



Bank of Zambia

RISK MANAGEMENT GUIDELINES

FOR

FINANCIAL SERVICE PROVIDERS
REGULATED BY BANK OF ZAMBIA

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1. SHORT TITLE

These Risk Management Guidelines are issued pursuant to Section 125 of the Banking and Financial Services Act, Chapter 387 of the Laws of Zambia. These Guidelines may be cited as the Banking and Financial Services Risk Management Guidelines, 2008.

2.0 OBJECTIVES

These Guidelines are issued in line with the Bank of Zambia's move towards fully implementing a risk based approach to supervision of all Financial Service Providers (FSPs). Under the risk based approach to supervision, the supervisory focus is on ensuring that the management of all FSPs identifies, measure, control and monitor the levels and types of risks assumed. In situations where risk is not properly managed, the Bank of Zambia shall direct management to take appropriate corrective action, which may include reducing exposures, increasing capital, strengthening risk management processes and/or taking other prompt corrective measures.

For institutions belonging to a group, the Bank of Zambia shall determine whether the risks at an individual institution are mitigated or increased by the activities and condition of the entire group.

The objective of risk management is to assess the manner in which the FSP manages all its risks including operational risk, credit risk, market risk, reputational risk and legal risk exposures; understand what drives it, allocate capital against it and identify trends internally and externally that would help predict it.

For the purpose of these guidelines, FSPs refer to commercial banks, financial institutions or financial businesses.

3.0 DEFINITIONS

In these Guidelines, unless the context otherwise require -

‘Bank’ shall have the same meaning as contained in the Banking and Financial Services Act;

‘Bank of Zambia’ means the Bank of Zambia established under the Bank of Zambia Act;

‘Board’ means a board of directors of a bank or financial service provider as provided in Section 30 of the Banking and Financial Services Act;

‘Business Continuity Management (BCM)’ is the process that identifies potential impacts that threaten an FSP and provides a framework for building resilience and the capability for an effective response that safeguards the interests of its key stakeholders, reputation, brand and value creating activities. (*Business Continuity Institute*).

‘Chief Executive Officer’ means the person responsible, under the immediate authority of the board of directors, for the conduct of the business of an institution;

‘Credit Risk’ means the risk to earnings or capital that a counterparty, issuer or borrower will not settle an obligation for full value, either when due or at any time thereafter. (*Risk Management for Electronic Banking and Electronic Money Activities. Bank for International Settlements. March 1998*).

‘Financial Service Provider’ means a commercial bank, financial institution or financial business;

‘Foreign Exchange Risk’ means the risk to earnings or capital arising from the movement in foreign exchange rates. (*Bank Supervision Process, Comptroller’s Handbook, Comptroller of the Currency. April 1996*).

‘Internal Control’ means a process effected by the institution’s board of directors, management and other personnel designed to provide reasonable assurance regarding the achievement of objectives such as effectiveness and efficiency of operations, reliability of financial reporting and compliance with applicable laws and regulations;

‘Internal Audit’ means an independent, objective assurance and consulting activity designed to add value and improve an organization’s operations and which helps an organization accomplish its objectives by bringing a systematic, disciplined approach to

evaluate and improve the effectiveness of risk management, control, and governance processes;

‘Interest Rate Risk’ means the exposure to earnings or capital resulting from adverse movements in interest rates;

‘Liquidity Risk’ means the risk that an FSP will not settle an obligation for full value without incurring unacceptable losses

‘Market Risk’ means the risk of losses in on- and off-balance sheet positions arising from movements in market prices, including foreign exchange rates refers. (*Risk Management for Electronic Banking and Electronic Money Activities. Bank for International Settlements. March 1998*)

‘Operational Risk’ means the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. (*Core Principles Methodology. Basle Committee on Banking Supervision. October 2006*)

‘Reputation Risk’ means the risk of negative public opinion that result in a critical loss of funding or customers (*Risk Management for Electronic Banking and Electronic Money Activities. Bank for International Settlements. March 1998*)

‘Risk’ means the chance of something occurring that may have an impact on the achievement of the financial service provider’s desired statutory and strategic objectives, measured in terms of the impact of the event and likelihood of its occurrence;

‘Legal Risk’ means the violations of, non-compliance with laws, rules, regulations, or prescribed practices or when the legal rights and obligations of parties to a transaction are not well established.

‘Strategic Risk’ means the risk to earnings or capital arising from adverse business decisions, improper implementation of those decisions. (*Bank Supervision Process, Comptroller’s Handbook. Comptroller of the Currency. April 1996*).

4.0 APPLICATION OF THESE GUIDELINES

These Guidelines apply only to those FSPs as defined in these guidelines and operating in Zambia. The implementation of risk, management processes, policies and systems should be commensurate with the size and complexity of the FSP.

5.0 RISK MANAGEMENT SYSTEMS

The Guidelines set out the minimum requirements for risk management systems and frameworks that FSPs are required to have in place. The Guidelines are in line with international best practices. For this reason, the Bank of Zambia will require each FSP to put in place an independent risk management structure that concentrates fully on the risk management function and develop its own comprehensive Risk Management Programme (RMP) tailored to its needs and circumstances.

5.1 Risk Management Structure

The Board of Directors is responsible for understanding the risks run by the FSP and ensuring that these risks are appropriately managed. The board shall approve the establishment of limits by assessing the FSP's risk and risk-bearing capacity. The Board shall ensure there is a Risk Management Function that reports directly to the board. The risk manager must be sufficiently independent of the business lines in order to ensure an adequate separation of duties and the avoidance of conflicts of interest.

The Risk Management Committee or the risk manager shall take full responsibility for evaluating the overall risks faced by the FSP and determining the level of risks that will be in the best interest of the FSP. The functions of the Risk Management Committee or risk manager are to identify, measure, monitor, and control the risks undertaken by the FSP.

Each institution to develop its own comprehensive Risk Management Programme (RMP) tailored to its needs and circumstances. At a minimum, the RMP shall cover:

- a) Operational Risk;
- b) Credit Risk;
- c) Strategic Risk;
- d) Liquidity Risk;
- e) Market Risk;
- f) Reputational Risk; and
- g) Legal Risk.

The RMP shall include:

Risk Identification

In order to manage risks, the risks must first be identified. Every product and service offered by an FSP has a unique risk profile composed of multiple risks. For example, at least four types of risks are usually present in most loans: credit risk, interest rate risk, liquidity risk and operational risk. Risk identification should be a

continuous process and risk should be understood at both the transaction and portfolio levels.

Risk Measurement

Once the risks associated with a particular activity have been identified, the next step is to measure the significance of each risk. Each risk should be viewed in terms of its three dimensions: size, duration and probability. Management should set risk limits and put in place models for internal risk rating and stress testing. Accurate and timely measurement of risk is essential to effective risk management systems.

Risk Control

Once the risks have been identified and measured for significance, they may be controlled or their impact minimised by:

1. avoiding or placing limits on certain activities/risks
2. mitigating the risks; and/or
3. offsetting the risks.

It is a primary management function to balance expected rewards against risks and the expenses associated with controlling risks. FSPs should establish and communicate risk limits through policies, standards and procedures that define responsibility and authority. Management should put in place internal controls aimed at ensuring that risks are prudently managed. The internal audit and external audit functions as well as the compliance function are an integral part of the risk control process.

Risk Monitoring

FSPs should have management information systems (MIS) that accurately identify and measure risks at the inception of transactions and activities. It is equally important for management to have MIS that monitor significant changes in risk profiles, as MIS serves as important management tool making decisions about risk. In general, monitoring risks means developing reporting systems that identify adverse changes in the risk profiles of significant products, services, and activities and monitoring changes in controls that have been put in place to minimize adverse consequences. There is need for management to have a risk management unit or process in place that monitors the level and nature of risk in the FSP.

