

**THE EFFECT OF LEVEL OF DEPOSITS ON FINANCIAL
PERFORMANCE OF COMMERCIAL BANKS IN KENYA**

BY

DANCAN MBOYA OKUN

D61/8896/04

**A RESEARCH PROJECT SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF BUSINESS ADMINISTRATION
UNIVERSITY OF NAIROBI**

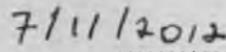
OCTOBER 2012

DECLARATION

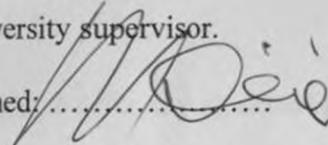
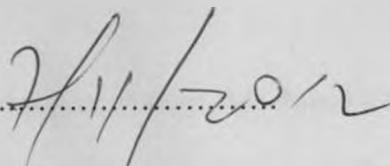
This research project is my original work and has not been presented for degree in any other university or any other award.

Name: Dancan Mboya Okun

D61/8896/04

Signature  Date 

This research project has been submitted for examination with my approval as university supervisor.

Signed:  Date: 

Name: Mirie Mwangi

ACKNOWLEDGEMENT

A major research project like this is never the work of anyone alone. The contributions of many different people, in their different ways, have made this possible.

First, I would like to thank God for the wisdom and perseverance that He has bestowed upon me during this research project, and indeed, throughout my life.

Second, I offer my sincerest gratitude to my supervisor, Mr. Mirie Mwangi who has supported me throughout this research project with his patience and knowledge whilst allowing me the room to work in my own way. I appreciate the odd hours we spent discussing the reports.

I wish to thank the respondents who participated in this study. I thank my parents for supporting me throughout all my studies from nursery school to university level. I wish to express my gratitude to family. You have been a source of strength.

DEDICATION

I dedicate this work to my wife, Christine and my children, Diana, Wendy and Idalene for their support during its preparation. I could not have made it without your patience and encouragement. Thank you for your understanding when I stayed away for long, either in class throughout the weekend. This is for you.

Secondly, I dedicate this work to my father the late Japuonj Kellion Okun Odollo for the discipline he instilled in me from childhood; my mother Loice Okun who from childhood inspired me to work hard in school in order to make a proud mother of a university graduate. All I am today is due to your immense sacrifice.

ABSTRACT

The study was on the effect of the level of deposits on financial performance of commercial banks in Kenya. The main issue was that there had been a gradual rise in customer deposits in Kenya. The profitability of the banking sector has also been on the rise. So, the empirical problem was whether there exists a relationship between the customer deposits and banks profitability. The problem of the study and the research gap is based on the observation that there exists conflicting evidence of the effect of deposits on bank financial performance. Some evidence shows a negative effect, others show a positive effect while others show no effect at all.

The study adopted a causal research design. The population of the study were all 44 commercial banks. The study used secondary data (spanning 8 years from 2004 to 2011) from the banking supervision department of central bank. A cross sectional regression model was adapted. The regressions were conducted using statistical package for social sciences (SPSS) version 17.

Regression results indicate that there is a positive and significant relationship between Deposits Ratio and ROE. The results also indicate that there is a positive and significant relationship between Deposits Ratio and ROA.

Following study results, it is recommended that commercial banks in Kenya should invest in attracting more low cost deposits by adopting alternative banking channels innovation such as Mpesa and agency banking in order to attract deposits at the lowest cost possible and to reduce costs associated with other forms of deposit mobilization.

TABLE OF CONTENTS

Declaration.....	II
Acknowledgement	III
Dedication	IV
Abstract.....	V
Table of contents.....	VI
List of tables.....	IX
List of figures.....	X
List of abbreviations	XI
CHAPTER ONE	1
INTRODUCTION.....	1
1.1 Background of the Study	1
1.1.1 Deposits in Kenyan Commercial Banks	2
1.1.2 Financial Performance of Banks in Kenya	3
1.1.3 The Relationship between Level of Deposits and Banks Performance	5
1.1.4 The Structure of Banking Sector in Kenya.....	6
1.2 Problem Statement	8
1.3 Objective of the Study	10
1.4 Value of the Study	11
CHAPTER TWO	12
LITERATURE REVIEW	12
2.0 Introduction.....	12
2.1 Theoretical Review	12
2.1.1 Financial intermediation theory	12
2.1.2 Portfolio Theory of Investment.....	14
2.1.4 Tobin Theory of Investment	16
2.2 Empirical Review.....	17
2.2.1 Relationship between Level of Deposits and Banks Performance	17

2.4 Chapter Summary	23
CHAPTER THREE	24
RESEARCH METHODOLOGY	24
3.0 Introduction.....	24
3.1 Research Design.....	24
3.2 Population of the Study.....	24
3.3 Data Collection Procedure	24
3.4 Model Specification.....	25
CHAPTER FOUR.....	27
DATA ANALYSIS, RESULTS AND DISCUSSION.....	27
4.0 Introduction.....	27
4.1 Trend Analysis.....	27
4.2 Descriptive Statistics.....	34
4.3 Analytical Model	36
4.3.1 Correlation Analysis	36
4.3.2 Regression Analysis: Return on Equity	38
4.3.3 Regression Analysis: ROA	40
4.4 Discussions	42
4.5 Chapter Summary	45
CHAPTER FIVE	47
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	47
5.1 Summary of Findings.....	47
5.2 Conclusions.....	49
5.3 Recommendations.....	50
5.4 Limitations of Study	51
5.5 Areas for Further Study	52
REFERENCES.....	54
Appendix I: TOTAL ASSETS.....	60
Appendix II: ROE AND ROA.....	62

Appendix III: NET ADVANCES (LOANS)64
Appendix IV: DEPOSITS67

LIST OF TABLES

Table 4. 1: Descriptive Statistics	35
Table 4. 2: Correlation Results	36
Table 4. 3: Goodness of fit (Coefficient of Determination).....	38
Table 4. 4: Overall Model Significance.....	39
Table 4. 5: Regression Coefficients	40
Table 4. 6: Goodness of fit (Coefficient of Determination).....	40
Table 4. 7: Overall Model Significance.....	41
Table 4. 8: Regression Coefficients	41

LIST OF FIGURES

Figure 4. 1: Return on Equity Trend _Year 2004 to year 2011	28
Figure 4. 2: Return on Assets Trend _Year 2004 to year 2011	29
Figure 4. 3: Net Advances Trend _Year 2004 to year 2011	30
Figure 4. 4: Customer Deposits Trend _Year 2004 to year 2011	31
Figure 4. 5: Total Assets Trend _Year 2004 to year 2011	32
Figure 4. 6: NET ADVANCES RATIO: Trend _Year 2004 to year 2011	33
Figure 4. 7: DEPOSITS RATIO: Trend _Year 2004 to year 2011	34

LIST OF ABBREVIATIONS

CAPM	Capital Asset Pricing Model
CBK	Central Bank of Kenya
COD	Certificate of Deposit
DBFB	Deposit balances from other Banks;
ERS.....	Economic Recovery Strategy
GSEC	Government Securities
INSCO.....	Investment in Subsidiary Companies
KPI	Key Performance Indicators
LA	Loans and Advances
NIM	Net Interest Margin
OECD.....	Organization for Economic Cooperation and Development
PBT-----	Profit before Tax
PLABB.....	Placements, Loans and Advances to Building; Societies and Other Banking Institutions
ROA	Return on Assets
ROCE	Return on Capital Employed
ROE.....	Return on Equity
ROI-----	Return on Investment

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

There are two competing theories on the relationship between financial structure and economic development. Some researchers for example Aretis, Luintel and Luintel (2005) have argued that bank based as opposed to market based financial structures better supports economic growth. Others have argued that it is not whether an economy adopts a bank based or a market based financial system that leads to economic growth but the level of financial development since most economies that have well developed market institutions also tend to have well developed bank based institutions (Aretis et al, 2005).

King and Levine (1993), Levine and Zervos (1998), Benhabib and Spiegel (2000) suggest that banking sector development is strongly associated with economic growth rate, physical asset growth and technology growth. A study by Cihak and Podpiera (2005) on bank behaviour in East Africa, indicated that East African financial system even though is diverse, is concentrated more in banking. Bank assets in all the East African countries (Kenya, Uganda and Tanzania) account for between 60-80 percent of all financial assets. This confirms the vital role played by banks in economic growth majorly by supplying credit and facilitation of business transactions by offering demand deposit accounts and payment systems.

Deposits play a pivotal role in bank's funding, as a predominant portion of commercial bank's assets are usually financed through customer deposits (Bologna,

2011). The main expense by any commercial bank is the interest expense and therefore for a commercial bank to be profitable, it must be able to raise deposits at reasonable rates in order to on lend to the customers. This therefore implies that a bank that is able to generate more deposits cheaply will be able to supply more loans competitively and hence make more profits if all other factors are held constant.

1.1.1 Deposits in Kenyan Commercial Banks

In Kenya, deposits from customers remain the main source of funding for the banking sector, accounting for 75 percent of the total funding liabilities. As at December, 2011, the total bank deposits amounted to KES 1,488,168 trillion (CBK, 2011). According to data gathered from Central Bank of Kenya supervision reports between the years 2001 and 2011, there has been an upward trend in the level of deposits. The level of deposits rose by over 384% from Kenya Shillings 317 billion in 2001 to over 1.48 trillion by the end of 2011.

Financial institutions facilitate mobilization of savings, diversification and pooling of risks and allocation of resources. However, since the receipts for deposits and loans are not synchronized, intermediaries like banks incur certain costs (Ngugi, 2001). They charge a price for the intermediation services offered under uncertainty, and set the interest rate levels for deposits and loans. The difference between the gross costs of borrowing and the net return on lending defines the intermediary costs (information costs, transaction costs (administration and default costs and operational costs) (Rhyne, 2002).

