapid, global transmission of defaults to the counterparties. This risk is further exacerbated by the interconnection of obligations among the same institutions and with the cash markets (Shimpi, 2001 : 181). Although the domestic and international financial markets have withstood large bank losses as seen in the Barings and Daiwa cases, these isolated defaults occurred in the absence of significant market movement. Defaults of unprecedented nature and magnitude could occur in the event of heavy volatility across capital markets, such as currency and equity crashes. Systemic risk is perhaps the greatest challenge to supervisors and to the financial markets. A uniform, flexible framework of risk management and controls, coupled with adequate capital standards is essential to the continued orderly operation of the global financial markets.

Strategic risks as described in aforementioned paragraphs can impact on the viability of a financial institution; the conduct of the business of a bank entails the continuous management of these strategic risks. This can be accomplished by having efficient and effective strategic management in place, that is, appropriate strategy-making, strategy-implementation by senior managers in the banking industry.

The next section explores operational risks within the banking industry.

### **2.5.2 Operational risks**

Bank of International Settlements (BIS) (2004 : 129) defines operational risk as the risk of direct or indirect loss resulting from inadequate or failed internal processes, people, and systems, or from external events. Ward (2003 : 41) describes operational risk as a value-adding activity impacting on the bottom-line performance of an organisation and which requires good management, consistent alertness and continuous improvement. Similarly other authors such as Shimpi (2002 : 72), Morrison (2003 : 84) and Regester and Larkin (2005 : 151) view operational risk as a possible breakdown of systems and

control measures; the mismanagement of legal processes and payments settlement procedures; and possible losses from incorrect processing of information and transactions. Having defined operational risk the following paragraphs briefly describe some of the major operational risks facing the banking industry today.

- Industrial Risk

Regester and Larkin (2005 : 93) defines industrial risk as the bank's inability to cope with the quarter-to-quarter or year-to-year vicissitudes / variability of industry performance, such as the relatively predictable seasonal changes and the less predictable cyclical changes or unpredictable random factors. Industrial risk also addresses the more difficult question of how a bank within a given industry might best position itself for industry competitiveness. A bank's ability to nullify the threats and capitalise on the opportunities affecting its industry is a bank's determinant of its competitive performance.

- Project Management Risk

According to Body of Knowledge (2000 : 191) project risk management is the systematic process of identifying, analysing, and responding to project risk. It includes maximising the probability and consequences of positive events and minimising the probability and consequences of adverse events to project objectives. Rappaport (2000 : 144) claims that project management risk has become an everyday occurrence in most modern banks; therefore it is imperative that the risk thereto is quantified and managed properly. As a result, the role of project managers has evolved from generic change agents to holistic business managers. Widerman (2002a : 3) argues that project management risk is the cumulative effect of the chances of uncertain occurrences adversely affecting project objectives. The objective of risk management in a project management framework is to identify project risk and develop strategies to reduce them or take steps to avoid them altogether, whilst maximising associated opportunities Widerman (2002a : 81). The following are key areas where project risk management applies: The identification of factors likely to influence the project Scope, Quality, Time and Cost; The quantification of the likelihood each factor will have an impact; Base

lining the non-controllables of the project; Sketching various 'worse-case' scenarios for the controllables of the project (Kloman, 2000 : 125).

- Economic Policy Risk

Economic policy risk relates to the quality and consistency of economic management (Shimpi, 2002 : 72). Government's ability to repay its obligations largely depends on policies adopted towards inflation, interest rates, public sector deficit, public debt / GDP, exchange rate policy, capital controls and regulations and attitudes towards foreign investment. The size and methods of deficit financing have an impact on the current and future level of economic activity and inflation and these factors are important determinants of capital flows to a country (Gelman, 2003 : 18). Hence the conduct of fiscal policy in a country could affect the success of the bank in attracting co-financiers. The effectiveness of monetary tools such as the exchange rate have an impact on factors important to the bank such as trends in prices, international competitiveness and the level of international reserves. In the case of external obligations, the sovereign government has first claim on the country's foreign exchange reserves and controls the ability of any person in that country to obtain and send funds abroad to repay obligations. These factors are important to the profitability of long-term investments that are typical of the bank's involvement.

- Regulatory and Compliance Risk

Businesses operate within the framework of law, which derives from custom and practice, the judicial decisions of courts and from statutes enacted by governments. This legal environment not only constraints and regulates a bank's operations, but also provides an enabling mechanism through which it is able to pursue its objectives (Hereford, 2004 : 152). Regulations and Compliance risk according to Worthington and Britton (2003 : 146-150) creates an acceptable framework within the banking industry. Causing businesses to feel secure to invest money and operate in confidence. In a lawless state, where regulations are not in place it is difficult if not impossible, to enforce contracts. This is not conducive for business. However the same process of regulations and compliance creates compliance burden for

businesses in terms of costs and skills and pose a risk to those businesses that does not comply with set regulation. These compliance requirements such as Money Laundering, Financial Intelligence Centre Act, Financial Intermediary and Advisory Services Act not excluding the Basel Accord 2, require quite significant capital investment in terms information systems and training yet the risk of not complying with these requirements justifies the investment (Broll, 2002 : 19). These have direct impact on the daily operations of banks in particular. The requirements in respect of accounting standards 133 with regard to financial instrument has had a material impact on the figures reported by various banks in South Africa (Payne, 2000 : 15). The standard requires a shift from historical reporting to fair value in accordance with the GAAP (Generally Accepted Accounting Principles).

- Counterpart Risk

Counterparty risk (also referred to as counterparty risk) possesses many facets of risk management, but in banking terms principally deals with credit risk in terms of loss incurred as a consequence of the failure of a third party to perform. Timperio (2000 : 3) states that loss occurs if the borrower fails to provide additional collateral daily, as required, or fails to return the borrower securities, causing a loss to occur on the subsequent repurchase of the loaned securities. The most frequent occurrence of counterparty risk is when a customer deposits a cheque drawn by a third party (the counterpart), and the cheque being subsequently dishonoured by the counterpart's bank due to the unavailability of such funds, resulting in an unauthorised overdrawn status on the customer's account. In other instances, counterparty risk could stem from the futures market where a bank substitutes as clearer for non-clearing members Morrison (2003 : 142). During these instances a bank countersigns all limitations stipulated by the clearinghouse in respect of transactions. Counterparty risk can embrace many forms of risk but in the banking industry this is primarily concerned with the credit risk incurred as a result of the failure of the third party to perform.

- Credit Risk

This can be defined as the risk of a financial loss resulting from a counterparty's inability, for whatever reason, to fully meet its and /or contractual obligations Kloman (2003 : 53). Most risks normally ends up being credit risks. Operational, market and liquidity risks may bring about credit risk as the counterparty fails to meet obligations due to poor management of other risks Shimpi (2002 : 72). It can further be described as the chance that the debtor will not be able to pay interest or the principal amount according to the terms specified in the credit agreement. Payments may be delayed or not be paid in full, which in turn may cause cash flow problems and affect a bank's liquidity. Broll (2002 : 1) contends that credit risk is one of the oldest and most important forms of risk facing banks as financial intermediaries. The risk of borrower defaulting — on interest and/or principal— carries the potential of wiping out enough of a bank's capital to force it into bankruptcy. Managing this kind of risk through selecting and monitoring borrowers and through creating a diversified loan portfolio has always been one of the predominant challenges in running a bank. Credit risk, as defined by Global Energy Business (2001 : 21) is the risk and the expected loss incurred if a debtor defaults or is unable to meet obligations at delivery. Shimpi (2003 : 12) claims that credit is trust. He manifests that banks grant credit; we purchase on credit in anticipation that settlement will occur at a future date - all hugely dependant on trust. Consequently, trust and credit are rudiments to the feat of lending. Obviously, the less trust the banker has for the prospective borrower, the more arduous it will be for that would-be borrower to attain the loan. Credit risk if not managed properly can migrate into liquidity risk.

- Currency Risk

Currency or foreign exchange risk emanates as a result from changes in exchange rates between a bank's domestic currency and other currencies (Jurion, 2002 : 74). It is a form of market or price risk, with an added dimension of liquidity risk. Currency movement may result in foreign exchange losses and revaluation of assets with negative impact on both the income and the assets and liabilities values. It is therefore managed through the establishment of position limits in the overall net position and individual

foreign currency position. The business may suffer losses due to a long or short position depending on the currency movement (Gelman, 2003 : 64). Shapiro (1996 : 251-260) emphasises that foreign exchange rate risk is the degree to which a bank is affected by exchange rate changes. To simplify this, let us look at an example, which will add further clarification: Assume that Bank XYZ was involved in cross-border transactions and that (at the time of trading) expected a certain fixed income in rands. At transaction maturity, the rand unexpectedly devalues; as a result, the bank has incurred a loss. However, Shapiro (1996 : 251-260) does not give or suggest solutions to the problem of foreign exchange risk. Gelman (2000 : 9) alleges that currency risk occurs whenever two parties are associated together in the course of an international commerce transaction. Upon this a decision could be made whether or not to insure against currency risk, based on prospect of currency movements measured against the cost/benefit of the forward cover. He further identifies a range of approaches in which hedging against currency risk could be achieved, including forward exchange contracts, currency options, currency futures, currency baskets, leads and lags, and currency swaps.