5.2 Basic Elements of a Sound Risk Management System

At a minimum, the risk management programme shall contain the following elements:

Organizational Structure

The FSP shall have a well defined organisational structure that will be used to manage risks. The organizational structure will vary from FSP to FSP and will depend upon the nature, size and scope of FSP's business activities. However, the structure does not absolve the directors of their fiduciary responsibility of ensuring the safety and soundness of the FSP. The organisational structure must take into account the strategy and risk policy set by the board and it must be supported by a strong MIS for controlling, monitoring and reporting risks, including transactions between the FSP and its affiliates.

Board and Senior Management Oversight

The board of directors shall be responsible for the level of risk taken by their institutions. The board shall establish the overall business strategies and policies of their institutions, including those related to managing and taking risks and the board shall ensure that senior management is fully capable of managing the FSP's activities. The board of directors is responsible for understanding the nature of risks the FSP faces and ensuring that management is taking the steps necessary to identify measure, monitor and control these risks.

The board shall ensure it receives regular reports that identify the size and significance of the risks and provide clear guidance regarding the level of exposures acceptable to their institutions. The directors are responsible for ensuring that senior management implements the procedures and controls necessary to comply with adopted policies.

Senior management is responsible for implementing strategies in a manner that limits the risks associated with each strategy. Management must be fully involved in the FSP's activities and possess sufficient knowledge of all major business lines to ensure that appropriate policies, controls and risk monitoring systems are in place and that accountability and lines of authority are clearly delineated. Senior management is also responsible for establishing effective internal controls and instituting high ethical standards. Senior managers must have a thorough understanding of developments in the financial sector.

Policies, Procedures and Limits

The board and senior management shall tailor the risk management policies and procedures to the risks that the FSP faces. The policies and procedures should provide detailed guidance for the

implementation of the business strategies and include limits designed to shield the institution from excessive and imprudent risks. The policies and procedures should be reviewed regularly to respond to significant changes in the FSP's activities or business conditions. Management shall ensure that the policies and procedures are distributed to members of staff so that they are knowledgeable of them and are in a position to adhere to them.

Risk Monitoring and Management Information Systems

Senior management must put systems in place to identify and measure all material risk exposures which are supported by information systems that provide senior managers and directors with timely reports on the financial condition, operating performance and risk exposure of the FSP.

The sophistication of risk monitoring and MIS must be consistent with the complexity and diversity of the institution's operations. Every FSP must have management and board reports that support risk-monitoring activities. FSPs are expected to have risk monitoring and MIS in place that provide directors and senior management with a clear understanding of the FSP's risk exposures.

Internal Controls

An institution's internal control structure is critical to the safe and sound functioning of the institution, in general, and to its risk management, in particular. Establishing and maintaining an effective system of controls, including the enforcement of official lines of authority, and the appropriate separation of duties, is one of management's more important responsibilities. Indeed, segregating duties is a fundamental and essential element of a sound risk management and internal control system. Failure to implement and maintain an adequate separation of duties can constitute an unsafe and unsound practice and possibly lead to serious losses or otherwise compromise the financial integrity of the institution. Serious lapses or deficiencies in internal controls, including the inadequate segregation of duties, may warrant supervisory action.

When properly structured, a system of internal controls promotes effective operations and reliable financial and regulatory reporting, safeguards assets, and helps to ensure compliance with relevant laws, regulations and institutional policies. An independent and suitably qualified internal auditor who reports directly to the board's Audit Committee should test internal controls. Given the importance of appropriate internal controls to FSPs, the results of audits or reviews conducted by an internal auditor or other persons, should be adequately documented, as should management's responses to them.

A good risk management system should, at a minimum, embrace the above aspects. Senior management should regularly review its risk

management programme to assess the programme's adequacy in coping with developments in the industry. Understanding the risk profiles of products and services, and balancing them with actions taken to reduce the adverse consequences of risk-taking, allows an institution to optimize revenues and maximize the use of capital.

6.0 OPERATIONAL RISK

6.1 Board Oversight

The board of directors shall explicitly address operational risk as a distinct and controllable risk to the FSP's safety and soundness. The board shall:

1. Define the FSP's overall risk tolerance level in relation to operational risk;
2. Approve the operational risk policy;
3. Establish an operational risk strategy. The operational risk strategy shall be based on the requirements and obligations to the FSP's stakeholders and shall the FSP's business continuity plans (BCP). The BCPs shall specify in detail the recovery of the FSP's mission critical activities/processes. Business Continuity Management (BCM) must be embedded in the FSP's work culture;
4. Establish a management structure capable of implementing the strategy; and
5. Ensure that the internal audit functions are properly established with adequate authority, scope and resources to enable them to operate professionally and proficiently in line with the international standards for the professional practice of internal audit as issued by the Institute of Internal Auditors.

6.2 Senior Management Oversight

Senior management shall implement the operational risk management policy set by the board. At a minimum, the policy shall include:

1. The strategy given by the board of the FSP;
2. The systems and procedures to institute effective operational risk management framework;
3. The structure of operational risk management function and the roles and responsibilities of individuals involved.

The policy shall establish a process to ensure that any new or changed activity, such as new products or systems conversions, are evaluated for operational risk prior to rollout. Such evaluations shall be approved by the board and documented. Management shall ensure that this is communicated and understood throughout the FSP.

Management must put into place appropriate monitoring and control processes for effective implementation of policy. The policy should be regularly reviewed and updated to ensure it continues to reflect the environment within which the FSP operates.

6.3 Operational Risk Identification and Measurement

6.3.1 Risk Identification

Risk identification is vital for the development of a viable risk monitoring and control system. Effective risk identification considers both internal and external factors that pose a risk to the FSP. Internal factors include the FSP's structure, nature of the FSP's activities and employee turnover. External factors include changes in the industry, technology and economic environment. Risk identification should include a determination of which risks are controllable by the FSP and which are not. Sources of operational risk include outsourcing risk, people risk, process risk, information risk, management information system risk, and technology risk.

6.3.2 Outsourcing Risk

This risk arises from the likelihood that a party contracted in an outsourcing arrangement does not meet its obligations fully, or does so in manner that is detrimental to the FSP. Outsourcing arrangements include service provider contracts, strategic alliances, partnerships, and joint ventures.

Although outsourcing can provide a number of benefits, it can expose institutions to the same operational risks that arise when activities are conducted internally, as well as the risk of service interruption arising from suppliers not meeting their contractual obligations.

6.3.3 People Risk

People risk exposure may arise from a number of contributing factors. These include:

1. Inadequate screening when recruiting;
2. The lack of adequate skills or knowledge;
3. Inadequate training and development;
4. Improperly aligned compensation schemes or incentives;

5. The lack of understanding of performance standards and expectations; and
6. Inadequate human resource controls (including supervision and segregation of incompatible duties).

An effective human resource management program facilities:

1. The identification of human resource requirements (giving attention to the segregation of incompatible duties);
2. The recruitment of competent personnel with skills and knowledge to perform the position's requirements;
3. The enhancement of human resources competencies through ongoing training and development;
4. The assignment of responsibilities and delineating accountabilities (including setting performance standards or expectations);
5. The assessment of performance against responsibilities and expectations;
6. The compliance with corporate values by personnel;
7. The extension of appropriate and effective level of management throughout the institution;
8. The delegation of adequate and appropriate authority;
9. The setting of clear and unambiguous responsibilities and accountabilities;
10. Decision making by individuals who are in a position to assess the implications of the decisions;
11. Employees reporting to an appropriate level of authority; and
12. Personnel being aware of authority delegated to them and others, and any restrictions on the use of the delegated authority.

There must be an effective segregation of duties with a clear separation of responsibilities between those persons who authorise, supervise, initiate or execute transactions, and those who record and account for the transactions.

