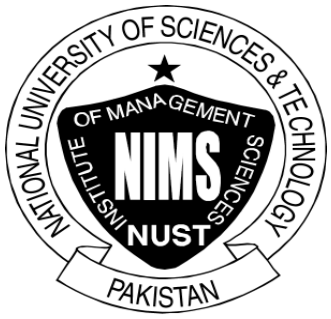


(NIMS)
NUST Institute of Management Sciences

MBA 2K2, FINAL SEMESTER
INDIVIDUAL THESIS PROJECT

RISK ANALYSIS AND MANAGEMENT IN PAKISTAN'S BANKING SECTOR…TO WHAT EXTENT

SUBMITTED BY
ASMA BILAL ROLL # 053
REGISTRATION # 2003-NUST-MBA-109

NUST Institute of Management Sciences, Tamiz ud din Road, Rawalpindi Cantt.
Phone # 051-9271580

Acknowledgements

First of all I would like to thank Almighty Allah, who gave me the courage and ability to complete this task.

I would also like to thank Mrs. Asfia Obaid, my thesis supervisor, who guided me at each stage during my thesis work from start to completion and helped me in every way possible to develop in depth knowledge and understanding of this research project. I thank her for her continuous encouragement and support.

I would also like to express gratitude to Mr. Sabir Hussain Jafri, one on my thesis committee members, in putting his time and energy in guiding me. Lastly I would like to thank my family for their support and affection and helping me in successfully completing this research study. Without their backing and encouragement this project would not have been possible.

ABSTRACT

Driven by an environment of constant change and intense competition, the banking sector is increasingly focusing on ensuring that it has a robust and dynamic risk measurement and management practice in place. Bank managers recognize that effective risk management allows banks greater control in achieving an appropriate balance between risks they wish to accept and risks they wish to mitigate.

The banking industry itself has worked both collaboratively and individually to develop the essential elements of an effective risk measurement and management program. Banking supervision, based on the ongoing analytical review of banks, serves the public good as one of the key factors in maintaining stability and confidence in the financial system. Banks are subjected to a wide array of risks in the course of their operations. In general, banking risks fall into four categories: financial, operational, business, and event risks. Bank appraisal in a competitive and volatile market environment is a complex process. In addition to effective management and supervision, another very important factor necessary to ensure the safety of banking institutions includes proper disclosure requirements. This will form as the basis of my thesis study- using Askari bank as an example to represent Pakistan's banking industry- I will carry out a qualitative and quantitative analysis, using the framework set by the World Bank, and find out the short comings in out country's banking sector. This will eventually lead to the fact that a proper risk measurement and management in this industry cannot be carried out in the true sense, due to lack to disclosure requirements by the State Bank of Pakistan (SBP). Users of financial statements need information to assist them in evaluating a bank's financial position and performance in making economic decisions. Disclosure of financial statements should therefore be sufficiently comprehensive to meet the needs of other users within the constraints of what can reasonably be required.

TABLE OF CONTENTS

CHAPTER 1: OVERVIEW

1.1 Significance of the Project study:

Risk analysis and management have become a crucial aspect for the baking sector and since the procedures and policies are still in the initial stages in the Pakistani banking sector, this study can contribute to the little existing understanding and research currently done and hence will provide productive observations for understanding risk management practices in organizations and help them better safeguard themselves from various risks in the environment.

1.2 Research Questions:

Risk management has become a concept that the banking sector is well aware of but at the same time not being properly followed. Because of its growing importance, this research is intended to study:

- What are the different risks that banks are exposed to in their operations?
- Are banks adequately analyzing risks?
- And if so, what methods are they using for risk management?
- Is there a proper framework available for the banks to follow?
- Is there adequate disclosure by the banks in order for us to analyze the extent to which they are analyzing and managing risk?

1.3 Research Objective:

- The thesis is intended to examine the process of risk analysis and management in the Pakistani Banking sector and see to what extent these two processes are being carried out efficiently so ensured that banks are in the true sense protecting them selves against risk management
- The study would be focused on providing guidelines for the banking sector in terms of risk analysis and management in this rapidly innovative environment

- The research study aims at seeing the efforts put n my the State Bank of Pakistan, the guidelines that it has provided to the banking sector and to what extent these guidelines are adequate and sufficient enough to ensure efficient risk management
- The study will also enhance my professional skills in the field of risk management
- Lastly, this study will contribute to the scarce research in the area of risk management and help banks to better analyze all the various risks that they are exposed to

1.4 Sources of Data:

The main sources of data for the study comprised of the following:

- Audited annual reports for the year 1999-2003
- Economic publications
- Press cuttings
- The framework provided by the World Bank in the book "Analyzing Banking Risk"
- World Wide Web
- Course books

CHAPTER 2: INTRODUCTION TO RISK MANAGEMENT

2.1 Defining Risk

For the purposes of this report, risk is defined as the potential for loss, either directly through loss of earnings or capital or indirectly through the imposition of constraints on an organization's ability to meet its business objectives. Such constraints pose a risk by limiting a bank's ability to conduct its ongoing business or to take advantage of opportunities to enhance its business.

The assessment of risk exposures can range from a simple high-low matrix to a complex statistical analysis that quantitatively estimates the probability of a loss occurring and the probable amount of the loss. Regardless of the sophistication of the measure, banks often distinguish between expected and unexpected losses. Expected losses are those that the bank knows with reasonable certainty will occur *(e.g.*, the expected default rate of a credit card portfolio) and are typically reserved for in some manner. Unexpected losses are those associated with unforeseen events *(e.g.*, losses resulting from the Asian financial crisis); banks rely on capital as a cushion to absorb unexpected losses.

2.2 Risk Management

Banks are in the business of taking risk and getting compensated for it. Risk management is the process by which a bank identifies, measures, monitors and controls its risk exposures to ensure that:

- Risks are understood
- Risks are within tolerances established by the Board of Directors
- Risk-taking decisions are consistent with strategic business objectives
- Risk-taking decisions are explicit and clear
- The expected return compensates for the risk taken
- Capital allocation is consistent with risk exposures
- The bank's performance incentives are aligned with risk tolerances

Risk management encompasses all of the activities of the bank that affect its risk profile. These include decisions and actions to avoid, mitigate, transfer, insure against, put limits on or

explicitly take risk. Risk management occurs "on the line" where the risk is created, as well as in independent risk review and control functions, at the highest levels of management, and at the Board level.

The organizational structure through which risk management activities are con-ducted will depend on the culture of the organization, the size and complexity of the business operations in question, the type of risk being taken and the materiality of possible adverse outcomes. Thus, the application of risk management techniques differs from bank to bank.

Risk management generally does not have as an objective the elimination of risk. Many of the risks a bank assumes are inherent to the business of banking and an essential part of the intermediation function that banks perform, such as credit risk. For these, a bank wants to optimize the risk/return tradeoff by either maximizing return for a given level of risk or minimizing the risk required for a desired level of return. Other risks are often a cost of doing business, such as compliance risks, and are typically risks that a bank wants or needs to reduce to some threshold level in an economical manner. The goal of risk management is to enhance shareholder value while addressing the objectives of a firm's many stakeholders, including:

- Customers
- Management
- Employees
- Boards and shareholders
- Supervisors
- Rating agencies, investors, creditors and counterparties

Where the economic implications of decisions differ from the accounting implications, risk management, broadly defined, should be fully aware of both. In fact, it should seek to avoid, to the greatest extent possible, having accounting treatment drive economic decisions.

To be effective, concern for and tone for risk management must start at the top. It must become a part of the way the organization does business and not be viewed as an independent analysis. Proper risk assessment, analysis and management will not take place unless it woven into strategic planning, budgeting process, operating plans, and business decisions.

2.3 Current Themes in Risk Management

While it has always been a core competency of successful financial institutions, effective risk management has become an increasing challenging for banks as a result of various factors. These include changes in the business environment; the related need for more integrated and comprehensive approaches to managing risk; and the growing use of, and reliance on, sophisticated measurement methodologies.

2.3.1 Changing Environment

2.3.1.1 Expanding business arenas

In the wake of deregulation, banking organizations have more choices regarding the businesses in which they engage. In the past, the business of banking basically involved taking deposits and making loans. Now banking organizations provide a much broader and deeper range of products and services, including underwriting and dealing in securities, managing and selling shares in mutual funds, and offering various types of insurance.

At the same time, banks face increasing competition from nonbank firms (including financial and technology) that provide direct substitutes for bank products and services, often from a relatively advantageous position in terms of regulatory and supervisory burden.

With a wider range of activities and competition come new types of risk. This gives rise to the emerging need to manage multiple risk types within an integrated, consistent, and comprehensive framework. It must be recognized, however, that new activities do not necessarily increase risk. The challenge is to properly manage and control whatever degree of risk is involved.

2.3.1.2 Globalization

As financial markets have become globalized, providing banks with new opportunities and competition, banks have become vulnerable to economic problems and other dislocations in countries worldwide. Because of the speed with which information is transmitted, shocks to a financial system anywhere in the world may have both a direct and indirect impact on banks. Economic and marketplace developments and other exogenous events can impact a bank's risk profile even if its own activities or exposures have not changed. Recent international market dislocations, for instance, have hurt many banking organizations directly and through their

counterparties, and have generally increased volatility in a wide range of markets so as to affect the industry more broadly. These external events have prompted risk managers (broadly defined) to heighten their focus on the interaction of various types of risk, the behavior of risk exposures under stress scenarios and the full scope of risk management activities, including the measurement and monitoring of risk.

2.3.1.3 New products

Variations of existing products and additions of new ones often require a new look at how such changes might affect the various dimensions of risk, including operational and compliance risk, and how the resulting new risk profile is to be managed. To address these issues, formalized approval processes for new products have become more common, often bringing together company wide input from, for instance, the business line, independent risk management, finance and control, operations, compliance, legal, and even internal audit (to an extent consistent with its independence). However, risk management activities themselves can expose banks to risk. For example, the more burden-some the new-product-approval process, the greater the risk of lost opportunities from being late to market in offering new products, when timing can mean the difference between success and failure in a dynamic and competitive marketplace.

2.3.1.4 Streamlining

Constant pressure to find efficiencies in banking necessarily affects risk and risk management. Cost cutting, streamlining, process reengineering, rightsizing—whatever it is called—has eliminated management layers in many organizations. The obvious direct benefit is the reduction in costs for which these initiatives were undertaken. However, eliminating institutional memory, informal communication networks and traditional escalation mechanisms can reduce the effectiveness of an institution's informal risk management frame-work, and can create the need for more formal approaches. In addition, the redesigned compensation frameworks that may be part of these restructurings can inadvertently change incentive structures, which could affect risk taking by management and staff. Cost cutting initiatives often focus particularly closely on functions that do not produce revenue. But in an

attempt to trim fat, there can be a dangerous tendency to cut into risk management and control muscle.

Banks must carefully assess tradeoffs between cost cutting and the increased need for risk management resources.

2.3.1.5 Regulatory developments

Ongoing changes, or at least the consideration thereof, in regulation and legislation subject the banks to the risk of new laws, new prudential or conduct-of-business rules, and new regulatory expectations that can increase the premium on legal/regulatory risk management. The result is an increase in the cost and risks associated with rising regulatory expectations.

2.3.1.6 Technology

Improvements in technology increase the volume and speed with which information is exchanged and transactions are conducted, but do not always improve an institution's risk profile. Large fundings and amounts of information can move so rapidly that market problems ostensibly remote from a bank can be transmitted quickly to it through other markets. The consequences of a large mistake, fraud or other operational problem can take hold well before the underlying problem can be identified and addressed. While mistakes and fraud are not new, the speed and volume of such breakdowns are on the rise.

These same technological advances have enabled the development of sophisticated risk measurement techniques. However, these techniques themselves are so complex that often only a handful of bank officers or employees may truly understand their implications and limitations. The desire to avoid reliance on "black box" measurement tools, and yet remain current with theoretical advances in finance and computing, has further complicated the role of risk management.

In addition, competing demands on scarce technology resources can constrain a bank's ability to implement new technology solutions to improve risk management. Similarly, staffing risk management functions with qualified people is becoming difficult as the scope of risk management expands and the tools become more sophisticated.

2.3.1.7 Business transformation

Mergers and acquisitions create issues for risk management. Leadership and other organizational changes, operational integration matters, cultural differences, new activities, and new geographies can all strain risk management systems. In addition, new distribution channels raise new risk management issues. For example, privacy and security concerns are complicated by electronic delivery systems.