Interest rate spread is defined by market microstructure characteristics of the banking sector and the policy environment (Ngugi, 2001). Risk-averse banks operate with a smaller spread than risk-neutral banks since risk aversion raises the bank's optimal interest rate and reduces the amount of credit supplied. Actual spread, which incorporates the pure spread, is in addition influenced by macroeconomic variables including monetary and fiscal policy activities (Emmanuelle, 2003).

Depending on the market structure and risk management, the banking firm is assumed to maximize either the expected utility of profits or the expected profits. And, depending on the assumed market structure, the interest spread components vary. For example, assuming a competitive deposit rate and market power in the loan market, the interest rate spread is traced using the variations in loan rate (Ngugi, 2001).

1.1.2 Financial Performance of Banks in Kenya

Performance Measures are quantitative or qualitative ways to characterize and define performance. They provide a tool for organizations to manage progress towards achieving predetermined goals, defining key indicators of organizational performance and Customer satisfaction. Performance Measurement is the process of assessing the progress made (actual) towards achieving the predetermined performance goals (baseline). Guest et al (2003) defined performance as outcomes, end results and achievements (negative or positive) arising out of organizational activities. They argued that it is essential to measure strategic practices in terms of outcomes. These outcomes vary along a continuum of categories such as: financial measures (ROA, ROI, Turnover, PBT); measures of output of goods and services such as number of

units produced, number of clients attended to, number of errors in the process, customer satisfaction indexes or; measures of employee satisfaction such as time an employee puts into work - lateness, absence of an employee (Locke & Latham, 1990; Guest et al, 2003).

Guest et al (2003) advocated for the adoption of a stakeholders perspective which would ensure that all stakeholders are taken into account when defining outcomes. The need to adopt a stakeholders approach meant that multiple measures of performance outcome would be a better approach in managing stakeholders' expectations. This point of view was anchored on the popularity of the 'balanced scorecard' concept by Kaplan & Norton (1992), whose intention was to ensure that all the interests of the various stakeholders were taken into account. According to Kaplan & Norton (1992), consideration to traditional financial measures alone is inadequate; attention should also be given to people, processes and customers. This is because key performance indicators (KPI) for firms are different across firms, they depend on the type of firm, and they could also be qualitative and/or quantitative.

Financial performance of commercial banks between 2001 and 2011 largely remained mixed. While ROA has remained generally flat, the return on equity ROE has consistently increased from 22.86% in 2004 to a maximum of 30.89% during the period under investigation (CBK, 2011). This study will seek to test whether higher level of deposits held by a bank translates into better financial performance as measured by variables such as Return on Assets (ROA), Return on equity (ROE)

1.1.3 The Relationship between Level of Deposits and Banks Performance

In Kenya commercial banks are not the only financial institutions that compete for deposits. Other institutions such as co-operatives societies, mortgage companies and licensed micro finance institutions also compete in the deposits market (Mutuku, 2009). Competition for core deposits often forces the banks to supplement their funding requirements with more expensive less stable whole sale funds which have direct impact on the commercial bank profitability. Grigorian and Manole (2002) applied data envelopment analysis to bank-level data on some 17 transition economies between 1995-1998. Their results suggested that well capitalized banks ranked higher in terms of their ability to collect deposits than their poorly capitalized counterparts. This they attributed to the possibility of implicit deposit insurance which in turn encourages more deposits. They however, found less evidence linking capitalization to revenues. On the other hand, their investigations found some evidence that foreign banks were able to attract more deposits by paying lower rates. This they attributed to implicit deposit insurance. The ability to attract deposits at lower rates would mean higher net interest margins and hence higher profitability.

Naceur and Goiaed (2001) investigated the determinants of the Tunisian banks' performances during the period 1980–1995. Empirical evidence indicated that the best performing banks are those who maintained a high level of deposit accounts relative to their assets. Increasing the ratio of total deposits to total assets means increasing the funds available to use by the bank in different profitable ways such as investments and lending activities.

Berlin and Mester (1999) concluded that core deposits such as demand and savings deposits, which are largely inelastic, have historically insulated the bank funding costs against economic shocks. Ratnovski and Huang (2009) found out that Canadian banks compared to other large commercial banks in OECD countries were more resilient during the 2008 economic turmoil since they relied more on depository funding as compared to the other banks that relied more on wholesale funding. A related study in Kenya conducted by Ochung (1999) established that there was a very strong correlation between deposits of commercial banks and Financial Institutions and their individual performances

1.1.4 The Structure of Banking Sector in Kenya

The Kenyan financial sector is generally considered to be more of bank based than market based since capital market is largely underdeveloped and narrow. Bank assets as a percentage of total assets of financial sector are about 57 percent. The vital role played by commercial banks in Kenya in financing economic development brings to the fore the need to study the funding structure of commercial banks. The banking environment in Kenya has, for the past decade, undergone many regulatory and financial reforms. These reforms have brought about many structural changes in the sector and have also encouraged foreign banks to enter and expand their operations in the country (Kamau, 2009). Kenya's financial sector is largely bank-based as the capital market is still considered narrow and shallow (Ngugi *et al*, 2006). Banks dominate the financial sector in Kenya and as such the process of financial intermediation in the country depends heavily on commercial banks (Kamau, 2009). In fact, Oloo (2009) describes the banking sector in Kenya as the bond that holds the

country' s economy together. Sectors such as the agricultural and manufacturing virtually depend on the banking sector for their very survival and growth. The performance of the banking industry in the Kenya has improved tremendously over the last ten years, as only two banks have been put under CBK statutory management during this period compared to 37 bank-failures between 1986 and 1998 (Mwega, 2009).

The banking sector in Kenya is regulated by the Central Bank of Kenya (CBK). Commercial banks are licensed and regulated under the Banking Act cap 488; deposits taking micro finance institutions are regulated under Micro Finance Act and the Forex Bureaus under the Central Bank of Kenya Act cap 491. For the quarter ended June 30, 2012, the sector comprised 43 commercial banks, 1 mortgage finance company, and 6 deposit taking microfinance institutions, 5 representative offices of foreign banks, 115 foreign exchange bureaus and 2 credit reference bureaus. 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 (CBK, 2012).

Commercial Banks are further classified into three different classes depending on the market share by net assets, advances, customer deposits and pre-tax profits by Central Bank of Kenya. Large banks have asset size of over 15 billion shillings, medium more than 5 billion shillings and small with asset size of less than 5 billion shillings. six banks are classified as large, fifteen as medium and twenty three as small (CBK,

2011). Only nine commercial banks are listed in the Nairobi Stock Exchange (Barclays Bank, CFC Stanbic Holdings, Diamond Trust Bank, Equity Bank, Kenya Commercial Bank, National Bank of Kenya, NIC Bank, Standard Chartered Bank and The Co-operative Bank of Kenya).

The Kenyan Banking Sector continued on a growth trajectory with the size of assets standing at Ksh. 2.2 trillion, loans & advances worth Ksh. 1.3 trillion, while the deposit base was Ksh. 1.7 trillion and profit before tax of Ksh. 53.2 billion as at 30th June 2012. During the same period, the number of bank customer deposit and loan accounts stood at 14,893,628 and 2,051,658 respectively.

1.2 Problem Statement

The classic model for any retail banking is the transformation of customer savings into productive loans and investments (Bald, 2008). For commercial banks to be profitable, they must have the ability to mobilize savings in the form of deposits for on ward lending to customers and investments. The profitability of the banks therefore depends on many factors including the ability of a commercial bank to grow its deposits and the extent to which the bank is able to convert its deposit liabilities into income earning assets Deposits are therefore considered to be an important factor in the profitability of a commercial bank. However, even though deposits form the major source of funds which are then converted into interest earning assets, commercial banks must also pay interest on them, this form part of the expense together with the other operating expenses of the branch network required to mobilize them. Deposits have conflicting effect on profitability. On the one hand, more

deposits if converted into income earning assets will generate more profits. On the other hand more deposits (depending on the source) will have negative effect on profitability due to the interest expense and the required branch network to mobilize the deposits. This is definitely a paradox that requires empirical investigation (Dietrich and Wanzenried, 2009).

The commercial banking sector has grown in the last 3 decades. At 1981, there were 16 commercial banks (Ndungu and Ngugi, 2000). The banking sector has grown to 44 banks as at 2012. Factors that have influenced the growth of commercial banking sector in Kenya include liberalization of the sector in 1980s and 1990s. The commercial banking sector was fully liberalized in 1991. Double digit growth and performance in the sector was witnessed after the 2003 political regime change which was accompanied by policy initiatives such as the Economic Recovery Strategy (ERS) and Vision 2030.

Dermirguc-Kunt and Huzinga (1998) argued that banks that rely largely on deposits for their funding activities are less profitable, as deposits require more branching and other expenses. Naceur and Goiaed (2001) also provided evidence that the best performing banks are those who maintained a high level of deposit accounts. A review of selected global studies, for instance, Dermirguc-Kunt and Huzinga (1998); Naceur and Goiaed (2001) reveals that globally, there seem to be a difference in opinions on the relationship between commercial bank deposits and performance.

Locally, Ochung (1999) conducted a correlation analysis on the deposit portfolio as a determinant of commercial bank profitability and found a positive correlation between deposit portfolio and bank profitability. Nafula (2003) suggests that customer deposits have a significant and negative effect on earnings of banks since it contains an opportunity cost. This implies that local studies display a difference in opinion. In addition, local studies are still insufficient because of their failure to single out deposits in their studies of performance of commercial banks. For instance, Kiragu (2010) reviewed the relationship between the capital adequacy and the profitability of banks in Kenya but failed to address the role of deposits in bank performance. Mwathi (2009) conducted a study on the relationship between commercial banks financial performance and their ownership structure but failed to relate the level of deposits to the performance of commercial banks. This implies that local studies are yet to adequately cover the subject of determinants of commercial bank performance.