6.3.4 Process Risk

No process can completely preclude the possibility of the incorrect completion or recording of transactions. Documenting significant business activity and risk management processes, policies, procedures and controls can assist in reducing the occurrence of undetected errors or misconduct. It also assists in identifying the factors within significant business activities and risk management that are susceptible to these risks, evaluating the probability and potential significance of their occurrence, ensuring that sufficient preventive detective controls are in place safeguard the business activities, assets, financial and other key information of the institution and of its customers, and providing guidance to individuals in the performance of their responsibilities.

6.3.5 Integrity of Information Risk

This risk relates to incorrect or inappropriate decisions being made because accounting or other key information does not accurately reflect the results of business activities. Good accounting, record keeping and valuation practices provide assurance that:

1. accounting policies and practices are appropriate to the FSP's circumstances and condition;
2. appropriate records and other key information are maintained;
3. a FSP has effective controls over accounting and other key information, particularly relating to authorised access;
4. the quality and value or amount of assets and liabilities are regularly monitored and reviewed;
5. a FSP's assets and liabilities are appropriately valued and accounted for; and
6. individuals or groups with decision-making responsibilities can be provided with complete, accurate and timely information.

6.3.6 Management Information System Risk

Timely, accurate and meaningful information about an institution's operations and risks is required at all decision-making levels to facilitate the making of informed decisions and the effective oversight thereof. Management information systems are a critical tool for communicating information to decision-makers in a form that enables them to review and act on the information.

The frequency with which information is prepared, the level of detail, the amount of narrative analysis and explanation and the form in which information is communicated will depend upon the nature and

significance of the business operation or risk being managed as well as the level of authority of those to whom it is addressed. An institution should review its systems regularly to assess the current relevance of information generated and the adequacy and quality of the system's performance over time.

6.3.7 Technology Risk

FSPs are dependent on information and communication technologies, including the facilities, platforms, computer systems (hardware and software), data files and other technological systems supporting the operation of an institution. Such technology may represent a significant investment for an institution. The potential for loss from disruption to business activities because of inadequate or obsolete technology, or from a failure or interruption in technology caused by events within or outside an institution, presents a potentially significant risk.

Technology development and maintenance processes provide assurance that there is a current and planned technology strategy and the investment in and use of technology within the institution fits its business strategy and business activity needs; and technologies are subject to a prudent process of authorisation, testing and documentation before they are put into place.

Safeguarding processes provide assurance that technology facilities, hardware, software, data files etc, have integrity; and access to technologies, including recorded, processed, reported and stored information to authorised persons.

Back-up and recovery processes and standby arrangements enable an institution to continue to conduct its business activities in the event of a technological or other disruption. Given the possible severity of effects of an interruption or failure, these arrangements should be reviewed and stress-tested periodically.

6.4 Risk Monitoring and Management Information Systems

All FSP should implement a system to monitor, on an on-going basis, operational risk exposures and loss events by major business lines. FSPs should monitor operational losses directly, with an analysis of each occurrence and a description of the nature and causes of loss provided to senior managers and the board of directors.

6.5 Risk Assessment and Quantification

Having identified the risks, FSPs need to assess their vulnerability to these risks. Effective risk assessment allows a FSP to better understand its risk profile and effectively target risk management resources. There are a number of tools used by FSPs for identifying

and assessing operational risks. These include self-assessment, risk mapping, risk indicators and risk measurement.

Financial service providers must systematically track and record frequency, severity and other information on individual loss events. Such data should provide meaningful information for assessing the FSP's exposure to operational risk and developing a policy to control/mitigate that risk.

6.6 Risk Monitoring Process

FSPs must use forward-looking operational risk indicators that are directly linked to established threshold levels. The results of these monitoring activities must be included in regular operational risk reports for the board and senior management, as must compliance reviews performed by the internal audit and/or risk management functions.

6.7 Internal Control System

For all material operational risks that have been identified, a FSP needs to decide whether to use appropriate procedures to control/mitigate the risks, or bear the risks. For those risks that it can control, an effective internal control system must be in place. The typical elements of an effective system should include, at a minimum:

1. Management oversight;
2. Checks for compliance with controls;
3. Policies, processes and procedures concerning non-compliance issues;
4. Reliable information systems;
5. Documented approvals and authorisations to ensure accountability; and
6. Segregation of duties.

Segregation of duties is particularly important. Areas of potential conflict of interest must be identified, minimised and subjected to careful independent monitoring and review. In addition, responsibilities for managing, controlling and/or mitigating the risks must be clearly delineated.

6.8 Business Continuity Management

BCM is an integral part of risk management, and is a required outcome of the risk management program for operational risk. BCM should result in the formulation of Business Continuity Plans (BCP),

which should specify in greater detail the recovery of the FSP's mission critical activities/processes.

Disaster Recovery involves protecting Information and Communication Technology (ICT) infrastructure and data from disabling loss after an equipment or site failure. Business Continuity Management, on the other hand, is a comprehensive enterprise-wide oriented approach to maintaining the availability of mission critical activities and data, in spite of any kind of disruption. Disaster Recovery is, therefore, just one component of Business Continuity Management

6.8.1 Board of Directors Oversight

The overall responsibility over the financial service provider's BCM lies with the Board of Directors. It must approve the BCM policy, procedures and practices which must be documented into a BCM program. The Board must also receive and review reports on exercises, assessments and maintenance of the BCM program periodically undertaken to ensure its effectiveness.

6.8.2 Senior Management Oversight

Senior management has overall accountability and responsibility for the effectiveness of the FSP's BCM capability. Senior management must formulate and implement the BCM program which is approved by the board and ensure that the program is given the correct level of importance within the FSP and a greater chance of effective implementation.

The starting point for senior management in developing and implementing a BCM program is BCM policy formulation. The policy formulation should be followed by senior management achieving an understanding of the FSP's business through conducting Business Impact Analyses (BIA) and Risk Assessments (RA) of their organisations. Strategies should then be formulated at organisation (corporate), process and resource recovery levels, which will allow an appropriate response to be chosen for each mission critical activity.

At a minimum, senior management should formulate and implement a Business Continuity Plan (BCP) that will detail the steps to be taken during and after an incident to restore operations. The BCP must demonstrate senior management understands the FSP's business and what activities or processes are essential to ensure continuity of business critical activities.

There are three BCM response strategies to be developed and implemented. These are:

1. **Strategic Level - Crisis Management Plan (CMP)** is the plan that management invokes to manage the situation during

an incident or crisis. The CMP provides a documented framework to enable an organisation to manage any crisis event regardless of cause.

2. **Tactical Level - Business Continuity Plan (BCP)** is a documented collection of procedures and information that an FSP develops, compiles, and maintains in readiness for use in an incident to enable the FSP to continue to deliver its mission critical activities or services. This provides a documented framework and process to enable the organisations to resume all of its business processes (or, at a minimum those required most rapidly) within their Maximum Tolerable Outage.
3. **Operational Level - Business Unit Resumption Plan** is a plan which management invokes to assist in the recovery and continuity of mission critical activities during and after a business disruption. This structures the response of each operational department to an interruption for effective resumption of their normal business functions.

Throughout this process, senior management should strive to integrate the FSP's BCM culture within the organisation's strategic, and day-to-day, management and alignment with its business priorities. The FSP must be able to demonstrate that its strategies and plans are effective, credible and fit-for-purpose through exercising, maintenance and auditing.

7.0 CREDIT RISK

7.1 Board Oversight

It is the responsibility of the board of directors to approve the credit risk strategy and policies relating to credit risk and its management, which should be based on the FSP's overall business strategy and reviewed annually. The responsibilities of the board with regard to credit risk management shall include:

1. Defining the FSP's overall risk tolerance level in relation to credit risk;
2. Ensuring that the institution's overall credit risk exposure is maintained at prudent levels and is consistent with the available capital;
3. Reviewing and approving credit risk management policies recommended by the institution's senior management;
4. Reviewing and approving exposures to insiders, i.e. directors or firms in which they are partners, directors, or officers, and any other related parties;

5. Ensuring that top management, as well as individuals responsible for credit risk management, possess sound expertise and knowledge to accomplish the risk management function;
6. Ensuring that senior management implements sound fundamental principles that facilitate the identification, measurement, monitoring and control of credit risk;
7. Ensuring that appropriate plans and procedures for credit risk management are in place;
8. Ensuring that internal audit reviews the credit operations to assess whether or not the institution's policies and procedures are adequate and adhered to;
9. Reviewing trends in portfolio quality and the adequacy of the institution's provision for credit losses; and
10. Approving the overall lending authority structure, and explicitly delegating credit sanctioning authority to senior management and the credit committee.