This new environment raises a fundamental challenge for banks: How to stay close to the market and be responsive to customers while understanding evolving risk exposures and keeping them within an acceptable level both for individual business lines and for the organization.

2.3.2 Comprehensive Risk Management Focus

In response to such challenges, and enabled by new tools and methodologies, risk management at banks has expanded in focus from individual transaction risk *(e.g*., loans), to risk of a portfolio or process *(e.g*., a loan portfolio), to man-aging all risks on a comprehensive basis *(e.g*., the interaction of credit and market risk). As risk management moves toward a more comprehensive approach, resource and capital allocation should become more efficient. Factors that mitigate or exacerbate aggregate risks can be taken into account, and capital allocations (as well as performance measurements) can be made on a more accurate basis firm wide. Further, the more comprehensive and precise a firm's understanding of its risk tolerances and profile is, the more agile the firm will be in responding competitively to opportunities with the right near- and long-term risk/return characteristics. Conversely, the firm will be more able to be skeptical or dismissive of opportunities that do not appear to meet those standards.

Amid a growing recognition that effective risk management is a strategic necessity and must be a core competency, there is a trend toward more proactive, comprehensive, formal and consistent risk management approaches. Banks are looking at their risks prospectively as well as retrospectively, both attempting to prepare in a structured and disciplined way for what could happen, and analyzing what has happened. As participants become aware of new issues and enabled by new technology, better information, and new techniques for assessing, measuring, monitoring and controlling individual risks and interactions among them, the banking industry is continually improving concepts and methodologies for risk management.

2.3.3 Risk Measurement

Risk categories and dimensions are generally well identified by banks as well as the regulatory agencies. While regulatory definitions for the various categories differ somewhat, there is general agreement that banks face strategic, credit, market, liquidity, operational, compliance/legal/regulatory and reputation risk.

The measurement of, and therefore the ability to monitor, these risks is evolving, with each risk management method in a different stage of evolution. Models, systematic ways of looking for patterns of behavior, are gaining acceptance for risk measurement. Models can be either qualitative or quantitative, and can range from the simple—such as an assumption built into a business plan that demand for deposits increases if interest rates rise—to the complex—such as value at risk (VAR) models, described below.

To the extent possible, banks are focusing on more explicit management of risks, while moving toward quantitative risk measures and attempting to develop measurement techniques for not yet quantified risks, such as operational risk. Yet technology does not manage; people do. While it can support effective decision-making, better measurement does not obviate the need for well-informed, qualitative judgment.

The most advanced measurement and modeling techniques are employed in the quantification of market risk. VAR models, an example of accepted and widely used market risk management tool, follow the concept that reasonable expectations of loss can be deduced by looking at market rates, prices, observed volatility and correlations. Such models enable a consistent approach to risk measurement and provide the ability to set risk limits and capital allocations based on the value at risk. They also allow backtesting to evaluate the extent to which what was predicted by the model actually occurred in the real world.

Any risk measurement framework, however, is only as good as its assumptions, the rigor and robustness of its analytical methodologies, the controls surrounding data inputs, and its appropriate application. Those who rely on models must understand these issues in order to use model outputs effectively to support decision-making; that is, they must understand the inherent imprecision in measurement methodologies, or model risk.

For instance, the assumption inherent in certain modeling methods that possible outcomes are "normally" distributed may be a significant risk in some cases. Incomplete, untimely, or inaccurate data may also render the model's output unreliable. In addition, most

models employed by banks focus on only one risk dimension, and do not fully address the interrelationships among risks. Many models focus on normal market events and are less useful in addressing unlikely events. Because of inherent limitations in most models, leading edge banks also stress test their portfolios using extreme, catastrophic situations that challenge key assumptions underlying the models, such as correlation assumptions.

Not all risks can be readily quantified in terms of their impact on earnings or capital. For these risks, simpler, more qualitative means should be used to assess risk exposure. For instance, operational risk exposure in a particular area may be in part a function of the extent of staff training, experience and turnover. Changes in these variables can suggest rising or falling risk, even if the potential loss implications cannot be quantified with an adequate degree of confidence.

The increasing sophistication of risk measurement techniques imposes an incremental burden. To ensure that management can understand true risk exposures, along with their potential choices and costs, risk information must be communicated clearly but without oversimplification.

2.4 Evolving Regulatory Environment Regarding Risk Management

All bank regulators' interest in banks' risk management stems from the view that the future prospects of individual banking institutions in a highly dynamic and competitive environment (and ultimately the integrity of the banking system as a whole) rest largely on the ability of banks to manage and control risk and operate safely and soundly. In their evaluations of the relative strength of banks, regulators are focusing on relevant management processes more than on historical reported financial performance. At the same time, the regulators are raising their expectations regarding the level of ongoing, self-directed risk management assessments and improvement initiatives that banks should be undertaking. Regulators have begun limiting the scope of their official on-site supervision, provided a bank can demonstrate adequate control over its lower-risk-pro-file areas, to the businesses or functions that drive its risk exposure. This has created a strong incentive for industry participants to be proactive in continually assessing and strengthening, as necessary, their approaches to risk management (broadly defined) in order to operate safely and soundly, and avoid new and unneeded regulatory burdens.

Affecting the evolving regulatory environment are three major developments: the emphasis on supervision by risk; a growing focus on the quality of internal risk measurement and management process models; and the linkage of risk to capital.

2.4.1 Supervision by Risk

Over the past several years, the supervisory approach to assessing bank safety and soundness has been moving from a "bottom-up," transactional approach to a supervision-by-risk approach that is more "top-down." Regulators have focused on ensuring that a bank's risk management processes are appropriate for the type and level of risk taken and that the bank has an adequate capital and reserve cushion to absorb losses.

2.4.2 Internal Models Approach

One result of this focus is the evolving "internal models" approach by the bank supervisory agencies. For instance, global dealer banks are permitted to use their internal models to measure capital adequacy covering market risks; interest rate risk management for all banks is evaluated on the basis of whether the bank's internal framework and methodology for measuring and managing such risk is appropriate for the nature and extent of its exposures to changes in rates; and examiners may employ statistical sampling techniques for evaluating loan portfolio quality rather than a more extensive review for cases in which they have sufficient confidence in the integrity of management's internal loan rating and review processes.

Under this approach, if a bank can make its supervisors comfortable with its approaches to risk management, regulators will not impose their own risk management models on the bank. With the underlying assumption that a bank's incentive is to manage risk well for business purposes, regulators can be expected to rely increasingly on the outputs of a bank's own models to assess risk exposures, as long as those models are performing well. Regulators look for a bank to use a sound theoretical framework in developing models, employ the appropriate practices in implementing these models, and have appropriate controls surrounding the models themselves, the data that feed them, the use of their outputs, and the ongoing development and validation of new or existing models. The ultimate regulatory test is whether

the models work well when backtested. This approach gives banks flexibility, and encourages continuing innovation in risk measurement tools and methodologies.

The trend toward greater self-regulation to complement official regulation brings substantial benefits to the industry. Most important, it boosts the prospects for the development of practical business solutions to risk management challenges, so that more prescriptive and perhaps constraining official regulatory intervention may be pre-empted. But its continuation and expansion into the international supervisory arena depend critically on ongoing improvements in the comprehensiveness and rigor of risk management by industry participants.

2.4.3 Requirements to Risk

Through the auspices of the Bank for International Settlements (BIS), bank regulatory bodies in the associated countries have been developing standards and guidelines for managing the various risks and allocating capital to them. One of the earliest agreed-upon standards, in 1988, was the Capital Accord for measuring credit risk and allocating capital to it. While the BIS framework is admittedly a rather rudimentary tool (it does not, for example, differentiate among risks in commercial lending), the risk-based capital standards were a first step in tying risk to capital requirements and have driven up bank capital levels in the U.S. and abroad, thereby mitigating systemic risk (other things being equal). More recently, capital standards for the exposure of global banks to market risk were adopted to supplement the 1988 credit risk standards. Currently, the international regulatory bodies are attempting to expand and refine capital requirements based on risk and have established an aggressive plan to produce a proposal for industry comment within the year.

2.4.4 Purpose of the Guiding Principles

In response to all these emerging themes, The Financial Services Roundtable has initiated a dialogue on prudent risk management practices. The purpose of the risk management guidelines contained in this document is to provide education and guidance for the members of The Financial Services Roundtable.

Because banks operate differently, because there are various levels of sophistication at banks, and because the methodologies for managing risk continue to evolve, the guidelines are

not meant to prescribe specific methodologies for managing risk. It is strongly believed that each banking institution should develop methodologies for managing and controlling risk suited to its business needs and capabilities, as well as the needs and interests of its customers and other stakeholders. Accordingly, the definition of risks, the risk management organization and structure, and the level of quantification and formalization of these principles currently vary by organization and will continue to do so. These variances are acceptable and proper. However, the guidelines do fundamentally address what the management of risk should accomplish. Each institution should have maximum flexibility to design a program to meet its needs within these guidelines.

CHAPTER 3: OVERARCHING PRINCIPLES

The following seven principles are central to the management of risk across an organization, within its business lines, and within specific risk categories. They include:

- Board of Directors and Senior Management responsibility
- Framework for managing risk
- Integration of risk management
- Business line accountability
- Risk evaluation/measurement
- Independent review
- Contingency planning

3.1 Board of Directors and Senior Management responsibility

Overall risk management policies and tolerances should be set on a comprehensive, organization-wide basis by Senior Management; and reviewed with, and where appropriate approved by, the Board. Policies and tolerances addressing risk identification, measurement, monitoring, and control should be clearly communicated to those areas affected throughout the organization.

Purpose: To ensure that risk taking is consistent with shareholder expectations, the organization's strategic plan, and regulatory requirements, and that the firm's risk culture is understood throughout the organization

3.1.1 Discussion

A bank's tolerance for risk has important implications for both the definition and success of its strategy. To be effective, the strategy must be consistent with the risk tolerance of its shareholders as represented by the Board and Senior Management. To be enforceable, the risk tolerance must be communicated and embedded in the culture of the organization, so that risk taking remains within the established tolerances both for specific business lines and the overall business.

Risk tolerances may differ by business line or activity. Tolerances for quantifiable risks are typically communicated as limits and/or sublimits to those who accept risk on the organization's behalf *(e.g.*, foreign exchange risk). Tolerances for qualitative measures are typically communicated as guidelines *(e.g.*, standards of ethical behavior, leading indicators), and inferred from Senior Management's personal behavior and business decisions on issues such as compensation and advancement. Where risk acceptance is distributed across multiple parties within or across business lines, a mechanism to roll up exposures and create a global risk assessment of the bank's risk exposures is required for effective risk management, and tolerances should be expressed in both global and business specific terms.

Communicating the risk tolerance is not sufficient to ensure that risk taking stays within an acceptable range. It is also important that material exceptions to risk management policies and tolerances are reported to Senior Management and the Board, and that specific management actions are triggered when policies are not followed, and/or tolerances are exceeded.

To keep them current, risk management policies and tolerances should be reviewed and reassessed on a regular basis and whenever circumstances indicate a material change in the underlying assumptions about the risks associated with an activity.

3.2 Framework for managing risk

The bank should have a framework for managing risk that is effective, comprehensive and consistent. Management should allocate sufficient funds to staff and support its chosen framework.

Purpose: To ensure that all material risks are identified and managed in accordance with Senior Management's expectations, and to facilitate timely communication, coordination, escalation, and corrective action.

3.2.1 Discussion

The risk management framework establishes the scope of risks to be managed, the processes to manage them, and the roles and responsibilities of the individuals managing the risks. The framework must be robust enough to address all material risks, and sufficiently

flexible to accommodate a change in or expansion of business activities. It should include a forum for reviewing all risks.

Effective risk management requires that those responsible have adequate resources and authority. Sufficient communication, training, and resource sup-port for risk management activities should be provided to line managers and staff. Those responsible for risk management should have access to all relevant departments; a process for providing feedback regarding changes in the level of risk into the business decision-making process; and a process for communicating issues to senior bank management and the Board. This applies both to business line and to centralized risk management functions.

To be sure that no material risks are overlooked, comprehensive and consistent (although not necessarily identical) definitions of risks should be used throughout the organization, even where institutions are supervised by different regulators. Risk management policies and procedures covering risk identification, acceptance, measurement, monitoring, reporting and controls should be clearly defined. Decision-making responsibilities should be clearly articulated.

