THE IMPACT OF OPERATIONAL AND MARKET RISK DISCLOSURES ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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DECLARATION

This management research project is my original work and has not been presented for a degree in any other university.

Signed .... Date ...15/11/2010.........

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This management research project has been submitted with my approval as University Supervisor.

Signed ....Ng'anga............. Date 15TH November 2010

James Ng'ang'a

DEDICATION

I dedicate this project to my wife Beatrice E.Ombaka and children; Collins Khavaya,Calvin Onjala and Sabrina Nyarotso who gave me encouragement throughout this research process. To my friends James Letaro and Joseph Tonui, I say a big thank you for your moral and material support that you accorded me during the research process.

All praise goes to our Almighty Father.

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I wish to acknowledge and thank my supervisor, Mr. Ng'anga, whose guidance and constructive critiques of the project in progress have been invaluable. He has been remarkably patient, considering the resources this research project has taken to take shape, providing consistent guidance, constructive feedback and helpful advice during the successive stages of this project.

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ABSTRACT

The aim of the study is to test if banks are more interested in disclosure about their market risk management compared to the operational risk but locally owned banks lag behind their counterpart in either risk disclosures.

The research methodology was based on a Score Card approach study on commercial banks that are listed at the NSE.This method is chosen because it will enable the researcher to probe and obtain an in depth of the market and operational disclosure by locally owned banks and foreign owned banks.

The sample that would be used will comprise of 10 commercial banks ,which issued and listed their shares at the Nairobi Stock Exchange between 1 July 2004 and 30 June 2009.The primary source of data will be the published accounts availed by the banks. A total of 10 banks were listed during the period under study.However, two of the banks will be excluded because one of them was listed in the last one year and another one was bought out by another foreign bank.

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the study

Banks in Kenya are established under the Banking Act Cap 488 and regulated under the provisions of the Central Bank of Kenya Act cap 491 of the Laws of Kenya. The Banking Act cap 488 Part II sec 4(1) and (2) gives the Minister of Finance powers to license any institution intending to carry out banking business in Kenya on the recommendation of the Central Bank of Kenya after an inspection to ensure that they conform with the prudential guidelines issued by the Central Bank of Kenya from time to time. This is in line with one of the principal objectives of banks as outlined in the Central Bank Kenya Act of 1996 Part II sec 4(2) which states "The bank shall foster liquidity, solvency and proper functioning of a stable market based financial system". This objective can be achieved by ensuring that the regulatory and supervisory frameworks are put in place for the entire financial system.

Commercial banks in Kenya were as a result of commercial connections between India and the East Africa region which existed towards the close of the nineteenth century. The National bank of India was the first bank in Kenya in 1886.Later the Standard Bank of Africa came in 1910.The establishment of these banks was in line with the practice of British banks to follow development of trade in their colonies and promote international trade. Commercial Banks and Mortgage Finance Institutions are licensed and regulated pursuant to the provisions of the Banking Act, Regulations and Prudential Guidelines issued there under. They are the dominant players in the Kenyan Banking system and closer attention is paid to them while conducting off-site and on-site surveillance to ensure that they are in compliance with the laws and regulations. Currently there are 43 licensed commercial banks and 1 mortgage finance company. Out of the 44 institutions, 31 are locally owned and 13 are foreign owned. The locally owned financial institutions comprise 3 banks with significant shareholding by the Government and State Corporations, 27 commercial banks and 1 mortgage finance institution (Central Bank of Kenya).

Major loss events have caused the downfall of historical institutions such as Barings Bank of Britain in 1995 where a 235 year old bank went under because of a rogue trader who concealed some major bank deals. The Daiwa Bank of Japan lost approximately USD 1.1Billion in 1995 all through concealing of deals by a trader (Dermont,2002).Such events have led the world's regulatory authorities to introduce regulations to protect financial markets and clients from the risk of bank failures as a result of operational errors. Bank managers are now placing greater emphasis on evaluating the soundness of the bank's management processes with regard to controlling risks. Other corporate failures such as Enron and WorldCom have led regulators to introduce the Sarbanes-Oxley Act of 2002 to ensure that robust controls are in place to protect the integrity of financial statements.

Risk management in financial institutions has attracted the attention of the top management, boards of financial institutions who regularly face threats to their business operational failure (Mishkin and Eakins,2002).Banks that are in the process of financial intermediation are confronted with various kinds of financial and non financial risks like credit, interest rate, foreign exchange rate, liquidity, equity price, commodity price, legal, regulatory, reputational, operational risks (Shekhar and Lekshmy,2005). With the new mechanisms and tools in place to manage all kinds of risks such as credit risk and enterprise wide risk, all the banks are now using a consolidated approach that includes both operational and market risk management as well. More public information about the risks incurred by banks and the quality of their portfolio can better enable stockholders, creditors, and depositors to evaluate and monitor banks and act as a deterrent to excessive risk taking by management. This view is consistent with a position paper issued by the Euro Currency Standing Committee of the G10 Central banks in 1994, which recommended that estimates of financial risk generated by firms' own internal risk management systems be adapted for public disclosure purposes. Such information would supplement disclosures based on traditional accounting conventions by providing information about risk exposure and risk management that is not normally included in the conventional balance sheet and income statement reports (Mishkin and Eakins,2002). The key question surrounding the implementation of either operational or market risk management is whether the benefits of implementation can outweigh the costs. Enhanced accounting disclosures have led to better transparency and stronger market discipline in the banking sector. The Basel II Core Principle No.21 on "Corporate Governance of Banks" has explicitly recommended better disclosures by banks to allow the market to have a better picture of the overall position of the banks and to allow market players to price and deal appropriately. More disclosures help in reducing the informational gap between the investors with privileged information and those with minority investment in the institutions. It also facilitates more efficient monitoring as sufficient information is necessary for market participants to exert effective disciplinary roles.

Key factors considered vital by financial institutions in their annual reports are accounting disclosure which is considered to be of particularly high level of importance to banking organizations compared to non financial firms, banks inherently are more open in their course of action. Transparency and disclosure is an important ingredient of banking sector stability as we have seen that undisclosed data can result in banking disasters like it has happened in Kenya like in the case of Trade Bank in 1992,Trust Bank in 1998 and Delphis Bank in 2001 (Central Bank of Kenya annual reports). Enhanced financial disclosures should be required for all commercial banks operating within the national economy. Their deposit taking from the public and the safety net extended to them by the regulatory authorities like the Central Bank of Kenya and the Capital Markets Authority for the listed firms. A simplified, relevant and standardized checklist of core disclosure items for market and operational risk management needs to be developed for commercial banks. The above factors have prompted a range of proposals for enhanced public disclosure by banks like the (Value at Risk/Market Risk) or Basel II (Operational Risk).These proposals may be focused on disclosure of forward looking risk information like Value at Risk (VaR) for trading portfolios or for operational and structural management of the financial institute resolutions like Basel II.

The importance of disclosure is to ensure that the entities disclose pertinent information in their financial statements and enable users to evaluate the significance of various risk exposures that the institution is exposed to in the market environment. This will give an indication of the significance of the operational and market risk disclosure to the institutions performance. International Financial Reporting Standards (IFRS) 7 requires disclosures by class of financial instrument.

An entity should provide sufficient information to facilitate a reconciliation of line items presented in the balance sheet (IFRS 7). The financial world has always managed operational exposures. In simpler terms the signs of actions are visible through security screens around cashiers, complex and extensive physical security, safes and strong boxes. Business managers put in place measures to prevent the repetition of risks (IFRS 7).

The study will investigate the impact of operational and market risk disclosure on financial performance of Kenyan commercial banks. The market has two distinct interested parties; investors and creditors who monitor and assess changes in the banks reporting style.

1.2 Statement of the Problem

Stiff competition within the financial services sector poses new strategic challenges to bank managers. The critical point of discussion by bank management include generating sustainable returns above the cost of capital, value based management, integrating risk and capital management. Market diversity influences decision maker's attitudes towards risk, results in diverse bank management strategies and practices. Risk taker decision makers are willing to accept higher risk for higher returns whereas risk averse managers accept lower level of risk for lower returns.

An annual financial report by Barclays Bank of Kenya (2003) revealed that the key risks facing the banks in Kenya included credit risk, operational, legal and tax risks. Given the volume of transactions that are conducted daily within the banking sectors, there is need therefore to establish the extent of risk disclosure in financial statements in order to ensure that commercial banks returns are commensurate with associated risks. In a working paper number 272 (Rose,1997) banks are faced with risks including market risk and operational risk. In a local study by Omondi (2007) he found out that investors will most likely invest in shares of companies that make more frequent financial disclosures, hence providing critical information required on a timely basis. This will have a positive effect on the prices and trading value of shares of companies at the Nairobi stock exchange.

According to Mc Kinsey (2002) "Global Investor and Emerging market policy maker opinion survey on corporate governance" "Accounting disclosure'' was listed as the most important factor considered by 71% of investors surveyed and "enhanced disclosures" was the number one key progress area by 44% of policy makers. In a research conducted by Goyal and Jiajing (2007) they found out that disclosure plays an important role in market discipline since market participants need to have meaningful information to base their judgment of risk and performance. Disclosure is particularly important in the banking industry, since banks are generally viewed as being opaque to outsiders. As a result, banking supervisors and other public sector officials have encouraged enhanced disclosure by banking institutions, particularly for forward-looking estimates of risk. The study also tried to compare market risk and operational risk disclosures with reference to the emerging and established markets and then tried to establish a relationship between risk disclosure and value of the bank's current assets. It did establish the impact of operational and market risk disclosures on current assets.

Prior studies conducted have revealed the importance of disclosure to the users of financial statements. According to Mucheke (2001) he established that key causes of bank failure were bad lending practices, incompetence of bank risk managers and unsound operational practices. In a survey by Yussuf (2005) on operational risk management practices by commercial banks found out that operational risk management departments only exist in big banks. It was noted that the most common categories of operational risk in Kenyan commercial banks are human risks which arise from failure of employees and conflict of interest or from other internal fraudulent behavior, external risks, which arise from fraud or litigation by parties external to the firm and weaknesses in processes. Several studies (Mugucia,2002 and Kinya 1993) have addressed the impact of various corporate characteristic on annual report disclosures. These characteristics include size, listing status, leverage, profitability, industry, type of auditor, size of the equity market and degree of economic development, types of economy, activity on the equity market, dispersion of stock ownership and culture. The study by Kinya (1993) like many others before rejected the null hypothesis on the type of the auditor in favour of alternative hypothesis thus concluding that type of the auditor has a significant impact on the levels of compliance. Its therefore imperative that those companies audited by other auditors, comply less which paints even a worse situation in Kenya is as far as International Accounting Standards (IAS) disclosure requirements are concerned.

It is against this background that this study sets to investigate the impact of operational and market risk disclosures on commercial banks performance in the Kenyan market.