The study attempted to investigate whether there is a causal relationship between the level of commercial bank deposits and financial performance. The key question that researchers needed to investigate is; does the level of deposits matter in commercial bank financial performance?

1.3 Objective of the Study

The objective of the study was to determine the effect of level of deposits on financial performance of commercial banks in Kenya.

1.4 Value of the Study

The study may have implications for theory, practice and policy. The theoretical value of the study may be derived from its contribution to the continuing debate of level of deposits and financial performance of commercial banks. The study is of importance to the academic fraternity since it will add to the body of knowledge on behaviour of deposits and financial performance of commercial banks in Kenya.

The study may be valuable to practice. The study will also benefit the banks themselves in strategic planning. The banks will know the strategies to adopt in their funding structures in order to stay profitable. The outcome of this research will help in providing the banks with information on whether or not the current funding structure of commercial banks is viable or they may need to resort other funding strategies for example wholesale deposits, brokered deposits etc to fund their activities profitably. To the investors who invest in financial counters, the share performance, specifically in terms of profitability, liquidity and leverage, provide an insight into the risk and return trade-off that they are exposed to. Bank customers may use the study to discern healthy banks from ailing bank..

The study may have implications for policy. The government of Kenya through the ministry of industrialization and the Vision 2030 secretariat may use the study findings as valuable input for a policy paper for commercial banks. The policy makers may use the study in policy formulation for example policies that either encourages use of either retail deposits or wholesale deposits. The policy makers would be interested in policies that promote stability in the banking industry.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The chapter discusses the theoretical literature in depth in order to give the study a theoretical underpinning. Section 2.1 will discuss the theoretical review and has subsections which discuss portfolio theory of investment, capital asset pricing model, and Tobin theory of investment. Section 2.2 will explore the empirical literature with an aim of uncovering what has been done on the area and identification of the missing contextual and conceptual knowledge gaps. This section will discuss the empirical studies on the relationship between Level of Deposits and Banks Performance. Section 2.4 is a summary of the chapter and it highlights all the main points identified in the literature.

2.1 Theoretical Review

Various theories may be used to explain the motivation of banks in securing deposits and the potential effect such a decision would have on performance of banks. Four theories; financial intermediation theory, the portfolio investment theory, the Tobin investment theory and the capital asset pricing model may be useful in informing the theoretical underpinnings of this study.

2.1.1 Financial intermediation theory

Current financial intermediation theory builds on the notion that intermediaries serve to reduce transaction costs and informational asymmetries (Diamond, 1984). As developments in information technology, deregulation, deepening of financial

markets, etc. tend to reduce transaction costs and informational asymmetries, financial intermediation theory shall come to the conclusion that intermediation becomes useless. This contrasts with the practitioner's view of financial intermediation as a value-creating economic process. It also conflicts with the continuing and increasing economic importance of financial intermediaries. From this paradox, we conclude that current financial intermediation theory fails to provide a satisfactory understanding of the existence of financial intermediaries.

Different participants in financial markets firms, financial intermediaries, rating agencies, and investors typically have varying amounts of information about, or differing abilities to determine, the value of securities offered in the market. Two types of asymmetric information problems commonly arising for nonfinancial firms include the following: a firm issuing a security has more information about the potential cash flows associated with the security than do investors; some investors have more information about a security's value (or better ability to value the security) than other investors; that is, some investors are "informed" whereas others are "uninformed." (Hirschleifer and Riley, 1979).

The sale by financial intermediaries of financial assets on their balance sheets or securities backed by these assets also gives rise to these two asymmetric information problems. For example, an intermediary originating loan will often have more information about the value of the loans than will potential investors if the loans are offered for sale. In addition, a third type of asymmetric information problem appears with financial institutions: intermediaries originating loans may be less informed

about the ultimate market value of their assets than are investment banks which may serve as arrangers; i.e., who purchase the assets, repackage them by pooling them with assets originated by other intermediaries, and sell the repackaged assets or securities backed by these assets. Arrangers will have better information about market values of assets when their pricing models are better than those used by the originators. Also, whereas each originator may have good knowledge of the cash flows from its own assets, it does not generally possess data on the cash flows from other originators' pools, in contrast to arrangers, who may have access to such information (Leland and Pyle, 1977).

2.1.2 Portfolio Theory of Investment

The portfolio theory is an investment approach in which the investor balances risk against expected return to maximize earnings from an entire portfolio. Portfolios are an effective way of increasing returns while decreasing risk in investment. For this reason, portfolio selection strategies have received quite some attention in financial literature. The modern portfolio theory introduces approximate 'mean-variance' analysis to simplify the portfolio selection problem. Markowitz (1959) attempted to quantify risk and quantitatively demonstrate why and how portfolio diversification works to reduce risk for investors. The 'risk' of a portfolio is quantified as a standard deviation of return from period to period, and the portfolio selection problem is reduced to computing an 'efficient' portfolio, that is, one that minimizes the risk for a fixed level of return in a single period.

According to the portfolio theory, the larger the expected return the better the investment, and the smaller the standard deviation of the return the more attractive the investment. Furthermore, the theory shows that we can reduce the standard deviation of the return or risk by combining anti-covariant securities. However, each asset class generally has different levels of return and risk and also behaves uniquely so that one asset may be increasing in value as another is decreasing or at least not increasing as much, and vice versa. This theory, however, has a shortcoming; it cannot allow both more and less risk averse investors to find their optimal portfolio, a problem surmounted by the capital asset pricing model (CAPM) (Sharpe, 1964).

2.1.3 Capital Asset Pricing Model

The CAPM, associated with Sharpe (1964), Lintner (1965) and Black (1972) explains the risk of a particular asset or portfolio using the excess return on the market portfolio (Black, 1971). The model suggests that investors should hold diversified portfolios, and predicts that investors will hold some fraction of the market portfolio. Furthermore, an important implication of the CAPM, also referred to as efficient markets hypothesis, is that investors lacking special investment knowledge would be well advised to buy and hold diversified portfolios (Black, 1971).

The CAPM shows that investors require high levels of expected returns to compensate them for high expected risk. However, it is now widely recognized that in the presence of informational asymmetries and contract enforcement problems, it is not necessarily true that the banking system will allocate resources to projects or firms with the highest returns. Empirical evidence based on mean-variance portfolio

selection, simulation analysis, and out of sample portfolio performance suggests that correcting for estimation error, particularly in the means, can substantially improve investment performance (for example Jobson *et al*, 1979; Jobson and Korkie (1980, 1981); Jorion, 1985, 1991).

Despite attempts to verify or refute the CAPM, there is no consensus on its legitimacy. The modeling approach employed in this paper is therefore that of the portfolio theory. This paper therefore assumes that deposits are one of the items in a bank's portfolio. A bank's portfolio consists of both assets and liabilities. It is the bank manager's job to construct a portfolio to yield a high return at the same time reduce the risk (standard deviation) of such a portfolio.

2.1.4 Tobin Theory of Investment

Tobin (1958) expanded on Markowitz's work by adding a risk-free asset to the analysis. This made it possible to leverage or deleverage portfolios on the efficient frontier; This led to the notions of a super-efficient portfolio and the capital market line. Through leverage, portfolios on the capital market line are able to outperform portfolio on the efficient frontier. Tobin (1958) added the notion of leverage to portfolio theory by incorporating into the analysis an asset which pays a risk-free rate. By combining a risk-free asset with a portfolio on the efficient frontier, it is possible to construct portfolios whose risk-return profiles are superior to those of portfolios on the efficient frontier.

2.2 Empirical Review

2.2.1 Relationship between Level of Deposits and Banks Performance

Nafula (2003) in KIPPRA Discussion Paper No. 30 conducted An Econometric Analysis on the Bank Portfolios and Bank Earnings in Kenya. The author results suggested that except for customer deposits and investments in subsidiary companies, all other factors (LA = loans and advances; COD = certificate of deposit; GSEC = government securities; DBFB = deposit balances from other banks; PLABB = placements, loans and advances to building; societies and other banking institutions; OTHER = other assets) affect bank earnings positively. Generally, customer deposits, which include demand deposits, savings deposits and time deposits, are a proxy for reservable deposits. These deposits also constitute the cheapest source of funds available to commercial banks. Therefore, the performance of a commercial bank is related to its ability to attract individual deposits. Therefore, one way to improve a bank's profitability or earnings is to formulate aggressive policies for attracting personal deposits. However, the Central Bank of Kenya requires that banks retain a certain proportion of their deposits (liquid cash) with themselves. In her study results, the customer deposits variable enters the equation negatively with very significant coefficients in all the regressions.

Empirical investigations on the effect of deposits on commercial bank performance have generated mixed results. Demirguc-Kunt and Huzinga(1998) using bank data for 80 countries between 1988-1995, investigated the determinants of commercial banks interest margins and profitability. Their results showed that banks that rely

largely on deposits for their funding were less profitable, since deposits require more branching and other expenses.

Dietrich and Wanzenried (2009) using 1919 observations from 453 banks in Switzerland included the yearly growth in deposits in the independent variables that they used to investigate the determinants of commercial banks profitability in Switzerland. Their results showed that the yearly growth in deposits did not affect profitability significantly. They found no empirical evidence that commercial banks in Switzerland were able to convert at an increasing amount of deposit liabilities into significantly higher income earning assets.

Grigorian and Manole (2002) applied data envelopment analysis to bank-level data on some 17 transition economies between 1995-1998. Their results suggested that well capitalized banks ranked higher in terms of their ability to collect deposits than their poorly capitalized counterparts. This they attributed to the possibility of implicit deposit insurance which in turn encourages more deposits. They however, found less evidence linking capitalization to revenues. On the other hand, their investigations found some evidence that foreign banks were able to attract more deposits by paying lower rates. This they attributed to implicit deposit insurance. The ability to attract deposits at lower rates would mean higher net interest margins and hence higher profitability.