The board shall establish at executive management level a Credit Risk Management Committee (CRMC) which shall report directly to the board. At a minimum, the CRMC shall be responsible for:

1. Implementing the credit risk policy and strategy approved by the board;
2. Monitoring credit risk on an FSP-wide basis and ensuring compliance with limits approved by the board;
3. Recommending to the board, for its approval, clear policies on standards for presentation of credit proposals, financial covenants, rating standards and benchmarks; and
4. Recommending the delegation of credit approving powers, prudential limits on large credit exposures, standards for loan collateral, portfolio management, loan review mechanism, risk concentrations, risk monitoring, evaluation and control, pricing of loans, provisioning, regulatory and legal compliance, etc.

7.2 Senior Management Oversight

Senior management is responsible for implementing the institution's credit risk management policies and ensuring that procedures are put in place to manage and control credit risk and the quality of the credit portfolio in accordance with these policies.

The senior management of each FSP should:

1. Develop and recommend credit risk management policies for approval by the board of directors;
2. Implement the risk management policies;
3. Manage, monitor and control credit risk;
4. Develop and implement appropriate management information systems to permit the effective analysis and the sound and prudent management and control of existing and potential credit risk exposure;
5. Monitor and control the nature and composition of the institution's credit portfolio;
6. Develop an internal credit risk rating model;
7. Monitor the quality of the credit portfolio and ensure that the portfolio is soundly and conservatively valued, uncollectible exposures written off and probable losses adequately provided for; and
8. Review and assess the credit portfolio and credit risk management programme.

7.3 Policies and Procedures

At a minimum the FSP's credit policy should include:

1. detailed and formalized credit evaluation and appraisal processes;
2. credit approval authority at various hierarchy levels, including authority for approving exceptions;
3. risk identification, assessment, measurement, monitoring and control;
4. risk acceptance criteria (RAC);
5. credit origination, credit administration and loan documentation procedures;
6. roles and responsibilities of units/staff involved in origination management of credit;
7. guidelines on the management of problem loans;
8. guidelines on large credit exposures and connected lending;

9. the institution's plan to grant credit based on various client segments and products, economic sectors, geographical location, currency and maturity;
10. the target market within each lending segment and preferred level of diversification or concentration; and
11. the pricing strategy.

The credit policy shall spell out the escalation process to ensure appropriate reporting and approval of credit extension beyond prescribed limits. The policy shall also spell out authorities for unsecured credit approvals of disbursements in excess of limits and other exceptions to the credit policy.

In order to be effective these policies must be clear and communicated down the line. Furthermore, any significant deviation or exception to these policies must be communicated to the top management and/or the board and corrective measures taken.

7.4 The Credit Risk Management Framework

7.4.1 Credit Origination

FSPs must operate within a sound and well-defined criteria for new credits, as well as the expansion of existing credits. Credits must be extended in line with the lending strategy of the institution.

7.4.2 Credit Risk Identification

All sources of credit risk, including political, economical, business, social/cultural and technological, must be identified and analysed before granting a credit. The identification process must be comprehensive in order to capture all key risks for an effective assessment.

7.4.3 Credit Risk Assessment

Before extending a credit facility, the FSP must assess the risk profile of the customer/transaction taking into consideration:

1. The borrower, borrower's industry and macro economic factors;
2. The purpose of credit and source of repayment;
3. The track record/repayment history of borrower;
4. The repayment capacity of borrower;

5. The proposed terms and conditions and covenants;
6. The adequacy and enforceability of collaterals;
7. The authority to borrow; and
8. The credit risk-rating framework/model.

In the case of new relationships, the integrity and reputation of the borrower or counter party and their legal capacity to assume the liability must be taken into consideration. Prior to entering into any new credit relationship, the FSP must become familiar with the borrower or counter party and be confident that they are dealing with an individual or organization of sound reputation and credit worthiness. However, a FSP or FSP must not grant credit based on the fact that the borrower is perceived to be highly reputable, i.e. name lending must be avoided.

FSPs must endeavour to ensure that the credit is used for the purpose it is borrowed. Where the obligor has utilized funds for purposes not shown in the original proposal, FSPs must take steps to determine the implications on creditworthiness. In case of corporate loans where the borrower is part of a group of companies, the credit assessment must be conducted on a consolidated basis.

All syndicate participants must perform their own independent analysis and review of syndicate terms.

FSPs must not be overly reliant on collateral and/or covenants. The primary focus should be on obligor's debt servicing ability and reputation in the market.

7.4.4 Limit Setting

FSPs must develop their own limit structure while remaining within the exposure limits set by the Bank of Zambia. FSPs should establish limits to check whether the degree of concentration risk is within the FSP's strategy.

In instances where the obligor shares its facility limits with related companies, FSPs must review such arrangements and impose necessary limits if the transactions are frequent and significant.

At a minimum, credit limits must be reviewed annually and more frequently if the obligor's credit quality deteriorates.

7.4.5 Credit Risk Measurement

FSPs must establish a credit risk-rating framework across all types of credit activities. At a minimum, the rating framework should incorporate the following:

1. Business Risk
 - a) industry characteristics;
 - b) competitive position (e.g. marketing/technological edge);
 - c) management.
2. Financial Risk
 - a) financial condition;
 - b) profitability;
 - c) capital structure;
 - d) present and future cash flows.

A well-structured credit rating framework is an important tool for monitoring and controlling the risk inherent in individual credits, as well as the credit portfolios of an FSP or a business line. An internal rating system categorizes all credits into various classes on the basis of underlying credit quality and credit risk. While a number of FSPs already have systems for rating individual credits in addition to the credit classification categories prescribed by BoZ, all FSPs should devise internal rating frameworks which cover, at a minimum:

1. Credit selection;
2. Amount of exposure;
3. Tenure and price of facility;
4. Frequency or intensity of monitoring;
5. Analysis of migration of deteriorating credits and more accurate computation of future loan loss provision; and
6. Deciding the level of approving authority of loan.

The internal rating system must be commensurate with the size, nature and complexity of the FSP's business and possess the flexibility to accommodate the current and future risk profile, the anticipated level of diversification, and the sophistication in lending activities.

The rating system must have sufficient gradations to permit the accurate characterization of the underlying risk profile of a loan or portfolio of loan. Key issues relating to the operating design of a rating system include what exposures to rate; the organization's division of responsibility for grading; the nature of ratings review; the formality of the process and specificity of formal rating definitions.

7.4.6 Provisioning Procedures

The credit policy must clearly outline the provisioning procedures for all credits and applicable capital charge. The methodology for the

Allowance for Loan Losses should be based in part on internal risk ratings and its adequacy would be reflective of overall asset quality.

7.5 Credit Risk Administration

At a minimum, the credit administration unit must ensure:

1. The completeness of documentation (loan agreements, guarantees, transfer of title of collateral, etc) in accordance with approved terms and conditions of the loan facility;
2. That the loan application has been approved in accordance with the credit policy;
3. The loan is continuously monitored after the loan is approved and draw down allowed. This includes keeping track of borrowers' financial condition and compliance with credit terms, identifying early signs of irregularity, conducting periodic valuations of collateral, and monitoring timely repayments;
4. Collateral (Lien) is registered in accordance with legal requirements; and
5. Credit files are maintained and kept up to date. The credit files must contain all correspondence with the borrower and sufficient information necessary to assess the borrower's current financial conditions, repayment performance. This information should be filed in an organized and referenced manner.