1.3 Objective of the study

The study intends to investigate the impact of operational and market risk disclosure on the financial performance of commercial banks in Kenya.

1.4 Importance of the study

The findings of the study will assist banks in identifying and developing best practice policies that will guide in disclosing of operational and market risk in their financial statements. Discussing this issue can lead to the development of standard risk disclosure requirements for the banks by the market regulators. It will also hopefully serve as a call to action on the need for financial market reform in Kenya. It will help senior managers in identifying risks that need to be mitigated. Commercial banks will use the study to identify and pick areas of improvement. Management consultants will get assistance from the study in development of tools for management and quantify operations of banks. Finally, the study forms a basis for future researchers and academicians who may be conducting research on operational and market risk disclosure studies.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

Risk Management has been gaining momentum in all industries throughout the globe for the past decade. Fraudulent trading around the world, rapidly increasing in pace and ultimately resulting in losses of billions of dollars clearly shows the need for risk management and heightened regulatory efforts. Risk management has attracted the attention of the top tier executives of financial institutions, who regularly face threats to their business in one form or another regarding their operational or model failure. With new and advanced mechanisms to manage all kinds of risks such as actuarial risk, credit risk and enterprise-wide risk, all the organizations are now using consolidated approach that includes both operational and market risk management as well (Jiajing and Goyal,2007).

This chapter discusses the topic under different sections in order to give an insight into matters relating to operational and market risk disclosures and its impact on the financial performance of commercial banks in Kenya. International Accounting Standards (IAS) prescribes the basis for presentation of general purpose financial statements, to ensure comparability both with the entity's financial statements and of other entities. It also emphasizes that the financial statement shall be presented at least annually. In most circumstances, a fair presentation is achieved by compliance with applicable International Financial Reporting Standard (IFRS). An entity whose financial statement conforms to the requirements of IFRS shall make an explicit and unreserved statement of such compliance in the notes to the accounts. When preparing financial statements an entity shall disclose in the notes information about key assumptions concerning the future and other key sources of estimation, uncertainty at the balance sheet date, that they have a significant risk of causing material adjustment to the carrying amount of assets and liabilities within the next financial year. An entity shall disclose information that enables users of its financial statements to evaluate the entity's objectives, policies and processes for managing capital (International Accounting Standards Board,2006).Company's Act Cap 486 section 147 requires companies to keep a proper books of accounts and present a profit and loss account or an income statement together with the balance sheet for one calendar year not later than nine months in an annual general meeting. Section 149 further stipulates that every balance sheet laid before members must give a true and fair view of the state of affairs of the company as at the end of its financial year and every profit and loss account must give a true and fair view of the profit and loss of the company for the financial year. Therefore the Act makes it mandatory for companies operating in Kenya to make financial disclosures at least once a year.

Financial institutions have already complied with this requirement .Therefore the question is whether these disclosure requirements do have an impact on a firm performance especially in terms of increasing returns or decreasing returns due to the level of disclosures in the financial statements. According to Omondi (2007) he argued that investors will most likely invest in shares of companies that make more frequent financial disclosures, hence providing that critical information required on a timely basis. This will have a positive effect on the prices and trading value of shares of companies at the Nairobi Stock Exchange.

2.2 Evidence of Risk Disclosure

Since there are no regulations currently forcing banks to disclose risk management information, most banks in almost all the economies are very reluctant in releasing more information about operational risk. Contrary to this financial institutions are relatively willing to disclose market risk information like Value-at-Risk (VaR) related information. A detailed investigation into the annual reports of the banks of both developed and emerging markets clearly show this big void in the amount of risk disclosure (Perignon and Smith, 2006). However with major operational failure globally in the recent past the regulatory bodies in almost all the countries (whether developed or emerging economies) requires the Financial Institutions to comply with Basel II.

Now it is only a matter of coming up with a fixed date for the implementation of Basel II. Like the Office of the Superintendent of Financial Institutions (OSFI) required Canadian banks to comply with Basel II by the beginning November 2007 (OSFI, 2007) and contrary to this various regulators in the United States had not yet agreed on a date for the implementation of Basel II (Federal Reserve System, 2007). But in some emerging markets like South Africa 1st January 2008 had been fixed as the adoption date for Basel II and in United Arab Emirates it is currently under the process of implementation. As required by Pillar 3 under Basel II, banks will have to disclose information relating to operational risk management such as:

i. Strategies and processes for operational risk management
ii. The structure of the risk management department
iii. Information regarding the risk measurement system

iv. Procedures on how to mitigate risks and Systems on how to monitor the effectiveness of the risk management system (Alexander, 2003).

A majority of these banks tend to release very detailed information about VaR for market risk. They disclose how they calculated VaR as well as the results of VaR, such as characteristics and statistics like the holding period, confidence level, and VaR of different investments. Graphs containing historical VaR figures and trading revenues are also presented.

Finally, these banks even back test their VaR figures to determine the number of exceptions in their models. However, the most striking feature of this disclosure pattern is the high variance in the disclosure by banks (irrespective of the market they may be trading in), which may be primarily based on firm size, earnings volatility, growth and capitalization rates. Overall in reference to global arena, the difference in terms of the amount of information being disclosed between market risk management and operational risk management is not too wide.

However, to give a brief idea on why banks may be more willing to disclose market risk information (mainly in foreign owned banks), market risk has a popular model called VaR, which is quantifiable. This model tells the public the maximum amount of loss the banks can incur within a certain degree of confidence level. As a result, for public with little or even no knowledge in financial risk management, the VaR figures can provide some understandable information, but for developing economies like China, India, Indonesia, Egypt, Thailand, implementation of a VaR model is has been quite far from reality. With market risk relatively more developed than operational risk; along with stiff competition in the market among the banks so as to have a bigger and a loyal customer base to indirectly increase their net assets is driving them to disclose more and more market risk information (Perignon and Smith, 2006). The impact of operational risk and market risk disclosure on the financial performance of commercial banks in Kenya will be investigated in this study.

2.3 Merits of Risk Disclosure

Individual depositors and other bank creditors will not have enough incentive to produce private information about the quality of banks assets. To ensure that there is better information for depositors and the market place, regulators can require that banks adhere to certain standard accounting principles and disclose a wide range of information that helps the market assess the quality of a bank's portfolio and the amount of the bank's exposure to risk. More public information about the risks incurred by banks and the quality of their portfolio can better enable stock holders, creditors and depositors to evaluate and monitor banks so as to act as a deterrent to excessive risk taking. Such information would supplement disclosures based on traditional accounting conventions by providing information about risk exposure and risk management that is not normally included in conventional balance sheet and income statement reports. Existence of minimal disclosure information suggests that consumers may not have enough information and they need to protect themselves fully through disclosures. Declining profitability as a result of competition could tip the incentives of bankers toward assuming greater risk in an effort to maintain former profit levels .This can reduce the efficiency of banking institutions hence the need for disclosure requirements (Mishkin and Eakins, 2003).

2.4 Demerits of Risk Disclosure

Particular problems in bank regulation occur when banks are engaged in international banking and thus can readily shift their business from one country to another. Bank regulators closely examine the domestic operations of banks in their country, but often they do not have knowledge to keep a close watch on foreign banks (Mishkin and Eakins,2003).Financial institutions have strong incentive to avoid existing regulations by loophole mining. The depositors and other interest groups are likely to demand for more pertinent disclosures that can expose the banks operations to competitors. More disclosures by the banks can affect the investment strategy as management has to be careful and more cautious on the risks they are going to undertake in each investment decision they make.

2.5 Reasons for disclosure

Banking operations worldwide have undergone phenomenal expansion in the last two decades. Although the benefits of these developments have been substantial, they have also created more risks. The banking crisis episodes have led to the need to closely monitor banking and financial institutions. The existing disclosure and transparency of information by banks is sufficient enough for various interested groups to judge these entities. Making the bank asset portfolio more transparent could help in the task of measuring capital and risks associated with banking transactions. Secondly, increased transparency could also facilitate market discipline. Thirdly, disclosure and transparency enable markets to discipline banks to pursue healthy and sustainable policies via funding costs, credit lines and share prices.

Lastly, public disclosure can limit the contagious effects during market turmoil as sound banks can distinguish themselves from the weak ones (Shekhar and Lekshmi, 2005).

2.6 Risk Management Structure

The global trend is towards centralizing risk management with integrated treasury management function to benefit from information on aggregate exposure, natural netting of exposures, economies of scale and easier reporting to top management (Shekhar & Lekshmy,2005).The primary responsibility of understanding the risks run by the bank and ensuring that risks are appropriately managed should be clearly vested with the Board of Directors. Risk management is a complex function and it requires specialized skills and expertise. Banks have been moving towards use of sophisticated models for measuring and managing risks. Multinational banks have developed internal risk management models to be able to compete effectively with their competitors. As the domestic market integrates with the international markets, the banks should have necessary skills in managing various types of risks in a scientific manner.

2.7 Market Risk and Operational Risk

Market risk is defined as the risk that the market price or value of an asset will decline resulting in a capital loss when sold. Interest rate risk or re-investment risk is the risk that the bank will be forced to place earnings from a loan or security into a lower yielding investment because interest rates have fallen. Default risk on the other hand is the probability that the borrower will fail to meet one or more promised principal or interest payment on a loan or security. Operating risk is the risk that arises due to faulty internal controls on operational activities of the bank. Inflation risk is the risk that arises due to faulty internal controls on operational activities of the bank. Currency risk is the risk that adverse movement in the price of one national currency vis-à-vis another will reduce the net rate of return from a foreign investment (Rose, 1997).

Operational risk is defined as any risk which is not categorized as market or credit risk or the risk of loss arising from various types of human or technical error (Shekhar and Lekshmy, 2005).The Basel Committee defines operational risk as "the risk of loss resulting from inadequate or failed internal processes, people, systems or from external events, the committee identified the following operational risks which are likely to result in substantial losses:-Internal frauds which include intentional mis-reporting of positions, employee theft and insider trading on employee's own interest, external frauds through robbery, forgery, cheque kitting and damage from computer leaking, employment practices and work place safety relating to compensation claims, violation of employee health and safety rules, organized labour activities, discrimination claims and general liability. Managing operational risk is becoming an important feature of sound risk management practices in modern financial markets. The most important type of operational risk involves breakdowns in internal controls and corporate governance.

2.8 Related studies

The fundamental question surrounding the implementation of either operational or market risk disclosure is whether the benefits of disclosure can outweigh the costs of implementation of the policy. Enhanced accounting disclosure leads to better transparency and stronger market discipline in the banking sector. The third pillar of Basel II, Basel Core Principles No.21, and the Policy Brief released by the Organisation for Economic Cooperation Development (OECD) in 2007 i.e. the "Corporate Governance of Banks" Task Force, it explicitly asked for better disclosures by banks to allow the market to have a better picture of the overall risk position of the banks and to allow the counterparties of the banks to price and deal appropriately. More disclosures help in reducing the information asymmetry between the investors with privileged information and those with little information on the organization. Besides this it also facilitates more efficient monitoring, as sufficient information is necessary for market participants to exert effective disciplinary roles.