Gul et al (2011) using data on top fifteen Pakistani commercial banks over a period 2005-2009, investigated the impact of assets, loans, equity, deposits, economic

growth, inflation and market capitalization on profitability indicators i.e. ROA, ROE, ROCE and NIM. Their results showed that deposits, among other had positive correlation with ROA. Deposits however, had negative relationship with ROCE. Similarly total deposits to total assets had negative correlation with ROCE, which shows that banks that rely on deposits for their funding are less profitable.

Naceur and Goiaed (2001) investigated the determinants of the Tunisian banks' performances during the period 1980–1995. Empirical evidence indicated that the best performing banks are those who maintained a high level of deposit accounts relative to their assets. Increasing the ratio of total deposits to total assets means increasing the funds available to use by the bank in different profitable ways such as investments and lending activities.

Fraser, et al (1974) used canonical correlation analysis to measure the relationship between the performance of banks and the profitability determinants. Among the financial statement variables included in their studies were bank costs, composition of bank deposits and composition of bank credit. They found that the factor which had the greatest influence on bank performance was bank costs, followed by composition of deposits and composition of loans.

Heggested (1977) believed that banks with a high percentage of time and savings deposits incurred high funding cost and thus had less profit. Heggested used ratio of net income after taxes to total assets as a proxy for profitability and average ratio of time and savings deposits to total deposits as a proxy for balance sheet management.

His findings indicated that the ratio of time and savings deposits had a significant negative impact on commercial bank profitability. This supported his claim that banks which were heavily committed to time and savings deposit earned considerably lower returns.

Berlin and Mester (1999) conducted study on deposits and relationship lending. From the complete data set of banks, they constructed a panel that includes 126 banks that reported in each quarter from the first quarter of 1977 through the fourth quarter of 1989. They concluded that core deposits such as demand and savings deposits, which are largely inelastic, have historically insulated the bank funding costs against economic shocks.

Ratnovski and Huang (2009) found out that Canadian banks compared to other large commercial banks in OECD countries were more resilient during the 2008 economic turmoil since they relied more on depository funding as compared to the other banks that relied more on wholesale funding. A related study in Kenya conducted by Ochung (1999) established that there was a very strong correlation between deposits of commercial banks and Financial Institutions and their individual performances.

Kiragu (2010) reviewed the relationship between the capital adequacy and the profitability of banks in Kenya. He concluded that a positive relationship existed between capital and the profitability. However, the relationship was found to be stronger in smaller banks compared to larger banks, which further implied a case of

diminishing marginal returns. However, he failed to address the role of deposits in bank performance.

Mwathi (2009) conducted a study on the relationship between commercial banks financial performance and their ownership structure. The author noted that a majority of banks with a significant government holding were outperformed by banks with a large privately ownership. Listed banks also seem to perform better than non listed banks perhaps because of the added requirements for good governance. However, the author failed to relate the level of deposits to the performance of commercial banks.

Gikonyo (2011) conducted a study on the asset liability management and profitability of commercial banks in Kenya. The study drew out the importance minimizing the opportunity costs of holding deposit reserves and the incidence of non performing loan portfolio. The study suggested that effective credit risk management practices such as credit assessments, information gathering and aggressive debt collection practices many be used as part of the management of the quality of assets and the minimization of exposures from liabilities. However, the study failed to isolate the effect of deposit levels on the financial performance of commercial banks.

Kamoyo (2010) empirically analyzed the determinants of the liquidity of the commercial banks in Kenya using a multiple linear regression model. The motivation was to establish whether the determinants of liquidity are empirically robust. The focus was exclusively on a cross section of 30 commercial banks in Kenya. This was because earlier cross-country studies recommended country-specific empirical

investigation as an area warranting further research. Employing the linear regression model uncovered an economically meaningful relationship between bank's liquidity and its determinants. The findings from a cross sectional analyses indicate that significant factors that determine the liquidity of the commercial banks in Kenya are liquid liabilities, growth and maturity. Liquid liabilities and maturity have a positive impact on liquidity whereas growth has a negative impact. The other factors such as liquid assets and cash flows have a positive but insignificant effect on the liquidity of commercial banks. Similarly, leverage, size, profitability and loan commitments have an insignificant negative effect on banks' liquidity.

Flamini, McDonald and Schumacher (2009) notes that Bank profits are high in Sub-Saharan Africa (SSA) compared to other regions. Their paper used a sample of 389 banks in 41 SSA countries to study the determinants of bank profitability. They found that apart from credit risk, higher returns on assets are associated with larger bank size, activity diversification, and private ownership. Bank returns are affected by macroeconomic variables, suggesting that macroeconomic policies that promote low inflation and stable output growth does boost credit expansion. The results also indicate moderate persistence in profitability. Thus, the paper gives some support to a policy of imposing higher capital requirements in the region in order to strengthen financial stability.

Olweny and shipho (2010) attempted to determine and evaluate the effects of bank-specific factors; Capital adequacy, Asset quality, liquidity, operational cost efficiency and income diversification on the profitability of commercial banks in Kenya. The

second objective was to determine and evaluate the effects of market structure factors; foreign ownership and market concentration, on the profitability of commercial banks in Kenya. This study adopted an explanatory approach by using panel data research design to fulfil the above objectives. Annual financial statements of 38 Kenyan commercial banks from 2002 to 2008 were obtained from the CBK and Banking Survey 2009. The data was analyzed using multiple linear regressions method. The analysis showed that all the bank specific factors had a statistically significant impact on profitability, while none of the market factors had a significant impact. Based on the findings the study recommends policies that would encourage revenue diversification, reduce operational costs, minimize credit risk and encourage banks to minimize their liquidity holdings. Further research on factors influencing the liquidity of commercial banks in the country could add value to the profitability of banks and academic literature.

2.4 Chapter Summary

The above chapter reviewed the various theories and empirical studies that explain the relationship between level of deposits and banks performance. The independent variable is the level of deposits in commercial banks. The dependent variable is the banks financial performance. The relationship between the independent and dependent variables was explored using the available literature. Literature seems to indicate that there is no consensus on the relationship between the level of deposits and the financial performance of banks. While some studies link level of deposits to positive financial performance of banks, others link it to negative performance while others still find no relationship at all.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter discussed the research methodologies that were used to achieve the objectives of this study.

3.1 Research Design

The study adopted a survey research design. A survey research design is a research design that focuses on more than one case (Mugenda and Mugenda, 2003). This study prefers a survey study because of its methodical choice of samples and its rigorous statistical approach.

3.2 Population of the Study

The population of the study were all commercial banks (44 in number).The list was given by the central bank of Kenya website www.centralbank.go.ke and presented in Appendix 1. The list of commercial banks was as at 30th june 2012. A census instead of a sample was preferred for this study. This is because the population was too small for sampling purposes.

3.3 Data Collection Procedure

The study used secondary data from the banking supervision department of central bank. Specifically, time series data for the 44 banks was used. The selected period is the year 2004 to year 2011(8 years). It was in this period that the banking sector witnessed rapid growth.

3.4 Model Specification

A cross sectional regression model was adapted. The model was in line with portfolio investment theory. The basic portfolio model estimated is the same as the one used in Zoeller and Hester (1966). Rates of return are attributed to earning assets and deposit liabilities. The two authors wished to provide empirical estimates of the net rates of return that banks realize on various elements in their portfolio. Therefore, the regressions explaining costs, revenue and earnings included all earning assets and deposit liabilities. Both the explanatory and explained variables are introduced as ratios to total assets. The variables were the average of the observations for the 8 years under study.

The standard portfolio model may be stated in general terms as:

$$P = f(A, L, U) \dots\dots\dots(1)$$

Where P are earnings made by banks over a given time period, A and L refer to the assets and liabilities held by commercial banks, respectively, and U is the residual element.

Splitting up the A and L terms, the estimatable form of the model may be written as:

Partial model;

$$P = f(CD, U) \dots\dots\dots(2)$$

P = performance measured as Return on Assets (ROA), Return on Equity (ROE)

CD=Customer deposits

U=error term

For the purposes of this study and in conformity with portfolio theory, a complete model was estimated;

Complete model;

$$P=f(CD, LA, U).....(3)$$

P = performance measured as Return on Assets (ROA), Return on Equity (ROE)

CD=Customer deposits

LA = loans and advances;

The regressions were conducted using statistical package for social sciences (SPSS) version 17.

Testing the significance of the model

The results were examined for goodness of fit coefficient (coefficient of determination, r squared), the signs of the regression coefficients, and the significance. A positive sign indicated that deposits have a positive influence on banks financial performance. A p value of less than 0.05 indicated that the variables have a significant influence on financial performance.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

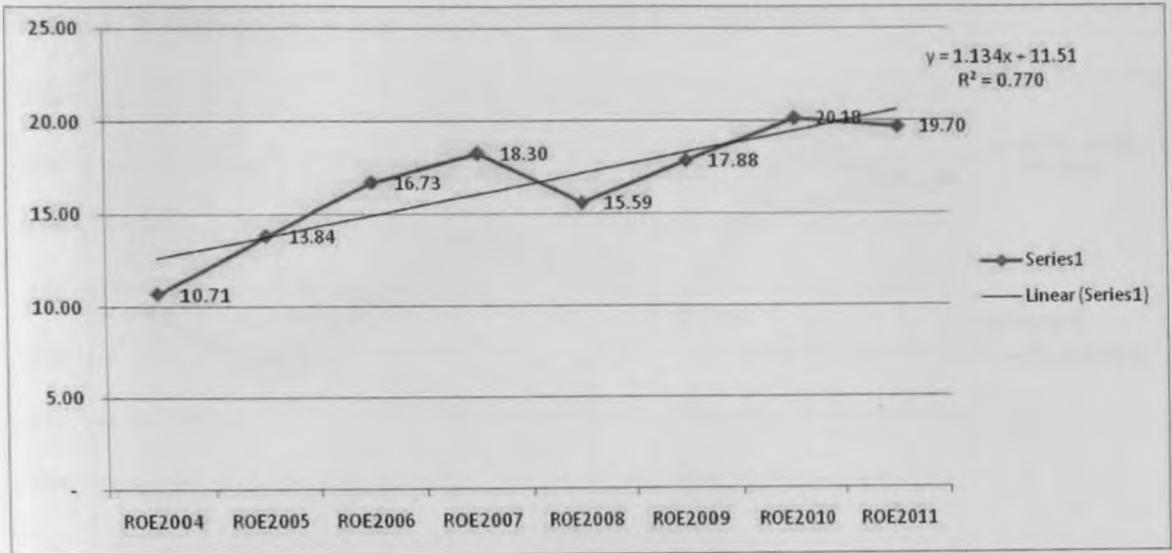
4.0 Introduction

In this chapter, the data collected during the research was analyzed and reported. This study was executed to achieve the stated objectives. Both descriptive statistics and inferential statistics were presented.