- Electronic Funds Transfer Risk

Electronic funds transfer (EFT) is the process of transferring payments and the relevant information from the computer of one bank to the computer of another bank or from the computer of the bank's client to the computer of the bank, using an electronic medium, in a standard agreed format so that both parties are capable of understanding the information and are able to act on it (Cooper, 2000 : 69-73). It gives users and banks alike the ability to generate and receive payments without the use of paper. According to (World Bank, 2003 : 295) the following is a broad overview of the risks involved in EFT: losses may arise as a result of inability of the system to verify a user identification on a reliable basis; Data which can easily be modified due to the inability to ensure data integrity; Errors as a result of conflicts in the data bases maintained by the various participants in a particular EFT arrangement; Message authentication procedures being unable to detect illegal parties; Disasters which occur at the main operating site or a branch office which is put out of action by flood, fire, earthquake, explosion etc; Data risk losses may arise as a result of file being destroyed during the data

transmission/interchange process; Duplication of payment instruction; Corruption of data due to complimentary parity errors which cancel each other out, bank records of transactions being inadequate and not being kept for suitable periods and if computer systems are not compatible. All parties involved in EFT transactions will be exposed to risks.

- Volatility risk

Volatility risk emanates from credit structures that cannot accommodate some of the pressures on bank performance caused by seasonal and cyclical fluctuations in the external environment (Shimpi, 2002 : 72). *Seasonality*, being innately more predicable than *cyclical*, is easier to deal with from a credit risk perspective. It can be mitigated by using seasonal over advances or rolling-average financial tests. The key is to recognise seasonal patterns up front although recognition is not always a guarantee against surprises, as ski resort operators can attest to. Shimpi (2002 : 88) emphasises that in the face of high cyclical sensitivity, financial covenants can be tied to industry norms using such data as Risk Management Annual Statement Studies. However, the bank must also be comfortable with the bank's ability to perform acceptably through the business cycle or to ride out any recession of a reasonably anticipated severity. This is the underlying premise of evaluations by rating agencies. A bank's rating reflects the innate *cyclical* of its industry, and, therefore it should not be raised and lowered through the cycle unless the cycle is abnormally severe. Regester and Larkin (2005 : 149) maintains that if cyclical is high, liquidity assumes particular importance to credit grantors and should be reflected in financial covenants. This applies not just to a bank's ability to generate sustained operating cash flow but also to its maintenance of significant cash reserves to see it safely through the next industry downturn.

- Interest rate risk

According to Shimpi (2002 : 29) interest rate risk springs from assets and liabilities being *re-priced* at different points in time, and the movement in market interest rates being greater, quicker or in a direction different to that which has been forecast: if liabilities mature before assets, the risk of the cost

of liabilities increasing in an environment of rising short term rates, while the asset continues to yield a fixed income: if assets mature before liabilities, the risk of re-pricing the assets at a reducing rate in the environment of falling short term rates, resulting in the marginal income on assets decreasing below the cost of funds, i.e. the cost of funds was fixed when market interest rates were high.

- Money laundering risk

The phrase "Money Laundering" covers all procedures to change the identity of illegally obtained money so that it appears to have originated from a legitimate source Bosch (2000 : 83). Cash lends anonymity to many forms of criminal activity and is the normal medium of exchange in the world of drug trafficking, this gives rise to three common factors: drug dealers need to conceal the true ownership and origin of the money, they need to control the money and they need to change the form of the money. According to the World Bank (2003 : 52) there are three stages of money laundering during which there may be numerous transactions that could alert a financial institution to criminal activity: Placement- The physical disposal of cash proceeds derived from illegal activity. Layering: Separating illicit proceeds from their source by creating complex layers of financial transactions designed to disguise the trail and provide enormity: Integration- Where the illegal money is eventually integrated into the legal system. The most common form of money laundering that banks and societies will encounter on a day-to-day basis takes the form of accumulated cash transactions which will be deposited in the banking system or exchange for value items. These simple transactions may be just one part of the sophisticated web of complex transactions, which are set and illustrated below. Nevertheless, the basic fact remains that the earlier key stage for the detection of money laundering operations is where cash first enters the financial system.

- Fraud risk

Fraud according to the Oxford English Dictionary (1999 : 316) is lying to someone to get him or her to give you or part with his or her "stuff". Fraud can be defined as any and all means that a person uses to gain an unfair

advantage over another person (Regester and Larkin, 2005 : 162). Fraudulent acts include lies, suppressions of the truth, tricks, and cunning. Fraud perpetrators are often referred to as white-collar criminals, to distinguish them from criminals who commit violent crimes. White-collar crimes often involve a violation of a trust or confidence (Shimpi, 2002 : 131).

KPMG (2004 : 84) maintains that fraud can mean each of the following: the use of deception, such as manipulation, falsification or alteration of accounting records or other documents, in order to obtain an unjust or illegal financial advantage; intentional misstatements in, or omissions of amounts or disclosures from, accounting records or financial statements; intentional misapplication of accounting principles relating to amounts, classification, manner of presentation or disclosure; misappropriation of assets or theft.

- Legal Risk

Banks are continually faced with a situation where counterparty disputes a contract for various reasons. In most cases the legal dispute seek to nullify the contract that has lead to significant losses or has the potential to cause the party large sums of money. According to Price (2000 : 299-330) consequences of not understanding the extent of legal risk in all areas of the business could be disastrous. The potential damage to a bank could inadvertently wreck the bank's reputation or worse, wipe it out altogether. The cardinal mistake most banks make is to entrust matters of this nature to their corporate law department or an external legal advisor. In most circumstances these appointees are not ideally placed to assess the sometimes-obscure secondary legal consequences of acts or omissions (Cooper, 2000 : 69-73). The risk that financial intermediaries face most frequently is contract enforceability. Most financial banks establish an ongoing link between their lending departments, policy departments, and internal as well as external legal advisors in an effort to ensure appropriate, legally enforceable dealing.

- Transfer Risk

Transfer risk is the borrower's inability to acquire foreign exchange through legal foreign exchange markets Cuneo (2003 : 94). This arises when a client is unable to convert local currency returns into foreign exchange and to

transfer it abroad. A country could place restrictions or impose a total ban on the transfer of foreign exchange. It is often required that an application for foreign exchange be made via the Central bank. The Central Bank often determines the allocation of foreign exchange in accordance with their own economic priorities. In the event that foreign currency has to be rationed, preferred creditors such as the World Bank and International Monetary Fund (IMF) may be favoured for early or priority payments than others Register and Larkin (2005 : 49). Outcomes of business transactions in a sovereign country are largely affected by developments in the economic and political arenas. Political and economic developments exert influence on both a country's ability and willingness to meet its financial obligations and on the ability of businesses operating within its borders to meet their commitments. It then becomes essential to identify events that could have adverse consequences and to design safeguards to prevent and/or minimise the damage caused by transfer risk by putting proper checks and balances in place.

## **2.6 RISK MANAGEMENT APPROACHES IN THE BANKING INDUSTRY**

Williams and Bond (1991 : 22) (as cited in Roux 1996 : 61) state that banks have always dealt with risk and uncertainty. The business of banking activity involves risk management which is defined as the responsibility of management to identify, measure, monitor, communicate and control risk within a bank. The process therefore consists of risk identification, risk assessment, evaluation of risk alternatives, selection of an alternative or risk control measure, communicate and the ongoing monitoring of the risk management program Price (2000 : 299-330). In order to accomplish these objectives two interrelated management approaches, namely strategic management linked to a top-down and bottom-up management approach are applicable.

### **2.6.1 The strategic management approach**

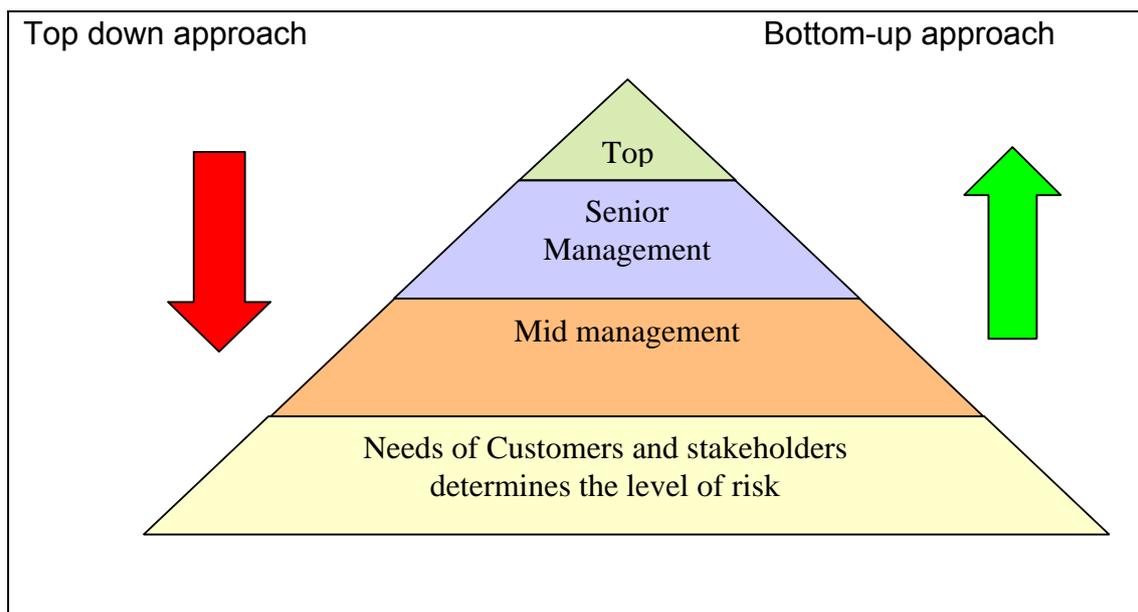
South African banking industry finds itself in a highly competitive marketplace and have to produce successful organisational performance through crafting

and implementing pro-active business strategies. In this respect Roux (1996 : 72- 123) documents the strategic management process with the objective of establishing a means for banks to determine and execute their business strategies. Roux (1996 : 124) furthermore alludes to the corporate strategy formulation process including the importance of a mission-vision directional picture; environmental analysis; critical success factors; goals and objectives; and values and ethics. The importance of implementation of strategies; business plan formulation; and strategic control and strategic adjustments are also described. The same author provides a brief glimpse of strategic management in four South African banks and emphasises the importance of incorporating risk management into strategic management process. This is necessary as banks manage more complex and volatile market risks and thereby attract greater regulatory scrutiny. Kreps (1994 : 53) subscribes to this notion by suggesting that banks make use of sophisticated models for allocating capital on risk-adjusted basis. In this regard Roux (1996 : 129 -187) suggests a conceptual risk-based strategic business model for assessing levels of risk and to focus on certain risk activities within a bank.