According to Mucheke (2001) among the key causes of bank failure are bad lending practices, incompetence on the part of bank risk managers and unsound operational practices. A study on the banking sector regulatory framework; its adequacy in reducing bank failures and found that of the 39 banks which failed during the period 1984 and 2002 in Kenya, 37.8% collapsed mainly due to poor quality of lending. Though most banks provide clear and sound lending policies, the reality is that they have been quite reckless in their lending activities (Obiero, 2002).A survey on operational risks management practices by commercial banks found that operational risk departments only exist in the big banks. It was noted that the most common categories of operational risk in Kenyan commercial banks are human risks which arise from failure of employees and conflict of interest or from other internal fraudulent behavior, external risks, which arise from fraud or litigation by parties external to the firm and weaknesses in processes (Yussuf, 2005). In a study by Omagwa (2005) it revealed that most banks carried out regular and systematic assessment of exposure measurement strategies and their foreign exchange risk management policies in general. It emerged that credit/default risk was considered the most important financial exposure though empirical evidence shows that most organizations are concerned with foreign exchange risk. Translation exposure was considered most critical when compared to economic exposure. In a survey carried out by Mugucia (2005) it was concluded that the extent of compliance is very low. This conclusion arises from the believe that listed companies in any country are expected to comply more than those not listed. The study also revealed that the industry in which a company operates has no significant impact on levels of compliance. It was worth noting that companies in the Finance sector were observed to comply more than the ones in other sectors.

Several studies (Mugucia, 2002 and Kinya, 1993) have addressed the impact of various corporate characteristic on annual report disclosures. These characteristics include size, listing status, leverage, profitability, industry, type of auditor, size of the equity market and degree of economic development, types of economy, activity on the equity market, dispersion of stock ownership and culture. The study by Kinya (1993) like many others before rejected the null hypothesis on the type of the auditor in favour of alternative hypothesis thus concluding that type of the auditor has a significant impact on the levels of compliance. Its therefore imperative that those companies audited by other auditors, comply less which paints even a worse situation in Kenya is as far as International Accounting Standards (IAS) disclosure requirements are concerned. In a companion paper by Barth,Caprio and Levine

(2001) studying the relationship between differences in bank regulation and supervision and bank performance and stability, they conclude that, countries with policies that promote private monitoring of banks have better bank performance and more stability. Countries with more generous deposit insurance schemes tend to have poorer bank performance and more bank fragility. The banks have a diversification of income streams and loan portfolios by not restricting bank activities. It also tends to improve performance and stability. Countries in which banks are encouraged to diversify their portfolios domestically and internationally suffer fewer bank failures and crisis.

In a study on the effects of the Audit Committees on major disclosures by Shamira (2003) there appeared to be reservations on the time available to audit committees and the requirement of a broader mandate. Although from the observations, there is a significant effect of audit committees on the major disclosures and other non financial characteristics of companies listed at the NSE, it was apparent that the essence of audit committees in listed companies in Kenya is yet to be appreciated and understood by the board and management. A survey that was conducted on the impact of operational losses on profitability of commercial banks in Kenya revealed that the profitability of commercial banks is affected by operational losses and there exists an inverse relationship between profitability and operational losses of commercial banks in Kenya. The study showed the impact of operational losses on profitability of commercial banks is significant as opposed to general believes that the impact of operational losses on profitability of commercial banks is not significant.

According to a study by Thuku (2002) he found that banks with a high proportion of foreign ownership performed relatively better than those with a small proportion of foreign ownership. Foreign owned banks that are not locally incorporated have 100% shareholding held by foreign entities while those that are foreign owned but locally incorporated are partly owned by locals (www.centralbank.go.ke). In a study conducted by Perignon and Smith (2006) it was found out that a majority of banks tend to release very detailed information about VaR for market risk. They disclose how they calculated VaR as well as the results of VaR, such as characteristics and statistics like the holding period, confidence level, and VaR of different investments. Graphs containing historical VaR figures and trading revenues are also presented. These banks even back test their VaR figures to determine the number of exceptions in their models. However, the most striking feature of this disclosure pattern is the high variance in the disclosure by banks (irrespective of the market they may be trading in), which may be primarily based on firm size, earnings, volatility, growth and capitalization rates. Overall in reference to global arena, the difference in terms of the amount of information being disclosed between market risk management and operational risk management is not too wide.

However, to give a brief idea on why banks may be more willing to disclose market risk information (mainly in developed markets), market risk has a popular model called VaR, which is quantifiable. This model tells the public the maximum amount of loss the banks can incur within a certain degree of confidence level. As a result, for public with little or even no knowledge in financial risk management, the VaR figures can provide some understandable information, but for developing economies like China, India, Indonesia, Egypt and Thailand. Implementation of a VaR model is quite far from reality. With market risk relatively more developed than operational risk; along with stiff competition in market among the banks so as to have a bigger and a loyal customer base to indirectly increase their net assets is driving them to disclose more and more market risk information.

In conclusion, most of the studies focused on statutory disclosures as per the guidelines given by regulatory bodies and accounting conventions. The studies basically focused on foreign exchange risks and credit risks which have led to most of the bank failure. The study by Kinya (1993) and Shamira (2003) was closer in the issue of disclosures. However, they did not focus on the different disclosure practices for locally and foreign owned commercial banks that also adhere to reporting regulations in the countries of domicile. This study will bring new insight into the banking sector by analysing the impact of operational and market risk disclosure on the commercial banks performance in Kenya using the VaRDI and ORDI disclosure index as predictors on the level of disclosure in the financial statements of the bank.; this will help management in curbing excessive risk undertaking and mitigate unfavourable operational and market risk exposure before the eventual collapse of any commercial bank in the banking sector.

CHAPTER THREE

3.0 RESEARCH DESIGN

3.1 Introduction

This study intends to determine the impact of operational and market risk disclosure on financial performance of commercial banks in Kenya using the value at risk disclosure index and the operational risk disclosure index. The models will use the movement in the bank's profitability to ascertain the impact of disclosures on a bank performance. These variables are critical in determining the eventual success and limit the risk taking appetite of commercial banks in the market.

3.2 Research design

The study will use the scorecard approach based on the checkpoint basis to study and review the operational and market risk disclosure effect on the banks performance. There is a set of predefined fields in scorecard and they are referred to as the checklist to find the amount of data disclosed regarding the operational and market risk management by the banks in their annual reports. Following previous work on disclosure (Perignon and Smith 2006, Roberts, Goyal, Yeung, Jin and Yang, 2007), we construct an Operational Risk Disclosure Index (ORDI) and Value at Risk Disclosure Index (VaRDI) and try to tabulate and compute the risk disclosure done by commercial banks in Kenya.

3.3 The population of the study

The study population comprises of 43 commercial banks trading in Kenya for a period of five years 2005 to 2009 as shown in appendix I. However, for banks that had not been incorporated or under statutory management in that period the study will exclude them. In a related study by Goyal and Jaijing (2007) on operational and market risk disclosures they used data extracted from annual reports of banks in emerging markets and developed markets for one year which was sufficient in relation to the sample size. Given the similarity of this study to the particular study, five year period was deemed to be adequate to come up with the findings.

3.4 Data Collection

We will use secondary data from financial statements from commercial banks licensed and operating in Kenya, which are posted the specific banks website and Central Bank of Kenya. The data will cover the entire population of commercial banks registered by Central Bank of Kenya. Bank specific data for each reporting period/calendar year comes in two sources. The first one is the year end balance sheet and the second is income statement reported by the commercial banks plus the accompanying notes to the financial statements.

3.5 Data Analysis

The data collected will be analysed by use of descriptive statistics. In particular the analysis will be in the form of histograms and correlations. The study will also try to find an explanation to the Bank's ORDI and VaRDI score with respect to profits. Data will be analysed using the statistical package STATA and content analysis will be used in summarizing the findings.

The study will use a modified version of VaRDI score with respect to return on capital. To facilitate the empirical analysis we make use of the disclosure index, the VaRDI developed and used by (Perignon and Smith, 2006) for their paper "The Level and Quality of Value at Risk Disclosure by Commercial Banks". This disclosure scorecard approach aggregates six strikingly distinct yet vital of VaR disclosure into a single number between 0 and 15. The six index components are:

VaR characteristics, summary of VaR statistics, intertemporal comparison, daily VaR figures, trading revenues and back testing. A maximum of 15 points are allocated if the financial institute was being surveyed, in its annual report publicly discloses all of the above set of information. The disclosure index for ORDI uses five strikingly distinct yet vital of operational risk disclosure into a single number between 0 and 15. The five index components are: Recognition and Definition of Operational Risk, Operational Risk Capital, Intertemporal Comparison, Governance, Measurement and Control. A maximum of 15 points are allocated if the financial institute was being surveyed, in its annual report publicly discloses all of the above set of information.

To do this the study will run a couple of regressions so as to figure out the exact relationship between bank's levels of disclosure with respect to an explanatory variable.

Based on the R^2 and t-statistic, the Regression Model $Y = a + b * \ln(\pi)$ as the best fit model for both the risk disclosure indices is chosen.

Where;

Y- Represents dependent variable or disclosure

a- Represents constant or return on capital not affected by disclosure

b- Represents coefficient of the variable

π- Independent variable or return on capital

The basic criteria for selecting a model as a best fit are:

Model should have the highest R^2 value among all models being studied, like ORDI, to formally compare these levels we compute a two-sample t-test (assuming equal variance). In (π) i.e. natural logarithm of the Bank's profits is the best explanatory parameter for the risk disclosure index value as the t-statistics are significant for all the models and value of R^2 is also better compared to other models. Descriptive statistics, case analysis, comparative analysis and regression analysis will be used in determining the effect of operational risk and market risk disclosures on the banks performance. The ratios will be plotted on graphs to determine the trend. While the total impact will be established by estimating a comparative analysis for the period under study. The results of these statistical techniques will be analysed and compared with conclusions drawn from literature reviews.

CHAPTER FOUR

4.0 DATA ANALYSIS, FINDINGS AND DISCUSSIONS

4.1 Data Analysis

The Operational Risk Disclosure Index and Value at Risk Disclosure Index for the commercial banks registered in Kenya was analysed. To achieve this, information from financial statements was reviewed to determine the level of disclosure that is done in the published financial statements. A disclosure index was developed for both operational risk and value at risk.

It was noted that there was no standard way of presenting risk disclosure information in the published financial statements and most of the time it depended on the auditor. In some instances the banks were not posting the full set of accounts on the website. The study therefore focused only on the banks whose financial statements could be accessed.

Banks whose information could not be extracted and those that had traded in the market for less than 5 years were eliminated from the study. These banks were therefore not included from the study as the results would not provide any meaningful insight.