4.1 Trend Analysis

This section analyzed the demographic characteristics/summary statistics for banks. The results in figure 4.1 indicated that the commercial banking sector have witnessed a gradual rise in the Return on Equity (ROE). The return on Equity in the year 2004 was 10.71%. The ROE rose to 13.84% in year 2005. The ROE rose further to 16.73% in year 2006. The ROE rose further to 18.30% in year 2007. There was a drop in ROE in the year 2008 to 15.59% probably due to the post election violence of December 2007. The ROE further rose to 17.88% in the year 2009. The year 2010 registered a further increase in ROE to 20.18%. The year 2011 witnessed a small drop in ROE to 19.70% probably due to reduced borrowing caused by the high interest rates.

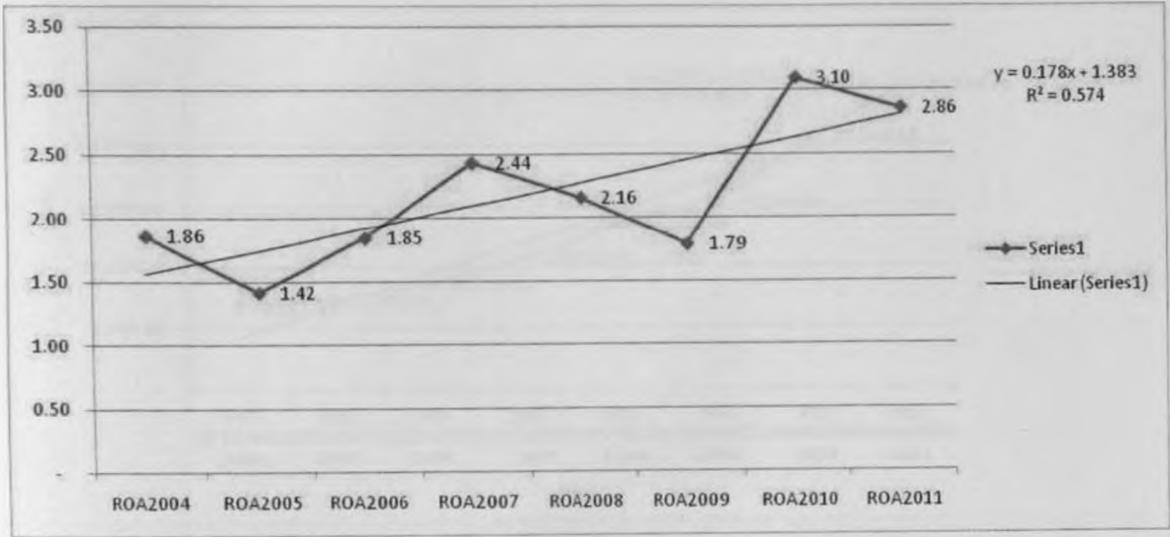
Figure 4. 1: Return on Equity Trend _Year 2004 to year 2011



Source: CBK (2004-2011) Bank Supervision and Monitoring Reports

The results in figure 4.2 indicated that the commercial banking sector have witnessed a gradual rise in the return on Assets. The return on Assets in the year 2004 was 1.86%. The ROA declined to 1.42% in year 2005. The ROA rose to 1.85% in year 2006. The ROA rose further to 2.44% in year 2007. There was a drop in ROA in the year 2008 to 2.16% probably due to the post election violence of December 2007. The ROA further dropped to 1.79% in the year 2009 perhaps due to the extended effect of post election and global financial crisis. The year 2010 registered a rise in ROA to 3.10%. The year 2011 witnessed a small drop in ROA to 2.86% probably due to reduced borrowing, low profitability caused by the high interest rates.

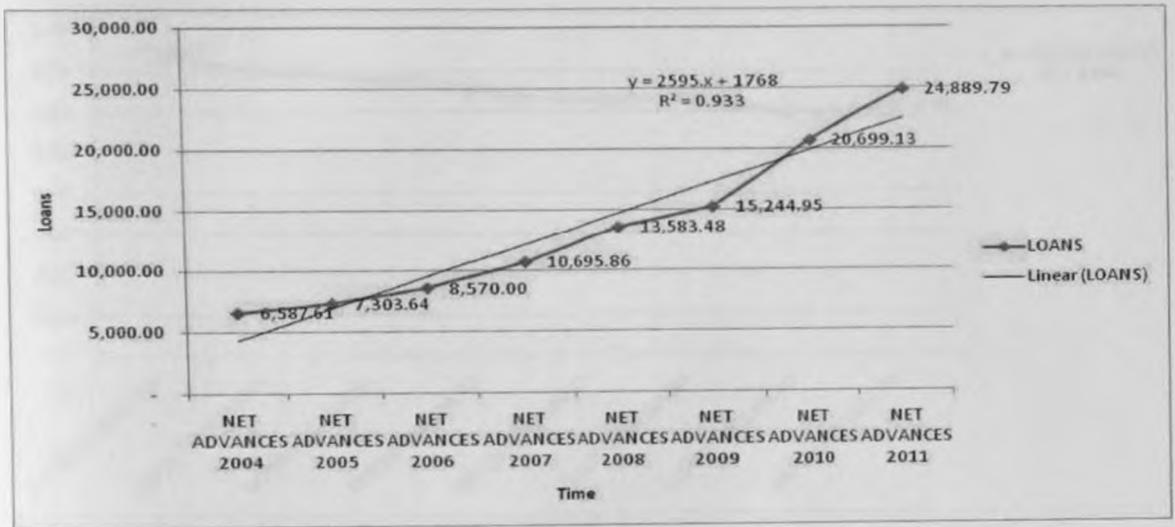
Figure 4. 2: Return on Assets Trend _Year 2004 to year 2011



Source: CBK (2004-2011) Bank Supervision and Monitoring Reports

The results in figure 4.3 indicated that the commercial banking sector have witnessed a gradual rise in the net loans (net advances). The net advances in the year 2004 were ksh 6587.1 millions. The net advances increased to ksh7303.64 in year 2005. The net advances rose to ksh8570 millions in year 2006. The net advances rose further to ksh 10695.86 millions in year 2007. There was an increase in net advances in the year 2008 to ksh 13583.48 millions. The net advances further rose to ksh 15244.95 millions in the year 2009. The year 2010 registered a rise in net advances to ksh 20699.13 millions. The year 2011 witnessed a further rise in net advances to ksh24889.79 millions.

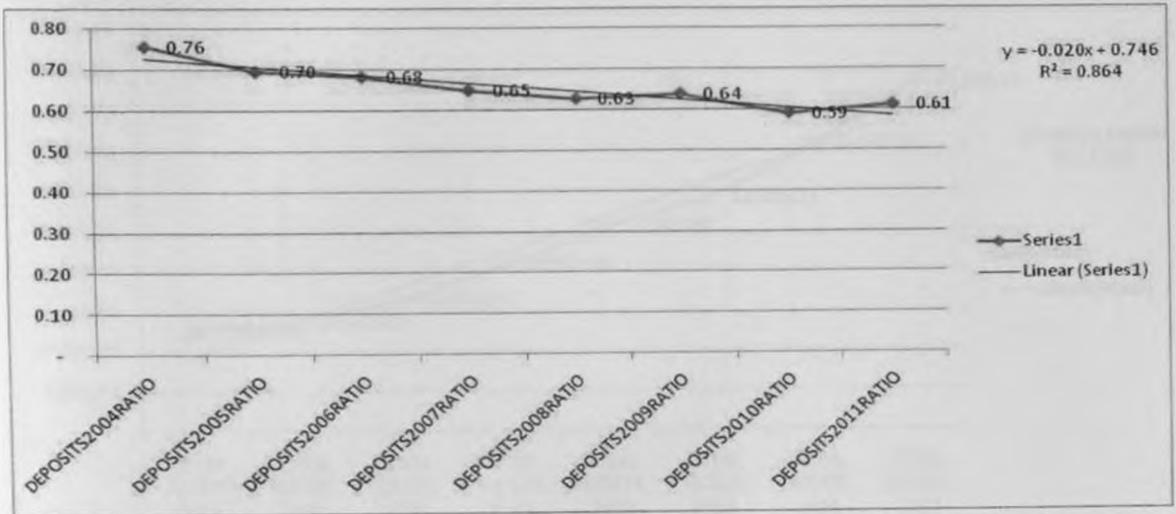
Figure 4. 3: Net Advances Trend _Year 2004 to year 2011



Source: CBK (2004-2011) Bank Supervision and Monitoring Reports

The results in figure 4.4 indicated that the commercial banking sector have witnessed a gradual rise in customer deposits. The customer deposits in the year 2004 were ksh 10119 millions. The customer deposits increased to ksh 11301 in year 2005. The customer deposits rose to ksh13038 millions in year 2006. The customer deposits rose further to ksh 15495 millions in year 2007. There was an increase in customer deposits in the year 2008 to ksh 18826 millions. The customer deposits further rose to ksh 21727 millions in the year 2009. The year 2010 registered a rise in customer deposits to ksh 26493 millions. The year 2011 witnessed a further rise in customer deposits to ksh 32071 millions.