The problem of risk management in banks, however, goes beyond the conventional strategic management paradigm and risk based models. It manifests itself as a need for managing risk in a pro-active manner. The relevance of this problem will be addressed in more detail in the next chapter of this study.

Banks Act of 1990 (1990) in conjunction with the regulations promulgated under it, places considerably more emphasis on risk management as the basis for supervision of banks than was previously the case (Van Zyl, Botha and Skerritt, 2006 : 85). Two perspectives to the management of risk prevail, namely a 'top down' and 'bottom-up' approach as illustrated in Exhibit 2.3.

## EXHIBIT: 2 : 3 TOP-DOWN AND BOTTOM-UP APPROACH



**Source: Adapted from Baliman (1999 : 19) and Chibayambuya (2005 : 55)**

- Top down approach

The 'top down' approach to risk management according to Baliman (1999 : 106) indicates that top management imposes its weight in terms of risk strategies, controls, rules, policies and regulations. Middle management is expected to deliver according to the prescribed strategies, controls, rules, policies and regulations by top management.

- Bottom up approach

According to Chibayambuya (2005 : 162) the 'bottom-up' approach is driven by the needs of traders and customers on the short-term concerns of the bank. For example, questions of making a profit from principal exposures while controlling risk amid constantly changing markets. The latter perspective has predominantly driven advances in risk management technology. Against the background of an expansion in the derivatives market, the ability to price instruments competitively and to manage the risk therein safely, has depended critically on tactical measures of risk (Regester and Larkin, 2005 : 173). At the same time, the need to manage banks as a whole has been reinforced by several high profile cases and encouraged by central banks and

regulatory authorities. Given the availability of tactical risk measures, the general tendency has been to build up these bottom-up measures in order to produce total measures, which are then taken to represent the strategic risk in a bank. Regester and Larkin (2005 : 135) argues that this process on its own produces narrow and non-comprehensive measures of strategic risk. He furthermore points out that the communication part of risk management is totally ignored by top management.

## **2.7 THE ROLE OF RISK MANAGEMENT IN THE BANKING INDUSTRY**

Lam (2002 : 96) describes the role of the risk management function as follows: to protect the bank against market, liquidity, systemic risks, and to protect the bank's customers from large non-market related losses (e.g., bank failure, misappropriation, fraud, etc.); and to protect the bank and its franchise from suffering adversely from reputation risk i.e. the loss of confidence. The implementation of effective risk management within the banking industry promotes stability throughout the entire financial system. Sound and effective risk management promotes both the bank and industry stability, which, in turn, inspires confidence in the investing public and counterparties. Banks have economic and commercial incentives to employ risk management internal control systems. Without such controls, banks are vulnerable to not only risk but to total collapse of the financial system.

The role of risk management in the banking industry can be narrowed down to two main areas namely strategic and operational. In the next section the strategic role of risk management is explored.

### **2.7.1 The role of strategic risk management**

The role of strategic risk management in the banking industry is to ensure that the business continues to function and that the interest of stakeholders and those of the clients are protected Regester and Larkin (2005 : 152). The following section will explore the role of strategic risk management from the strategic point of view with specific reference to the role of solvency risk, capital adequacy risk, market risk, country risk, reputation risk, management risk, liquidity risk and systemic risk.

- The importance of solvency risk

The importance of solvency risk management is to ensure that the bank continues to operate in the foreseeable future (Lam, 2003 : 151). Solvency ratios such as debt and gearing ratios indicate the ability of a business to repay its debt from the sale of assets on cessation of its activities. Capital lenders usually show strong interest in solvency ratios because these indicate the risk level of an investment in the business. From a strategic view point solvency can be managed by structuring the assets and liabilities on the balance sheet to ensure access to additional loan capital and to reduce the extent of risk in its current financing.

- The essence of capital adequacy risk

The essence of capital adequacy risk is to ensure that the bank will always have enough capital at its disposal or as required by the regulator (Kloman, 2000 : 17). The key purpose of capital adequacy risk is to provide stability and to absorb any losses or shocks, thereby providing a measure of protection to depositors and other creditors in the event of liquidation. In this regard capital serves as a buffer or shock absorber for unforeseen losses. Banks are therefore required by regulators to maintain a specific level of capital. The riskier the business activities the higher the capital required. Without adequate capital a bank might be in danger of a flight of investments or flight of capital to other banking institutions with sufficient capital adequacy.

- The role of market risk

The role of market risk management in the banking environment is to make sure that all tradable instruments are marked to market and that all movements in equity, interest rates, exchange rates, and other commodities are monitored and managed properly (Price, 2000 : 299-330). Market risk, if not managed properly will migrate into credit risk, and then into liquidity risk. Once the chain reaction is triggered, it becomes difficult for the financial institution to manage the whole chain at the same time i.e. market risk triggers credit risk and credit risk triggers liquidity risk and liquidity risk triggers

systemic risk. Therefore, it is imperative that each risk must have its own line or lines of defence if the worst case scenario happens.

- The significance of country risk

The significance of country risk in the banking industry is to protect the bank from the risk of a foreign country or a company in a foreign country failing to meet its obligation because of a shortage of foreign reserves to pay for imports or debts (Regester and Larkin, 2005 : 391). The counterparty may be unable to meet financial contractual obligations due to the country not being able to meet its financial obligations. A shortage of foreign reserves to pay for imports may result in default from companies operating in that country. This may result from a shortage or rationing of foreign currency resources. The country may be politically unstable. Country risk encloses aspects of political, economic and foreign exchange risks, which should be fully analysed prior to establishing whether, or, not to lend money to a specific industry within a particular country (South African Banker, 2003 : 31-46). Failure to manage country risk will result in losses to the lending bank and will be reflected in the credit risk and bad and doubtful losses.

- The constituency of reputation risk

The constituency of reputation risk in the financial industry is to protect and safe guide the good name of the bank and maintain confidence with its customers, stakeholders, government and the community Canadian Banker (2002 : 234-240). The mere rumour that investigations are going on in a particular bank is sometimes enough to sound the death knell to a bank. At the very least it will send shivers of no confidence up the spines of shareholders and investors and can wipe out millions off the value of the bank within a few hours. Risk managers will increasingly have to deal with risks associated with corporate social responsibility, as these are becoming some of the biggest risks that can quickly impact on the bank's reputation in the community.

- The characteristics of management risk

The characteristics of management risk is to maintain consistency in terms of the vision, mission, strategy implementation, change management, values, policies, guidelines, and procedures in order to drive productivity and profitability of the bank (Regester and Larkin, 2005 : 16). Therefore, it is imperative that banks manage strategic risk in a proactive manner by accepting change. The mere fact that a financial institution is managed by a poor or bad chief executive officer will sent signals to analysts and other stakeholders and the financial institution will come under heavy scrutiny from both the analysts and the stakeholders.

- The existence of liquidity risk

The role of liquidity risk in the banking industry is to make sure that the bank has got enough money to do its normal daily operations (Rogers, 2000 : 32-82). An example of liquidity risk is illustrated by the March 1994 \$600 million loss of Askin Management. Askin specialized in mortgage-backed debt instruments known on Wall Street as “toxic waste” because they carried the highest credit and interest rate risk. When interest rates rose sharply, trading in these debt instruments ceased. No market participant would quote Askin a price on their positions anywhere near what they had paid for them. Furthermore, Kidder, Peabody and Company. lost \$25.5 million loaned to Askin to leverage these positions (Coyle, 1999 : 27). Again once the trigger is set a chain reaction follows.

- The importance of systemic risk

The importance of systemic risk in the banking industry is to protect a disruption at an institution or bank, in a market segment, or to a settlement system that could cause a “domino effect” throughout the financial markets toppling one financial institution after another or a “crisis of confidence” among investors, creating illiquid conditions in the marketplace (Ross, 2003 : 34-40). Systemic risk encompasses the risk that failure in one bank or one segment of the market would trigger failure in other segments of the market or throughout the entire financial markets. Systemic risk is perhaps the greatest

challenge to supervisors and to the financial markets. A uniform, flexible framework of risk management and controls, coupled with adequate capital standards is essential to the continued orderly operation of the global financial markets.

### **2.7.2 The role of operational risk management**

The role of operational risk is to make sure that all the operational processes are functioning properly. Regester and Larkin (2005 : 92) define the role of operational risk as the risk that improper operation of trade processing or management systems will result in financial loss. Operational risk encompasses the risk of loss due to the breakdown in controls within the institution including, but not limited to, unidentified limit excesses, unauthorized trading, fraud in trading or in back office functions including inadequate books and records and a lack of basic internal accounting controls, inexperienced personnel, and unstable and easily accessed computer systems. The role of operational risk is to control through proper management procedures including adequate books and records and basic internal accounting controls, a strong internal audit function which is independent of the trading and revenue side of the business, clear limits on personnel, and risk management and control policies. Had proper management oversight, as well as the fundamental risk management and control practice of separating backroom and trading functions been in place, the losses at Barings and Daiwa could perhaps have been avoided, or at the very least, minimized. The importance of maintaining proper risk management and controls is underscored by these financial failures. The following section investigates the role of operational risk in the banking industry with specific reference to project management risk, economic policy risk, regulatory & compliance risk, counterparty risk, credit risk, currency risk, electronic transfer risk, volatility risk, interest rate risk, money laundering risk, fraud risk, legal risk and transfer risk.