The final sample data used in the study is attached as Appendix II

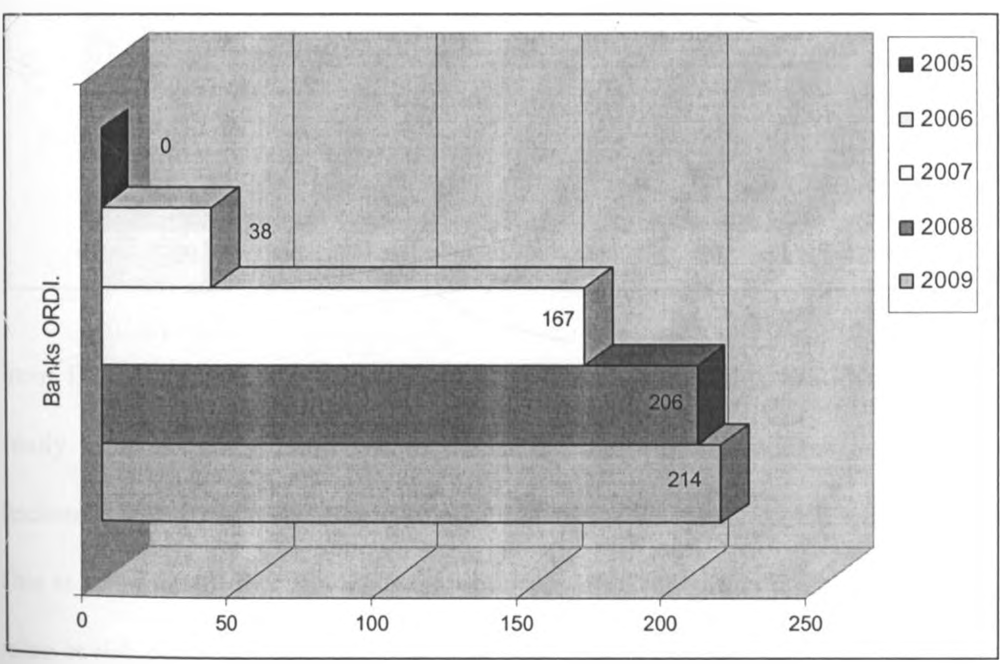
To achieve the objective of the study, the researcher tested (the hypothesis) whether there is a correlation between the level of operational and value at risk disclosure, and if its statistically significant to affect commercial banks performance in Kenya. Hypothesis testing is the procedure of investigating or determining the validity or otherwise of inferences about a population based on results obtained from samples (Ngau,2004).The underlying motive is to evaluate whether the observed differences or similarities or association is so large that it could not have occurred by chance (Nachmias and Nachmias, 1999).

4.2 Presentation and Interpretation of Findings

4.2.1 Based on Figures and Correlation

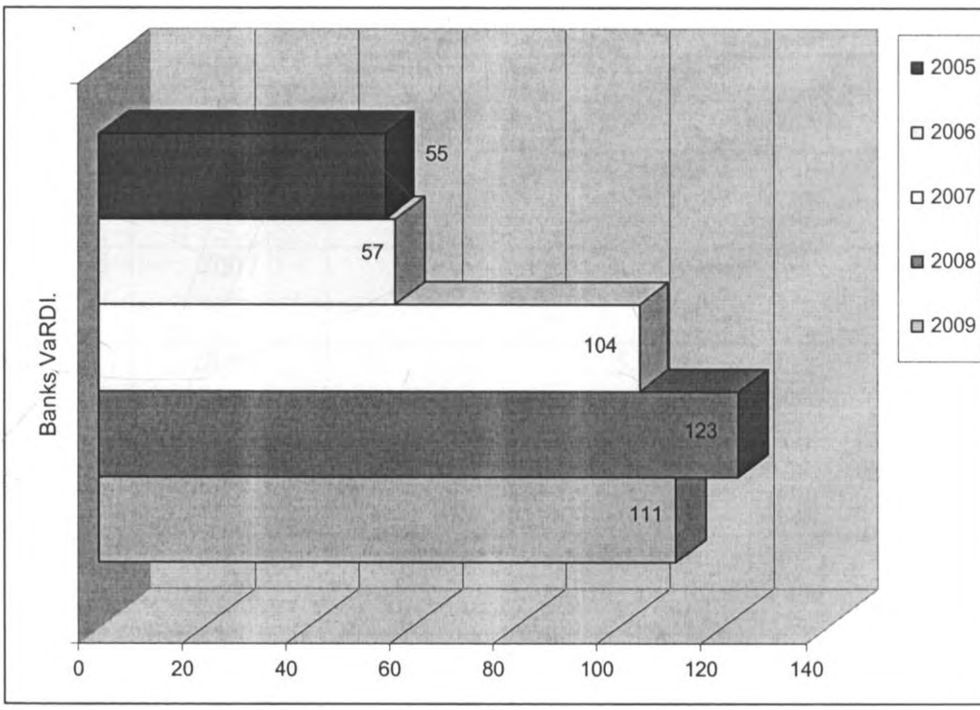
The researcher performed an analysis to test the correlation between the ORDI and VaRDI in relation to the profits. The structure of data presentation is shown in the tables, histograms below and appendix II.

Figure 1: Banks Operational Risk Disclosure Index for the year 2005 through 2009



From figure 1 above, the banks operational risk have been on a steady increase since 2005 where the disclosure index was none. The disclosure index has risen up to a sum of 214 in the 43 banks which were sampled. This is an indicator that the banks are now adopting the strategy of disclosing their operational risk disclosure index.

Figure 2: Banks Value at Risk Disclosure Index for the year 2005 through 2009



From figure 2 above, the banks value at risk disclosure index has also been on a steady increase since 2005 where the sum of disclosure indexes was 55. The disclosure index has rose up to a sum of 111 in the 43 banks which were sampled. This is an indicator that the banks are now adopting the strategy of disclosing their value at risk disclosure index.

Further, the structure of data presentation is shown in the tables below.

Table 4.1: Correlation coefficient of Operational Risk Disclosure Index to Annual Profits

The table below shows the correlation coefficient of annual profits in relation to the Operational Risk Disclosure Index (ORDI) in the years 2005 to 2009.

No.	Year.	Correlation Coefficient $[R]$ Annual Profit.
1	2009	15.89%
2	2008	22.95%
3	2007	20.90%
4	2006	5.52%
5	2005	-
Overall		**25.34%**

The table above shows the correlation coefficient of annual profits in relation to the Operational Risk Disclosure Index (ORDI) in the years 2005 to 2009. There is a correlation of annual profits to the banks operation risk disclosure index (ORDI). The year 2008 displayed the highest level of correlation (22.95%) of ORDI to profits. The year 2005 had no data to correlate to the profits.

Table 4.2: Correlation coefficient of Value at Risk Disclosure Index to Annual Profits

The table below shows the correlation coefficient of annual profits in relation to the Value at Risk Disclosure Index (VaRDI) in the years 2005 to 2009.

No.	**Year.**	**Correlation Coefficient $[R]$ Annual Profit.**
1	2009	34.05%
2	2008	59.13%
3	2007	18.97%
4	2006	37.26%
5	2005	*19.65%
Overall		**39.93%**

*The 19.65% correlation coefficient is a negative correlation

The table above shows the correlation coefficient of annual profits in relation to the Value at Risk Disclosure Index (VaRDI) in the years 2005 to 2009. In 2008, just like ORDI, value at risk disclosure index also demonstrated the highest level of correlation (59.13%)when correlated to annual profits. There was a spurious correlation of VaRDI in the year 2005 of 19.65%. This is largely because there was scanty data in the year 2005 to warrant any statistical significance. There may be a couple of reasons behind this limited disclosure, like a number of banks speculate on market return and movement for huge gains, but as per the human nature, no investor will like his money to be used for speculation so alternately banks disclose less in there Financial Statement and Annual Report to abide by the investor or shareholder mentality.

Table 4.3: Pair wise Correlation Coefficient of ORDI and VaRDI to Annual Profits

No.	Year.	Correlation Coefficient $[R]$ Annual Profit.	
		ORDI.	VaRDI.
1	2009	15.89%	34.05%
2	2008	22.95%	59.13%
3	2007	20.90%	18.97%
4	2006	5.52%	37.26%
5	2005	-	*19.65%
Overall		**25.34%**	**39.93%**

*The 19.65% correlation coefficient is a negative correlation

We can observe that the correlation coefficient of ORDI and VaRDI was high in the year 2008.The study can conclude that there is a correlation between the two disclosure indices. There is a peculiar trend here; according to which on an average, commercial banks disclose more about their Value at Risk and Market Risk mitigation strategy as compared to the data on their operational failure or Operational Risk Management tactics. The possible explanation to this trend may be that commercial banks are more willing to commit substantial and strong financial resources so that they can come up with the robust models like Value at Risk for their trading strategies.

From the above table it is quite explicit that the disclosure index used for this project does a good as a whole but not in isolation. The results of the indices appear to be co-related irrespective of the way we are using our data. They show a correlation of about 25.34% for ORDI and 39.93% for VaRDI.

After considering the levels of disclosure of Operational Risk and VaR, we study the correlation between both the indices. It is potentially possible that the banks with strong risk management frameworks will require high disclosure across all aspects of bank risk. Somewhat surprisingly when we calculate the correlation (as summarized in the table above) we observe some very low levels of correlation between the disclosure indices. The results of the indices appears to be co-related irrespective of the way we are using our data i.e. for each year or for the whole period under review.

Table 4.4: t test of ORDI and VaRDI

Group	Observation	Mean.	Standard Errors.	Standard Deviation.	[95% Confidence Interval].	
ORDI.	144	4.340278	0.397663	4.771951	3.554221	5.126334
VaRDI.	134	3.358209	0.210381	2.435338	2.942083	3.774335
Combined.	278	3.866906	0.231083	3.852926	3.412004	4.321809
*Difference.	-	0.982069	0.459516	-	0.077467	1.88667

*The difference = Mean (0) – Mean (1)

The table above shows the t test performed on the ORDI and VaRDI to establish if the banks disclose one of the indexes more than the other. That is to be able establish any possibility of the banks disclosing ORDI more that VaRDI or vice versa. From a 2 tailed probability curve, $\Pr(|T|>|t|)=0.0335<0.05$

Conclusion: We reject the null hypothesis and conclude that there is a statistically significant difference between ORDI and VaRDI at 95 percent confidence interval. The level of disclosure by commercial banks of the two indices is different for each of the indices.