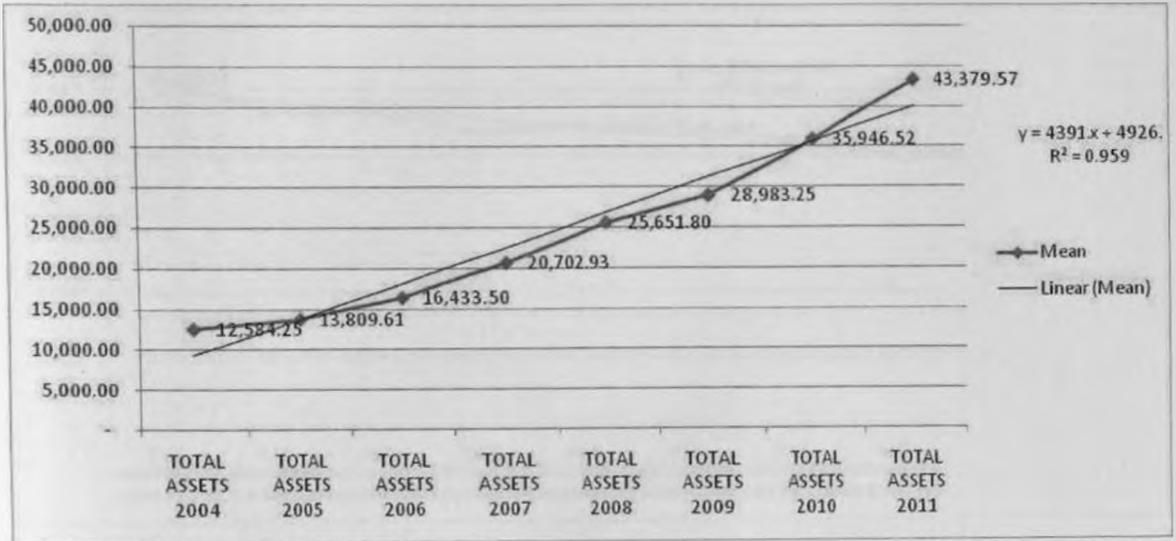
Figure 4. 4: Customer Deposits Trend _Year 2004 to year 2011



Source: CBK (2004-2011) Bank Supervision and Monitoring Reports

The results in figure 4.5 indicated that the commercial banking sector have witnessed a gradual rise in total assets. The total assets in the year 2004 were ksh 12584.25 millions. The total assets increased to ksh 13809.61 in year 2005. The total assets rose to ksh16433.5 millions in year 2006. The total assets rose further to ksh 20702.93 millions in year 2007. There was an increase in total assets in the year 2008 to ksh 25651.8 millions. The total assets further rose to ksh 28983.25 millions in the year 2009. The year 2010 registered a rise in total assets to ksh 35946.52 millions. The year 2011 witnessed a further rise in total assets to ksh 43379.57 millions.

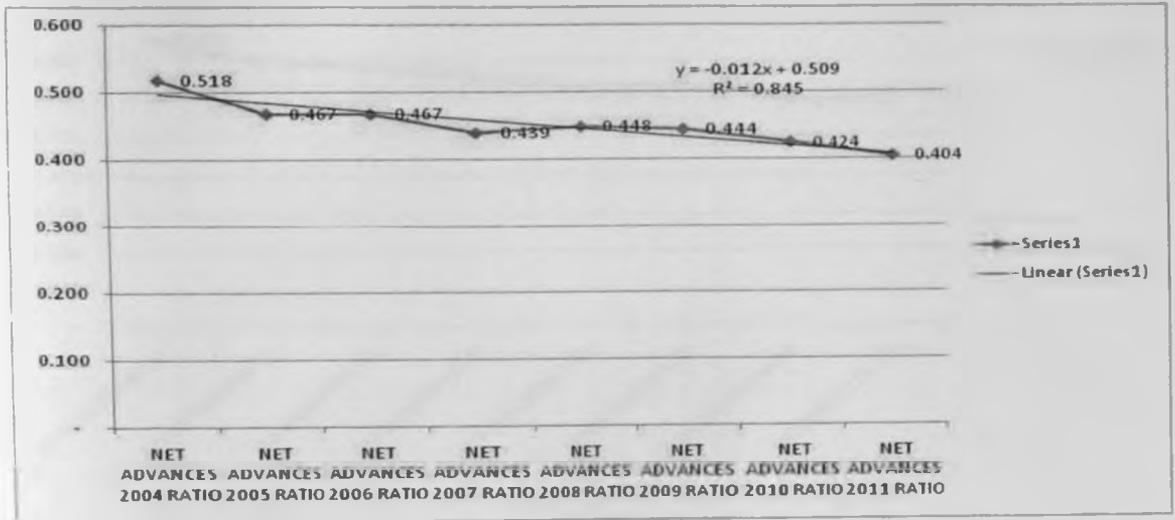
Figure 4. 5: Total Assets Trend _Year 2004 to year 2011



Source: CBK (2004-2011) Bank Supervision and Monitoring Reports

The results in figure 4.6 indicated that the commercial banking sector have witnessed a gradual decline in loans ratio. The loans ratio in the year 2004 was 0.518. The loans ratio declined to 0.467 in year 2005. The loans ratio stabilized at 0.467 in year 2006. The loans ratio declined further to 0.439 in year 2007. There was a slight increase in loans ratio in the year 2008 to 0.448. The loan ratio further declined to 0.444 in the year 2009. The year 2010 registered a further decline in loans ratio to 0.424. The year 2011 witnessed a further drop to 0.404. The consistent decline in loan ratio could be explained by the observation that total assets seems to have increased at a higher rate than the loans/advances.

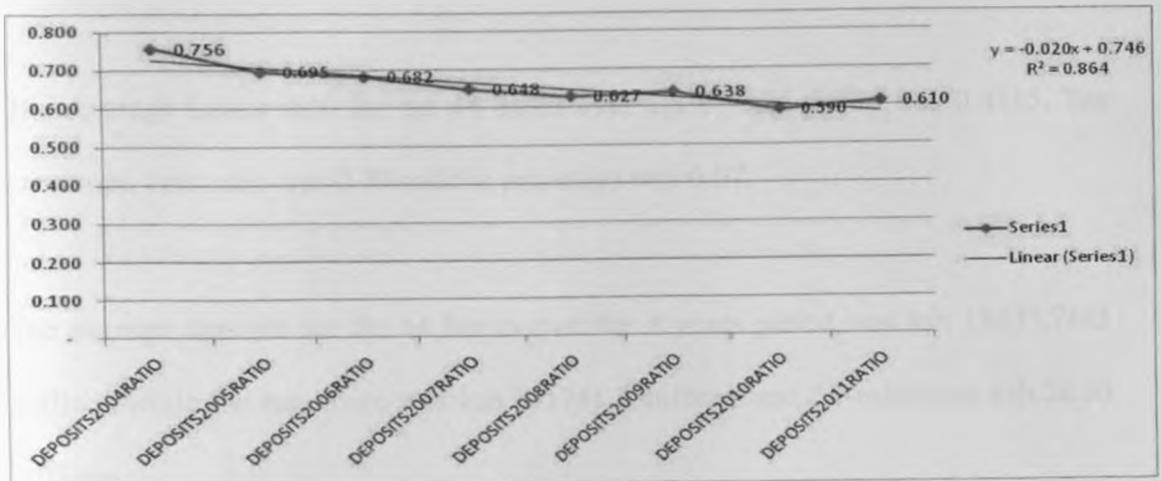
Figure 4. 6: NET ADVANCES RATIO: Trend _Year 2004 to year 2011



Source: CBK (2004-2011) Bank Supervision and Monitoring Reports

The results in figure 4.6 indicated that the commercial banking sector have witnessed a gradual decline in deposits ratio. The deposit ratio in the year 2004 was 0.756. The deposit ratio declined to 0.695 in year 2005. The deposit ratio fell to 0.682 in year 2006. The deposit ratio declined further to 0.648 in year 2007. There was a slight decrease in deposit ratio in the year 2008 to 0.627. The deposit ratio slightly increased to 0.638 in the year 2009. The year 2010 registered a further decline in deposit ratio to 0.590. The year 2011 witnessed a further drop to 0.610. The consistent decline in deposit ratio could be explained by the observation that total assets seems to have increased at a higher rate that the deposits.

Figure 4. 7: DEPOSITS RATIO: Trend _Year 2004 to year 2011



Source: CBK (2004-2011) Bank Supervision and Monitoring Reports

4.2 Descriptive Statistics

The descriptive results in table 4.1 gives further details on the major indicators of the commercial banking sector. The mean, maximum, minimum and the standard deviation are given. The average total assets for the 44 banks over the 8 years were ksh 24,686.429 millions. The maximum total assets were ksh 149,128.25 millions and the minimum total assets were ksh 50.38 millions.

The average ROE for the 44 banks over the 8 years was 16.616%. The maximum ROE was 41.07% and the minimum ROE was -6.09%. The average ROA over the last 8 years for the 44 banks was 2.1848%. The maximum ROA was -1.52% and the maximum ROA was 6.95%.

The Average Loans was ksh 13446.8091 millions, while the maximum loans was ksh 93122.77 and the minimum loans was ksh 27.25 millions.

The Average Loans ratio for the 44 banks over the 8 years period was 0.4515. The maximum loan ratio was 0.70 and the minimum was 0.07.