- The essence of project management risk

The essence of risk management in a project management framework is to identify project risk and develop strategies to reduce them or take steps to

avoid them altogether, whilst maximising associated opportunities (Shimpi, 2002 : 73). Almost every financial institution is now using the project methodology in order to speed up deliveries and services.

- The function of economic policy risk

The function of economic policy risk relates to the quality and consistency of economic management in terms of inflation, interest rate, exchange rate policy, capital controls, currency controls, attitude towards foreign investment, regulations, and the ability of the government to repay its obligations (Towers, 2002 : 36-78). These factors are important to the profitability of long-term investments that are typical of the bank's involvement.

- The role of regulatory and compliance risk

The function of regulatory and compliance risk is to create an acceptable framework for risk management within the banking industry. Causing businesses to feel secure to invest money and operate in confidence (KPMG, 2004 : 274). In a lawless state, where regulations are not in place it is difficult if not impossible, to enforce contracts. However the same process of regulations and compliance creates compliance burden for businesses in terms of costs and skills and pose a risk to those businesses that does not comply with set regulation.

- The task of counterparty risk

The task of counterparty risk is to ensure that all obligations ranging from daily, weekly, monthly, and yearly collaterals are managed and met as they fall due (Morrison, 2003 : 115). The most frequent occurrence of counterparty risk is when a customer deposits a cheque drawn by a third party (the counterpart), and the cheque being subsequently dishonoured by the counterpart's bank due to the unavailability of such funds, resulting in an unauthorised overdrawn status on the customer's account. In other instances, counterparty risk could stem from the futures market where a bank substitutes as clearer for non-clearing members. Counterpart risk can embrace many

forms of risk but in the banking industry this is primarily concerned with the credit risk incurred as a result of the failure of the third party to perform.

- The importance of credit risk

Credit risk arises as a default, when an individual person, company or government fails to honour a promise to make a payment (Morrison, 2003 : 5). The role of credit risk management in the banking environment is to make sure that the right people / organisations are given credit (Broll, 2002 : 96). Banks are in the business of issuing credit to their customers. Once credit has been given, it must be managed. If credit is poorly managed, it migrates into liquidity risk for the entire bank.

- The substance of currency risk

The substance of currency risk is to manage the changes in exchange rate between a bank's domestic currency and other currencies (Cooper, 2000 : 69-73). Currency risk occurs whenever two parties are associated together in the course of an international commerce transaction. Upon this a decision could be made whether or not to insure against currency risk, based on prospect of currency movements measured against the cost / benefit of the forward cover. Various approaches in which hedging against currency risk could be achieved, including forward exchange contracts, currency options, currency futures, currency baskets, leads and lags, and currency swaps.

- The responsibility of electronic transfer risk

The responsibility of electronic transfer risk (EFT) is to ensure that all data transmitted via the electronic media reaches the intended destination without being changed, altered, corrupted or diverted to another destination (Crawford, 2000 : 221). Electronic transfer risk ensures that data integrity is maintained at source and at the destination, it also ensures that errors as a result of conflicts in the data bases maintained by the various participants in a particular electronic transfer arrangement are minimised. Message authentication procedures must be able to detect illegal parties in an electronic transfer transaction. Disasters which might occur at the main

operating site or a branch such as flood, fire, earthquake, explosion etc. are minimised. Duplication of payment instruction is also minimised. All parties involved in electronic transfer transactions will be exposed to risks.

- The substance of volatility risk

The role of volatility risk management is to manage credit structures that cannot accommodate some of the pressures on bank performance caused by seasonal and cyclical fluctuations in the external environment (Davies, 2004a : 93). Seasonality, being innately more predicable than cyclical, is easier to deal with from a credit risk perspective. It can be mitigated by using seasonal over advances or rolling-average financial tests. The main function of volatility risk is to recognise seasonal patterns up front although recognition is not always a guarantee against surprises.

- The existence of interest rate risk

The existence of interest rate risk is to manage the movement of interest rate so that they move in line with the re-pricing of assets and liabilities (Deborah, 2003 : 173). If liabilities mature before assets, the risk of the cost of liabilities increasing in an environment of rising short term rates, while the asset continues to yield a fixed income. If assets mature before liabilities, the risk of re-pricing the assets at a reducing rate in the environment of falling short term rates, resulting in the marginal income on assets decreasing below the cost of funds, i.e. the cost of funds was fixed when market interest rates were high.

- The essence of money laundering risk

The essence of money laundering risk is to detect and report all illicit money channelled into the banking system by illegal transactions by drug dealers (Regester and Larkin, 2005 : 271). The importance of money laundering risk is firstly to alert a financial institution to criminal activity in terms of placement i.e. the physical disposal of cash proceeds derived from illegal activity, secondly to alert a financial institution in terms of layering i.e. separating illicit proceeds from their source by creating complex layers of financial transactions designed to disguise the trail and provide enormity. Thirdly, to

alert a financial institution in terms of integration i.e. where the illegal money is eventually integrated into the legal system. Nevertheless, the basic fact remains that the earlier key stage for the detection of money laundering operations is where cash first enters the financial system.

- The constituency of fraud risk

The importance of fraud risk is to detect the use of deception, such as manipulation, falsification or alteration of accounting records or other documents, in order to obtain an unjust or illegal financial advantage; intentional misstatements in, or omissions of amounts or disclosures from, accounting records or financial statements; intentional misapplication of accounting principles relating to amounts, classification, manner of presentation or disclosure; misappropriation of assets or theft (KPMG, 2004 : 111).

- The task of legal risk

The task of legal risk is to ensure that all contracts in the bank are enforceable, legal and binding in the court of law (Financial Mail, 2003 : 27-30). Banks are continually faced with a situation where counterparty disputes a contract for various reasons. In most cases the legal dispute seek to nullify the contract that may lead to significant losses or has the potential to cause the party to lose large sums of money. The potential damage to a bank could inadvertently wreck the bank's reputation or worse, wipe it out altogether. The risk that financial intermediaries face most frequently is contract enforceability. Most financial banks establish an ongoing link between their lending departments and their policy departments, in an effort to ensure appropriate, legally enforceable dealing.

- The importance of transfer risk

The importance of transfer risk in the banking industry is to ensure that the borrower is able to acquire foreign exchange through the legal foreign exchange markets. A country could place restrictions or impose a total ban on the transfer of foreign exchange. It is often required that an application for

foreign exchange be made via the Central bank (Shimpi, 2002 : 192). The Central Bank often determines the allocation of foreign exchange in accordance with their own economic priorities. Outcomes of business transactions in a sovereign country are largely affected by developments in the economic and political arenas. Political and economic developments exert influence on both a country's ability and willingness to meet its financial obligations and on the ability of businesses operating within its borders to meet their commitments. It then becomes essential to identify events that could have adverse consequences and to design safeguards to prevent and / or minimise the damage caused by transfer risk by putting proper checks and balances in place.

- The function of supervisory consideration

The ultimate goal of a control system is to maximize safeguarding of assets and capital by minimizing the exposures that have the potential to unexpectedly deplete bank resources (Lam, 2003 : 214). The specific components of an effective risk management and control system will vary considerably in sophistication based on the size and complexity of a bank's business operations. However, a well-developed risk management and control system generally should include a comprehensive risk management and control strategy. That would include policies and procedures to accomplish this strategy, risk measurement and control methodologies, compliance monitoring and reporting, and on-going assessment of the effectiveness of the strategies, policies and procedures (Bank of International Settlements (BIS), 2004 : 193).

- The responsibility of policies and procedures

Once risks have been identified and the general policies toward those risks have been established, banks can develop the detailed and specific guidelines to be used in the day-to-day and long-range operations of the business (Kloman, 2000 : 111). Policies and procedures to accomplish the governing body's guidance should include designated lines of authority in the risk management and control process and responsibility for compliance with risk exposure policies, effective internal accounting controls, and internal and

external audit. In the case of larger and more complex entities, it may be desirable to establish a centralized and autonomous risk management and control function. Of primary importance is that the risk management and control functions are staffed at an appropriate level of expertise and are independent of risk-generating activities.

- The function of risk measurement

Systems to measure risk must include a methodology that encompasses all identified risks in terms of the bank's positions, markets, currencies and counterparties (Shimpi, 2002 : 93). Value-at-risk ("VAR") and other mathematical models should be validated frequently, including the assumptions going into the models, and subjected to continued back testing of the data generated. This methodology should include both sensitivity analysis and stress testing. As an adjunct to a stress testing system, a contingency plan to be followed in adverse circumstances and worst-case scenarios should be developed (Vaughan and Vaughan, 2001a : 32).

- The essence of oversight and control

While the best method of achieving supervisory goals will depend on the legal, political, and regulatory environments in a given jurisdiction, the following are suggestions to supervisors concerning oversight of the risk management and control process. Supervisors could promulgate regulations requiring the establishment of specified risk management and controls at regulated entities and require periodic reports and examinations of compliance with the regulations. The advantage to supervisors is the ability to directly administer major aspects of the oversight of the risk management and control function. However, this approach may be complicated by legal, jurisdictional and political considerations. Supervisors could consider a tiering of capital requirements based on the level and sophistication of risk management and controls. This has the advantage of relating the level of capital to the level of capital protection procedures in place. However, universal standards of controls are not practical and the determination of the sufficiency of controls and their actual execution in practice is judgmental and time-consuming to assess (Global Energy Business, 2001 : 98).