Table 4.5: Results for Analysis of Variance (ANOVA)

Source.	**Between Groups.**		**Within Groups**		**Totals.**	
	ORDI.	**VaRDI.**	**ORDI.**	**VaRDI.**	**ORDI.**	**VaRDI.**
Sum of Squares.	2220.337	765.9667	1401.5	1.5	3631.837	767.4667
Degrees of Freedom.	122	114	123	5	245	119
Mean of Squares.	18.19949	6.719	11.39431	0.3	14.78301	6.4492
F	1.6	22.4	-	-	-	-
Probability> F	0.005	0.0012	-	-	-	-

Conclusion: There is a statistically significant difference at 95% confidence interval between ORDI and the annual profits since the p-value of the F is **0.005** which is < 0.05 level of significance. In addition, there is a statistically significant difference at 95% confidence interval between VaRDI and the annual profits since the p-value of the F is **0.0012** which is < 0.05 level of significance.

4.3 Based on Regression

Apart from using graphs and correlation, we also try to find an explanation to the Bank's ORDI and VaRDI score with respect to parameters like bank's profits and bank disclosure index.

To do this we run a couple of regressions so as to figure out the exact relationship between bank's levels of disclosure with respect to an explanatory variable. Based on the R^2 and t-statistic, we decided to choose the Regression Model $Y = a + b * \ln(\pi)$ as the best fit model for both the risk disclosure indices.

Table 4.6: Results for Regression of ORDI and VaRDI

Disclosure.	ORDI.	VaRDI.
No. of Observations.	126	120
*F(1,124) and **F(1, 118)	8.51	22.38
Probability > F	0.0042	0.000
R Squared.	0.0642	0.1594
Adjusted R-Squared.	0.0567	0.1523
Root MSE.	1.80E+09	1.80E-09

(*)Operational Risk Disclosure Index. (**) Value at Risk Disclosure Index.

The p value of the F-test shows the overall significance of the models. In this case, the ORDI model is statistically significant at 0.0042 while the VaRDI model is statistically significant at 0.000. Value at risk disclosure index has more impact on the banks profits as compared to the operational risk disclosure index (ORDI).

The R-squared of the regression is the fraction of the variation of annual profits (dependent variables) that is accounted for (or predicted by) the ORDI or VaRDI (independent variables), in this case, it means that approximately 6.42% and 15.23% of the variability in the annual profits as a result of ORDI and VaRDI respectively is accounted for in the models, even after taking into account the number of predictor variables in the model.

Table 4.7: Results for Regression components within the model

Source.	**Sum of Squares.**		**Degrees of Freedom.**		**Mean of Squares.**	
	ORDI.	**VaRDI.**	**ORDI.**	**VaRDI.**	**ORDI.**	**VaRDI.**
Model.	2.91E+19	7.13E+19	1	1	2.91E+19	7.13E+19
Residual.	4.23E+20	3.76E+20	124	118	3.41E+18	3.19E+18
Total.	4.52E+20	4.48E+20	125	119	3.62E+18	3.76E+18

Table 4.7 displays the sum of squares, degrees of freedom and the mean squares for the model and the residual. It also displays the total of the components within the model.

Table 4.8: Results for the Statistical Models

Model.	Annual Profits	Coefficient	Standard Error	t	P>t	Beta	[95% Confidence Interval]	
I.	ORDI.	1.01E+08	3.48E+07	2.92	0.004	0.2534319	3.26E+07	1.70E+08
	Constant.	8.77E+08	2.19E+08	4.01	0.000	-	4.44E+08	1.31E+09
II.	VaRDI.	3.05E+08	6.44E+07	4.73	0.000	0.399283	1.77E+08	4.33E+08
	Constant.	2.73E+08	2.75E+08	0.99	0.322	-	-2.71E+08	8.17E+08

Table 4.8 displays the statistical formulas (Models) that have been derived from the data at 95% confidence interval. The coefficients in the Beta column are all in the same standardized units you can compare these coefficients to assess the relative strength of each of the indexes. In this regression, VaRDI has the highest Beta coefficient (0.399283, in absolute value) as compared to ORDI which is 0.2534319.

In interpreting this output, the difference between the numbers listed in the Coefficient column and the Beta column is in the units of measurement. For example, to describe the raw coefficient for **'ORDI'** you would say, a one-unit increase in **ORDI** would yield a 1.01E+08 unit increase in the annual profits. However, for the standardized coefficient (Beta) you would say, a one standard deviation increase in **ORDI** would yield a 0.2534319 standard deviation increase in the annual profits. However, the same pattern follows with **VaRDI**. For the standardized coefficient (Beta) you would say that a one standard deviation increase in **VaRDI** would yield a 0.399283 standard deviation increase in the annual profits.

CHAPTER FIVE

5.0 CONCLUSION

5.1 Conclusion and Implications

Disclosure plays an important role in market discipline since market participants need to have meaningful information to base their judgment of risk and performance. Disclosure is particularly important in the banking industry, since banks are generally viewed as being opaque to outsiders. As a result, banking supervisors and other public sector officials have encouraged enhanced disclosure by commercial banks, particularly for forward-looking estimates of risk. This study tried to compare market risk and operational risk disclosures with reference to commercial banks in Kenya and then tried to establish a relationship between risk disclosure and value of the bank's profits.

The key variable of examining disclosures is an index scorecard for both market risk and operational risk disclosure that capture the amount of risk information that financial institutes are willing to share with their common shareholders through their annual reports. The index is constructed for a sample of forty three commercial banks which had traded between 2005 and 2009. Overall, the quality of both the disclosures is better for listed banks than for unlisted banks at the Nairobi stock exchange. One possible explanation for this puzzling result may be that the sample banks may not be representative of all commercial banks in the national economy. As a result, multinational banks have more resource to devote to operational risk performance measurement than other average banks in the country. It should always be kept in mind that market discipline has two distinct components:

- Investors and creditors ability to monitor and assess changes in bank's condition.
- Their ability to influence management behavior.

Both of the factors are affected by the amount and quality of information disclosed. Through our research, improvement of risk disclosures is still needed for all commercial banks especially for non listed banks. Without adequate disclosure information, investors and creditor's ability to monitor and assess bank's financial ability will be negatively affected consequently negatively affecting bank's management behavior and even its future in long run.

5.2 Limitations of the study

The following are some of the limitations of the study:

Risk disclosure index is not the only factor that influences profits. Other important factors such as turnover should be considered while assessing the level of profits. Investors can only gain if there is an assurance that other factors in the economy will remain unchanged.

5.3 Suggestions for Further Research

The researcher suggests the following areas for further research:

- The study focused on investigating the impact of operational and market risk disclosure on commercial banks performance in Kenya. Kenya is classified as a developing country and it shares similar climatic, weather and cultural conditions with the other East African countries, further research could be done by assessing correlation between VaRDI and ORDI in the three East African countries and disclosure trends.

- Further research can be done to assess the motivation behind operational risk and market risk disclosure; and
- Research could also be done to assess compliance levels to the Basel Committee resolutions in the subsequent financial reporting and risk management strategies.

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APPENDICES

Appendix 1: Banks in Kenya

African Banking Corporation Ltd.

Bank of Africa Kenya Ltd.

Bank of Baroda (K) Ltd.

Bank of India

Barclays Bank of Kenya Ltd.

CFC Stanbic Bank Ltd.

Charterhouse Bank Ltd (Under statutory management)

Chase Bank (K) Ltd.

Citibank N.A Kenya

Commercial Bank of Africa Ltd.

Consolidated Bank of Kenya Ltd.

Co-operative Bank of Kenya Ltd.

Credit Bank Ltd.

Development Bank of Kenya Ltd.

Diamond Trust Bank (K) Ltd.

Dubai Bank Kenya Ltd.

Ecobank Kenya Ltd

Equatorial Commercial Bank Ltd.

Equity Bank Ltd.

Family Bank Ltd

Fidelity Commercial Bank Ltd

Fina Bank Ltd

First community Bank Limited

Giro Commercial Bank Ltd

Guardian Bank Ltd

Gulf African Bank Limited

Habib Bank A.G Zurich

Habib Bank Ltd

Imperial Bank Ltd

Investment & Mortgages Bank Ltd

Jamii Bora Bank Ltd.

Kenya Commercial Bank Ltd

K-Rep Bank Ltd

Middle East Bank (K) Ltd

National Bank of Kenya Ltd

NIC Bank Ltd

Oriental Commercial Bank Ltd

Paramount Universal Bank Ltd

Prime Bank Ltd

Standard Chartered Bank (K) Ltd

Trans-National Bank Ltd

Victoria Commercial Bank Ltd

UBA Kenya Bank Ltd.

Source -Central Bank of Kenya website

APPENDIX II: DISCLOSURE INDEXES

Table 4.9: Annual Profits and ORDI

No.	Name of the Bank.	Year: 2009		Year: 2008		Year: 2007		Year: 2006		Year: 2005	
		ORDI.	Annual Profit.	ORDI.	Annual Profit.	ORDI.	Annual Profit.	ORDI.	Annual Profit.	ORDI.	Annual Profit.
1	ABC Bank.	-		-	224,000,000	-	185,000,000	-	140,000,000	-	124,000,000
2	Bank of Africa.	0	396,000,000	0	271,000,000	0	158,000,000	0	61,000,000	0	7,000,000
3	Bank of Baroda.	5		5	633,000,000	5	524,000,000	0	373,000,000	0	238,000,000
4	Bank of India.	5		5	609,000,000	5	474,000,000	0	278,000,000	0	124,000,000
5	Barclays Bank of Kenya.	5	9,002,000,000	5	8,016,000,000	5	7,079,000,000	0	6,475,000,000	0	5,401,000,000
6	CFC Stanbic Bank.	5	709,000,000	5	1,322,000,000	5	1,352,000,000	0	1,366,000,000	0	865,000,000
7	Chase Bank.	-		-	247,000,000	-	180,000,000	-	111,000,000	-	65,000,000
8	Citibank.	11	3,055,000,000	11	3,353,000,000	11	1,782,000,000	0	1,530,000,000	0	1,285,000,000
9	City Finance Bank.	-		-	(3,000,000)	-	(28,000,000)	-	(17,000,000)	-	(47,000,000)
10	Charter House Bank.	11	(85,000,000)	11	(130,000,000)	11	87,000,000	5	77,000,000	-	122,000,000
11	Commercial Bank of Africa.	6	1,964,000,000	6	1,765,000,000	0	1,416,000,000	0	1,343,000,000	0	369,000,000
12	Consolidated Bank of Kenya.	11		10	85,000,000	0	26,000,000	0	16,000,000	0	(12,000,000)
13	Co-operative Bank of Kenya.	11	3,735,000,000	10	3,359,000,000	10	2,094,000,000	0	1,256,000,000	0	714,000,000
14	Credit Bank.	-		-	79,000,000	-	131,000,000	-	90,000,000	-	90,000,000
15	Development Bank of Kenya.	10	189,000,000	10	169,000,000	10	156,000,000	0	128,000,000	0	165,000,000
16	Diamond Trust Bank.	6	1,929,000,000	6	1,604,000,000	5	1,055,000,000	0	681,000,000	0	427,000,000