A risk assessment philosophy and process driven down to the business line level allows management to quickly identify areas of highest risk and to allocate appropriate resources to mitigate these risks. It also enables independent over-sight functions *(e.g.*, loan review, compliance, internal audit) to assess the quality of risk management and test the effectiveness of risk management activities.

Components of a typical risk assessment include:

- Identifying the sources of risk as a routine part of the strategic planning process
- Documenting and assessing the risks and corresponding controls in place to mitigate these risks for each significant business process u Establishing an explicit process for assessing risks associated with new initiatives *(e.g.*, products, services, distribution systems) and with changes to existing activities or products, and implementing controls to mitigate those risks
- Periodically testing risk controls

3.3 Integration of risk management

To ensure that interactions among risks are identified, understood and managed as appropriate, risks should not be evaluated in isolation. The analysis required to aggregate and highlight risks across the entire organization must be done at a level high enough to encompass the whole firm.

Purpose: To ensure that risk is managed consistently across the organization, and that the interactions of various risks and the associated impact are understood and considered when strategic and tactical decisions are made.

3.3.1 Discussion

Different risks interact with each other and may compound or offset each other *(e.g.*, the impact of operational risk on credit risk or the interrelationship of market risk with credit risk.) Some business activities require an integrated approach from the start *(e.g.*, collateralized derivative trading); other activities are very specialized and can be managed almost in isolation. The risk management process should recognize and reflect risk interactions in all business activities as appropriate. This requires having a structure in place to look at risk inter-relationships across the organization.

3.4 Business line accountability

Business lines should be accountable for managing the risks associated with their activities within established tolerances, as well as for the results, both positive and negative, of taking those risks. This accountability should exist notwithstanding the presence of one or more support functions dedicated to risk management activities.

Purpose: To ensure that the people who make business decisions under-stand the risks they are taking; incorporate that understanding into their decision making in order to achieve acceptable risk-adjusted returns; and are held accountable for the associated gains or losses. Those closest to the business in question are best positioned to identify the risks in the business, provided there is adequate independent review and control, and an incentive structure that encourages risk identification and management responses by the line.

3.4.1 Discussion

In organizations with staff or support personnel dedicated to risk management activities, there may be a tendency for the business lines to assume that risk management is someone else's job—that the line is responsible only for such goals as sales and customer service. Because line personnel, more than anyone else, understand and appreciate the risks of the business, such a lack of accountability can lead to problems.

To understand the risk/return tradeoff, profits and losses should be attributed to specific risk-taking activities and evaluated in view of the risks being taken. It is important to scrutinize profits as well as losses, because unusually high profits can be a signal that there is a problem. (In the Barings case, where there were major losses due to position taking well above trading limits, unusually high "arbitrage" profits preceded the major losses that ultimately caused the bank to fail.) Profit and loss (P/L) analysis and other performance measures should be conducted independent of the business lines in order to maintain the integrity of the analysis. To make sure that P/L targets are consistent with risk tolerances, a risk analysis should be included in the budget planning process.

To effectively balance the tradeoff between risk and return, risk management should be linked to performance measurement for the organization as a whole, for business units and for individuals. Incentives should be in place to support early identification and mitigation of risk management weaknesses by each functional manager, as well as to encourage timely disclosure of material problems and discourage attempts to hide them from Senior Management.

3.5 Risk evaluation/measurement

All risks should be qualitatively evaluated on a recurring basis and, wherever practical, the evaluation should include quantitative analysis. Risk assessments should consider the effects of both likely and unlikely events.

Purpose: To allow management to understand the amount and nature of risk exposures using a common language, and to make informed decisions regarding allocation of resources for taking and managing risk.

3.5.1 Discussion

To adequately capture a firm's risk exposure, risk measurement should be comprehensive, should represent the aggregate exposure of the firm by both risk type and business lines, and should consider the impact on both earnings and shareholder value. Not all risks are readily quantifiable; where quantification is not an effective option, qualitative measures should be developed.

Whether quantitative or qualitative, a sound assessment methodology should be in place to enable management to identify and understand existing risk exposures.

This requires the organization to commit resources sufficient for gathering information and developing methodologies needed to monitor and assess risks, and for taking appropriate action on a timely basis. The personnel who prepare and use the risk management information and methodologies must have a sufficient understanding of what they mean, their potential impact on the business, and when and how to escalate issues and bring concerns to the attention of Senior Management and the Board.

So that their business decisions can appropriately take into account risk implications, the Board and Senior Management need timely, periodic, meaningful and appropriate reporting regarding risk management activities, the nature and magnitude of risk exposures, the limitations of risk assessment methodologies, the assumptions underlying risk exposure estimates, and corrective actions required or taken. In order to use this information effectively, the Board and Senior Management need a basic understanding of the sources of risk, how risk is measured, data integrity and sensitivities of measurements to assumptions and specific risk factors.

The implications, advantages and shortcomings of any particular measurement approach should be clearly described, and appropriate additional analysis to address potential shortcomings, such as stress testing, should be identified and performed regularly.

When examining bank risk exposures, many financial institutions distinguish between "pre-control and "post-control" risk exposures. Pre-control risk expo-sure stems from the risks that are inherent in a bank activity, business line or product, and are independent of bank risk management or mitigation procedures.

Conversely, post-control risk exposures are the net of the pre-control exposure and bank risk management activities. By comparing pre-control, inherent risk, and quality of bank

risk management activities, a bank can determine gaps that measure its post-control "net" risk, and therefore the effectiveness of risk management activities. It is important to note that by themselves, gaps are not necessarily bad. However, by identifying this net risk exposure, bank management is better positioned to make informed decisions as to whether to continue to take on the risk, or whether to undertake efforts to further mitigate bank risk exposure. Moreover, it is possible to identify "reverse gaps," which may indicate that a bank has devoted too many resources to managing a particular risk. This over control can hinder profitability.

3.6 Independent review

Risk assessments should be validated by independent review functions with resources, authority and expertise sufficient to assess the risks, test the effectiveness of risk management activities, and make recommendations for remedial action.

Purpose: To ensure that those who take or accept risk on the behalf of the institution are not the only ones who measure, monitor and evaluate the risks.

3.6.1 Discussion

While institutions may organize and structure the review function in different ways, the key is independence. The review functions should have the authority, expertise and corporate stature to be unimpeded in identifying and reporting their findings. The results of their reviews should be reported to business units, Senior Management and, where appropriate, the Board.

3.7 Contingency planning

Risk management policies and processes to address potential crises and unusual circumstances should be in place and tested as appropriate.

Purpose: To ensure that the organization is prepared to identify and deal with unusual situations in a timely and effective manner.

3.7.1 Discussion

Stress situations to which this principle applies include all risks of all types. Examples of contingency planning activities include disaster recovery planning, public relations damage

control, litigation strategy, responding to regulatory criticism, and unwinding positions in light of global financial crises.

Contingency plans should be reviewed regularly to ensure they encompass reasonably probable events that could impact the company. Plans should be tested as to the appropriateness of responses, escalation and communication channels and the impact on other parts of the institution.

Given these overarching principles, which apply to all risks and all functions, the remainder of this report is devoted to elaborating on principles for specific risks that banking institutions face: strategic, credit, market, liquidity, and so on and so forth. For each risk category there is a discussion that elaborates on the principles, and presents topics that need to be addressed.

CHAPTER 4: INTRODUCTION TO ASKARI BANK

4.1 Brief History

Incorporated in Pakistan on October 9, 1991, Askari Bank commenced its operations in April 1992, as a Public Limited Company, and has since expanded into a nation-wide presence of 49 branches, supported by a network of online ATMs. The Bank is listed on the Karachi, Lahore & Islamabad Stock Exchanges and the initial public offering was over-subscribed 16 times.

While capturing the largest market share amongst the new banks, Askari has provided good value to its shareholders. Its share price has remained approximately 12% higher than the average share price of quoted banks during the last four years.

Askari Bank is principally engaged in the business of banking as defined in the Banking Companies Ordinance, 1962. Askari Bank is the only bank with its operational Head Office in the twin cities of Rawalpindi-Islamabad, which have relatively limited opportunities as compared to Karachi and Lahore. This created its own challenges and opportunities, and forced it to evolve an outward-looking strategy in terms of its market emphasis. As a result, it developed a geographically diversified assets base instead of a concentration and heavy reliance on business in the major commercial centers of Karachi and Lahore, where most other banks have their operational Head Offices.

4.2 Awards & Achievements

Over the years, it has received several awards for the quality of its banking service to individuals and business. It has been declared "The Best Bank in Pakistan" by *Global Finance* magazine for the years 2001 & 2002. Also, it has been given the "Best Consumer Internet Bank" award for Pakistan by the same magazine for the year 2002. In 1994, 1996 and 1997, it received ***Euromoney*** and ***Asiamoney*** awards.

Askari has an **A 1 + rating** for shortterm obligations - the highest possible for the category, while the long-term rating stands at **AA**. Askari Bank won the prestigious **"Best**

Presented Annual Accounts" awards for 2000 and 2001 from the *Institute of Chartered Accountants of Pakistan* and the *Institute of Cost and Management Accountants of Pakistan,* for the services sector. For the past four years, it has received prizes from the South *Asian Federation of Accountants* for "The Best Presented Annual Accounts" for the financial sector, in the **SAARC** region.

Over the years, Askari Bank has proved its strength as a leading banking sector entity, by achieving the following firsts in Pakistani banking.

i) First Pakistani Bank to offer on-line real-time banking on a country-wide basis

ii) First Bank with a nation-wide ATM network

iii) First Bank to offer Internet Banking services

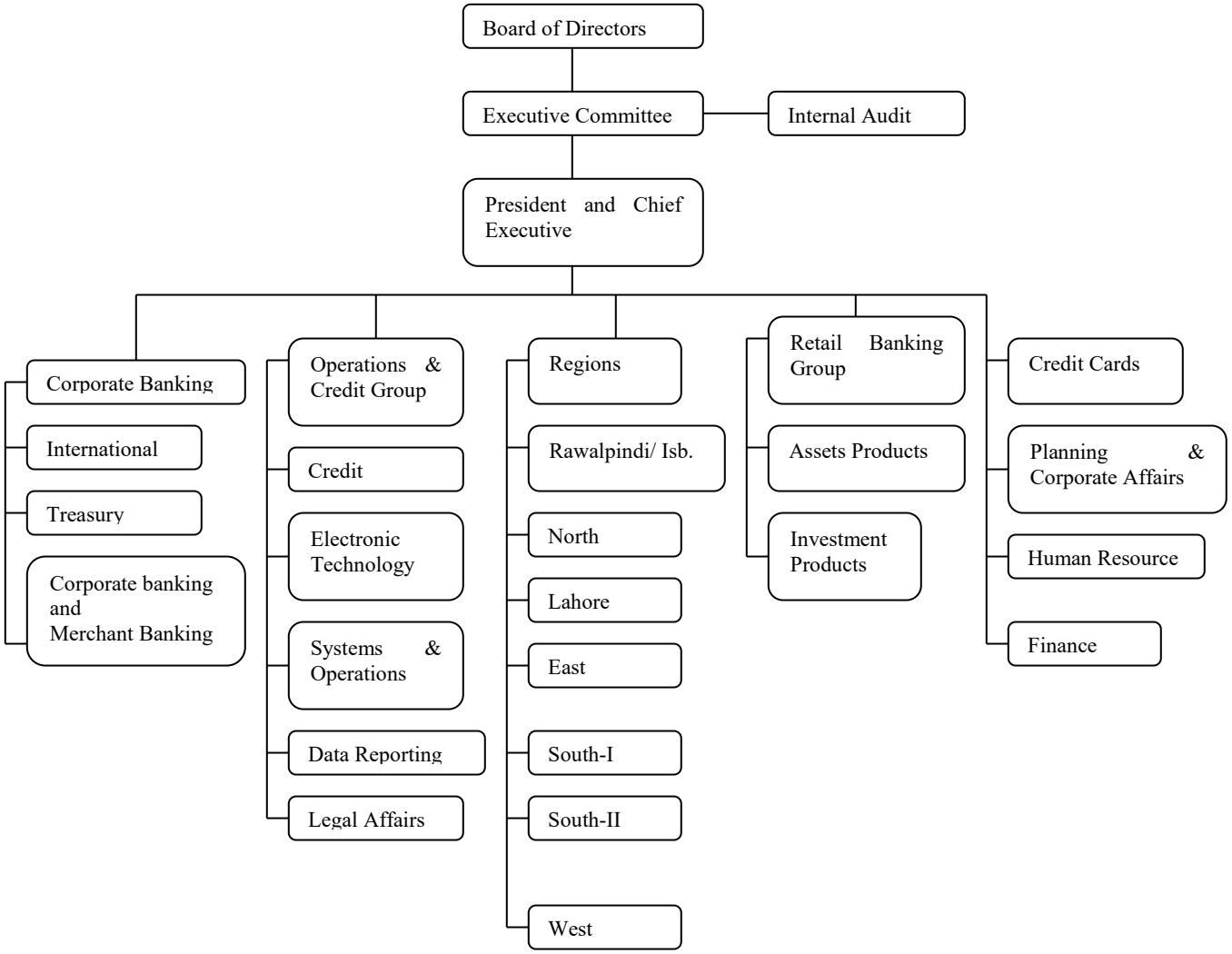
iv) First Bank to offer e-Commerce solutions