7.6 Credit Risk Mitigation

FSPs must have stringent procedures and processes to control the risks arising from the use of credit risk mitigation techniques and have these procedures and processes well documented in the policies.

Credit risk mitigation techniques may be taken into account when calculating capital subject to the following conditions being present.

7.6.1 Collateral

1. The legal environment must provide for right of liquidation or right of possession in a timely manner in the event of default;
2. All documentation used for collateralised lending is binding on all parties and is legally enforceable;
3. The steps taken for obtaining and maintaining enforceable security, for example, registration, right of set-off or transfer of title meet all the legal requirements;
4. Ensure that procedures are put in place to safeguard collateral;

5. Procedures are established to track and review relevant insurance coverage for collateral; and
6. Physical checks on security documents are conducted on a regular basis.

7.6.2 Guarantees and Credit Derivatives

Where guarantees or credit derivatives are explicit, irrevocable and unconditional, and the Bank of Zambia is satisfied that the FSP fulfils certain minimum operational conditions relating to its risk management processes.

7.6.3 On-balance Sheet Netting

An FSP may calculate its capital adequacy requirements on the basis of net credit exposures provided that:

1. The netting or offsetting agreement is enforceable in each relevant jurisdiction regardless of whether the counterparty is insolvent or bankrupt;
2. The FSP is able, at all times, to determine the assets and liabilities that are subject to the netting agreement;
3. The FSP monitors and controls its roll-off risks; and
4. The FSP monitors and controls the relevant exposures on a net basis.

7.7 Credit Risk Monitoring and Control

Senior management must put in place a system to monitor the quality of the credit portfolio on a continuous basis and take remedial measures when necessary. The credit policy should explicitly provide procedural guidelines relating to credit risk monitoring. At the minimum, the procedural guidelines should lay down the following:

1. The roles and responsibilities of individuals responsible for credit risk monitoring;
2. The assessment procedures, analysis techniques and credit risk monitoring reports (for individual loans and overall portfolio);
3. The frequency of monitoring;
4. The periodic examination of collaterals and loan covenants;
5. The frequency of site visits; and
6. The identification of any deterioration in any loan.

7.8 Stress Testing

Senior management must analyze the macro environment to identify events that could lead to substantial losses or liquidity problems on a regular basis and take appropriate action where the results exceed agreed tolerance levels.

7.9 Credit Risk Review

The credit risk review process must be independent of the credit origination, approval, collection and monitoring functions. Senior management must establish mechanisms to assess the credit risk management process independently on a continuous basis. All facilities, except those managed on a portfolio basis, must be subjected to an individual risk review at least once quarter. The results of such reviews must be documented and reported directly to the board, or senior management who are not involved in the lending process. The purpose of such reviews is to assess the credit administration process, the accuracy of credit rating, and the overall quality of credit portfolio, independent of the relationship with the obligor. The credit review must be conducted on a consolidated group basis to factor in the business connections amongst entities in a borrowing group.

7.10 Managing Problem Credits

Senior management must establish a system that identifies problem credits ahead of time when there may be more options available for remedial measures. Problem loans must be managed under a dedicated remedial process. Where possible, the function of managing problem credits must be segregated from the credit origination function.

The credit risk policies must clearly set out how problem credits will be managed. A problem loan management process should encompass the following basic elements:

1. Follow-ups - by maintaining frequent contact with obligors and internal records of follow-up actions;
2. Remedial strategies – debt recovery strategies must be approved by management prior to implementation;
3. Collateral and security documentation review ensure the completeness and enforceability of contracts and collateral/guarantees; and
4. Status report and review to assess progress made of the remedial plans.

8.0 STRATEGIC RISK

8.1 Board Oversight

The board shall ensure that:

1. There is clear guidance and direction given to senior management on the underlying principles of the strategic risk management framework;
2. Risk management practices are an integral part of strategic planning. These include: identifying risk; setting the risk appetite (tolerance levels); measuring and analysing risk; and monitoring and controlling risk;
3. The mission statement, strategic goals, objectives, and corporate culture are effectively communicated and consistently applied throughout the institution;
4. The assumptions in the strategic and business plans are consistent with the present condition of the FSP, the local economy and the competitive environment, and consist of reasonable and measurable targets;
5. A budget is prepared and approved. Senior management shall be charged with the responsibility of implementing the budget;
6. Management information systems effectively support strategic direction and initiatives; and
7. Initiatives are well conceived and supported by appropriate communication channels, operating systems, and service delivery networks. The initiatives are supported by capital for the foreseeable future and pose only nominal possible effects on earnings volatility.

8.2 Senior Management Oversight

Senior management shall:

1. Develop and recommend the strategic plan for approval by the board of directors that includes but is not limited to the following;
2. Develop and recommend strategic risk management policies for approval by the board of directors;
3. Implement the risk management policies;
4. Manage, monitor and control strategic risk; and
5. Review and assess the strategic risk management programme.

8.3 Policies and Procedures

Effective management of strategic risk requires that policies, procedures and limits are established to ensure the objective evaluation of and responsiveness to an FSP's business environment. Policies on business strategy are critical in defining the business segments that the institution will focus on, both in the short and long run. There must be clear guidelines on the frequency and procedure for review of the FSP's business strategy. Procedures for defining and reviewing the FSPs' business strategy are intended to ensure that the following aspects are given adequate consideration:

1. The FSP's inherent strengths;
2. The FSP's identified weaknesses;
3. The FSP's opportunities external to the institution; and
4. The FSP's external factors that pose threats to the institution.

8.4 Limits

Limits are necessary to control or mitigate strategic risk. Limits must be set when:

1. Defining new business plans necessary to deliver products or services in a profitable and effective manner;
2. Defining business units exposed to different sectors of the economy;
3. The FSP plans significant growth, new products or services, new branches, or other strategic initiatives; and
4. Defining staff strength. The process must have the right staff in the right roles to deliver and support the operations of FSP.

8.5 Monitoring Strategic Risk

Senior management must deploy an integrated MIS that enables the board and management to monitor:

1. Current and forecasted political, economic, social and technological conditions; and
2. Current and forecasted distinctive competences.

8.6 Internal Controls and Audit

FSPs need strong internal control systems to ensure that they are not unduly exposed to strategic risks. Internal controls must be put in place to ensure that:

1. The FSP structure establishes clear lines of authority; and
2. The FSP's systems and structures provide for business continuity management; and
3. The process of setting up and reviewing strategic plans is comprehensive and carefully adhered to.

8.7 Business Continuity Management

To mitigate strategic risk, the board and senior management shall:

1. Have in place a flexible strategic planning process that addresses its goals and objectives ("strategic flexibility"). The process should identify critical business processes, including those dependent on external vendors or other third parties, for which rapid resumption of service would be essential; and
2. Periodically review and update the business plans and strategies to reflect changes in the organisation's personnel and in the strategic risks that the organisation might face.

9.0 LIQUIDITY RISK

9.1 Board Oversight

The board shall ensure that the FSP has a liquidity risk management framework in place. The board shall:

1. Approve the FSP's strategic direction and tolerance level for liquidity risk;
2. Appoint senior managers who have the ability to manage liquidity risk and delegate to them the required authority to accomplish the job;
3. Monitor continuously the FSP's performance and overall liquidity risk profile;
4. Ensure that liquidity risk is identified, measured, monitored and controlled; and
5. Ensure that the liquidity management framework is regularly reviewed by an internal audit function.