17	Dubai Bank.	-		-	7,000,000	-	14,000,000	-	20,000,000	-	29,000,000
18	Ecobank.	-		-	67,000,000	-	112,000,000	-	47,000,000	-	13,000,000
19	Equatorial Commercial Bank.	12	74,000,000	11	(10,000,000)	12	73,000,000	11	94,000,000	0	109,000,000
20	Equity Bank.	5	5,278,000,000	6	4,988,000,000	6	2,364,000,000	0	1,103,000,000	0	501,000,000
21	Family Bank.	6	342,000,000	6	576,000,000	0	268,000,000	-	N/A	-	N/A
22	Fidelity Commercial Bank.	9	37,000,000	-	35,000,000		49,000,000	-	26,000,000	-	13,000,000
23	Fina Bank.	0	160,000,000	0	139,000,000	0	150,000,000	0	151,000,000	0	107,000,000
24	First Community Bank.	-		-	(307,000,000)	-	N/A	-	N/A	0	N/A
25	Giro Commercial Bank.	0	148,900,000	0	126,000,000	0	41,000,000	0	59,000,000	0	(6,000,000)
26	Guardian Bank.	11	61,000,000	11	44,000,000	11	25,000,000	11	48,000,000	0	56,000,000
27	Gulf African Bank.	11	(162,000,000)	11	(382,000,000)	11	(275,000,000)	-	N/A	-	N/A
28	Habib A.G Zurich.	11	286,000,000	11	242,000,000	11	204,000,000	0	165,000,000	0	147,000,000
29	Habib Bank Ltd.	11	196,000,000	11	146,000,000	11	107,000,000	0	6,000,000	0	21,000,000
30	I&M Bank.	10	1,794,000,000	11	1,619,000,000	11	1,294,000,000	0	936,000,000	0	489,000,000
31	Imperial Bank.	-		-	673,000,000	-	564,000,000	-	387,000,000	-	305,000,000
32	Kenya Commercial Bank.	9	6,300,000,000	11	6,013,000,000	11	4,226,000,000	0	3,167,000,000	0	1,948,000,000
33	K-Rep Bank Limited.	5	(289,000,000)	5	(472,000,000)	0	190,000,000	0	152,000,000	0	53,000,000

Table 4.9: Annual Profits and ORDI

No.	Name of the Bank.	Year: 2009		Year: 2008		Year: 2007		Year: 2006		Year: 2005	
		ORDI.	Annual Profit.	ORDI.	Annual Profit.	ORDI.	Annual Profit.	ORDI.	Annual Profit.	ORDI.	Annual Profit.
34	United Bank of Africa - Kenya.	-		-	N/A	-	N/A	-	N/A	-	N/A
35	National Bank of Kenya.	6	2,159,000,000	6	1,797,000,000	0	1,610,000,000	0	934,000,000	0	859,000,000
36	NIC Bank.	0	1,526,000,000	0	1,484,000,000	0	1,050,000,000	0	677,000,000	0	403,000,000
37	Oriental Commercial Bank.	9	47,000,000	9	68,000,000	5	177,000,000	0	(65,000,000)	0	(86,000,000)
38	Paramount Universal Bank.	-		-	51,000,000	-	43,000,000	-	31,000,000	0	15,000,000
39	Prime Bank.	-	563,600,000	-	460,000,000	-	317,000,000	-	191,000,000	-	125,000,000
40	Southern Credit Bank.	-		-	6,000,000	-	(14,000,000)	-	32,000,000	-	31,000,000
41	Standard Chartered.	13	6,728,000,000	13	4,720,000,000	11	4,910,000,000	11	3,810,000,000	0	3,513,000,000
42	Trans-National Bank.	0	87,000,000	0	121,000,000	0	81,000,000	0	46,000,000	0	59,000,000
43	Victoria Commercial Bank.	-		-	170,000,000	-	151,000,000	-	128,000,000	-	124,000,000

Table 4.10: Annual Profits and VaRDI

No.	Name of the Bank.	Year: 2009		Year: 2008		Year: 2007		Year: 2006		Year: 2005	
		VaRDI.	Annual Profit.	VaRDI.	Annual Profit.	VaRDI.	Annual Profit.	VaRDI.	Annual Profit.	VaRDI.	Annual Profit.
1	ABC Bank.	-		-	224,000,000	-	185,000,000	-	140,000,000	-	124,000,000
2	Bank of Africa.	6	396,000,000	6	271,000,000	6	158,000,000	2	61,000,000	2	7,000,000
3	Bank of Baroda.	3		3	633,000,000	3	524,000,000	2	373,000,000	2	238,000,000
4	Bank of India.	3		3	609,000,000	3	474,000,000	2	278,000,000	2	124,000,000
5	Barclays Bank of Kenya.	11	9,002,000,000	11	8,016,000,000	3	7,079,000,000	3	6,475,000,000	2	5,401,000,000
6	CFC Stanbic Bank.	12	709,000,000	12	1,322,000,000	3	1,352,000,000	3	1,366,000,000	2	865,000,000
7	Chase Bank.			-	247,000,000	-	180,000,000	-	111,000,000	-	65,000,000
8	Citibank.	3	3,055,000,000	3	3,353,000,000	3	1,782,000,000	2	1,530,000,000	2	1,285,000,000
9	City Finance Bank.			-	(3,000,000)	-	(28,000,000)	-	(17,000,000)	-	(47,000,000)
10	Charter House Bank.	3	(85,000,000)	3	(130,000,000)	2	87,000,000	2	77,000,000	2	122,000,000
11	Commercial Bank of Africa.		1,964,000,000	-	1,765,000,000	-	1,416,000,000	-	1,343,000,000	-	369,000,000
12	Consolidated Bank of Kenya.			-	85,000,000	-	26,000,000	-	16,000,000	-	(12,000,000)
13	Co-operative Bank of Kenya.	0	3,735,000,000	7	3,359,000,000	7	2,094,000,000	2	1,256,000,000	2	714,000,000
14	Credit Bank.			-	79,000,000	-	131,000,000	-	90,000,000	-	90,000,000
15	Development Bank of Kenya.	3	189,000,000	3	169,000,000	3	156,000,000	2	128,000,000	2	165,000,000
16	Diamond Trust Bank.	3	1,929,000,000	3	1,604,000,000	3	1,055,000,000	2	681,000,000	2	427,000,000
17	Dubai Bank.	-		-	7,000,000	-	14,000,000	-	20,000,000	-	29,000,000

18	*Ecobank.*	-		-	67,000,000	-	112,000,000	-	47,000,000	-	13,000,000
19	Equatorial Commercial Bank.	3	74,000,000	3	(10,000,000)	3	73,000,000	2	94,000,000	2	109,000,000
20	Equity Bank.	2	5,278,000,000	7	4,988,000,000	7	2,364,000,000	2	1,103,000,000	2	501,000,000
21	Family Bank.	0	342,000,000	0	576,000,000	3	268,000,000	-	N/A	-	N/A
22	Fidelity Commercial Bank.	2	37,000,000	2	35,000,000	-	49,000,000	-	26,000,000	-	13,000,000
23	Fina Bank.	3	160,000,000	3	139,000,000	3	150,000,000	3	151,000,000	3	107,000,000
24	First Community Bank.	-		-	(307,000,000)	-	N/A	-	N/A	-	N/A
25	Giro Commercial Bank.	2	148,900,000	2	126,000,000	2	41,000,000	2	59,000,000	2	(6,000,000)
26	Guardian Bank.	3	61,000,000	3	44,000,000	3	25,000,000	2	48,000,000	2	56,000,000
27	Gulf African Bank.	3	(162,000,000)	3	(382,000,000)	3	(275,000,000)	-	N/A	-	N/A
28	Habib A.G Zurich.	3	286,000,000	3	242,000,000	3	204,000,000	2	165,000,000	2	147,000,000
29	Habib Bank Ltd.	10	196,000,000	10	146,000,000	3	107,000,000	2	6,000,000	2	21,000,000
30	I&M Bank.	4	1,794,000,000	3	1,619,000,000	9	1,294,000,000	2	936,000,000	2	489,000,000
31	Imperial Bank.	-		-	673,000,000	-	564,000,000	-	387,000,000	-	305,000,000
32	Kenya Commercial Bank.	2	6,300,000,000	8	6,013,000,000	8	4,226,000,000	2	3,167,000,000	2	1,948,000,000
33	K-Rep Bank Limited.	5	(289,000,000)	3	(472,000,000)	3	190,000,000	3	152,000,000	3	53,000,000

Table 4.10: Annual Profits and VaRDI

No.	Name of the Bank.	Year: 2009		Year: 2008		Year: 2007		Year: 2006		Year: 2005	
		VaRDI.	Annual Profit.	VaRDI.	Annual Profit.	VaRDI.	Annual Profit.	VaRDI.	Annual Profit.	VaRDI.	Annual Profit.
34	United Bank of Africa - Kenya.	-		-	N/A	-	N/A	-	N/A	-	N/A
35	National Bank of Kenya.	6	2,159,000,000	6	1,797,000,000	2	1,610,000,000	3	934,000,000	3	859,000,000
36	NIC Bank.	2	1,526,000,000	2	1,484,000,000	2	1,050,000,000	2	677,000,000	3	403,000,000
37	Oriental Commercial Bank.	0	47,000,000	0	68,000,000	8	177,000,000	2	(65,000,000)	2	(86,000,000)
38	Paramount Universal Bank.	-		-	51,000,000	-	43,000,000	-	31,000,000	-	15,000,000
39	Prime Bank.	-	563,600,000	-	460,000,000	-	317,000,000	-	191,000,000	-	125,000,000
40	Southern Credit Bank.	-		-	6,000,000	-	(14,000,000)	-	32,000,000	-	31,000,000
41	Standard Chartered.	11	6,728,000,000	8	4,720,000,000	3	4,910,000,000	3	3,810,000,000	2	3,513,000,000
42	Trans-National Bank.	3	87,000,000	3	121,000,000	3	81,000,000	3	46,000,000	3	59,000,000
43	Victoria Commercial Bank.	-		-	170,000,000	-	151,000,000	-	128,000,000	-	124,000,000

Table 4.11: ORDI 2009

No.	Name of the Bank.	Operational Risk.	Reputation Risk.	Legal Risk.	Portion of Risk Capital (% or Kshs.)	Calculation Method.	Previous Year OR Portion.	OR Governance Structure.	Reputation Governance Structure.	Legal Governance Structure.	OR Measurement.	Reputation Measurement.	Legal Measurement.	Data Collection Process.	OR Reporting.	ORDI.
1	ABC Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
2	Bank of Africa.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3	Bank of Baroda.	1	0	0	0	0	1	0	0	0	1	0	0	1	1	**5**
4	Bank of India.	1	0	0	0	0	1	0	0	0	1	0	0	1	1	**5**
5	Barclays Bank of Kenya.	1	0	0	0	0	0	1	0	0	1	0	0	1	1	**5**
6	CFC Stanbic Bank.	1	0	0	0	0	0	1	0	0	1	0	0	1	1	**5**
7	Chase Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
8	Citibank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
9	City Finance Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
10	Charter House Bank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
11	Commercial Bank of Africa.	1	*0*	*0*	*1*	*0*	*0*	*1*	*0*	*0*	*1*	*0*	*0*	1	1	**6**
12	Consolidated Bank of Kenya.	1	1	0	0	0	1	1	1	1	1	1	1	1	1	**11**
13	Co-operative Bank of Kenya.	1	1	0	0	0	1	1	1	1	1	1	1	1	1	**11**