4.3 Products of Askari Bank

- Askari Value Plus
- Askcard (Debit Card)
- Askpower (Pre-paid Card)
- Askari Smart Cash
- Touch and Pay (Utility bills payment)
- Askari Travelers Cheque
- Askari Personal Finance
- Askar
- Askari Bank's Cash Management Services

- Askari Business Finance
- Askari Mortgage Finance
- Askari Master Card
- Askari Bank's Investment Certificates

4.4 Organogram of Askari Bank



4.4.1 Audit Division

The Audit Division reports directly to the Board through the Executive Committee - which is also the Audit Committee. The Audit Division acts completely independent of the Management and is responsible for checking and reporting on the Management's compliance with the Board's policies and directives, as also the Prudential Regulations and other directives of the SBP. However, their role is not intended to be just that of fault-finding; but also guiding and assisting branches in improving their operations.

The Division is responsible for evaluating every aspect of the Bank's operations with the goal of improving the effectiveness of risk management and internal control. There is also a Regional Audit function attached to each Area Office; the nature of this function is more of quality assurance rather than strictly "audit". The regional auditors report to the Area Managers, and assist them in ensuring that there is proper compliance with all the relative directives, and also that customer service standards are maintained and improved, at the branches in the Area.

Each branch is given three separate Internal Auditing ratings for:

a) Operations

b) Credit Administration

c) Credit Quality

In addition, Audit Division carries out Performance Audits (once every 3 years), and risk evaluation for the following areas:

a) Exposure risk

b) Default risk

c) Systems risk

4.4.2 Treasury

Responsible for managing Bank's liquidity and foreign exchange transactions, the banks Treasury in one of the most active in the market. Through repo transactions, purchase of Government paper and foreign exchange trading, the Division adds substantially to the Bank's sustained earnings.

4.4.3 Credit Division

Providing extensive support to branches for credit administration, control and monitoring, helping the Bank achieve a markable loans growth of 31%, with well-diversified risk exposures. Most of the loans are for short-term trade financing on a secure and self-liquidating basis. The Division has a Special Assets Management team, which is responsible for ensuring low ratio of bad debts, effective monitoring of delinquent advances and close follow-up for recoveries. Bank's Head Office Credit Committee (H.O.C.C.) reviews the credit quality and pricing on a regular basis not only to ensure healthy credit growth but also the management of Bank's risk assets in a most prudent and profitable manner. Taking into account the expanding branch network and the increasing customer base, credit administration was strengthened by decentralizing the delegation of lending authorities at the Regional and Area management levels.

This de-centralization has benefited the Bank and its customers tremendously as the new arrangement now provides for faster credit delivery, focused credit development, and more effective monitoring and controls. Further steps are being taken to streamline credit appraisal procedures and training to credit officers at all levels. As a strategic move, the Bank averted large group exposures and re-allocated its resources to businesses, which are promising, dynamic and upcoming. The move also includes extension of credit to small & medium sized enterprises and farm financing.

4.4.4 Asset Products Division

The Asset Products Division (APD) is Responsible for the development and it management of Retail credit schemes, and is presently offering several innovative consumer credit products. APD presently has five retail asset units all over the country.

The first Product of the Division ‘Askari Bank's Personal Finance’ has been a great success and is used for financing the purchase of various types of consumer goods, apart from availing the facility for miscellaneous personal expenses. The launch of ‘Askari Bank's Business Finance’ product in 2002 was t step towards implementing SBP's advice to provide loans to SMEs. APD has also introduced value added products

like 'Balance Transfer Facility' (BTF), 'Askari Bank's Mortgage Finance' and 'Askar'. ALL of these products have enjoyed good acceptance by the market. Computer loans were launched in lulu 2002 to promote IT technology in the country. In this regard the Division has signed MOUs with various educational institutions for providing computer loans to their students and employees, on very competitive rates. This program will help the students in getting IT education, which will help produce good IT professionals in the country.

4.4.5 Investment Products Division

The Investment Products Division (IPD) is responsible for developing and managing brands that serve the investment needs of the consumer market. It focuses on deposit mobilization and provision of value added services based on modern technology. Keeping in mind the tough competition in the market, the Division continuously makes an effort to provide value added services and products to its clients. This is evident from the launch of `Askari Bank's Value Plus Account' - the first branded liability product, which was marketed aggressively, and the `Rupee Travelers Cheques', both of which got a good response from the market.

4.4.6 Finance Division

Responsible for bookkeeping and accounts, this Division at the head office, prepares all financial returns and the MIS through its Management Reporting Wing. The Division is actively involved in preparing market comparative analysis, consolidation of Bank's budgets, its monitoring and constant review of various financial indicators. Finance Division works as the backbone for all Banks' operations. The Division, which reports directly to the President and Chief Executive of the Bank, has been instrumental in preparation of Bank's business plans and future strategies. The budgetary performances are constantly reviewed and through a sophisticated "Monthly Performance Report" (MPR) which is a computer based program, the Division provides feedback to the senior management on strategic issues like reasons for budgetary variances and methods to arrest negative Preparing the Bank's Annual Accounts and coordinating external audits is also a direct function of the Finance Division. Through the

dedicated efforts of staff at this Division, the Bank has been winning various awards for the Best Presentation of its Annual Accounts and also the management has been able to monitor and review the Bank's performance in a proactive manner.

Although a detail description of the other divisions within Askari Bank could be given, I will be focusing only on those divisions mentioned above as these divisions are mainly involved in the analysis and management of risk, which the bank is exposed to.

CHAPTER 5: CREDIT RISK MANAGEMENT

5.1 Strategic Risk Management

*Strategic ris*k is the risk assumed as a result of decisions made or not made in the course of managing the business.

5.1.1 Discussion

At the macro level, strategic risk is incurred in decisions concerning such areas as markets entered or exited, products developed to serve those markets, and business partners embraced or rejected. At the business level, strategic risk is generated by decisions such as credit risk parameters, investment portfolio allocations and marketing initiatives. The risk exposures to capital and earnings are incurred when management takes strategic initiatives without sufficient appreciation or consideration of the risks inherent in that effort; has not fully identified those risks; or is impacted by events unforeseen at the time the initiative was made. Simply put, strategic risk is either the failure to do the right thing, doing the right thing poorly, or doing the wrong thing.

5.1.2 Risk Management at Askari Bank

Risk management is achieved by striking an acceptable balance between the Bank wanting to make reasonable return on its investments while ensuring that it maintains a high degree of skill and care which it owes to its depositors whose money funds the lending activities.

Credit risk is managed at all levels including the Head Office, which carries the overall responsibility for the enforcement and monitoring of compliance with the risk parameters and prudential limits. The Bank has evolved a multi-tier credit approving system beginning from the Brach level, then the Regional Offices, the Head Office Credit Committee, the Board's Executive Committee and finally the Board of Directors. There is a loan review mechanism in place, which enables prompt identification of credit weakness, if any, evaluation of portfolio quality and determination of adequacy of provisions. A Special Asset Management unit is also operating at the Head Office, which has the overall responsibility for the monitoring and

remedial management of the non-performing loans. The credit risk associated with the money and foreign exchange market activities is also subject to detailed appraisal and rating framework. Counter-party limits are in place, besides a mechanism of sanctioning and monitoring cross-border risks.

5.2 Credit Risk Management

*Credit ris*k arises from the potential that a borrower or counterparty is unable or unwilling to perform on an obligation, resulting in an economic loss to the bank.

5.2.1 Discussion

In addition to direct accounting loss, credit risk should be viewed in the context of economic exposures. This takes into consideration opportunity costs, mark-to-market re-valuations, transaction costs and expenses associated with a non-performing asset over and above the accounting losses. Appropriate risk-based pricing, effective loan structuring, and adequate triggers and contingencies to protect the lender's position can mitigate credit risk. Therefore, credit risk should be evaluated in the context of risk-adjusted returns when comparing individual loans and other product lines. Credit risk includes aspects of pre-settlement and settlement risk in the case of derivatives, and aspects of country risk and sovereign risk, such as government default.

5.2.2 Board and Senior Management responsibility

The Board and Senior Management should be responsible for establishing and communicating the credit risk profile of the organization, which may include the establishment of risk oversight, definition of accountability and responsibility, risk/reward profile standards, and policies and procedures.

Consideration should be given to placing limits on all significant risks through specific underwriting, policy decisions, standards, credit scoring models, and/or portfolio models. The bank may choose to establish exposure limits at the portfolio level, business line level, and the individual transaction level.

5.2.3 Framework for managing risk

A process to monitor and detect changes in credit risk and feeding back relevant information into the business decision-making process should be established and communicated to business lines as well as the Board. Individual loan and/or portfolio quality should be graded and reassessed periodically. The initial and ongoing assessment process should include analysis of trends specific to the customer or counterparty, as well as trends identified from analysis of issues external to the customer or counterparty. Factors that could affect the individual and aggregate credit risk exposure of the bank should be identified *(e.g.*, credit to one borrower, market segment, geographic region, industry, country, collateral, margin, netting, and loss thresholds). While factors should generally be consistent over time, consideration should be given to new factors as they become relevant; a specific rationale should be given for any changes.

Early warning systems should be in place to monitor and report exceptions and overrides to credit policies to Senior Management and the Board. Establishing early warning triggers for each major risk factor can alert management to potential shifts or changes impacting the portfolio and therefore may allow time for corrective actions to be taken in a measured fashion over time. For example, early warning systems may permit management to effectively allocate capital, increase collateral, adjust transaction risk based return hurdles, or adjust credit reserves before risk of loss on an exposure becomes pronounced.

Established limits may be exceeded from time to time when appropriate risk mitigants are determined to exist, or management otherwise views the balance of risk and expected reward to be appropriate in a particular case. However, effective approval, control and tracking systems should be in place to monitor the limit excesses in order to ensure that appropriate levels of management are involved in the risk-taking decision.

5.2.4 Integration of risk management

Because different risks may compound or offset each other, the credit risk management process should reflect risk interactions. For example, bad credit decisions could result in earnings problems that cause wholesale lines to be pulled, creating a liquidity problem.

5.2.5 Business line accountability

The business line is accountable and must manage the risk. A credit function should be responsible for the design and implementation of a bank's credit risk management system. Generally, the chief credit officer or other appointed senior executive officer of the bank should have the overall responsibility for the credit risk position and strategy for the bank. Organizationally, this responsibility may reside in several departments within the bank. In some banks, for example, a separate credit policy department may be responsible for the bank's credit risk position, whereas in other financial services organizations, the credit risk responsibility may reside with the individual business units. Other financial services institutions may segregate credit risk activities by assigning the identification, management and control of credit risk among the credit policy, underwriting, loan review, internal audit, and loan administration departments. Risk management activities include the ongoing monitoring and analysis of credit risk.

5.2.6 Risk evaluation/measurement

The credit risk measurement framework and assumptions should cover the whole bank, including different product lines, and should include the consideration of the quantitative and qualitative aspects of the risk. The application of measurement methodology may vary across product and business lines, depending on the bank's business objectives and the complexity of products.

Credit risk should be aggregated for the banking organization as a whole and for major businesses and legal entities, and should cover all exposures for a given customer or group of related customers *(e.g.*, affiliates, customers from same industry or country, etc.) across all businesses and products. When aggregating across loans or business lines, the credit risk measurement framework may use either an additive or a portfolio approach. Although the portfolio approach generally provides a better assessment of risk, business needs, data and systems limitations may inhibit its implementation.