## 2.8 RISK MANAGEMENT PROCESSES IN THE BANKING INDUSTRY

It used to be thought that operational risk could not be easily measured since it covered various risks such as transaction processing errors and omissions including system failure, theft and fraud, rogue trade, lawsuits, and loss or damage to assets. It was also regarded that the meaning and implication of allocation of economic capital to operational risk had not been clearly understood yet in the banking industry. Bank of International Settlements proposed to develop an explicit capital charge for other risks including operational risk. Since then, more and more global financial institutions are challenged to measure operational risk. However, it should not be overseen that they have more incentive-compatible way. Given these situations, most of South African and international financial institutions are now focusing on the measurement and management of operational risk. Having been put in place market and credit risk measurement systems, their attention is directed towards having a consistent basis of operational risk measurement with market and credit risk measurement (Regester and Larkin, 2005 : 192).

GARP (2003 : 36) proposes that the risk management process should incorporate the following elements: The Elements of the Risk Management Process and their Principles:

- Risk Assessment  
Identify and value the organization's total assets and resources. Identify major exposures to loss. Evaluate and communicate current and potential risk.
- Risk Control  
Support proactive risk and loss control program. Provide maximum incentive for participation in risk control program. Monitor effectiveness of risk control activities.
- Risk Financing  
Finance risk, considering all available financial resources. Maintain appropriate catastrophe protection. Allocate risk financing costs among operating units on an equitable, understood, and acceptable basis.
- Administration

Create and sustain management commitment to risk management. Adopt a clearly defined risk management structure. Develop clearly targeted annual objectives. Maintain sound communications with all affected levels of management.

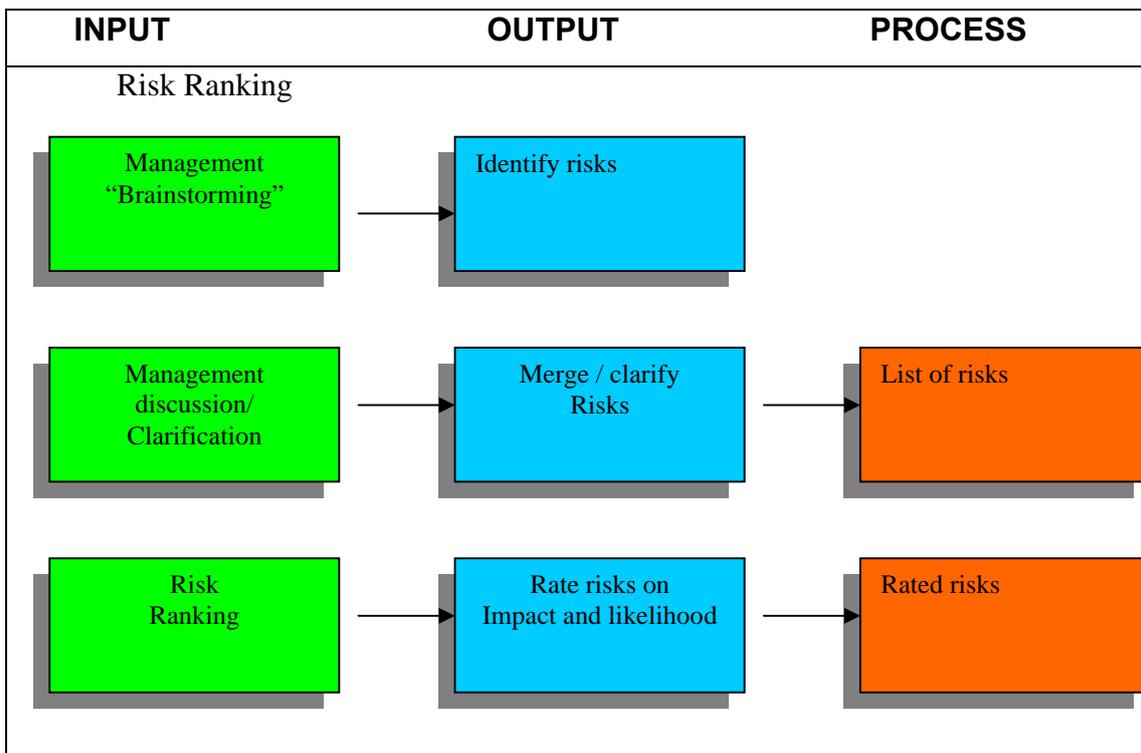
These principles can serve as the framework of a full review of the risk management process within any financial institution. They can be a benchmark for strategies and tools employed by other successful managers. They are certainly not the final answer, but, as they are based on over ten years of practical experience, they can be an important building block for a successful risk management program (Pinchot, 2000 : 14).

Chibayambuya (2005 : 291) proposes that the following risk assessment process should be followed:

- Input which consists of brainstorming, management discussion / clarification and risk ranking.
- Output which consists of identification of risks, merging / clarification of risks and rating of risks on their impact and likelihood.
- Process which consists of listing and rating of various risk in order of their severity. The whole process is depicted in Exhibit 2: 4.

**EXHIBIT: 2 : 4 THE RISK ASSESSMENT PROCESS**

The approach can be summarised as follows:



Source: Chibayambuya (2005 : 291)

In order to rank the identified risks, each person will be asked to vote on each risk with respect to:

- Likelihood of an adverse event

Likelihood is the probability that an adverse event, which could cause materialisation of the risk, may occur (Chibayambuya, 2005 : 163). Rated on a scale of 1 to 10: One (1) indicates that the adverse event will not occur. Two (2) indicates that although the probability of an adverse event happening is 10%, with proper risk management it is highly unlikely to happen. Three (3) indicates that although the probability of an adverse event happening is 20%, it is unlikely to happen. Four to six with a probability of 40% to 60% is where the bank starts worrying about loosing money. Seven (7) to ten (10) with a probability of 70% to 100% is where the bank must put stringent risk controls and monitor the situation continuously. Regester and Larkin (2005 : 292) concurs and furthermore propose that the bank should monitor the cost of risk management. Where the cost of risk management exceeds the benefit thereto is the point where pulling out of deal of hedging of the exposure can be considered. This is illustrated in Exhibit 2: 5.

#### EXHIBIT: 2 : 5 LIKELYHOOD OF AN ADVERSE EVENT

| <b><u>Ranking</u></b> | <b><u>Probability</u></b> | <b><u>Description</u></b>                          |
|-----------------------|---------------------------|--|
| 1                     | 0%                        | Adverse event will not occur                       |
| 2                     | 10%                       | Highly unlikely that adverse event will occur      |
| 3                     | 20%                       | Unlikely that adverse event will occur             |
| 4                     | 40%                       | More likely that adverse event will occur than not |
| 5                     | 50%                       |  |
| 6                     | 60%                       |  |
| 7                     | 70%                       | Highly likely that adverse event will occur        |
| 8                     | 80%                       |  |
| 9                     | 90%                       |  |
| 10                    | 100%                      | Adverse event will definitely occur                |

Source: Chibayambuya (2005 : 163)

- Impact

Impact is the potential loss to the business should any of the risks materialise (Price, 2000 : 299-330). Impact can be measured on a scale of 1 to 10 as illustrated in Exhibit 2 : 6: However, the amount per incident will depend on the size of the bank. For the purpose of Exhibit 2 : 6, this is for a small bank. For large banks, the impact per incident can go up to billions of rands.

**EXHIBIT: 2 : 6 IMPACT OF A LOSS**

| <u>Ranking</u> | <u>Impact per incident</u> |
|----------------|----------------------------|
| 1              | R1                         |
| 2              | R1m                        |
| 3              | R5m                        |
| 4              | R10m                       |
| 5              | R20m                       |
| 6              | R30m                       |
| 7              | R50m                       |
| 8              | R75m                       |
| 9              | R100m                      |
| 10             | >Rm200m                    |

**Source: Adapted from Price (2000 : 299-330).**

Hereford (2004 : 51) agrees that the banking industry has increased its awareness of risk management practices as a result of high profile failures abroad, advances in technology and developments in the regulatory process. He believes that there has been an increased emphasis on the quality of internal management systems as a key defence against large trading losses such as those experienced at Barings, Daiwa, Sumitomo and National Westminster. Advances in technology have enabled institutions to develop more sophisticated methodologies / solutions for monitoring and controlling risk. Regulatory developments have contributed by recognising the more rigorous risk management methodology contained in banks' internal models for the purpose of setting market risk capital standards.

With the shift in focus to risk management, there has been ever increasing attention devoted to the quantitative elements underlying trading products and risk management methodologies (Rogers, 2000 : 32-82). Recent research however, steps away from the mathematics and looks at the qualitative framework surrounding the quantitative analysis. It analyses at a practical level the issues involved in risk management across a bank. It highlights the increasing emphasis on risk management systems, methodologies and practices by institutions and regulators, as will be seen in section 2.8.1.

### **2.8.1 Systems and technology as part of risk management process**

In a typical dealing room there are a range of different systems across the various markets/products (for example, foreign exchange, interest rates, commodities, equities and options) (Sutin, 2001 : 61). Traders have access to front end dealing systems with the focus on pricing, position keeping and risk management. The back office and risk management functions have systems to generate confirmations and settlement, produce independent profit and loss and risk exposure reports and monitor limits. The final link in the chain is the accounting function, which is responsible for the general ledger system.