14	Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Development Bank of Kenya.	1	0	1	1	0	1	1	0	1	1	0	1	1	1	**10**
16	Diamond Trust Bank.	1	0	0	0	0	1	1	0	0	1	0	0	1	1	**6**
17	Dubai Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Ecobank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Equatorial Commercial Bank.	1	1	1	1	0	1	1	1	1	1	0	1	1	1	**12**
20	Equity Bank.	1	0	0	0	0	0	1	0	0	1	0	0	1	1	**5**
21	Family Bank.	1	0	0	0	0	1	1	0	0	1	0	0	1	1	**6**
22	Fidelity Commercial Bank.	1	1	1	0	0	0	1	1	1	1	0	0	1	1	**9**
23	Fina Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
24	First Community Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Giro Commercial Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
26	Guardian Bank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
27	Gulf African Bank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
28	Habib A.G Zurich.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
29	Habib Bank Ltd.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
30	I&M Bank.	1	1	1	0	0	1	1	1	1	1	0	0	1	1	**10**
31	Imperial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Kenya Commercial Bank.	1	1	1	0	0	0	1	1	1	1	0	0	1	1	**9**
33	K-Rep Bank Limited.	1	0	0	0	0	1	0	0	1	0	1	0	0	1	**5**

34	*United Bank of Africa - Kenya.*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	National Bank of Kenya.	1	0	0	0	0	1	0	0	1	0	0	1	1	1	**6**
36	NIC Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
37	Oriental Commercial Bank.	1	1	0	0	0	1	1	1	0	1	1	0	1	1	**9**
38	Paramount Universal Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	Prime Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	Southern Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	Standard Chartered.	1	1	1	1	0	1	1	1	1	1	1	1	1	1	**13**
42	Trans-National Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
43	Victoria Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4.12: ORDI 2008

No.	Name of the Bank.	Operational Risk.	Reputation Risk.	Legal Risk.	Portion of Risk Capital (% or Kshs.)	Calculation Method.	Previous Year OR Portion.	OR Governance Structure.	Reputation Governance Structure.	Legal Governance Structure.	OR Measurement.	Reputation Measurement.	Legal Measurement.	Data Collection Process.	OR Reporting.	ORDI.
1	ABC Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
2	Bank of Africa.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3	Bank of Baroda.	1	0	0	0	0	1	0	0	0	1	0	0	1	1	**5**
4	Bank of India.	1	0	0	0	0	1	0	0	0	1	0	0	1	1	**5**
5	Barclays Bank of Kenya.	1	0	0	0	0	0	1	0	0	1	0	0	1	1	**5**
6	CFC Stanbic Bank.	1	0	0	0	0	0	1	0	0	1	0	0	1	1	**5**
7	Chase Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
8	Citibank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
9	City Finance Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
10	Charter House Bank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
11	Commercial Bank of Africa.	1	0	0	1	0	0	1	0	0	1	0	0	1	1	**6**
12	Consolidated Bank of Kenya.	1	0	1	1	0	1	1	1	1	1	0	0	1	1	**10**
13	Co-operative Bank of Kenya.	1	1	1	1	0	0	1	1	1	1	0	0	1	1	**10**

14	*Credit Bank.*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Development Bank of Kenya.	1	0	1	1	0	1	1	1	1	1	0	0	1	1	**10**
16	Diamond Trust Bank.	1	0	0	0	0	1	1	0	0	1	0	0	1	1	**6**
17	Dubai Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Ecobank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Equatorial Commercial Bank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
20	Equity Bank.	1	0	0	1	0	0	1	0	0	1	0	0	1	1	**6**
21	Family Bank.	1	0	0	0	0	1	1	0	0	1	0	0	1	1	**6**
22	Fidelity Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	Fina Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
24	First Community Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Giro Commercial Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
26	Guardian Bank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
27	Gulf African Bank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
28	Habib A.G Zurich.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
29	Habib Bank Ltd.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
30	I&M Bank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
31	Imperial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Kenya Commercial Bank.	1	1	1	1	0	1	1	1	1	0	0	0	1	1	**11**
33	K-Rep Bank Limited.	1	0	0	0	0	1	0	0	1	0	1	0	0	1	**5**

34	United Bank of Africa - Kenya.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	National Bank of Kenya.	1	0	0	0	0	1	0	0	1	0	0	1	1	1	**6**
36	NIC Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
37	Oriental Commercial Bank.	1	1	0	0	0	1	1	1	0	1	1	0	1	1	**9**
38	Paramount Universal Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	Prime Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	Southern Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	Standard Chartered.	1	1	1	1	0	1	1	1	1	1	1	1	1	1	**13**
42	Trans-National Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
43	Victoria Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4.13: ORDI 2007

No.	Name of the Bank.	Operational Risk.	Reputation Risk.	Legal Risk.	Portion of Risk Capital (% or Kshs.)	Calculation Method.	Previous Year OR Portion.	OR Governance Structure.	Reputation Governance Structure.	Legal Governance Structure.	OR Measurement.	Reputation Measurement.	Legal Measurement.	Data Collection Process.	OR Reporting.	ORDI.
1	ABC Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Bank of Africa.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3	Bank of Baroda.	1	0	0	0	0	1	0	0	0	1	0	0	1	1	**5**
4	Bank of India.	1	0	0	0	0	1	0	0	0	1	0	0	1	1	**5**
5	Barclays Bank of Kenya.	1	0	0	0	0	0	1	0	0	1	0	0	1	1	**5**
6	CFC Stanbic Bank.	1	0	0	0	0	0	1	0	0	1	0	0	1	1	**5**
7	Chase Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Citibank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
9	City Finance Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Charter House Bank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
11	Commercial Bank of Africa.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
12	Consolidated Bank of Kenya.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
13	Co-operative Bank of Kenya.	1	1	1	1	0	0	1	1	1	1	0	0	1	1	**10**

14	Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Development Bank of Kenya.	1	0	1	1	0	1	1	0	1	1	0	1	1	1	**10**
16	Diamond Trust Bank.	1	0	0	0	0	0	1	0	0	1	0	0	1	1	**5**
17	Dubai Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Ecobank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Equatorial Commercial Bank.	1	1	1	1	0	1	1	1	1	1	0	1	1	1	**12**
20	Equity Bank.	1	0	0	1	0	0	1	0	0	1	0	0	1	1	**6**
21	Family Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
22	Fidelity Commercial Bank.															
23	Fina Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
24	First Community Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Giro Commercial Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
26	Guardian Bank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
27	Gulf African Bank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
28	Habib A.G Zurich.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
29	Habib Bank Ltd.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
30	I&M Bank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
31	Imperial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Kenya Commercial Bank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
33	K-Rep Bank Limited.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

34	United Bank of Africa - Kenya.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	National Bank of Kenya.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
36	NIC Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
37	Oriental Commercial Bank.	1	0	0	0	0	0	1	0	0	1	0	0	1	1	**5**
38	Paramount Universal Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	Prime Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	Southern Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	Standard Chartered.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
42	Trans-National Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
43	Victoria Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4.14: ORDI 2006

No.	Name of the Bank.	Operational Risk.	Reputation Risk.	Legal Risk.	Portion of Risk Capital (% or Kshs.)	Calculation Method.	Previous Year OR Portion.	OR Governance Structure.	Reputation Governance Structure.	Legal Governance Structure.	OR Measurement.	Reputation Measurement.	Legal Measurement.	Data Collection Process.	OR Reporting.	ORDI.
1	ABC Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
2	Bank of Africa.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3	Bank of Baroda.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4	Bank of India.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5	Barclays Bank of Kenya.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6	CFC Stanbic Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7	Chase Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
8	Citibank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
9	City Finance Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
10	Charter House Bank.	1	0	0	0	0	0	1	0	0	1	0	0	1	1	**5**
11	Commercial Bank of Africa.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
12	Consolidated Bank of Kenya.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
13	Co-operative Bank of Kenya.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

14	Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Development Bank of Kenya.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
16	Diamond Trust Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
17	Dubai Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Ecobank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Equatorial Commercial Bank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
20	Equity Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
21	Family Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	Fidelity Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	Fina Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
24	First Community Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Giro Commercial Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
26	Guardian Bank.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
27	Gulf African Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	Habib A.G Zurich.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
29	Habib Bank Ltd.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
30	I&M Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
31	Imperial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Kenya Commercial Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
33	K-Rep Bank Limited.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

34	United Bank of Africa - Kenya.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	National Bank of Kenya.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
36	NIC Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
37	Oriental Commercial Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
38	Paramount Universal Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	Prime Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	Southern Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	Standard Chartered.	1	1	1	1	0	1	1	1	1	1	0	0	1	1	**11**
42	Trans-National Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
43	Victoria Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4.15: ORDI 2005

No.	Name of the Bank.	Operational Risk.	Reputation Risk.	Legal Risk.	Portion of Risk Capital (% or Kshs.)	Calculation Method.	Previous Year OR Portion.	OR Governance Structure.	Reputation Governance Structure.	Legal Governance Structure.	OR Measurement.	Reputation Measurement.	Legal Measurement.	Data Collection Process.	OR Reporting.	ORDI.
1	ABC Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
2	Bank of Africa.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3	Bank of Baroda.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4	Bank of India.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5	Barclays Bank of Kenya.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6	CFC Stanbic Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7	Chase Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
8	Citibank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
9	City Finance Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
10	Charter House Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
11	Commercial Bank of Africa.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
12	Consolidated Bank of Kenya.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

13	Co-operative Bank of Kenya.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
14	Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
15	Development Bank of Kenya.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
16	Diamond Trust Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
17	Dubai Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
18	Ecobank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
19	Equatorial Commercial Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
20	Equity Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
21	Family Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
22	Fidelity Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
23	Fina Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
24	First Community Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
25	Giro Commercial Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
26	Guardian Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
27	Gulf African Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
28	Habib A.G Zurich.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
29	Habib Bank Ltd.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
30	I&M Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

31	Imperial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Kenya Commercial Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
33	K-Rep Bank Limited.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
34	United Bank of Africa - Kenya.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	National Bank of Kenya.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
36	NIC Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
37	Oriental Commercial Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
38	Paramount Universal Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
39	Prime Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	Southern Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	Standard Chartered.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
42	Trans-National Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
43	Victoria Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4.16: VaRDI 2009