9.2 Senior Management Oversight

Senior management shall:

1. Develop and implement procedures and practices that translate the board's goals, objectives and risk tolerance into operating standards that are well understood by the FSP's personnel;
2. Adhere to the lines of authority and responsibility that the board has established for managing liquidity risk;
3. Oversee the implementation and maintenance of management information and other systems that identify, measure, monitor, and control the FSP's liquidity risk;
4. Establish effective internal controls over the liquidity risk management process;
5. Establish and review the FSP's contingency plans for handling disruptions to its ability to fund some, or all, of its activities in a timely manner and at a reasonable cost; and
6. Implement a system for:
 - a) maintaining a stock of liquid assets that is appropriate to the FSP's cash flow profile and that can be readily converted into cash without incurring undue capital losses;
 - b) measuring, controlling and scenario testing of funding requirements; and
 - c) managing access to funding sources.

9.3 Liquidity Risk Management Policy

Senior management shall formulate comprehensive liquidity policies that take into account all on and off-balance sheet activities which are approved by the board of directors. The key elements of the liquidity policy shall include:

1. General liquidity strategy (short- and long-term), specific goals and objectives in relation to liquidity risk management, process for strategy formulation and the level of approval within the institution;
2. Roles and responsibilities of individuals performing liquidity risk management functions, including structural balance sheet management, pricing, marketing, contingency planning, management reporting, lines of authority and responsibility for liquidity decisions;

3. Liquidity risk management structure for monitoring, reporting and reviewing liquidity;
4. Liquidity risk management tools for identifying, measuring, monitoring and controlling liquidity risk (including the types of liquidity limits and ratios in place and rationale for establishing limits and ratios);
5. Where a FSP is actively involved in multiple currencies and/ or where positions in specific foreign currencies are significant to its business, its liquidity policy should address the measurement and management of liquidity in these individual currencies which should include a back-up liquidity strategy for circumstances in which its normal access to funding in individual foreign currencies is disrupted;
6. Contingency plan for handling liquidity crises; and
7. Ongoing analysis of funding sources and the distribution of liabilities.

To be effective the liquidity policy must be communicated down the line. The board and senior management must review the policy at least once a year, and when there are any material changes in the FSP's current and prospective liquidity risk profile.

9.4 Procedures

Senior management must establish appropriate procedures and processes to implement the liquidity policies. At a minimum, the procedures and processes must include the following:

1. A procedures manual which should explicitly narrate the necessary operational steps and processes to execute the relevant liquidity risk controls;
2. Periodic review and updating of the manual to take into account new activities;
3. Accurate identification and quantification of the primary sources of an FSP's liquidity risk in a timely manner;
4. Identification of both existing as well as future risks that the institution can be exposed to; and
5. Identification of new sources of liquidity risk at both the transaction and portfolio levels.

9.5 Limits

Senior management must set limits which are appropriate to the size, complexity and financial condition of the FSP. The limits must be periodically reviewed and adjusted when conditions or risk tolerances change. When limiting liquidity risk exposure, senior management must consider the nature of the FSP's strategies and activities, its past performance, the level of earnings, capital available to absorb potential losses, and the board's tolerance for risk. Senior management shall use a variety of ratios to quantify liquidity and create limits for liquidity management.

In addition, the FSP's balance sheet complexity shall determine how much and what types of limits should be established over daily and long-term horizons. While limits will not prevent liquidity crisis, limit exceptions can be early indicators of excessive risk or inadequate liquidity risk management.

9.6 Measuring and Monitoring Liquidity Risk

Senior management should institute systems that enable them to capture liquidity risk ahead of time, so that appropriate remedial measures can be taken to avoid significant losses. An effective liquidity risk measurement and monitoring system helps manage liquidity in times of crisis and also optimises return through the efficient utilisation of available funds. The key elements of an effective risk management process include an efficient MIS and systems to measure, monitor and control risks. A strong management information system that is flexible enough to deal with various contingencies that may arise is central to making sound decisions related to liquidity.

An FSP's liquidity management systems must include the monitoring of:

1. The maturity profile of cash flows under varying scenarios;
2. The stock of liquid assets available to the institution and their market values;
3. The ability of the FSP to execute assets sales in various markets (notably under adverse conditions and to borrow in markets);
4. Potential sources of volatility in assets and liabilities (and claims and obligations arising from off-balance sheet business);
5. The impact of adverse trends in asset quality on future cash flows and market confidence in the FSP;
6. Credit standing and capacity of providers of standby facilities to meet their obligations;

7. The impact of market disruptions on cash flows and on customers;
8. Intra-group cash flows and the accessibility of intra-group funding;
9. The type of new deposits being obtained, as well as its source, maturity, and price; and
10. Funding concentrations or large deposits.

9.7 Internal Controls and Audit

The FSP must implement a review process that ensures the compliance of various procedures and limits prescribed by the board and senior management. An FSP must have an adequate system of internal controls over its liquidity risk management process. There must be regular, independent reviews and evaluations of the effectiveness of the system. Exceptions must be reported to the board or senior management immediately and necessary action taken. At a minimum, the fundamental component of the internal control system must include:

1. An adequate process for identifying and evaluating liquidity risk;
2. The establishment of control activities such as policies and procedures and adequate information systems with regular independent reviews and evaluations of the effectiveness of the system; and
3. Ensuring that appropriate revisions or enhancements to internal controls are made.

9.8 Contingency Planning

An FSP must have a plan for stress scenarios in order to develop a comprehensive liquidity risk management framework. A Contingency Funding Plan (CFP) is a projection of the FSP's future cash flows and sources under various market scenarios, including aggressive asset growth or rapid liability erosion. To be effective the CFP must represent management's best estimate of balance sheet changes that may result from liquidity or credit events. At a minimum, an effective CFP must contain the following:

1. Specific procedures to ensure the timely and continuous flow of information to senior management;
2. A clear division of responsibility within management in a crisis;

3. Action plans for altering asset and liability behaviours (i.e., market assets more aggressively, sell assets intended to hold, raise interest rates on deposits);
4. An indication of the priority of alternative sources of funds (i.e., designating primary and secondary sources of liquidity);
5. A classification of borrowers and trading customers according to their importance to the FSP in order to maintain customer relationships; and
6. Plans and procedures for communicating with the media.

10.0 MARKET RISK

Market risk comprises interest rate risk, foreign exchange risk and price risk.

10.1 Interest Rate Risk Management

The objective of interest rate risk management is to manage the FSP's interest rate risk exposure and minimise loss arising from adverse interest rate movements.

10.1.1 Board oversight

The board is responsible for:

1. Approving business objectives, strategies policies and procedures that govern or influence the interest rate risk of the FSP. The board is responsible for ensuring that management takes the steps necessary to identify, measure, monitor and control/mitigate the risks;
2. Reviewing the FSP's objectives with respect to interest rate risk and ensuring the provision of clear guidance regarding the level of interest rate risk that is acceptable for the FSP;
3. Approving policies that identify lines of authority and responsibilities for managing interest rate risk exposure;
4. Approving new products, or position taking strategies;
5. Establishing and maintaining effective internal controls; and
6. Putting in place measures to hedge against interest rate movements.

The first element of risk strategy is to determine the level of market risk the FSP is prepared to assume. The FSP's risk appetite in relation

to market risk must be assessed taking into consideration the FSP's capital position and exposure to other risks. Once the market risk appetite is determined, the FSP must develop a strategy for market risk-taking to maximise returns while keeping its market risk exposure at or below the pre-determined level.

The board must take into consideration economic and market conditions and the resulting effects on market risk when establishing the interest rate risk strategy. The strategy must be reviewed periodically and effectively communicated to staff. There must be an interest rate risk management process to identify shifts from the approved interest rate risk strategy and target markets, and to evaluate the resulting impact. The board of directors must periodically review the FSP's financial results and determine changes that may need to be made to the strategy.