According to Shimpi (2002 : 164) one of the problems with disparate systems is aggregating data across the various desks in a meaningful and timely fashion. Consolidated profit and loss and risk management reports are generally produced on an end of day (or by early morning the following day) basis. There is a move however, towards further integrating systems with the ultimate goal of intraday (real time) risk monitoring.

Another problem arising from disparate systems is the process of reconciliation between front and back office systems (Timperio, 2000 : 116). The process of reconciliation is vital as it helps identify differences in exposures and profit and loss between front and back office systems. This is a key step in fraud protection but is generally a time consuming and manually intensive process. With advances in technology and the increasing emphasis on risk management, there is a move towards developing more sophisticated systems. The proliferation of market risk software packages has meant that even the smaller institutions now have access to relatively sophisticated

market risk management systems. One of the real constants in the industry is the continual upgrading of systems as markets and conditions change. An example of this is the use of technology such as object-oriented software that can be easily adapted to incorporate new products and risks.

Institutions often run into practical problems when implementing new systems across treasury operations. Implementation of a new system often takes significantly longer than expected because of unanticipated delays in testing, debugging, training and implementation. In some instances, the system might simply fail to live up to expectations and may have to be modified or scaled down to suit the trading environment. In an attempt to address system implementation problems, there has been a move towards having a dedicated project team to monitor and co-ordinate changes and ensure a smooth transition (Van Greuning and Bratanovic, 2000 : 425-453).

As well as the systems issues associated with new products, it is essential that staff across the entire institution understand the various risks associated with the introduction of a new product. This is where the new product approval process has an integral part to play. The process generally involves detailed documentation outlining the characteristics and risks associated with a new product and how these risks will be managed. Before the product can be traded, sign-off is generally required by the various areas across the bank including the front office, back office, accounting, financial control, risk control, internal audit and senior management (World Bank, 2004 : 191).

### **2.8.2 Systems control function as part of risk management process**

According to Shimpi (2001 : 163) front office trading roles have traditionally been regarded as more prestigious and highly remunerated than corresponding back office functions. Similarly, the capabilities of front office technology has often outstripped that of the back office. There has been an increased focus however, on back office processes, systems and personnel especially after the fallout surrounding the recent trading disasters including Barings, Daiwa and Sumitomo. These cases demonstrate that it is often operational risk and a breakdown of basic internal controls rather than misperceived risk management methodologies and systems that pose the greatest risk. There has been a shift towards re-structuring of control

functions and the development of an independent risk control unit. The primary function of this unit according to Cooper (2000 : 69-73) is to provide an objective review of the trading activities conducted by the front office. Under the market risk capital guidelines, banks that use internal models must have an independent risk control unit that is responsible for the design and implementation of the bank's risk management system (Regester and Larkin, 2005 : 102).

At a practical level, risk control units vary in the scope of functions performed and in their level of integrity and independence. The risk control unit's responsibilities range from treasury support functions to comprehensive units dedicated to monitoring the risk management process. An important requirement for a strong risk control unit is qualified personnel who can understand the risk management information being produced. Accordingly, there is a move towards employing ex-traders to head up the risk control functions (GARP, 2004 : 67). The size, focus and quality of the internal audit function vary dramatically. Audit approaches range from mechanistic ticking off of lists of questions to a more risk based focus. In the risk-based approach the timing of audits is linked to the perceived riskiness of the particular business environment. Areas identified as high risk, such as treasury, are subject to more frequent audits. The strength and effectiveness of an internal audit team is a function of the resources devoted to the area and how internal audit is perceived within the bank by senior executives, traders and risk management staff (Heller, 2003 : 106).

### **2.8.3 Segregation of duties as part of risk management process**

Crawford (2000 : 93) proposes that a clear segregation of duties is a fundamental principle of internal control that has long been recognised as the first line of protection against the risk of fraudulent or unauthorised activities. It is important that there are clearly defined, independent reporting lines for both the front office and the back office/risk control functions. The lack of a well-defined reporting structure creates a potential conflict of interest and the risk that some trading could be concealed, or incorrectly reported (Jurion, 2001 : 109).

## 2.8.4 Assets and liabilities as part of risk management process

Assets and liabilities are terms used in accounting and in the financial industry. Assets comprise of advances made for forward lending to customers and liabilities are debt owed to others e.g. savings and deposits. Asset and liability management (ALM) has become an everyday element of banks' planning and control. This is because ALM enables a general understanding of a bank's balance sheet performance and risks. ALM is the process followed by banks to manage risks, capital and allocated funds, and is the process Asset and Liability Committee (ALCO) conducts to control the balance sheet risks (Kloman, 2000 : 115). An ALCO model is a computerised model to manage and calculate risks. Most banks in South Africa do not have an ALCO model due to the fact that they are very expensive and their use requires expert skills. Therefore the ALM would be done on a consolidated basis at the parent company. The benefits for banks from having an ALCO model are the following: banks are able to quantify current and future balance sheet risks timorously, decision making abilities are enhanced, return on assets (ROA) and return on equity (ROE) increase after the implementation of an ALCO model. These advantages arise from a better understanding of liquidity and interest rate risk, which consequently generates better returns. These benefits also differ from bank to bank, depending on the risk and balance sheet information and the size of the bank (Davies, 2004b : 58).

- ALCO Model Components

According to McGuire (2000 : 92) the cost of an ALCO model has five key components: Initial Outlay. This includes the purchase price for software, hardware, installation and user training. Installation of an ALCO model. This includes the setting up of data download capabilities, designing a chart of accounts reflective of the bank's needs, and populating the chart of accounts with inputs and assumptions. User training on how to operate the model and produce results also forms part of the installation of a model. Implementation of an ALCO model. This requires identifying the model's applications, establishing routines for running the model to produce outputs, and integrating the ALCO model into the ALCO policies and procedures. Designing of reports to be used is also included under this component. Ongoing costs. These

relate to staff time spent to run the ALCO model, ALCO interpreting and applying the model outputs. There is also an ongoing cost of requiring specialised staff to maintain the complex model. The ease of running a model and its complexity depends on the balance sheet, management style, regulatory requirements and methodology followed. Software Maintenance Fees: This is usually a license fee payable annually. This fee ensures vendor support, software upgrades and other benefits. Usually a bank will sign a service level agreement with the vendor to ensure support and assistance (Caouette, 2001 : 16).

- ALCO Model Requirements

Requirements for an ALCO model according to McGuire (2000 : 82) are split into three main categories: General Requirements. Maturity mismatch for all balance sheet items. Amount of re-pricing for any interest rate change. Embedded options in the balance sheet that require special modelling treatments. Indeterminate behaviours in certain balance sheet categories. Off balance sheet positions. Model interface and user friendliness. Vendor support, conditions and references. Keystone Requirements: Fundamental model attributes define the characteristics that correlate with success. The data extract, download and input capabilities of the model. Necessary cash flow and re-pricing control. Accurate assignment of rates and re-pricing inputs. Using and running the model and producing reports should be intuitive and efficient. Advanced requirements: Economic value of equity. Transfer pricing and budgeting. Off balance sheet items.

Schoeb (2003 : 219) lists five tasks required of management when selecting asset and liability software as follows; Identify system requirements. Locate vendors. Compare models to requirements. Determine modifications that are necessary. Select the vendor and train the personnel. On its own, installing a model will not increase profitability and better ALCO management. When the model is implemented as part of the bank's ALCO process and policy, the model will enhance the bank's efficiency. The interpretation of the results generated by the model is crucial. ALCO is responsible for this interpretation of the information. The members of ALCO should thoroughly understand the capabilities, principles and shortcomings of the system, and take responsibility

for risk management. Management should also provide a dedicated resource for data collection and analysis of the information gathered.

- Importance of ALCO as a risk management tool

Political and economic changes in South Africa have allowed foreign banks to enter the South African financial market (Gelman, 2003 : 64). These changes offered the banks an opportunity to compete in new products and services in the South African market. For a foreign bank to be competitive in South Africa, it should identify the products in which it has an advantage and provide an excellent service to its clients. Managing the products of a bank is the responsibility of ALCO (IMF, 2003 : 217). These products consist of assets and liabilities that are recorded in a bank's accounting records, often referred to as a bank's book. ALCO identifies and measures interest rate risks inherent in the balance sheet and income statement. There is also a strong linkage to the off balance sheet as all the risks inherent in the on balance sheet could be applied to the off balance sheet. ALCO manages the balance sheet and formulates the financial strategy, profit plans and targets of the foreign bank. The treasurer in each bank is responsible for implementing and executing the decisions made by ALCO.

In summary, the role of risk management process in the banking industry comprises of methodology, measurement, assessment, using the right systems and technology. The control function and segregation of duties are key to the risk management process in the ever changing banking industry. However, risk management cannot be successful on its own; it needs corporate governance structure to enable it to function properly. Section 2.9 will elaborate on the relationship between risk management and corporate governance.

## **2.9 CORPORATE GOVERNANCE AND RISK MANAGEMENT**

The theory of corporate governance originated in the late nineteenth century with the formation of public limited liability companies. According to the King 1 (1994 : 1) this resulted in the concept and background of Corporate

Governance. According to King 2 (2002 : 105) the bank as a separate legal entity is: the owner of its assets, the employer of its work-force, party to any contracts, and entitled to sue and be sued. The bank as a legal persona acts through its agents. Corporate governance is an artificial being, invisible, intangible, and existing only in the contemplation of the law. Being the mere creature of the law, it possesses only those properties which the charter of its creation confers on it, either expressly or incidental to its existence in order to manage risk. Corporate governance is the soft side of risk management and must compliment risk management at all levels of the bank. The blending of risk management and corporate governance can only strengthen the banking industry (Robert, Monks and Minow, 2004 : 8).