No.	Name of the Bank.	Holding Period.	Confidence Level.	High, Low, Average.	Year-End Value at Risk.	Risk Category.	Diversification.	Previous Year.	Histogram Daily Value at Risk.	Hypothetical Revenue.	No Trading Fees.	Histogram Daily Revenue.	Exceptions.	Explanation Exceptions.	VaRDI.
1	ABC Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
2	Bank of Africa.	0	0	0	1	1	1	1	0	1	1	0	0	0	**6**
3	Bank of Baroda.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
4	Bank of India.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
5	Barclays Bank of Kenya.	1	1	1	1	1	1	0	1	1	1	0	2	0	**11**
6	CFC Stanbic Bank.	1	1	1	1	1	1	1	0	1	1	0	2	1	**12**
7	Chase Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
8	Citibank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
9	City Finance Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
10	Charter House Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
11	Commercial Bank of Africa.	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
12	Consolidated Bank of Kenya.	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
13	Co-operative Bank of Kenya.	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

14	Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Development Bank of Kenya.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
16	Diamond Trust Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
17	Dubai Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Ecobank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Equatorial Commercial Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
20	Equity Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
21	Family Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
22	Fidelity Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
23	Fina Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
24	First Community Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Giro Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
26	Guardian Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
27	Gulf African Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
28	Habib A.G Zurich.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
29	Habib Bank Ltd.	1	0	1	1	1	1	0	0	1	1	0	2	1	**10**
30	I&M Bank.	0	0	0	0	0	1	1	0	1	1	0	0	0	**4**
31	Imperial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Kenya Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
33	K-Rep Bank Limited.	0	0	1	1	1	0	0	1	1	0	0	0	0	**5**

34	United Bank of Africa - Kenya.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	National Bank of Kenya.	0	0	1	1	1	1	0	0	1	1	0	0	0	**6**
36	NIC Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
37	Oriental Commercial Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
38	Paramount Universal Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	Prime Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	Southern Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	Standard Chartered.	1	1	1	1	1	1	0	0	1	1	0	2	1	**11**
42	Trans-National Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
43	Victoria Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4.17: VaRDI 2008

No.	Name of the Bank.	Holding Period.	Confidence Level.	High, Low, Average.	Year-End Value at Risk.	Risk Category.	Diversification.	Previous Year.	Histogram Daily Value at Risk.	Hypothetical Revenue.	No Trading Fees.	Histogram Daily Revenue.	Exceptions.	Explanation Exceptions.	VaRDI.
1	ABC Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Bank of Africa.	0	0	0	1	1	1	1	0	1	1	0	0	0	**6**
3	Bank of Baroda.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
4	Bank of India.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
5	Barclays Bank of Kenya.	1	1	1	1	1	1	0	1	1	1	0	2	0	**11**
6	CFC Stanbic Bank.	1	1	1	1	1	1	1	0	1	1	0	2	1	**12**
7	Chase Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Citibank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
9	City Finance Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Charter House Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
11	Commercial Bank of Africa.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Consolidated Bank of Kenya.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Co-operative Bank of Kenya.	1	0	1	1	1	1	0	0	1	1	0	0	0	**7**

14	Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Development Bank of Kenya.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
16	Diamond Trust Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
17	Dubai Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Ecobank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Equatorial Commercial Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
20	Equity Bank.	1	0	1	1	1	1	0	0	1	1	0	0	0	**7**
21	Family Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
22	Fidelity Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
23	Fina Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
24	First Community Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Giro Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
26	Guardian Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
27	Gulf African Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
28	Habib A.G Zurich.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
29	Habib Bank Ltd.	1	0	1	1	1	1	0	0	1	1	0	2	1	**10**
30	I&M Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
31	Imperial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Kenya Commercial Bank.	1	0	1	1	1	1	1	0	1	1	0	0	0	**8**
33	K-Rep Bank Limited.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**

34	United Bank of Africa - Kenya.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	National Bank of Kenya.	0	0	1	1	1	1	0	0	1	1	0	0	0	**6**
36	NIC Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
37	Oriental Commercial Bank.	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
38	Paramount Universal Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	Prime Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	Southern Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	Standard Chartered.	1	0	1	1	1	1	1	0	1	1	0	0	0	**8**
42	Trans-National Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
43	Victoria Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4.18: VaRDI 2007

No.	Name of the Bank.	Holding Period.	Confidence Level.	High, Low, Average.	Year-End Value at Risk.	Risk Category.	Diversification.	Previous Year.	Histogram Daily Value at Risk.	Hypothetical Revenue.	No Trading Fees.	Histogram Daily Revenue.	Exceptions.	Explanation Exceptions.	VaRDI.
1	ABC Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Bank of Africa.	0	0	0	1	1	1	1	0	1	1	0	0	0	6
3	Bank of Baroda.	0	0	0	0	0	0	1	0	1	1	0	0	0	3
4	Bank of India.	0	0	0	0	0	0	1	0	1	1	0	0	0	3
5	Barclays Bank of Kenya.	0	0	0	0	0	0	1	0	1	1	0	0	0	3
6	CFC Stanbic Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	3
7	Chase Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Citibank.	0	0	0	0	0	0	1	0	1	1	0	0	0	3
9	City Finance Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Charter House Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	2
11	Commercial Bank of Africa.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Consolidated Bank of Kenya.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Co-operative Bank of Kenya.	1	0	1	1	1	1	0	0	1	1	0	0	0	7

14	Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Development Bank of Kenya.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
16	Diamond Trust Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
17	Dubai Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Ecobank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Equatorial Commercial Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
20	Equity Bank.	1	0	1	1	1	1	0	0	1	1	0	0	0	**7**
21	Family Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
22	Fidelity Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	Fina Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
24	First Community Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Giro Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
26	Guardian Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
27	Gulf African Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
28	Habib A.G Zurich.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
29	Habib Bank Ltd.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
30	I&M Bank.	1	0	1	1	1	1	0	0	1	1	0	1	1	**9**
31	Imperial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Kenya Commercial Bank.	1	0	1	1	1	1	1	0	1	1	0	0	0	**8**
33	K-Rep Bank Limited.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**

14	*Credit Bank.*	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Development Bank of Kenya.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
16	Diamond Trust Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
17	Dubai Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Ecobank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Equatorial Commercial Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
20	Equity Bank.	1	0	1	1	1	1	0	0	1	1	0	0	0	**7**
21	Family Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
22	Fidelity Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	Fina Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
24	First Community Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Giro Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
26	Guardian Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
27	Gulf African Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
28	Habib A.G Zurich.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
29	Habib Bank Ltd.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
30	I&M Bank.	1	0	1	1	1	1	0	0	1	1	0	1	1	**9**
31	Imperial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Kenya Commercial Bank.	1	0	1	1	1	1	1	0	1	1	0	0	0	**8**
33	K-Rep Bank Limited.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**

34	United Bank of Africa - Kenya.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	National Bank of Kenya.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
36	NIC Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
37	Oriental Commercial Bank.	1	0	1	1	1	1	1	0	1	1	0	0	0	**8**
38	Paramount Universal Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	Prime Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	Southern Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	Standard Chartered.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
42	Trans-National Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
43	Victoria Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4.19: VaRDI 2006

No.	Name of the Bank.	Holding Period.	Confidence Level.	High, Low, Average.	Year-End Value at Risk.	Risk Category.	Diversification.	Previous Year.	Histogram Daily Value at Risk.	Hypothetical Revenue.	No Trading Fees.	Histogram Daily Revenue.	Exceptions.	Explanation Exceptions.	VaRDI.
1	ABC Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
2	Bank of Africa.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
3	Bank of Baroda.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
4	Bank of India.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
5	Barclays Bank of Kenya.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
6	CFC Stanbic Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
7	Chase Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
8	Citibank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
9	City Finance Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
10	Charter House Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
11	Commercial Bank of Africa.	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
12	Consolidated Bank of Kenya.	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
13	Co-operative Bank of Kenya.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**

14	Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Development Bank of Kenya.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
16	Diamond Trust Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
17	Dubai Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Ecobank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Equatorial Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
20	Equity Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
21	Family Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	Fidelity Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	Fina Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
24	First Community Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Giro Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
26	Guardian Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
27	Gulf African Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	Habib A.G Zurich.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
29	Habib Bank Ltd.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
30	I&M Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
31	Imperial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Kenya Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
33	K-Rep Bank Limited.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**

14	Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Development Bank of Kenya.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
16	Diamond Trust Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
17	Dubai Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Ecobank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Equatorial Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
20	Equity Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
21	Family Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	Fidelity Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	Fina Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
24	First Community Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Giro Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
26	Guardian Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
27	Gulf African Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	Habib A.G Zurich.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
29	Habib Bank Ltd.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
30	I&M Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
31	Imperial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Kenya Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
33	K-Rep Bank Limited.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**

34	United Bank of Africa - Kenya.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	National Bank of Kenya.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
36	NIC Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
37	Oriental Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
38	Paramount Universal Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	Prime Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	Southern Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	Standard Chartered.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
42	Trans-National Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
43	Victoria Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4.20: VaRDI 2005

No.	Name of the Bank.	Holding Period.	Confidence Level.	High, Low, Average.	Year-End Value at Risk.	Risk Category.	Diversification.	Previous Year.	Histogram Daily Value at Risk.	Hypothetical Revenue.	No Trading Fees.	Histogram Daily Revenue.	Exceptions.	Explanation Exceptions.	VaRDI.
1	ABC Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Bank of Africa.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
3	Bank of Baroda.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
4	Bank of India.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
5	Barclays Bank of Kenya.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
6	CFC Stanbic Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
7	Chase Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Citibank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
9	City Finance Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Charter House Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
11	Commercial Bank of Africa.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Consolidated Bank of Kenya.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Co-operative Bank of Kenya.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**

Table 4.20: VaRDI 2005

No.	Name of the Bank.	Holding Period.	Confidence Level.	High, Low, Average.	Year-End Value at Risk.	Risk Category.	Diversification.	Previous Year.	Histogram Daily Value at Risk.	Hypothetical Revenue.	No Trading Fees.	Histogram Daily Revenue.	Exceptions.	Explanation Exceptions.	VaRDI.
1	ABC Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Bank of Africa.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
3	Bank of Baroda.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
4	Bank of India.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
5	Barclays Bank of Kenya.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
6	CFC Stanbic Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
7	Chase Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Citibank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
9	City Finance Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Charter House Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
11	Commercial Bank of Africa.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Consolidated Bank of Kenya.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Co-operative Bank of Kenya.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**

14	Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Development Bank of Kenya.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
16	Diamond Trust Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
17	Dubai Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Ecobank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Equatorial Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
20	Equity Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
21	Family Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	Fidelity Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	Fina Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
24	First Community Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Giro Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
26	Guardian Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
27	Gulf African Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	Habib A.G Zurich.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
29	Habib Bank Ltd.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
30	I&M Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
31	Imperial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Kenya Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
33	K-Rep Bank Limited.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**

34	United Bank of Africa - Kenya.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	National Bank of Kenya.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
36	NIC Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
37	Oriental Commercial Bank.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
38	Paramount Universal Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	Prime Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	Southern Credit Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	Standard Chartered.	0	0	0	0	0	0	0	0	1	1	0	0	0	**2**
42	Trans-National Bank.	0	0	0	0	0	0	1	0	1	1	0	0	0	**3**
43	Victoria Commercial Bank.	-	-	-	-	-	-	-	-	-	-	-	-	-	-