The bank should establish common definitions for important model variables to help ensure consistency and comparability throughout the entire organization. For example, common definitions should be determined for loan equivalent exposure, credit optionality, etc. Credit risk measures across business lines must be consistent as appropriate. In evaluating

credit risk, banks should consistently measure its two principal components: expected default frequency and loss in the event of default. Other factors impacting the loan credit quality—facility rating, distribution of loss experience, correlations across credit—should also be taken into consideration.

The impact of various factors on credit risk should be stress tested to evaluate multiple scenarios, using a framework that may include both qualitative and quantitative techniques. The complexity of a bank's stress testing process may depend upon the complexity of the bank's portfolios. The stress testing process should include quantitative techniques when practical, and should always include qualitative analysis. Regardless of the stress testing methodology employed by the bank, worst-case scenarios should be identified and effective contingency plans established. Evaluations should examine the impact of potentially stressful situations, and of macroeconomic factors, geographic concentration, collateral, industry concentrations and other factors pertinent to the portfolio.

Quantitative and qualitative evaluation of the stress-tested scenarios should be performed to assess the probability of outlying situations that could negatively affect the bank. Credit assessment models (qualitative and quantitative) should be backtested in order to evaluate their accuracy and the inherent model risk. In certain circum-stances where insufficient data exists concerning default cycles or other relevant factors, alternative model validation methods might be appropriate.

5.2.7 Independent review

A review function that reports directly to either Senior Management or a committee of the Board of Directors should monitor the risk management process and evaluate its effectiveness and compliance with management's strategies and policies. The organizational infrastructure of various credit and risk management responsibilities described above should follow the principle of creating sufficient checks and balances within the organization and creating a system of adequate internal controls.

5.2.8 Contingency planning

Banks should have in place contingency plans to respond in a timely manner to material changes in credit risk exposure. These plans could include such details as the possibility of the need for capital infusion, the need to adjust lending limits, etc.

5.3 Analyzing Askari Banks Credit Risk Measurement and Management

As mentioned in Askari Bank's annual reports, the focus of the Bank's commercial lending continues to be short-term trade related financing on a secured and self-liquidating basis. The Bank also continues its emphasis on diversification of its assets to avert large single industry or group exposure.

The Bank has built and maintains a sound loan portfolio in terms of a well-defined Credit policy approved by the board of directors. It's credit evaluation system comprises of well designed credit appraisal, sanctioning and review procedures for the purpose of emphasizing prudence in its lending activities and ensuring quality of asset portfolio. Special attention is paid to the management of non-performing loans. A separate Credit Monitoring Cell (CMC) is operational at the Head Office. A "watch list" procedure is also functioning which identifies loans showing early warning signals of becoming non-performing.

The Bank constantly monitors overall credit exposure and takes analytical and systematic approaches to its credit structure categorized by group and industry. The credit portfolio is well diversified sectorally with manufacturing and exports accounting for the bulk of the financing which is considered to be low risk due to the nature of underlying security.

The Bank is further diversifying its Asset portfolio, by offering new Consumer Banking products (Personal Finance, Mortgage Finance, Car Leasing etc.) to its customers, as its provides better margins than traditional business lending opportunities, whilst spreading the risk over a large number of individual customers.

The Asset and Liability Management Committee (ALCO) manages the credit portfolio to preserve quality and while ensuring at the same time that it is well balanced and diversified. The developments in the credit portfolio are closely monitored with particular emphasis on the credit ratings of the borrower and the industry in which they operate.

5.3.1 Off Balance Sheet Financial Instruments

Off balance sheet instruments referred to as derivatives are contracts the characteristics of which are derived from those of underlying assets. These include forwards and swaps in money and foreign exchange markets. The Bank's exposure in these instruments represent forward foreign exchange contracts, on behalf of customers in import and export transactions, forward sales and purchases on behalf of the customers in the import and export transactions, forward sales and purchases on behalf of customers in the inter bank money market and with the State Bank of Pakistan. The Bank also enters into Repo transactions against Government Securities carrying fixed interest rates and having fixed contractual maturities.

The risks associated with foreign exchange contracts are managed by matching maturities and fixing counterparties' intra-day and overnight limits. In addition, these also come under the State Bank of Pakistan net open position limits. The credit risk associated with Repo transactions is secured though underlying Government Securities.

But looking at the statistical information provided, we can see that a comprehensive assessment of the profile and characteristics of the aggregate loan portfolio is not given, including questions such as "to whom, what and for how long." Askari Bank's loan to customers per borrower group indicates the bank's borrowers profile, which is focused mainly on the private sector. However we can see that no such information is given relating to the various products that Askari Bank can lend out in response to the market demand (e.g. non installment credit, revolving credit lines etc.)

The introduction of asset classification that entails provisioning requirements is costly to the banking sector. The nonperforming loan portfolio is an indication of the quality of the total portfolio and ultimately of a bank's lending decisions. Another such indication is the bank's collection ratio. In Askari bank's case we can see that there is not enough disclosure regarding the non performing loans-in formation such as loans to individuals as percentage of total loans, the detail relating to the 20 largest borrowers so on and so forth, hence the Loan portfolio Statistics shown in the graphs do not present a true picture.

The basis of a sound credit risk management is the identification of the existing and potential risks inherent in lending activities. Specific credit risk management measures typically include three kinds of policies. One set of policies includes those aimed to limit or reduce credit risk, such as policies on concentration and large exposure, lending to connected

arties, or over-exposure. In Askari bank we see no such thing and has not mentioned anything of the sort in its financial reports. The second set includes policies of asset classification. These mandate periodic evaluation of the collectibility of the portfolio of loans and other credit instruments, including any accrued and unpaid interest, which expose a bank to credit risk. Askari bank is doing this to a certain extent. The third set includes policies of loss provisioning, or the making of allowances at a level adequate to absorb anticipated loss- not only on the loan portfolio, but also on all other assets that are subject to losses. Askari bank has mentioned its loan loss provisioning but not to a great extent.

Asset classification is a process whereby an asset is assigned a credit risk grade, which is determined by the likelihood that debt obligations will be serviced and debt liquidated according to contract terms. This is a key risk management tool and Askari Bank to a certain extent is utilizing this tool in its favor. Banks determine classifications by themselves but follow standards that are normally set by regulatory authorities. Standard rules for asset classification are used in most developed countries and hence not found in the annual reports of Askari bank. These classifications include standard or pass; specially mentioned, or watch; substandard; doubtful; and loss. A bank with assets that are classified as doubtful and loss would be in more serious trouble than one with a similar amount of problem assets in the substandard category and we can see that none of Askari bank's advances fall in the category of "pass."

We can see that Askari bank is following only some of the rules of credit risk management, the ones that it is not include: the level, distribution, and severity of classified assets; the level and composition of nonaccuring, nonperforming, renegotiated, rolled-over, and reduced-rate assets; and the adequacy of valuation reserves.

5.3.2 Public disclosure requirements

The differences in loan classification rules, provisioning requirements, and the treatment of problem loans in various countries, as well as the degree of judgment that bank management exercises, means that it is particularly important that banks make adequate disclosure to allow supervisors and other interested third parties to properly evaluate the financial condition of a bank. Disclosure principles related to sound credit risk should be mandated by regulatory authorities. The disclosure of information includes:

- Policies and methods used to account for loans and allowances for impairments. Askari bank has mentioned this in its annual reports. In Askari bank provisions are recognized where they are present, legal or restrictive obligations and a reliable estimate of the amounts can be made. Provisions for guarantees claims and other off balance sheet obligations is recognized when intimated and reasonable certainty exists to settle the obligations. Expected recoveries are recognized by debting the customers' account. Charge to profit and loss account is stated net off expected recoveries.
- Risk management and control policies
- Loans, impaired loans, and past-due loans, including respective general allowances and specific allowances by major categories of borrowers and geographical regions and reconciliation of movements in the allowances for loan impairment. Askari Bank has failed to provide information relating to this as can be seen in the graphical analysis. It has not mentioned in detail its 20 largest exposures.
- Large exposure and concentration, and exposures to connected parties. Askari bank again has failed to do this. In practical terms, large exposures are usually an indication of commitment by a bank to support specific clients. Banks that become entrapped in lending to large corporate clients sometimes do not consider the risks associated with such credit. The issue of management of large exposure involves an additional aspect: the adequacy of a bank's policies, practices and procedures in identifying common or related ownership, the existence of effective control, and reliance on common cash flows. Banks must pay attention to the completeness and adequacy of information about the debtor.

CHAPTER 6: MARKET RISK MANAGEMENT

*Market ris*k is the risk that a financial institution's earnings and capital, or its ability to meet its business objectives, will be adversely affected by movements in market rates or prices such as interest rates, foreign exchange rates, equity prices, credit spreads and/or commodity prices.

6.1 Discussion

Banks may be exposed to market risk in a variety of ways. Market exposure may be explicit in portfolios of securities *(e.g.*, bonds, asset backed securities) and over the counter instruments *(e.g.*, interest rate derivatives, foreign exchange forwards) that are actively traded or held for investment purposes (traded portfolios). Conversely, exposure may be implicit in the bank's intermediary activities in instruments for which there are no liquid secondary markets, such as the interest rate risk caused by the mismatch of loans and deposits (non-traded portfolios). Market risk may also arise in business activities of a bank that do not create balance sheet items. For the purposes of this report, market risk may also include some aspects of sovereign risk, caused, for example, by sovereign actions that destabilize financial markets.

6.2 Board and Senior Management responsibility

The Board should be responsible for defining the overall risk appetite of the firm and approving market risk limits developed by management to reflect this appetite. Market risk limits should reflect the market risk appetite of the bank, and its ability to withstand potential losses. Senior Management should be responsible for establishing the risk profile of the organization, which may include the establishment of risk oversight, definition of accountability and responsibility, risk/reward profile, standards, policies and procedures.

Banks should establish limits on the change in value of portfolios, and/or on the change in the income stream from non-traded portfolios and business activities resulting from changes in market factors. In addition to ex-ante limits associated with particular risk measures, there should be ex-post limits on specific risk factors, such as stop-loss limits. Overall corporate limits may be apportioned into sub-limits among business units. The resulting limit structure should be comprehensive, covering all important market risk factors affecting the portfolio. It

should also be consistent, such that different limits reflect the same risk appetite. Limits should not be so high that they do not provide a credible risk control.

6.3 Framework for managing risk

Factors that affect the individual and aggregate market risk exposure of the bank should be identified *(e.g.*, market exposure to one borrower, segment, geography, industry, country, collateral, margin). Limits and/or early warning triggers should be placed on all significant exposures to alert management to potential shifts or changes in the value or riskiness of its portfolios and business activities. Reporting that describes the level of exposure in the portfolio or business activity should be produced and circulated on a regular and timely basis.

Processes should be in place to monitor and report to Senior Management and the Board any exceptions and overrides to market policies. Breaches of limits or guidelines should trigger specific management actions, ranging from discussing possible readjustment of risks in the portfolio to reevaluation of trading strategies, risk management policies, etc. All breaches of limits or sub-limits should be reported to the appropriate level of management.

6.4 Integration of risk management

Because different risks may compound or offset each other, the market risk management process should reflect these interactions. For example, the Russian bond default, which prompted a flight to quality, caused huge widening of spreads between credit classes and created mark-to-market losses.

6.5 Business line accountability

The business units that take on market risk for the banking organization should be responsible for managing that risk, consistent with established policies and limits. In addition, a market risk function independent of the risk acceptor *(e.g.*, the front office of a trading desk) should be responsible for designing and implementing a bank's centralized market risk measurement and monitoring systems, for monitoring aggregate exposures including limit excesses, and for reporting results to the business lines, Senior Management and the Board.

6.6 Risk evaluation/measurement

Market risk factors that affect the value of the traded portfolios, and the income stream and/or value of the non-traded portfolios and other business activities, should be identified and quantified using data that can be directly observed in the markets or implied from observation or history.

Multiple risk measurement methodologies should be used to capture risk under both normal and abnormal market conditions; these may include both probabilistic (Value at Risk) and non-probabilistic (stress-testing, income simulation) approaches as are appropriate for the size and complexity of the positions managed.

The frequency of measurement of market risk should be commensurate with the degree to which the underlying positions may change. Banks measuring risk in traded portfolios should use a valuation approach.