### **2.9.1 Powers, rights and duties of directors**

The board of directors act as an agent of the bank (Jurion, 2002 : 94). Directors must have certain powers to enable them to perform their risk management functions. These powers are derived from: The Companies Act – binds the bank to any contract normally within the powers of a director, subject to any restriction in the articles; Common law; Memorandum of Association; Articles of Association – provide for general and specific powers; Shareholders' Resolutions (King 2, 2002 : 38). Directors should exercise their powers in a way that would best serve the interests of the bank. Robert, Monks and Minow (2004 : 60) concur that the directors should exercise their powers in the interest of the bank. Directors need rights to perform their functions. They have the right to: perform their duties; access bank records; manage risk and be remunerated, only if it is provided for in the bank's articles or in the agreements with the bank (Mboweni, 2002 : 35).

IMF (2004 : 60) advocate that directors should: provide information on the activities of the bank; select and appoint executives; ensure the adequacy of retirement and health care benefits and funding; the risk management of the bank and set the tone for ethics of the bank. A director, who has, directly or indirectly, an interest, which is material, or conflict with the interests of the bank, must disclose this interest to the board. King 2 (2002 : 120) concurs that director's loans or provision of security to directors are prohibited, except: with consent of all members; as funds to meet expenditure incurred on behalf of

the bank; in the ordinary course of business; as part of the bank's share incentive scheme; in respect of housing; as directors of a subsidiary. Internal Control according to the King 2 (2002 : 111) refers to: "whole system of controls, financial risk and otherwise"; effective and efficient operations; internal financial control; compliance with laws risk management and regulations.

Going concern status is viewed by Robert, Monks and Minow (2004 : 130) as the procedures to help determine appropriateness of going concern basis in drawing up the annual financial statements; where directors have doubt; they will need to explain the circumstances. Consider: profit and cash flow forecasts and budgets; borrowing requirements; liability management; contingent liabilities; products and markets; financial risk management; management and financial adaptability; support from group.

- Meetings of directors

Corporate governance and risk management can be effective only through meetings, i.e. business conducted at properly constituted meetings; powers determined in articles; written resolutions; no legal requirement to meet; good discipline; quarterly meetings recommended by King Report; quorum – directors can decide; location – no specific rule (King 2, 2002 : 49). Robert, Monks and Minow (2004 : 151) emphasise that the following procedures at meetings should be followed: chairman – no requirement but practical; matters to be dealt with requiring combined experience of Board; attendance – directors' duties. Minutes: actual decisions; minute book; chairman to sign; evidence of proceedings; directors' / auditors' rights to access. Take-overs and winding-up of a bank: role of Securities Regulation Panel; objectives of Securities Regulation Code: to ensure fair and equal treatment of all holders of relevant securities; orderly, structural framework for conducting affected transactions and risk management. The role of corporate governance and risk management in the management of banks cannot be separated. The blending of these two is evident in the structure of banks and the way meetings are conducted at every level of the decision making process (The Institute of Directors South Africa, 2005 : 27).

- Non executive directors

Non-executive directors should bring an independent judgement to bear on issues of strategy, risk management, performance, resources, key appointments, corporate governance and standards of conduct. Non-executive directors comprise the following categories: Those who are independent of management and do not have any benefits from the bank other than their fee. This is not intended to exclude persons being appointed a non-executive director who have a contractual nexus with the bank for reward or to prevent a non-executive director from acquiring shares in the bank by means independent from the bank (Canadian Banker, 2005 : 320-330). Former executive directors who are no longer employed on a full-time basis but nevertheless are capable of giving valuable input to the board arising from their past experience. Senior executive directors of majority listed subsidiaries and associates of the holding bank, who have no executive responsibilities in the holding bank. It should be the duty of the chair, with the support of the majority of the board members, to ensure that any non-executive director who is not contributing to the decisions of the board in terms of risk management should not be re-elected or should have their services terminated (Regester and Larkin, 2005 : 239) .

- Auditing

According to the Institute of Auditors South Africa (2005 : 24) banks should have an effective internal audit function that has the respect and co-operation of both the board of directors and management in terms of risk management as part of the overall corporate governance and risk management policy. The auditors should observe the highest level of business and professional ethics and, in particular, the independence of the auditor must not be impaired in any way. The board should establish an Audit Committee with written terms of reference concluded by the board. It should consist of at least two non-executive directors of whom one should act as chair. The head of internal audit partner and the financial director should attend the committee meetings. The head of internal audit and the external audit partner should have unrestricted access to the chair of the audit committee. The head of internal audit and the external audit partners should bring all significant findings

arising from audit activities and risk management to the attention of the audit committee and, if necessary, to the board (King 2, 2002 : 59).

- Code of ethics

According to the World Bank (2004 : 172) a bank should implement its Code of Ethics as part of the corporate governance and risk management of that corporation. A Code of Ethics should: Commit the corporation to the highest standards of behaviour; Be developed in such a way as to involve all its stakeholders to infuse its culture; Receive total commitment from the board and chief executive officer of the corporation; Be sufficiently detailed as to give a clear guide to the expected behaviour of all employees and risk management (King 2, (2002 : 46).

- Duty of the Board of Directors of a Bank

The Banks Act also requires the proper management of a bank by the board of directors of the bank. In Regulation 37, the Banks Act 1998 (1998) stipulates guidelines relating to the conduct of the directors of a bank. The guidelines are as follows: Every director of a bank shall acquire a basic knowledge and understanding of the conduct of the business of a bank, risk management and of the laws and customs that govern such institution. The director and executive officer of a bank shall perform his functions with diligence and care and with such degree of competence as can reasonably be expected from a person with his knowledge and experience. In the view that the primary source of funding is from the general public, it shall be the duty of each director or executive officer of a bank to ensure that risks that are of necessity to be taken by such bank in the conduct of its business are managed in a cautious manner. The conduct of the business of a bank entails the management of risks which may include the following risks: solvency risk: liquidity risk: credit risk: currency risk: market risk (position risk): interest rate risk: counterparty risk: technological risk: operational risk and other related risks (Ross, 2003 : 34-40).

According to Kingsley (1994 : 71) "The board of directors, however it is composed and however far removed from day to day operations it may be,

must be actively involved in determining the broad strategy of financial risk management, including the related internal control framework. Delegation of this role can only be considered an abrogation of responsibility. The fundamental role of a board is to maintain shareholder value, obliging it to consider financial risks as carefully as it considers the operational risks of a core business”.

“We don’t expect the Board members to be rocket scientists, but they do need to understand the bank’s basic risk exposure...” (Federal Reserve Bank, 2002 : 67).

### **2.9.2 Board participation in the decision making process**

Pound (2000 : 29) contends that the major issue in corporate governance and risk management is not actually power imbalance but rather failure in the corporate decision making process. The obsession with power in the corporate governance debate stems from a model of governance called managed corporation. In this model the board’s function is to hire top level managers, monitor them and fire them if they do not perform. Shareholder’s only role is to replace the board if the corporation does poorly and in fact they are generally treated as if they can not assess corporate policy themselves and hence must rely on managers and directors. Rogers (2000 : 32-82) talks about the difference between a managed bank and a governed bank. He further stresses that the board of a managed bank hires, monitors, and when necessary replaces the Chief executive of the bank. On the other side, the board of a governed bank fosters effective decisions and reverse failed policies. Exhibit 2 : 8 clearly sets out the difference between managed banks versus the governed bank. However, neither Rogers (2000 : 32-82) nor Pound (2000 : 120) gives the advantages and disadvantages of the managed and the governed bank.

A summary of the essential difference between the governed and the managed bank as presented by Pound (2000 : 171) are listed below.

## EXHIBIT: 2 : 7 THE MANAGED BANK VERSUS THE GOVERNED BANK

| <b>The managed Bank Versus the Governed Bank:<br/>Boardroom Paradigms and Practices</b>   |   |
|---|---|
| <b>The-Managed-Bank Paradigm</b>  | <b>The-Governed-Bank Paradigm</b>   |
| The board's role is to hire, monitor, and when necessary, replace management  | The board's role is to foster effective decisions and reverse failed policies                           |
| <b>Board Characteristics</b>  | <b>Board Characteristics</b>  |
| Power sufficient to control the CEO and the evaluation process  | Expertise sufficient to allow the board to add value to the decision-making process                     |
| Independence to ensure that the CEO is honestly evaluated and that directors are not comprised by conflicts or co-opted by management | Incentives to ensure that the board is committed to creating corporate value                            |
| Board procedures that allow outside directors to evaluate managers dispassionately and effectively                                    | Procedures that foster open debate and keep board members informed and attune to shareholders' concerns |
| <b>Policies</b>   | <b>Policies</b>   |
| Separate the CEO and the chair (or lead outside director)   | Requires areas of expertise that must be represented on the board, such as core industry and finance    |
| Board meetings without CEO present  | Minimum time commitment of 25 days  |
| Committee of independent directors to evaluate the CEO  | Large options packages for directors  |
| Independent financial and legal advisers to outside directors   | Designated critic to question new policy  |
| Explicit yardsticks for judging the CEO's performance   | Regular meetings with large shareholders  |
|   | Board members free to request information from any employee   |

### Adapted from Pound (2000 : 52)

Marcus (2000 : 111) stresses the need for the board to be actively involved in decision making, outlining how outside directors at Home Bank actually visit the bank branches. The value of these visits is that, by speaking to customers and staff, outside directors gain insight into the company and its environment thereby enabling them to make more informed decisions.

Bhide (1999 : 14) endorses the need for the board to actively participate in decision making, stating "the degree of closeness of manager shareholder relationships has a significant influence on the governance of companies. The basic nature of executive work calls for an intimate relationship; defused arms length shareholders cannot provide good oversight or council and often evoke mistrust and hostility."