10.1.2 Senior Management Oversight

Senior management is responsibility for:

1. Developing and implementing procedures that translate the business policy and strategic direction set by the board into operating standards that are well understood by the FSP's personnel;
2. Ensuring adherence to the lines of authority and responsibility that the board has established for measuring, managing, and reporting interest rate risk;
3. Overseeing the implementation and maintenance of an MIS that identifies, measures, monitors, and controls the FSP's market risk;
4. Establishing and maintaining effective internal controls to monitor and control interest rate risk;
5. Maintaining appropriate limits on risk taking;
6. Putting in place measures to hedge against interest rate movements;
7. Maintaining adequate systems and standards for measuring risk;
8. Maintaining a comprehensive interest rate risk reporting and interest rate risk management review process; and
9. Maintain effective internal controls.

10.1.3 Policies and Procedures

FSPs must have clearly defined policies and procedures. The policies and procedures must;

1. Delineate lines of responsibility and accountability over interest rate risk management decisions and should clearly define authorised instruments, hedging strategies and position taking responsibilities;
2. Identify the types of instruments and activities that the FSP may employ or conduct, thus acting as a means through which the board can communicate their risk tolerance on a consolidated basis and at different legal entities;
3. Identify quantitative parameters that define the level of interest rate risk acceptable for the FSP and where appropriate, such limits should be further specified for certain types of instruments, portfolios and activities;
4. Be reviewed annually and revised as needed, so as to define the specific procedures and approvals necessary for exceptions to policies, limits and authorisations; and
5. Delineate a clear set of institutional procedures for acquiring specific instruments, managing portfolios and controlling the FSP's aggregate interest rate risk exposure.

10.1.4 Limits

Limits must be set for the interest rate risk exposures. At a minimum, the limits should;

1. Enable management to control interest rate risk exposures, initiate discussion about opportunities and risk, and monitor actual risk taking against predetermined risk tolerances;
2. Ensure that positions that exceed certain predetermined levels receive prompt management attention;
3. Be consistent with overall approach to measuring interest rate risk;
4. Should be approved by the board of directors and re-evaluated periodically;
5. Be appropriate to the size, complexity and capital adequacy of the FSP, as well as its ability to measure and manage its risk; and
6. Be identifiable with individual business units, portfolios instrument types or specific instruments.

FSPs must have adequate information systems for measuring, monitoring, controlling and reporting interest rate risk exposures. These reports must be produced and given to the board, senior management and business line managers on a timely basis.

At a minimum, the reports that must be provided are;

1. Violation of approved responsibilities by line managers when taking interest rate risk exposures;
2. Excesses over approved interest rate limits; and
3. Any exceptions highlighted by the internal auditor.

10.1.5 Measuring Interest Rate Risk

Accurate and timely measurement of interest rate risk is necessary for proper risk management and control. Interest rate risk factors that affect the value of traded portfolios and the income stream or value of non-traded portfolio and other business activities must be identified and quantified using data that can be directly observed in markets or implied from observation or history. While there is a wide range of risk measurement techniques ranging from static measurement techniques (e.g. Gap analysis) to highly sophisticated dynamic models (e.g. Monte Carlo Simulation), the technique employed by the FSP must take into consideration the nature, size and complexity of the business, and most importantly, the availability and integrity of data.

The FSPs may adopt multiple risk measurement methodologies to capture interest rate risk in various business activities. However, management must have an integrated view of overall interest rate risk across products and business lines. The risk measurement system must support meaningful evaluation of the effect of stressful market conditions on the FSP. Stress testing must be designed to provide information on the kinds of conditions the FSP's strategies or positions would be most vulnerable to. Stress testing must highlight conditions under which key business assumptions and parameters break down. The usefulness of each model depends on the validity of underlying assumptions and the accuracy of the basic methodologies used to model interest rate risk exposure.

At a minimum, the measurement system must:

1. Assess all material risk factors associated with an FSP's assets, liabilities, and off balance sheet positions;
2. Utilise generally accepted financial concepts and risk measurement techniques;

3. Have well documented assumptions and parameters. The assumptions underlying the system must be clearly understood by risk managers and senior management;
4. Assess the effects of rate changes on both earnings and the capital of the FSP;
5. Provide meaningful measures of the FSP's current levels of interest rate risk exposure; and
6. Be capable of identifying any excessive exposures that might arise.

The FSP must develop risk measurement models that relate interest rate risk factors to the value of the traded portfolios or the estimated value of non-traded portfolios. The underlying liquidity of markets for traded portfolios and the potential impact of changes in market liquidity must be specifically addressed by interest rate risk measures.

In designing interest rate risk measurement systems, FSPs must ensure that the degree of detail about the nature of their interest-sensitive positions is commensurate with the complexity and risk inherent in those positions.

10.1.6 Monitoring Interest Rate Risk

Risk monitoring processes must be established to evaluate the performance of the FSP's risk strategies/policies and procedures in achieving the FSP's goals. Whether the monitoring function is performed by the middle-office or it is a part of the FSP's internal audit, it must be independent of the units taking the risk and report directly to the board or senior management.

FSPs must have an information system that is accurate, informative and timely, to ensure the dissemination of information to management to support compliance with board policy. Reporting of risk measures must be done regularly and must compare current exposures to policy limits. Past forecast or risk estimates must be compared with actual results to identify any shortcomings in the risk measurement techniques. The board must review these reports on a regular basis.

At a minimum, the following reports should be prepared.

1. Summaries of the FSP's interest rate risk exposure;
2. Reports demonstrating the FSP's compliance with policies and limits; and
3. Summaries of the review findings of interest rate risk policies, procedures and the adequacy of risk measurement system,

including any findings of internal/external auditors or consultants.

10.1.7 Interest Rate Risk Control

An FSP's internal control structure ensures the effectiveness of process relating to market risk management. One of senior management's most important responsibilities is establishing and maintaining an effective system of controls, including the enforcement of official lines of authority and the appropriate segregation of duties. Persons responsible for risk monitoring and control procedures must be independent of the functions they review. Key elements of the internal control process include internal audit and review and an effective risk limit structure.

10.1.8 Internal Controls and Audit

The FSP must review and validate each step of the interest rate risk measurement process. This review function can be performed by the internal audit department. In small FSPs, external auditors or consultants can perform the function. The audit or review should take into account.

1. The appropriateness of the FSP's risk measurement system given the nature, scope and complexity of the FSP's activities;
2. The accuracy or integrity of data being used in risk models;
3. The reasonableness of scenarios and assumptions;
4. The validity of risk measurement calculations;
5. The establishment of control activities such as policies, procedures and methodologies;
6. An adequate information system; and
7. Continuous review of adherence to established policies and procedures. This is an important element of an FSP's internal control system over its interest rate risk management process. Such reviews should be conducted regularly by internal auditors or other individuals who are independent of the function they are assigned to review.

10.2 Foreign Exchange Risk Management

10.2.1 Board oversight

The Board is responsible for:

1. Approving business objectives, strategies policies and procedures that govern or influence the foreign exchange risk of the FSP. The board is responsible for ensuring that management takes the steps necessary to identify, measure, monitor and control/mitigate the risks;
2. Reviewing the FSP's objectives with respect to foreign exchange risk and ensuring the provision of clear guidance regarding the level of foreign exchange risk that is acceptable for the FSP;
3. Approving policies that identify lines of authority and responsibilities for managing foreign exchange risk exposure;
4. Approving new products or position taking strategies;
5. Establishing and maintaining effective internal controls;
6. Reviewing and approving procedures to measure, manage and control foreign exchange risk within which foreign exchange transactions shall be conducted; and
7. Putting in place measures to hedge against foreign exchange rate movements.

10.2.2 Senior Management Oversight

At a minimum: senior management shall:

1. Identify and have a clear understanding and working knowledge of the foreign exchange risks inherent in the FSP and make appropriate efforts to remain informed about these risks as financial markets, risk management practices and the FSP's activities evolve;
2. Develop and implement procedures that translate business policy and strategic direction set by the board into operating standards that are well understood by all staff; and
3. Put in place measures to hedge against foreign exchange movements.