The average deposits for the 44 banks over the 8 years period was ksh 18633.7443 millions while the maximum was ksh 111741.3 millions and the minimum ksh 26.50 millions.

The average deposit ratio for the 44 banks over the 8 years period was 0.6558 and the maximum deposit ratio was 0.86. The minimum deposit ratio was 0.02.

Table 4. 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
TOTALASSETS	44	50.38	149128.25	24686.4290	36914.49862
ROE	44	-6.09	41.07	16.6169	11.98170
ROA	44	-1.52	6.95	2.1848	1.79476
LOANS	44	27.25	93122.77	13446.8091	22049.66250
LOANSRATIO	44	.07	.70	.4515	.16532
DEPOSITS	44	26.50	111741.38	18633.7443	27882.90527
DEPOSITSRATIO	44	.02	.86	.6558	.23284
Valid N (listwise)	44				

4.3 Analytical Model

This section presented the correlation and regression analysis results. The correlation analysis which showed the direction of association of the variables and their level of significance was presented first.

4.3.1 Correlation Analysis

Correlation analysis was conducted to reveal the direction of association of the variables. The correlation analysis results are presented in table 4.2.

Table 4. 2: Correlation Results

		ROE	ROA	LOANS	DEPOSITS	LOANSRA TIO	DEPOSITSR ATIO	TOTALAS SETS
ROE	Pearson Correlation	1	.858**	.597**	.643**	.465**	.669**	.638**
	Sig. (2-tailed)		.000	.000	.000	.001	.000	.000
	N	44	44	44	44	44	44	44
ROA	Pearson Correlation	.858**	1	.455**	.478**	.427**	.527**	.484**
	Sig. (2-tailed)	.000		.002	.001	.004	.000	.001
	N	44	44	44	44	44	44	44
LOANS	Pearson Correlation	.597**	.455**	1	.990**	.357*	.284	.991**
	Sig. (2-tailed)	.000	.002		.000	.018	.062	.000
	N	44	44	44	44	44	44	44
DEPOSIT S	Pearson Correlation	.643**	.478**	.990**	1	.340*	.325*	.997**
	Sig. (2-tailed)	.000	.001	.000		.024	.031	.000
	N	44	44	44	44	44	44	44
LOANSR ATIO	Pearson Correlation	.465**	.427**	.357*	.340*	1	.731**	.338*
	Sig. (2-tailed)	.001	.004	.018	.024		.000	.025
	N	44	44	44	44	44	44	44
DEPOSIT SRATIO	Pearson Correlation	.669**	.527**	.284	.325*	.731**	1	.310*
	Sig. (2-tailed)	.000	.000	.062	.031	.000		.040
	N	44	44	44	44	44	44	44

	ROE	ROA	LOANS	DEPOSITS	LOANSRA TIO	DEPOSITSR ATIO	TOTALAS SETS
TOTALAS Pearson Correlation	.638**	.484**	.991**	.997**	.338*	.310*	1
SETS Sig. (2-tailed)	.000	.001	.000	.000	.025	.040	
N	44	44	44	44	44	44	44

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Results in table 4.2 reveal that the correlation between ROE and ROA is positive and significant ($R=0.858$, p value= 0.000). This implies that an increase in ROA is associated with an increase in ROE and a decrease in ROA is associated with a decline in ROE.

Findings also show that correlation between ROE and Loans was positive and significant ($R=0.597$, p value= 0.000). This implies that an increase in Loans is associated with an increase in ROE and decrease in Loans is associated with a decline in ROE.

Study findings show that correlation between ROE and Deposits was positive and significant ($R=0.643$, p value= 0.000). This implies that an increase in Deposits is associated with an increase in ROE and decrease in Deposits is associated with a decline in ROE.

Findings also show that correlation between ROE and Loan Ratio was positive and significant ($R=0.465$, p value= 0.000). This implies that an increase in Loan Ratio is associated with an increase in ROE and decrease in Loan Ratio is associated with a decline in ROE.

Results reveal that correlation between ROE and Deposits Ratio was positive and significant ($R=0.669$, $p \text{ value}=0.000$). This implies that an increase in Deposits Ratio is associated with an increase in ROE and decrease in Deposit Ratio is associated with a decline in ROE.

Findings also show that correlation between ROE and Total Assets was positive and significant ($R=0.638$, $p \text{ value}=0.000$). This implies that an increase in Total Assets is associated with an increase in ROE and decrease in Total Assets is associated with a decline in ROE.

4.3.2 Regression Analysis: Return on Equity

Regression analysis results presented in table 4.3 indicates that the goodness of fit of the model was satisfactory. The coefficient of determination (R squared) was 0.449. An R square of 0.449 indicates that 44.9% of the variation in ROE is explained by the independent variables (loan ratio and deposit ratio). 55.1% of the variations in ROA are explained by other factors not included in the model.

Table 4. 3: Goodness of fit (Coefficient of Determination)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.670 ^a	.449	.422	9.10628

a. Predictors: (Constant), DEPOSITSRATIO, LOANSRATIO

Results in table 4.4 presents the overall model significance. The results indicate that the overall model was significant. The reported F statistic of 16.721 in table 4.4 was larger than the F critical (F tabulated). The reported p value was lower than the

critical p value of 0.05. The findings imply that the independent variables are good joint predictors of ROE.

Table 4. 4: Overall Model Significance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2773.226	2	1386.613	16.721	.000 ^a
	Residual	3399.901	41	82.924		
	Total	6173.126	43			

a. Predictors: (Constant), DEPOSITSRATIO, LOANSRATIO

b. Dependent Variable: ROE

The regression coefficients and their associated t statistics and p values are presented in table 4.5. The results indicate that there is a positive and significant relationship between Deposit Ratio and ROE. This finding was supported by a regression coefficient of 36.366 (p value =0.000). The reported p value was less than the critical p value of 0.05. A regression coefficient of 36.366 implies that an increase in deposit ratio by one unit causes an increase in ROE by 36.366 units.

The results indicate that there is a negative and insignificant relationship between Loans Ratio and ROE. This finding was supported by a regression coefficient of - 3.703(p value =0.765). The reported p value was more than the critical p value of 0.05. This implies that the loan Ratio has no significant effect on ROE.

Table 4. 5: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-5.560	4.365		-1.274	.210
LOANSRATIO	-3.703	12.308	-.051	-.301	.765
DEPOSITSRATIO	36.366	8.739	.707	4.161	.000

a. Dependent Variable: ROE

$$ROE = -0.556 - 3.703LOANSRATIO + 36.366DEPOSITSRATIO$$

4.3.3 Regression Analysis: ROA

Regression analysis results presented in table 4.6 indicates that the goodness of fit of the model was satisfactory. The coefficient of determination (R squared) was 0.281. An R square of 0.281 indicates that 28.1% of the variation in ROA is explained by the independent variables (loan ratio and deposit ratio). 71.9% of the variations in fund ROA are explained by other factors not included in the model.

Table 4. 6: Goodness of fit (Coefficient of Determination)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.530 ^a	.281	.246	1.55835

a. Predictors: (Constant), DEPOSITSRATIO, LOANSRATIO

Results in table 4.7 presents the overall model significance. The results indicate that the overall model was significant. The reported F statistic of 8.018 in table 4.7 was larger than the F critical (F tabulated). The reported p value was lower than the critical p value of 0.05. The findings imply that the independent variables are good joint predictors of ROA.

Table 4. 7: Overall Model Significance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.943	2	19.472	8.018	.001 ^a
	Residual	99.567	41	2.428		
	Total	138.510	43			

a. Predictors: (Constant), DEPOSITSRATIO, LOANSRATIO

b. Dependent Variable: ROA

The regression coefficients and their associated t statistics and p values are presented in table 48. The results indicated that there is a positive and significant relationship between Deposits Ratio and ROA. This finding was supported by a regression coefficient of 3.551 (p value =0.022). The reported p value was less than the critical p value of 0.05. A regression coefficient of 3.551 implies that an increase in deposit ratio by one unit causes an increase in ROA by 3.551 units.

The results indicated that there is a positive but insignificant relationship between Loans Ratio and ROA. This finding was supported by a regression coefficient of 0.980 (p value =0.644). The reported p value was more than the critical p value of 0.05. This implies that the loan Ratio has no significant effect on ROE.

Table 4. 8: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.586	.747		-.785	.437
	LOANSRATIO	.980	2.106	.090	.465	.644
	DEPOSITSRATIO	3.551	1.495	.461	2.375	.022

a. Dependent Variable: ROA

$$ROA = -0.586 + 0.98LOANSRATIO + 3.551DEPOSITSRATIO$$

4.4 Discussions

The results indicate that there was commercial banking sector have witnessed a gradual rise in the Return on Equity (ROE). There was a drop in ROE in the year 2008 to 15.59% probably due to the post election violence of December 2007. Results also indicate that the commercial banking sector have witnessed a gradual rise in the return on Assets. There was a drop in ROA in the year 2008 to 2.16% probably due to the post election violence of December 2007. The ROA further dropped to 1.79% in the year 2009 perhaps due to the extended effect of post election and global financial crisis. The findings agree with those in Waweru and Kalani (2009) and those in Mwega (2009) who fund that commercial banks in Kenya have consistently performed well since the institution of favourable macroeconomic policies in year 2003.

Results show that commercial banking sector has witnessed a gradual rise in the net loans (net advances). The commercial banking sector has witnessed a gradual rise in customer deposits and total assets. However, results show that the commercial banking sector has witnessed a gradual decline in loans ratio. The consistent decline in loan ratio could be explained by the observation that total assets seems to have increased at a higher rate that the loans/advances. The commercial banking sector has also witnessed a gradual decline in deposits ratio. The consistent decline in deposit ratio could be explained by the observation that total assets seems to have increased at a higher rate that the deposits. The findings agree with those in Olweny and Shipho (2010) who noted that the commercial banks assets have increased sharply over the years. The increase was partly driven by the requirements for capital adequacy where banks were required to have a minimum of 1 billion Kenya shillings as their core

capital. The report by Olweny and Shipho (2010) noted that majority of banks have responded positively to this requirement.