Reinecke (2000 : 48) concurs with the above view and contends that often business failure stems from management decisions that whilst are well intentioned, are basically flawed. The crux of the matter is that these decisions are not rectified timorously due to the lack of effective challenging of management decisions. He states “There is mounting evidence to suggest that collaborative decision making involving management, the board of directors and shareholders greatly reduces the potential risk for failure”. The next section deals with the risk management culture of the financial institution, another soft issue of risk management.

## **2.10 RISK MANAGEMENT CULTURE IN THE BANKING INDUSTRY**

One of the objectives of this study is to investigate the risk management culture in the South African banking industry. To meet this objective the culture of the South African banking industry will be analysed. The determination of the culture of the South Africa banking industry is important in order to determine the risk management culture in the industry. According to Daft (2000 : 12) culture is a set of key values, beliefs, understandings, and norms that members of an organisation share. The concept of culture help managers understands the hidden and complex aspects of organisational life. Culture is a pattern of shared values and assumptions about how things are done within the organisation. Daft (2000 : 12) suggests that corporate culture should be put into two categories, the visible and the invisible. The visible culture is the culture that can be seen such as the dress code, the office layout, symbols, slogans, and ceremonies. The invisible culture is the culture of deeper values and shared understandings held by the organisation, such as the way things are done, the behaviour of people, and the unwritten rules.

The importance of analysing the environment and culture of the bank to establish whether the bank can implement risk management is key to this research. The general culture and risk management culture of the bank will be analysed in an attempt to establish guidelines to theoretically capture the facets of a risk management culture.

### **2.10.1 General principle underlying the culture of a bank**

Bank culture or the culture of the bank, as a concept has a fairly recent origin Schein (1999 : 93-99). Although the concepts of group norms and climate have been used for a long time, the concept of culture has been used only in the last decade.

Definitions on what the culture of the organisation is seem very consistent. Authors such as Nickels (1990 : 25-40); Thompson and Strickland (1987 : 237); Van Fleet (1988 : 274); Thompson (1990 : 11); and Daft (2000 : 123); agree that the culture of the organisation is the deeper level of basic assumptions and beliefs that are shared by the members of an organisations. Peters and Waterman (1982 : 13-15) emphasise that the best banks have strong cultures and found that the most successful banks include the following facets which relate to the culture: action-orientation, customer-orientation, autonomy, trust and development of employees, clearly espoused values, emphasise strengths of the bank, develop a simple bank structure, and emphasise quality of service The facets in the culture of a successful bank as discussed by Peters and Waterman (1982 : 13-15) include those facets, which relate to the norms and the nature of work. Van Fleet (1988 : 275) identifies three basic factors, which determine the culture of a bank. These factors are; the set of values held by top management, the history of the bank and top management's vision for the bank. The facets of culture will thus include these factors and consist of: Shared experiences, the common events that employees participate in, that become a part of their thinking. Shared managerial events- the manager's participation with employees will indicate the kind of events that will influence the culture. Shared norms, generally accepted ways of doing business will be viewed as the norm of the bank. Shared actions day-to-day behaviours that most people perform will influence the culture of the bank.

The facets of the culture as discussed by O'Toole (1989 : 21) are comprehensive. Besides emphasising the historical facts of the bank, O'Toole (1989 : 21) points out the norms of the bank, the nature of the work and external affairs as the facets of culture. The norms of the bank include those aspects relating to behaviour of the management and employees in the bank.

The nature of work relates to the working conditions and circumstances in the bank whereas the external affairs relate to the relationship of the bank and outside people or banks. In comparing components of the culture suggested by Van Fleet (1988 : 276) and O'Tool (1989 : 21), the facets of culture of the bank should include the historical facts, norms, nature of work and external affairs. Thompson (1990 : 97) on the other hand emphasised the following facets of culture of the bank: employment prospects, promotion prospects, career patterns, control systems, decision making, focus on responsibility, focus on risk management, focus on deal making and focus on human resources.

Thompson (1990 : 97) thus focuses on the nature of work rather than on the norms of the bank like Van Fleet (1988 : 276) did in describing the culture of the bank. Schein (1999 : 93-99) however, warns about the dangers of establishing the content of culture and suggests three methods to establish the facets of culture: Firstly, identify a set of South African external and internal tasks that all employees face in the bank. Secondly, establish the universal issues faced by all societies. However, be careful to not over-generalise these issues facing society. Lastly, determine the dimensions, which are the most pertinent in the history of the bank. The three methods to establish the components of the culture as suggested by Schein (1999 : 93-99) indicate that the culture of a bank should consist of two components namely, norms and history of the bank.

The historical facts of the bank will differ from bank to bank. To establish the culture of the banks in general, the norms, nature of work and external affairs of the culture of the bank should be investigated. In the above paragraph the various facets included in the culture of the bank were emphasised. In the following paragraph the facets of risk management culture will be analysed.

### **2.10.2 The factors of risk management culture in a bank**

In the previous paragraph, it was highlighted that the facets, norms, nature of work and external affairs should be investigated to establish the culture of the bank. In this paragraph the norms, nature of work and external affairs for the risk management culture will be determined. To this end the risk management

culture as discussed by Haskins and Williams (1987 : 53); Hisrich (1990 : 217); Kuratko and Williams (1987 : 53); and the Foresight Risk Management (2001 : 12) will be analysed. The intention is to establish a model on the risk management culture in the banking industry. Haskins and Williams (1987 : 53) emphasised that the risk management culture should include the following:

Mutual trust and confidence - Employees should not be afraid of being rejected. They should, and do trust one another. Communication is open and direct: Support for ideas - Employees are encouraged to suggest new ideas. When put forward, such ideas thoughtfully considered. Failure and/or non-acceptance of new ideas are seen as part of the learning process. Challenge, dynamism and motivation - The bank and its operations are seen as stimulating, engaging and meaningful and is characterised by action and dynamism. Tension and pluralism - Employees have a mix of views and ideas. However, issues are debated, as are conflicts and differences on opinions. Freedom of the bank - Employees are given opportunities to make their own decisions and to be responsible for their implementations, to work independently, to make contacts and to discuss problems. Freedom of the job - Employees are given the opportunity to determine their own rhythm, to vary their working methods, to make breaks at their own discretion and to consider new ideas.

Implicit in the risk management culture as discussed by Haskins and Williams (1987 : 53) is a sense of newness, of creativity and change. The bank with a risk management culture is one in which change is accepted, in which employees are used to change and secure it. Challenge and crises must be accepted as inevitable and flexibility is of great importance. The Foresight Risk Management (2004 :16) suggests that a risk management culture would include: Hindsight – Employee should think in terms of risk management past, present and future; Compliance – Employee should think in terms of law and other regulations; Advice – Employee can count on advice from superiors; Vision – Clear objectives are established; Trust – There is trust among employees and management; Closeness – Employees and management work closely together; Getting it done – Tasks and activities are carried out promptly; Business is fun – Employees and management enjoy their work. Analysing the above elements of the risk management culture suggested by the Foresight Risk Management Approach (2004 : 20), the

creation of trust and hindsight among employees is important.

Regester and Larkin (2005 : 217) compares the traditional corporate culture with the risk management culture and argues that the traditional corporate culture does not vary greatly from a bureaucratic inflexible system. The traditional corporate culture includes the following (Hisrich 1990 : 217): Employees follow the instructions given. Employees do not make any mistakes. Employees do not fail. Employees do not take any initiative but wait for instructions, and Employees concentrate on their field of speciality. The above elements of the traditional corporate culture will be of a restrictive nature. The traditional corporate culture is not conducive to creativity, flexibility, independence and risk taking (characteristics of risk managers). The elements of risk management culture are: (Regester and Larkin (2005 : 218): management and employees develop visions and goals. Management and employees develop action plans. Employees take action and are rewarded. Employees suggest ideas and implement them. Employees accept responsibility. Employees are proactive in their management styles. Employees assess all the options before choosing the best option.

Regester and Larkin (2005 : 178) argues that the risk management culture should include: Tenacity, the art of scrutinising things. Questioning, asking intelligent questions. Seeing the big picture, looking at the problem as a whole, understanding the business. Proactive management, understanding financial modelling, understanding strategy, understanding technology, complex financial instruments, changes in bank structures resulting from down-sizing, and re-engineering, more and larger mergers, higher customer expectations for products and services, and deregulation of key industries. The elements to be included in the risk management culture as suggested by Regester and Larkin (2005 : 176) thus emphasises feedback and the elements necessary to ensure proper feedback. It was emphasised that the culture of the bank consists of norms, the nature of work as well as external affairs.

In summary the culture of the bank in general was discussed. It was proved that culture is the deeper level of basic assumptions and beliefs shared by the members of the bank. Various facets were discussed in order to establish

what the risk management culture should look like. From the analysis of the theoretical discussions on these facets, it was established that the risk management culture should include three aspects: norms, nature of work and external affairs among other things.

## 2.11 CONCLUSION

This chapter reviewed the literature and identified the following:

**Firstly**, the definition of risk management was explored, and defined. The history of risk management overseas and locally was briefly explained.

**Secondly**, the nature and different categories of risks including strategic risks and operational risks were defined and explained.

**Thirdly**, the various risk management processes in the banking industry were investigated.

**Fourthly** corporate governance and its relationship to risk management was investigated and explored.

**Fifthly** the risk management culture in the banking industry was investigated and explored in detail.

The following chapter deals with holistic risk management. The emphasis will be on the application of holistic risk management in the South African banking industry. Various models will be explored, criticised and debated. The application of holistic risk management in the developed countries will also be explored and investigated. A holistic risk management framework will be developed.