They should develop risk measurement models that relate market risk factors to the value of the traded portfolios or the estimated value of non-traded portfolios. The models for traded portfolios should be able to capture material linear and nonlinear (convexity, options) risks that drive the market values of these securities, and isolate the risks due to individual market components. The underlying liquidity of markets for traded portfolios and the potential impact of changes in market liquidity should be specifically addressed by market risk measures or controls. Banks measuring risk in non-traded portfolios and other business activities may use approaches based on either estimated values or income streams.

The models for non-traded portfolios should be able to isolate material risks stemming from individual market components. For portfolios for which there are no direct market analogs, or for which customer behaviors have a key impact on value, models can be used to account for potential changes in customer behavior and implicit options available to clients that are embedded in a product, such as loan prepayment and deposit withdrawal.

Risk measurement methodologies should reflect the complexity and sophistication of the institution and its risks. The application of measurement methodologies may vary across product and business lines within a bank, depending on the bank's business objectives and the complexity of underlying products.

Where appropriate, market risks may be simply added, reflecting a conservative assumption of no diversification when aggregating across business lines. Banks with sufficient

data, modeling capability and process controls can use a portfolio approach that takes into consideration the correlation and netting of risk across business lines.

The impact of various factors on market risk should be stress tested to evaluate possible but unlikely scenarios. The framework for developing the stress tests may be either qualitative or a quantitative, depending on the complexity of the risk measurement technique. Stress testing should evaluate the impact of macroeconomic factors, geographic concentration, and other factors pertinent to the portfolio. Underlying assumptions regarding client behavior *(e.g.*, mortgage prepayment speeds) that could impact market risk measures should also be stress tested.

Models and any underlying assumptions should be reviewed ex post on a regular basis in order to ensure that they continue to faithfully represent the underlying market or activity they are intended to describe. Models should be reconciled with P/L to determine if they reflect the P/L distribution accurately. Market assessment models (qualitative and quantitative) should also be back tested to evaluate their accuracy and the inherent model risk. The degree of backtesting and validation should be appropriate for the complexity of the model.

Overall risk limits and any allocation of sub-limits to various portfolios should be reviewed and reassessed periodically.

6.7 Independent review

An independent review function that reports directly to Senior Management or the Board should monitor the nature and magnitude of risk exposures as well as the risk management process itself, and should evaluate the effectiveness of the process and its compliance with management's strategies and policies.

6.8 Contingency planning

Contingency plans should be developed in the event of material, adverse changes in both traded and non-traded portfolios and other business activities. Possible mitigation methods should be identified.

6.9 Analyzing Askari Bank's Market Risk Measurement and Management

It is mentioned in the Askari Bank's annual report that Market risk is the risk that interest and foreign rates fluctuate resulting in profit or loss to the bank. The Bank's interest rate exposure comprises those originating from investing and lending activities. The Asset and Liability Management Committee of the Bank monitors and manages the interest rate risk with the objective of limiting the potential adverse effect on the profitability of the Bank.

The Bank's foreign exchange exposure comprises of forward contracts, purchases of foreign bills, foreign currency cash in hand, balances with banks abroad, foreign currency placements with State Bank of Pakistan and foreign currency deposits. The Bank manages its foreign exchange exposure by matching foreign currency assets and liabilities. The net open position and the nostro balances are managed within the statutory limits, as fixed by the State Bank of Pakistan, Counter parties' limits are also fixed to limit risk concentration.

6.9.1 Asset and Liability Management:

The objective of the Asset and Liability management at Askari Bank is to retain interest of the investors by achieving the desired profit levels while keeping the risks within acceptable levels.

The Bank has an Asset and Liability Management Committee (ALCO) that plays a vital role in this process. ALCO undertakes continuous measurement and monitoring of the market risks, interest rate risk and foreign exchange risks that are assessed in the light of the changing market dynamics and strategies are devised and adjusted to mitigate any emerging risk.

The Bank also uses various monitoring and measurement methods for this purpose including interest rate gap analysis and scenario analysis. Several coordinates within the bank provide inputs to ALCO and also ensures that the decisions are duly implemented. The Bank's International Division undertakes dedicated monitoring of all cross-border exposures. The capacity to systematically assess and measure risk and to effectively manage the net open position is crucial, even if a bank uses a simple method to do so. Banks often use a methodology belonging to market risk, which is known as "standard or table-based tools." The exposure in typically expressed in terms of Value at Risk (VAR). I.e. the maximum amount of money that would be lost on a bank's portfolio, estimated with a certain degree of statistical

confidence. Citibank amongst many other banks is using this; Askari bank however is not one that falls in this category. Since such VAR-based models cover a number of market risks, the bank is able to fie tune the portfolio structure and play with various options for portfolio diversification to reduce the risk and/or the associated capital requirements.

As far as the interest rate risk is concerned, which is also a part of the market risk, information given in the annual reports of Askari bank are not enough. Banks should have clearly defined policies and procedures for limiting and controlling interest rate risk. The interest rate measurement system employed by a bank should comprise all material sources of interest rate risk and be sufficient to assess the effect of interest rate changes on both earnings and economic value. The system should also provide a meaningful measure of a bank's interest rate exposure and be capable of identifying any excessive exposures that may arise. Importantly, the system should be based on well-documented and realistic assumptions and parameters. It should cover all assets, liabilities, and off-balance sheet positions, utilize generally accepted financial concepts and risk measurement techniques, and provide bank management with an integrated and consistent view of risk in relation to all products and business lines.

The method financial institutions use to analyze their exposure to interest rate risk is known as the "gap" approach. This approach aims to determine the gap between assets and liabilities that are sensitive to interest rates. In terms of risk management, the gap is closed when sensitive assets or liabilities are adequately priced. The information fed into the software provided by World Bank only satisfies one portion of the table. Banks generally attempt to ensure that the repricing structure of their balance sheet generates maximum benefits from expected interest rate movements. Repricing gap model, for a number of reasons, is useful in determining if interest rate exposure exists, rather than in performing a comprehensive qualitative and quantitative analysis of the exact same nature of a risk.

More sophisticated banking institutions use a mixture of risk management strategies. Recent techniques, such as simulation and duration analysis, also allow for the consideration of offsetting, which occurs as a result of hedging that uses derivative instruments. Such derivative instruments include interest rate swaps, financial futures, and option and forward rate agreements. More sophisticated banks exposure to some degree, particularly in a market that otherwise provides few options for offsetting risk. A more straightforward method is to

obtain yield curve forecasts from a bank and develop an understanding of the institution's rate view. This is a crude, but for the purposes of bank assessment, effective way to understand the potential impact of a given change in interest rates on an income statement and capital and reserves. We can however see from the graphical analysis that this cannot be calculated in Askari Bank's case, as enough information is again not given. Hence the effect of the repricing gap on income and capital that is caused by a change in the forecast yield curve due to a change in a key market rate too cannot be calculated. A bank should normally set limits to the potential impact it is prepared to absorb to its earning and the economic value of its equity in the event of changes in market interest rates. For banks like Askari Bank that engage in traditional banking activities and that do not hold derivatives or instruments with embedded options, simple limits would be enough.

The accounting policies relating to Foreign Currency in the annual report states that foreign currency transactions are translated into Pak Rupees at the exchange rates prevailing on the date of transaction. Asset, liabilities and commitments in foreign currencies are translated into Pak rupees at the exchange rates prevailing at the balance sheet date. Outstanding foreign bills purchased and forward foreign exchange contracts are valued at the rates applicable to the respective maturities. The assets and liabilities of foreign operations are translated to rupees at exchange rates at the balance sheet date. The results of foreign operations are translated at the average rate of exchange for the year. Exchange gains and losses are included in the current income.

Banks that maintain correspondent banking relationships with foreign banks, or that support customer transactions denominated in foreign exchange, are exposed to much higher levels of currency risk. The risk is still higher for banks that mend and/or borrow in foreign exchange, as this may result in open currency positions or maturity mismatches. This business profile is typical of medium-size banks or larger banks like Askari bank, in developing countries. Although a typical bank in a developing country should have a large volume of assets and liabilities denominated in local currency, we can see in Askari bank's case that its majority of the assets and liabilities are in freely convertible currency. In practical terms, currency risk management can be an especially challenging task in countries that lack external convertibility. This, however, is not a threat for Askari bank. As far as the Currency structure of loan portfolio and customer deposits is concerned, we are not in a position to comment, as

enough information is not given and hence the graphical representation is misleading. This graph if given adequate information shows the relationship between loans and the deposits. If the loan portfolio significantly exceeds the funding capacity provided by its deposit base and indicates that the growth has been fueled by other borrowings, including foreign borrowings. The bank is exposed to funding and currency risk. For a bank in a developing country, like Askari bank, where access to international markets is often limited, subject to restrictions, or even closed, due to circumstances over which the bank has no control, a foreign exchange position such as this entails a high-risk exposure.

Currency risk management can be based on gap or mismatch analysis along the same principles as liquidity risk and interest rate risk management. The process should aim to determine the appropriate mismatch or imbalance between maturing foreign assets and liabilities. This match can be evaluated in light of basic information such as current and expected exchange rates, interest rates, and the risk-return profile that is acceptable to bank management. The table regarding the open positions in foreign currencies is a simplistic method to calculate the net effective open position. But it can be seen that due to lack of information this table too could be partially completed hence not presenting a true picture.

Banks in many developing countries often handle freely convertible (Western) currencies as single currency for risk management. The rationale for this approach is that risk exposure arising from movements in the exchange rates of hard currencies is much less than that from fluctuations in domestic currency. In addition, the grouping of freely convertible currencies simplifies currency risk management. This is what Askari bank is doing. While this system is usually adequate in countries where banks are not engaged in forward contracts or derivatives, situations exist in which it may backfire. For example, environmental disasters, political events, and announcements of unexpectedly bad macroeconomic indicators may promptly and significantly increase cross-currency risk.

We can see that Askari bank does not provide maturities of foreign currencies; hence the analysis of a foreign currency deposit's maturity structure could not be calculated. Maturity gaps are typically handled by the use of swaps. This is a relatively sound risk management practice. Again we can see that Askari bank has not used this hedging tool.

The open position of Askari bank in the various currencies, in which it operates, can be seen in the table as well as in the graphical representation (as a percentage of its capital and including aggregate exposure).

A prudent bank should carefully review the names of institutions and individuals with which it does forward exchange business and which request margin cover wherever it is deemed appropriate.

CHAPTER 7: LIQUIDITY RISK MANAGEMENT

*Liquidity ris*k is the potential that an institution will be unable to meet its obligations as they come due because of an inability to obtain adequate funding or liquidate assets.

7.1 Discussion

For banks, the management of liquidity is critical; failure to maintain balance sheet liquidity can mean the failure of the institution. Yet despite this importance, no theoretical or practical consensus has emerged regarding the quantification of liquidity risk or for establishing the cost of maintaining liquidity. The management of liquidity risk remains as much an art as a science.

Even so, certain common elements recur in the liquidity management programs of most banks. Access to funding markets, whether retail or commercial, on balance sheet or off, depends on that market's confidence in the bank itself. Identifying the funding markets to which a bank has access, understanding the nature of those markets, evaluating the bank's current and potential use of a given market, and monitoring markets for signs of confidence erosion are all parts of most liquidity management programs. A second common theme is that the asset side of the balance sheet provides a store of liquidity that can be drawn upon over time. Understanding a bank's ability to sell assets for cash in an orderly manner, in normal circumstances and in stress situations, is common to virtually all banks, although this understanding can be communicated in a number of ways.

Liquidity risk may include also sovereign risk if, for example, a bank were unable to repatriate funds from a foreign country which is experiencing an economic crisis.

7.2 Board and Senior Management responsibility

Senior Management should be responsible for establishing the risk profile of the organization, which may include the establishment of risk oversight, definition of accountability and responsibility, risk/reward profile, standards, and policies and procedures. An overall liquidity risk appetite at the institutional level should be established. The illiquidity of markets should be considered when establishing guidelines.

7.3 Framework for managing risk

Management should ensure that timely and accurate data are available. There should be adequate resources to provide frequent data/information on loans, deposits, wholesale markets, operating cash flows *(e.g*., payroll), and other relevant factors. In banking organizations with significant trading or wholesale funding operations, transactional liquidity by market and maturity should be monitored for evidence of burgeoning liquidity problems resulting either from those markets generally or from a determination of the bank's reputation.