10.2.3 Policies, Procedures and Limits

At a minimum, FSPs must have:

1. Written policies governing on and off-balance sheet activities in foreign currencies that communicate the expectations of the board to management and staff. These policies must reflect the FSP's risk tolerance for the various risks arising from foreign currency activities;
2. Limits governing foreign exchange operations;
3. Policies that include the frequency with which revaluations shall be performed for both management and accounting purposes with management revaluation being more frequent;
4. Policies and guidelines that clearly identify the type of products and services offered, define the jobs and responsibilities for the dealing and operational functions, code of conduct for the foreign exchange personnel, operational controls, reporting requirements, profitability expectations and tolerance for losses; and

10.2.4 Management Information System

Accurate and timely information systems are critical to the management of foreign currency positions, and for ensuring compliance with relevant risk limits.

At a minimum, FSPs must;

1. Devote the resources necessary to generating information on compliance with the relevant risk limits; and
2. Design standardised reports to communicate the information regarding open foreign exchange positions.

10.3 Price Risk Management

10.3.1 Board Oversight

The board is responsible for:

1. The FSP's exposure to price risk and the level of risk assumed;
2. Approving business objectives, strategies policies and procedures that govern or influence the price risk of the FSP. The board is responsible for ensuring that management takes the steps necessary to identify, measure, monitor and control/mitigate price risk;

3. Reviewing the FSP's objectives with respect to price risk and ensuring that the provision of clear guidance regarding the level of price risk that is acceptable for the FSP;
4. Approving policies that identify lines of authority and responsibilities for managing price risk exposure;
5. Approving new products, or position taking strategies;
6. Establishing and maintaining effective internal controls;
7. Reviewing and approving price risk limits in line with any changes in the FSP's strategies, such as the introduction of new products and responding to changes in market conditions; and
8. Putting in place measures to hedge against price movements.

10.3.2 Senior Management Oversight

Senior management must identify and have a clear understanding and working knowledge of the price risks inherent in the FSP's investment portfolio. Senior management must make appropriate efforts to remain informed about these risks as financial markets, risk management practices and the institution's activities evolve.

Senior management must be sufficiently competent and able to respond to price risks that may arise from changes in the competitive environment or from innovations in markets in which the FSP is active.

10.3.3 Policies, Procedures and Limits

FSPs must have written policies governing equities trading and other investment activities, including off-balance items that communicate the expectations of the board to the management and staff.

At a minimum, policies and procedures must have the following attributes:

1. Policies must reflect the FSP's tolerance for the various risks arising from investment and trading activities;
2. There must be limits governing price risk exposure that include company limits, sectoral and exposure limits;
3. Limits for more volatile and less liquid equities and other investments must be lower than those for stable and liquid investments;

4. The mechanisms by which positions are established by the investment manager/committee should be clearly defined in the policy document;
5. The policies must spell out the frequency which positions are re-valued and reported to both management and the board; and
6. The board and senior management must ensure that the policies and guidelines clearly identify the procedures to be followed, type of service offered, definition of jobs and responsibilities for all those entrusted with the responsibility of making investment decisions.

10.3.4 Measuring and Monitoring Price Risk

FSPs must manage the size and concentration of investments that are price sensitive and adhere to prudential regulations and limits on investments. The FSP must determine the size of the loss that would be incurred should the prices of shares and other investments move against the position the FSP has taken. The principal goal should be to provide strong assurance that losses resulting in price changes involving on- and off-balance sheet items will not substantively diminish the capital of the FSP.

10.3.5 Management Information System

Accurate and timely information systems are critical to the management of price risk and for ensuring compliance with relevant risk limits.

At a minimum, FSPs must:

1. Devote the resources necessary to generating information on compliance with the relevant risk limits; and
2. Design standardised reports to communicate the information regarding open foreign exchange positions. At a minimum, the reports must include:
 - i. The total value of outstanding investments and current market values;
 - ii. The aggregate investment limits;
 - iii. Limits or sectoral excesses; and
 - iv. The valuation of option contracts if any.

10.3.6 Internal Control and Audit

The internal audit department must review and assess the price risk management process. Internal audit department must ensure that management observe the laid down policies and procedures governing

price risk management and that accounting procedures meet the necessary standards of accuracy, promptness and completeness.

11.0 LEGAL RISK

11.1 Board Oversight

The board is ultimately responsible and accountable for legal risk management. The responsibilities of the board include;

1. Approving the legal risk management policy;
2. Ensuring that there is an effective and integrated legal risk management framework in place. This must incorporate a clearly defined organizational structure, with defined roles and responsibilities for all aspects of legal risk management and monitoring;
3. Putting in place appropriate tools that support the identification, assessment, control and reporting of key risks; and
4. Ensuring that the legal risk management policy is implemented;

11.2 Senior Management Oversight

At a minimum, senior management oversight must include:

1. An awareness of the legal environment in which the FSP operates;
2. Periodic reviews of the legal and regulatory changes affecting the FSP's operations;
3. Ensuring that all staff are aware of the legal and regulatory environment in which the FSP operates; and
4. Ensuring that all staff adheres to laid down procedures, policies and best practices.

The policy must be reviewed and updated regularly to ensure it continues to reflect the environment within which the FSP operate.

Management of legal risk is everybody's obligation. However, management must have a compliance function in some form that promotes and monitors adherence to laws and regulations and internal policies and procedures.

11.3 Policies and Procedures

The FSP's legal risk management policy forms the basis for senior management to implement the strategic direction determined by the board. Although the board may delegate the management of this process, it must ensure that the policy requirements are being executed.

At a minimum, the policy must include:

1. The systems and procedures to institute effective legal risk management framework;
2. The structure of legal risk management function; and
3. The roles and responsibilities of individuals involved.

11.4 Measuring Legal Risk

The method chosen by the FSP for measuring risk management must depend on the size, sophistication and the nature or complexity of the FSP's business activities.

11.5 Monitoring Legal Risk and Management Information Systems

To manage the legal risk adequately, an effective monitoring process is essential. Senior management must regularly monitor activities to detect and correct deficiencies in the policies, processes and procedures for managing legal risk. Pertinent information must be reported to the board on a regular basis for the effective management of the risk.

At a minimum, the information provided must include:

1. Critical legal risks being faced by the FSP;
2. Risk events and issues together with the intended remedial actions;
3. The effectiveness of actions taken;
4. Details of plans formulated to address any exposures where appropriate;
5. Areas of stress where crystallization of legal risk is imminent; and
6. The status on steps taken to address legal risk.

12.0 REPUTATIONAL RISK

12.1 Board Oversight

The board is ultimately responsible and accountable for the management of reputation risk. The board of directors shall explicitly address reputation risk as a distinct and controllable risk to the FSP's safety and soundness.

At a minimum, the board shall:

1. Establish appropriate policies that address such issues as management of insider transactions, a code of ethics, proper internal controls and corporate governance; Know Your Customer principles and
2. Regularly review these policies. The review process must aim to incorporate industry innovations in reputation risk management into the FSP's systems and processes.

12.2 Senior Management Oversight

Senior management must:

1. Implement the risk management strategy and communicate the reputation risk policy throughout the FSP;
2. Develop corporate governance policies and procedures;
3. Monitor reputation risk on a regular basis; and
4. Develop mechanisms to detect deficiencies in the risk monitoring system are promptly identified and corrective action taken.

12.3 Policies and Procedures

FSPs must have policies, processes and procedures to control or mitigate material reputation risk. Authority and accountability for compliance must be clearly defined and enforced. FSPs' privacy policies must take into consideration legal and litigation concerns.

12.4 Risk Identification, Measurement and Monitoring

Once identified, the risks must be prioritised in order to help managers determine where to devote effort and resources. This prioritisation process must be linked to the FSP's existing risk management strategies. The FSP must evaluate the reputation risk ranking.

12.5 Internal Controls and Audit

The FSP must develop systems to protect its corporate reputation. Reputation risk must be included in the FSP's internal audit procedures to ensure compliance.