Key performance indicators that signal a weakening of the firm's ability to fund from a given market should be developed, along with a process to monitor and report changes in key variables. Early warning trigger factors should be established so that management can be promptly alerted to potential weakness in the ability to access a particular funding market or to maintain a particular funding position.

Factors that affect the liquidity risk exposure directly or indicate potential problems indirectly should be identified. Relevant variables will depend on the nature of the funding activities of the bank. Examples of key variables include:

- Widening of issuance spreads in wholesale markets
- Decrease in renewal rates in retail CD markets
- Unexpected decreases in uninsured deposit balances across all retail channels
- Increase in turndowns for trades and reductions in outstanding trans-actions or line availability with key counterparties

There should be a clearly defined process to communicate changes in key variables to Senior Management. Since limits are in place to act as a trigger, a notification process should be established for when they are exceeded.

For institutions dependent on wholesale liquidity, maintaining relationships with rating agencies is particularly important.

7.4 Integration of risk management

Because different risks may compound or offset each other, the liquidity risk management process should reflect these interactions. For example, in a situation where low-grade bonds are funded by repurchase agreements with collateralization agreements, a drastic

widening of spreads could result in a requirement to post incremental collateral that is not available, leading to a liquidity crisis.

7.5 Business line accountability

The business unit that accesses the market should be responsible for developing, tracking and communicating changes in indicators of liquidity risk.

7.6 Risk evaluation/measurement

The ability to measure liquidity risk is highly qualitative; "liquidity risk is not so much measured as described." Any assessment of a firm's liquidity risk is based upon management's experience and judgment of many variables, including market conditions and the behavior of counterparties and clients.

An assessment of liquidity should be able to cover on and off-balance sheet third-party obligations over a reasonable time frame, under a reasonable and coherent set of assumptions describing the behavior of clients and counterparties, and with reasonable recognition of the impact of off-balance sheet commitments.

As part of this process, a bank generally needs to forecast its balance sheet, its capital and the cash flow impact of its business activities.

An assessment of liquidity risk should identify components of liquidity risk *(e.g.*, the nature and certainty of inflows versus outflows; the stability of various funding channels, both retail versus wholesale; and the impact of discretionary versus non-discretionary activities). Relative risks of components should be considered, as should seasonal and cyclical factors.
The liquidity of markets and products, and the bank's ability to turn assets into cash, should be considered when establishing holding periods. The estimates used for the amount of time it would take to exit or offset a position should be periodically updated.

7.7 Independent review

An independent function should review processes and procedures in place to manage liquidity risk.

7.8 Contingency planning

Banks should establish contingency liquidity risk plans that address how funding liquidity would be managed if either their specific financial condition were to decline or broader conditions created a liquidity problem. The plan should be reviewed and updated regularly.

A strategy should be developed that highlights how management would control exposures. The plan should include potential action steps to be implemented over various time frames depending on market conditions, and the infrastructure requirements necessary to support those actions. (For instance, a plan that relies on securitizing a loan portfolio should assess the information required to support such a securitization and the ability of the firm's information systems to provide that information. If necessary information cannot not be provided, management would need to reconsider its contingency plans or upgrade its information system.) Also the plan should identify changes in key variables that would cause changes in the distribution and frequency of reporting information to Senior Management. The plan should identify responsibility for communications within and outside the institution *(i.e.*, rating agencies and regulators).

7.9 Analyzing Askari Bank's Liquidity Risk Measurement and Management

It is mentioned in Askari banks annual report that Liquidity risk reflects enterprises inability in raising funds to meet commitments. The Asset and Liability Management Committee (ALCO) manage the Bank's liquidity position. The Committee monitors the maintenance of balance sheet liquidity ratios, depositors concentration both in terms of the over all funding mix and avoidance of undue reliance on large individual deposits and liquidity contingency plan. Moreover, core retail deposits (current accounts and saving accounts) form a considerable part of the Bank's overall funding and significance importance is attached to the stability and growth of these deposits.

The most significant development in prudential liquidity regulation in the last 15 years has been the assessment of liquidity needs by calculating expected cash flows based on the maturity structure of a bank's assets and liabilities.

Funding structure is a key aspect of liquidity management. A bank with a stable, large and diverse deposit base is likely to have fewer liquidity problems. Deposit growth and

structure are both crucial for analysis. The graph relating to customer deposit by sector shows Askari banks focus on private sector.

Maturity mismatches are an intrinsic feature of banking, including the short-term liability financing of medium-term and long-term lending. A graphical view of the Maturity mismatch is provided. The focus of such an analysis is not only the size of the mismatch but also its trends over time, which could indicate that a bank has a potential funding problem.

Another critical aspect of liquidity risk management is dependence on any one particular source of funding, also known as concentration risk. If a bank has a few large depositors and one or more withdraw their funds, enormous problems will occur if alternative sources of funding cannot be found quickly. Hence adequate attention should be given to the mix between wholesale and retail funding and, in connection to this, the exposure to large depositors and whether or not an undue reliance on individual sources of fund exists. We can see that Askari bank in its annual reports has not mentioned anything of the sort. The aim of such as assessment is to establish if the bank is exposed to a major creditor that could cause a liquidity crisis for an individual if it were to withdraw its funding. Askari bank in this regard has not hedged its self against this risk.

A simple forecasting tool for liquidity needs under normal business conditions, under conditions of liquidity crisis, and under conditions of general market crisis is presented in the framework put forth by the World Bank, however since Askari bank has not categorized its cashflows accordingly an analysis could not be provided. Projections of a bank's liquidity crisis situation should start to be derived systematically and rigorously as soon as it foresees persistent liquidity shortfalls or experiences difficulties rolling over or replacing its liabilities.

The liquidity Statistic graph of Askari bank shows no mention of volatile liabilities. The percentage of loans funded from the banks own sources has steadily decreased. The assessment of a bank's liquidity, whether by banks themselves, by supervisors, or by outsider analysts, is a complex process that cannot be reduced to any single technique or set of formulae.

In reality, a bank's position and reputation within the financial community influence its liquidity management options. This connection is based on many factors, the more crucial of which is both past and prospective profitability.

CHAPTER 8: OTHER METHODS OF ANALYZING RISK

The goal of Financial management in to maximize the value of a bank, as determined by its profitability and risk level. Since risk is inherent in banking and unavoidable, the task of financial management is to manage it in such a way that the different types of risk are kept at acceptable levels and profitability is sustained. Doing so requires the continual identification, quantification, and monitoring of risk exposure, which in turn demands sound policies, adequate organization, efficient processes, skilled analysts, and elaborate computerized information systems. In addition, risk management requires the capacity to anticipate changes and to act in such a way that a bank's can be structured and restructured to profit from changes, or at least to minimize losses. Supervisory authorities should not prescribe how business is conducted, but should instead maintain prudent oversight oversight of a bank by evaluating the risk composition of its assets and by insisting that an adequate amount of capital and resources is available to safeguard solvency.

8.1 Balance Sheet Structure and Management

Asset and liability management, which involve the raising and utilization of funds, lie at the financial heart of a bank. More specifically, asset/liability management comprises strategic planning and implementation and control processes that affect the volume, mix, maturity, interest rate sensitivity, quality, and liquidity of a bank's assets and liabilities. The primary goal of asset/liability management is to produce a high-quality, stable, large, and growing flow of net interest income. This goal is accomplished by achieving the optimum combination and level of assets, liabilities, and financial risk.

8.1.1 Asset Structure

The analyst should be able to assess the likelihood of risk in the bank simply by analyzing the relative share of various asset items and the changes in proportionate share over time. For example, in the case of Askari bank, by comparing the asset components of 2002 and 2003 we can see a jump in the loan portfolio from 45% to 56.4%. One would question if the bank's credit risk management systems are adequate to enable handling of the increased volume of loan transactions and of the loan portfolio.

8.1.2 Liability Structure

Looking at the balance sheet we can see that an increase in the level of nonretail deposits funding, such as repurchase agreements or certificates of deposits, could expose the bank to greater volatility in satisfying its funding requirements, requiring increasingly sophisticated liquidity risk management. Funding instruments such as repurchase agreements also expose a bank to market risk, in addition to liquidity risk. The funding structure of a bank directly impacts its cost of operation and therefore determines the bank's profit potential and risk level.

Competition for funds is a normal part of any banking market, and depositors, both households and corporations, often aim to minimize idle funds. A bank should therefore have a policy on deposit attraction and maintenance and procedures for analyzing, on a regular bases, the volatility and character of the deposit structure so that funds can be productively utilized even when the probability of withdrawal exists. Analyst of the deposit structure should determine the percentage of hard-core, stable, seasonal, and volatile deposits.

Repurchase agreements may expose banks to interest rate or market risks if they involve underlying securities, and even to a credit risk if the buyer is unable to follow through on its commitments.

A bank that is well positioned and successful in its market can be expected to grow. An analysis of balance sheets can be performed to determine growth rates and the types of structural changes that occur in a bank. This can be seen in Askari bank's Total growth graph, which illustrates the overall growth of a bank's assets and capital. In addition, it highlights the extent to which a bank's growth is balanced, or the extent to which the bank has been able to maintain regulatory capital requirements in relation to total assets and risk-weighted asset growth. The cause for declining net interest margins must be assessed to determine the extent of low-earning or nonearning assets, particularly those with high risk. By looking at the graph of low and nonearning assets as a percentage of total assets we can see that they increased but in the year 2002 decreased.

As part of the risk associated with off-balance sheet items, it is important that the extent of the liability or right is quantified. This can be accomplished by assessing the nature, volume and anticipated usage of credit commitments, contingent liabilities, guarantees, and

other off-balance sheet items. Sensitivity to market changes that affect such instruments should also be determined in the context of the overall risk to the company.

8.1.3 Asset/Liability Management: Planned Changes in the Balance Sheet Structure

The management of balance sheet structure is the core of a sound, modern bank. The central objective of this process- to stabilize and maximize the spread between interest pain to raise funds and interest earned on the bank's assets, and at the same time to ensure adequate liquidity and an acceptable level of risk- is as old as the banking system itself. The need for good asset/liability management has significantly increased. The adoption of techniques for such management is also a prerequisite for a more integrated approach to managing the risks associated with balance sheet and off-balance sheet items.

In order for asset/liability management to be effective, it must be based on clear performance targets and a consistent conceptual framework. Decisions in this area should be made in a coordinated manner and be effectively executed, a process that necessitates the establishment of a formal institutional structure responsible for asset/liability management committee (ALCO).

8.2 Profitability

A sound banking system is built on profitable and adequately capitalized banks. Profitability is a revealing indicator of a bank's competitive position in banking markets and of the quality of its management. It allows a bank to maintain a certain risk profile and provides a cushion against short-term problems. Profitability, in the form of retained earrings, it typically one of the key sources of capital generation.

A bank's income statement is a key source of information about the sources and the structure of its income. A bank with low interest expense and thus low funding costs, is clearly better positioned than one with high interest expense, as it is able to lend at market rates with a higher interest margin.

The information contained in a bank's income statement provides an understanding of the institution's business focus and the structure and stability of its profits. In order to facilitate a comparison between different types of banking institutions, various income statement items, such as interest margins, fee and investment income, and overhead are usually expressed as a

percentage of total assets. By using the asset base as a common denominator, banks are able to compare themselves to the sector average and to other types of banks. When aggregated, such information can also highlight changes that occur within a peer group or the banking sector.

The analysis of profitability starts by considering the structure of a bank's income and its components- interest income, transaction-based fee income, trading income, and other sources of income- and the trends over the observation period. And as can be seen Askari bank has not clearly categorized its income, hence a graphical representation was not possible. The composition of a bank's gross income enables an analyst to determine the quality and stability of a bank's profit, including its sources and any changes in their structure. The asset versus income structure graph's purpose is to determine exactly how the assets of a bank are engaged and whether or not the income generated is commensurate with the proportion of assets committed to each specific asset category. Assets should normally be engaged in product categories that provide the highest income at an acceptable level of risk.

Liabilities make up the source of funding to which various interest expense categories are related. An analytical comparison of classes of interest expense with related liability categories highlights a bank's exposure to specific sources of funding, and reveals if structural changes are taking place in its sources of funding. The graph of sources of income versus costs analysis's how a bank's income covers its operating expenses. In Askari bank's case, the net interest income on loan portfolio significantly contributes to the bank's profitability and to its capacity to carry the operating costs. The stability of the bank has increased as interest income is considered to be stable. Askari bank's gross incomes as well as operating expenses have shown significant growth in the observation period. Operating income is one of the items on a bank's income statement that can be controlled. One acceptable reason for the increase in operating expenses could be that this was due to investments in human resources and banking infrastructure that could be expected to pay off in the future.

The graph relating to operating income ratios could provide the analyst with information on the relationship between a bank's expenses and earning capacity, as well as on whether or not the bank has optimized its potential. Income and expenses are presented in relation to total assets.

8.2.1 Profitability indicators

Profit is the bottom line or ultimate performance result showing the net effects of bank policies and activities in a financial year. Its stability and growth trends are the best summary indicators of a bank's performance in both the past and future. Profitability is measured by all or part of a set of financial ratios. Modern bankers par a great deal of attention to the message that is revealed by ratio analysis. Banks usually manage profitability by trying to beat market averages and keep profits steady and predictable; which in turn attracts investors. Ratios are therefore extremely useful tools, but as with other analytical methods, they must be used with judgment and caution, since they alone do not provide complete answers about the bottom line performance of banks. As can be seen in the case of Askari bank, enough information is not provided to give the output in the form of ratios, although clear percentages are provided in the annual reports relating to profitability. This makes us question the reliability of the ratios and the platform used to measure them.

Strong and stable net interest margins have traditionally been the primary objective of bank managers, and are still primary determinant of intermediation efficiency and earning performance. An analysis of the interest margin of a bank can highlight the effect of current interest rate patterns, while a trends analysis over a longer period of time can show the effect of monetary policy on the profitability of the banking system. The Average Yield differential on intermediation business graph depicts this. The net interest margin of the bank has shown a decrease. We need to see if this was due to systemic reasons such as increased competition. This decrease could also be due to an increase in the cost of funds.

Bottom line profitability ratios- the return on equity and assets- indicate the net results of a bank's operations in a financial year or over a period of time. The ROA and ROE graph shows how to adjust these profitability ratios by deducting an assumed cost of capital to show the real profit of a bank by comparing the return on equity to the after-tax return on risk-free governments securities, one can determine whether or not equity invested in the bank has earned any additional returns, as compared to risk-free investments. But since Askari bank does not provide information in its annual reports relating to interest rates on risk free securities, one cannot be in a position to say.

8.3 Capital Adequacy

Almost every aspect of banking is either directly or indirectly influenced by the availability and/or the cost of capital. Capital is one of the key factors to be considered when the safety and soundness of a particular bank is assessed. An adequate capital base serves as a safety net for a variety of risks to which an institution is exposed in the course of its business. Capital absorbs possible losses, and thus provides a basis for maintaining depositor confidence in a bank. Capital is also the ultimate determinant of a bank's lending capacity.

The risk weighting of assets and off-balance sheet positions has provided a major step toward improved objectivity in assessing the adequacy of bank capital. The simplicity of this methodology has enabled it to be introduced in banking systems that are in the early stages of development. For capital adequacy assessment, the derivative instruments are converted according to the same principles as the other types of off-balance sheet exposures.

The minimum risk based standard for capital adequacy was set by the Basel Accord at 8 percent of risk-weighted assets, of which the core capital element should be at least 4 percent. In addition to standard capital ratios, the new Basel proposal includes two other pillars: supervisory reviews and market discipline. The market discipline pillar is intended to impose strong incentives on banks to conduct their business in a safe, sound, and efficient manner. It could therefore reinforce regulatory and supervisory efforts as a third pillar.

8.3.1 Capital Adequacy Assessment

A capital adequacy starts with analysis of the components of a bank's capital, as illustrated in the graph 'components of shareholders funds.' The core capital components, including common stock and retained earnings, should account for more than 50 percent of the total capital, as mandated by the Basel Accord. We can however see that this is not the case in Askari bank. The changes in volume of capital and its structure over time are also significant. Any changes in capital, especially reductions involving core capital, should be credibly explained. The analyst could also compare the changes in capital volume to the bank's risk profile as illustrated in the graphs 'risk profile of assets' and risk profile of on and off balance sheet items.' In general, the changes in capital volume should be in concert with the expected changes in the risk profile, to provide an adequate cushion for the bank's risk exposure. But

this analysis could not be carried out for Askari bank due to lack of information regarding capital.

Capital ratio indicates whether or not the bank is meeting minimum capital requirements. In Askari bank's case as far as capital adequacy is concerned; a true picture cannot be represented, as enough detailed information is not given for a comprehensive analysis.

CHAPTER 9: RECOMMENDATIONS

The goal of financial management is to maximize the value of a bank, as defined by its profitability and risk level. Financial management comprises risk management, a treasury function, financial planning and budgeting, accounting and information systems, and internal controls. In practical terms the key aspect of financial management is risk analysis and management, which covers strategic and capital planning, asset/liability management, and the management of a banks business and financial risks. The central component of risk management are the identification, quantification, and monitoring of the risk profile.

The risks associated with banking include product, market, and customer (loan portfolio) risk. Banks have little or no control over thee external risks, which are affected by changes in the economic and business demographic shifts. As already discussed, these risks have increased significantly in the last two decades, in particular because of the impact of increasing competition and volatility in the economic environment and in financial markets. Volatile prices have also contributed to the introduction of new financial instruments and services and to the determination of their success in the market place, since financial innovation has rarely been the norm during periods of stable prices.

The main types of financial risk include capital adequacy and liquidity, credit, interest rate, currency, and price risks. The operational objective of risk management is to identify, quantify, and properly balance the elements of financial risk, many of which are interdependent to some degree. The ongoing operations of a bank affect financial risk factors and therefore require continuous attention.

Effective risk management requires good risk analysis and a formal process. I feel that this is one are that Askari banking is lacking in- a good risk analysis and hence a not so adequate risk management, like most other banks in Pakistan. Although on the face of it Askari bank is performing well and is one of the top banks in Pakistan. But nonetheless there is always room for improvement in ways to hedge oneself again the various risks that a bank is exposed to. In developing econmies-espicially those in transition- unstable, volatile economic and shallow market environments significantly increase the range and the magnitude of bank exposure to financial risk. Such conditions render risk management even more acute. Hence I have put forth the following recommendations for Askari bank, which not only pertains to its

functioning of risk analysis and management, but can also be employed and implemented in the banking industry as a whole.

	Financial and other Risk Management Areas
Corporate Governance	Balance Sheet Structure / Income Statement Structure / Solvency Risk and Capital Adequacy / Credit Risk / Liquidity Risk / Interest Rate Risk / Market Risk / Currency Risk
Key Players and Responsibilities	**Accountability (dimension of risk for which responsible)**
SYSTEMIC:	
Legal and Regulatory Authorities	Set regulatory framework, including risk exposure limits and other risk management parameters, which will **optimize** risk management in the banking sector
Supervisory Authorities	**Monitor** financial viability and effectiveness of risk management. Check compliances with regulations
INSTITUTIONAL:	
Shareholders	**Appoint** "fit and proper" boards, management, and auditors
Board of Directors	Set risk management and other bank **policies**. Ultimate responsibility for the entity
Executive management	Create systems to **implement** board policies, including risk management, in day-to-day operations
Audit Committee/Internal Audit	Test **compliance** with board policies
External Auditors	Express **opinion** and **evaluate** management policies
PUBLIC:	
Investors/Depositors	Understand **responsibility** and insist on proper disclosure. Take responsibility for own decisions
Rating Agencies and Media	**Inform** the public and emphasize downside risk
Analyst	Analyze risk-based information and **advise** clients

- What firstly needs to be done is to ensure that each of the above mentioned key players play their roles efficiently in ensuring a proper and complete analysis of risk measurement and management. This cooperative and combined effort can guarantee an absolute and representative picture of risk analysis in the banking sector of Pakistan

- There should be an established line function at the highest level of the bank's management hierarchy that is especially responsible for risk management, and possibly also for coordination of the operational implementation of ALCO policies and decisions. An introduction of a Risk Management Division would greatly facilitate and efficiently manage and analyze risk. This would place the risk management function on par with other major functions and provide it with the necessary visibility and leverage within the bank.

- There should be an established, explicit, and clear risk management strategy and a related set of policies with corresponding operational targets.

- Introduction of an appropriate degree of formalization and coordination of strategic decision making in relation to the risk management process. Relevant risk management concerns and/or parameters for decision making on the operational level should also be incorporated for all relevant business and functional processes. Parameters for the main financial risk factors (normally establishes according to the risk management policies of a bank and expressed as ratios or limits) can serve as indicators to business units of what constitutes an acceptable risk. For example, a debt-to-equity ratio for a bank's borrowers is a risk parameter that expresses a level of credit risk. Maximum exposure to a single client is a risk parameter that indicates credit risk in a limited form.

- The bank's business and portfolio decisions should be based on rigorous quantitative and qualitative analysis within applicable risk parameters. This process, including an analysis of a consolidated risk profile, is necessary due to the complex interdependencies of and the need to balance various financial risk factors. Because the risk implications of a bank's financial position and changes to that position are not always obvious, details may be critical importance.

- Development of quantitative modeling tools to enable the simulation and/or analysis of the effects of changes in economic, business, and market environments on a bank's risk profile and the related impact on its liquidity, profitability, and net worth. Computer

models used by banks range from simple PC- based tools to elaborate mainframe modeling systems. Such models can be built in-house or be acquired from other financial institutions with a similar profile, specialized consulting firms, or software vendors. The degree of sophistication and analytical capacity of such models used by a bank may indicate early on the seriousness of a bank toward risk management. The framework set by the World bank could be a good tool for risk analysis and management.

- Systematic gathering of complete, timely, and consistent data relevant for risk management, and provision of adequate data storage and manipulation capacity. Data should cover all functional and business processes, as well as other areas such as macroeconomic and market trends that may be relevant to risk management.

- Disclosure in the Financial Statements. This is the one of the most important factors that the Banking Industry of Pakistan lacks and one of the main reasons why a proper quantitative analysis of Askari bank could not be properly carried out. Askari bank, aside from following the guidelines or the Prudential Regulations provided by the State Bank of Pakistan (SBP), is following the Banking Companies Ordinance, 1962 (LVII of 1962), and the Companies Ordinance, 1984 (XLVII of 1984). Disclosure is an effective mechanism to expose banks to market discipline. Although a bank is normally subject to supervision and provides regulatory authorities with information, this information is often confidential or market-sensitive, and is not always available to all categories of users. Disclosure of financial statements should therefore be sufficiently comprehensive to meet the needs of other users within the constraints of what can reasonably be required. Improved transparency through better disclosure may reduce the chances of a systemic banking crisis, since creditors and other market participants will be better able to distinguish between the financial circumstances that face different institutions and/or countries. As can be expected, specific disclosure requirements vary among regulators. Nonetheless, certain key principles have become international standards. Historically, generally accepted accounting practices (GAAP) did not place heavy burdens of disclosure on banks. This situation has changed with the introduction

of IAS, specifically IAS 30, *Disclosure in the Financial Statements of Banks and Similar Financial Institutions.* The central objectives of IAS 30 are to describe the reporting requirements of a bank that reflects its specialized nature, and to encourage management to comment on financial statements describing the way liquidity, solvency, and risks associated with the operations of a bank are managed and controlled.

- What the need of the hour is for State Bank of Pakistan (SBP) to take certain drastic measures though which it can improve the disclosure requirements. It needs to improve and work upon its Prudential Regulations which is has provided to banks as a benchmark, because these guidelines are essentially qualitative in nature. Askari bank is complying which these regulations but a bigger picture- through quantitative analysis- says otherwise. And this is the case for the whole Pakistani banking industry. Unless and until measures are taken at the top, only then can proper risk analysis and assessment be possible, which will have a trickle down effect, hence improving the performance of the entire banking industry of Pakistan.

References

-Annual Reports of Askari Bank (year 1999-2003)

-Financial Institutions Management, Anthony Saunders and Marcia Millon Cornett

-Analyzing Banking Risk by Hennie van Greuning and Sonja Brajovic Bratanovic

-Risk Management, Guidelines for Commercial banks and DFIs

-International Financial Reporting Standards, Illustrative Bank Financial Statements 2002

http://www.askaribank.com

http://www.gloriamundi.org/picsresources/guiding9906.pdf

http://www.statpak.gov.pk/