The results show that the correlation between ROE and ROA is positive and significant ($R=0.858$, p value= 0.000). This implies that an increase in ROA is associated with an increase in ROE and a decrease in ROA is associated with a decline in ROE. Findings also show that correlation between ROE and Loans was positive and significant ($R=0.597$, p value= 0.000). This implies that an increase in Loans is associated with an increase in ROE and decrease in Loans is associated with a decline in ROE. Study findings show that correlation between ROE and Deposits was positive and significant ($R=0.643$, p value= 0.000). This implies that an increase in Deposits is associated with an increase in ROE and decrease in Deposits is associated with a decline in ROE. Findings also show that correlation between ROE and Loan Ratio was positive and significant ($R=0.465$, p value= 0.000). This implies that an increase in Loan Ratio is associated with an increase in ROE and decrease in Loan Ratio is associated with a decline in ROE. Results reveal that correlation between ROE and Deposits Ratio was positive and significant ($R=0.669$, p value= 0.000). This implies that an increase in Deposits Ratio is associated with an increase in ROE and decrease in Deposit Ratio is associated with a decline in ROE. Findings also show that correlation between ROE and Total Assets was positive and significant ($R=0.638$, p value= 0.000). This implies that an increase in Total Assets is associated with an increase in ROE and decrease in Total Assets is associated with a decline in ROE. The findings agree with those in Kamau (2009), Olweny and Shipho (2010), Mwega (2009) ; Kamoyo (2010) ; Gikonyo (2011) who note a positive and

significant correlation between ROE and loans and deposits and total assets. The authors argue that an increase in loans leads to more earnings. The authors also note that an increase in assets gives banks the competitive advantage and enables it to achieve economies of scale. Economies of scale are associated with higher profitability. The authors further argue that deposits may influence the profitability of a bank especially due to the high bank interest rate spread and the net interest margin.

Regression results indicate that there is a positive and significant relationship between Deposits Ratio and ROE. This finding was supported by a regression coefficient of 36.366 (p value =0.000). The reported p value was less than the critical p value of 0.05. A regression coefficient of 36.366 implies that an increase in deposit ratio by one unit causes an increase in ROE by 36.366 units. The results also indicate that there is a positive and significant relationship between Deposits Ratio and ROA. This finding was supported by a regression coefficient of 3.551 (p value =0.022). The reported p value was less than the critical p value of 0.05. A regression coefficient of 3.551 implies that an increase in deposit ratio by one unit causes an increase in ROA by 3.551 units. The findings agree with those in Bologna (2011) who noted that deposits play a pivotal role in bank's funding, as a predominant portion of commercial bank's assets are usually financed through customer deposit. The main expense by any commercial bank is the interest expense and therefore for a commercial bank to be profitable, it must be able to raise deposits at reasonable rates in order to on lend to the customers. This therefore implies that a bank that is able to generate more deposits cheaply will be able to supply more loans competitively and hence make more profits if all other factors are held constant. The findings agree with those in Naceur and

Goiaed (2001) who provided evidence that the best performing banks are those who maintained a high level of deposit accounts. The findings also agree with those in Ochung (1999) who focused on the deposit portfolio as a determinant of commercial bank profitability and found a positive correlation between deposit portfolio and bank profitability. The findings contrast with those in Nafula (2003) who suggests that customer deposits have a significant and negative effect on earnings of banks since it contains an opportunity cost. The findings also contrast with those in Dermirguc-Kunt and Huzinga (1998) who argue that banks that rely largely on deposits for their funding activities are less profitable, as deposits require more branching and other expenses.

The results also indicate that there is a negative and insignificant relationship between Loans Ratio and ROE. This finding was supported by a regression coefficient of -3.703 (p value =0.765). The reported p value was more than the critical p value of 0.05. This implies that the loan Ratio has no significant effect on ROE. The results indicated that there is a positive but insignificant relationship between Loans Ratio and ROA. This finding was supported by a regression coefficient of 0.980 (p value =0.644). The reported p value was more than the critical p value of 0.05. This implies that the loan Ratio has no significant effect on ROE.

4.5 Chapter Summary

The chapter presented the findings of the results. The findings indicate that there is a positive relationship between Deposits Ratio and ROE. There was also a positive relationship between Deposits Ratio and ROA. No significant relationship exists

between Loans ratio and ROE and ROA. The findings of this chapter were useful in making summary and conclusion in chapter five.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

Chapter One gave an overview of the banking sector in Kenya, discussed the problem statement and presented the objective of the study. The main problem was that there had been a gradual rise in customer deposits in Kenya. The profitability of the banking sector has also been on the rise. So, the empirical problem was whether there exists a relationship between the customer deposits and banks profitability. The objective of the study was therefore to determine the effect of level of deposits on financial performance of commercial banks in Kenya.

Chapter Two gave a brief review of theories that inform the study. Four theories; financial intermediation theory, the portfolio investment theory, the Tobin investment theory and the capital asset pricing model were be useful in informing the theoretical underpinnings of this study. The empirical literature was also reviewed so as to establish the research gap. The review indicated that there existed differing opinions, both at global and a local level, on the effect of deposits on banks financial performance.

Chapter Three displayed the research methodology. A survey research design was chosen and secondary data was to be used for analysis. A model linking customer deposits ratio and loans Ratio to ROA and ROE was formulated. Descriptive statistics and inferential statistics were used for analysis. Regression and correlation analysis were the main inferential techniques for analysis.

Descriptive results chapter four indicate that the commercial banking sector have witnessed a gradual rise in the Return on Equity (ROE). There was a drop in ROE in the year 2008 probably due to the post election violence of December 2007. Results also indicate that the commercial banking sector have witnessed a gradual rise in the return on Assets. There was a drop in ROA in the year 2008 probably due to the post election violence of December 2007. The ROA further dropped in the year 2009 perhaps due to the extended effect of post election and global financial crisis. Results show that commercial banking sector has witnessed a gradual rise in the net loans (net advances). The commercial banking sector has witnessed a gradual rise in customer deposits and total assets. However, results show that the commercial banking sector has witnessed a gradual decline in loans ratio. The consistent decline in loan ratio could be explained by the observation that total assets seems to have increased at a higher rate than the loans/advances. The commercial banking sector has also witnessed a gradual decline in deposits ratio. The consistent decline in deposit ratio could be explained by the observation that total assets seems to have increased at a higher rate than the deposits.

Correlation results in Chapter four show that the correlation between ROE and ROA is positive and significant, correlation between ROE and Loans was positive and significant, correlation between ROE and Deposits was positive and significant, correlation between ROE and Loan Ratio was positive and significant, correlation between ROE and Deposits Ratio was positive and significant. Finally, correlation

between ROE and Total Assets was positive and significant. This indicates that the variables move in the same direction.

Regression results indicate that there is a positive and significant relationship between Deposits Ratio and ROE. The results also indicate that there is a positive and significant relationship between Deposits Ratio and ROA. This implies that there is a positive causal relationship between deposits and financial performance of commercial banks.

The result also indicates that the relationship between loans ratio and ROA and ROE is insignificant. This implies that loans do not have an effect on the financial performance of commercial banks in Kenya.

5.2 Conclusions

It was possible to conclude that the return on equity (ROE) has consistently risen from the year 2004 to the year 2011. It was also possible to conclude that the return on Assets (ROA) has consistently risen from the year 2004 to the year 2011. This led to the overall conclusion that the overall financial performance of the commercial banking sector in Kenya has performed well since the year 2004.

It was also concluded in this study that the level of deposits, the level of loans, level of total assets have consistently risen from the year 2004 to the year 2011. This implies that measures of capital adequacy, efficiency and operational effectiveness have also improved over the years.

The study concluded that the loans ratio and the deposits ratio have consistently declined since the year 2004. The study also concluded that this decline was because the total assets rose faster than the loans and deposits.

Results led to the conclusion that customer deposits have a positive and significant effect on the Return on Equity. Therefore, banks that put in place effective strategies to attract deposits will continue to report better ROE in the future.

Results led to the conclusion that customer deposits have a positive and significant effect on the Return on Assets. Therefore, banks that put in place effective strategies to attract deposits will continue to report better ROE in the future. Customer deposits therefore seem to maximize shareholders wealth. Efforts should therefore be to encourage attraction of customer deposits.

Study results lead to the conclusion that loans do not have significant effect on financial performance of commercial banks in Kenya.

5.3 Recommendations

Following study results, it is recommended that commercial banks in Kenya should invest in attracting deposits. This is because deposits play a pivotal role in bank's funding, as a predominant portion of commercial bank's assets are usually financed through customer deposit.

The study also recommends that commercial banks need to monitor the interest on deposits carefully. The main expense by any commercial bank is the interest expense and therefore for a commercial bank to be profitable, it must be able to raise deposits at reasonable rates in order to on lend to the customers. This therefore implies that a bank that is able to generate more deposits cheaply will be able to supply more loans competitively and hence make more profits if all other factors are held constant. It is recommended that one of the ways to attract deposits would be to offer higher deposits rates. However, the banks need to ensure that the bank spread is maintained.

It is recommended that banks should embrace innovation such as Mpesa and agency banking in order to attract deposits at the lowest cost possible. Opening additional branches is also advisable as long as the bank weighs the costs and benefits of doing so. Differentiation of products may also attract deposits to a bank as customers attempt to take advantage of unique product offerings.

5.4 Limitations of Study

No study however accurate is devoid of limitations. There exist inherent limitations as far as the accuracy of the data is concerned. The data was secondary in nature and the researcher is not aware of how it was collected and the various manipulations and assumptions that were used in order to prepare and present the data.

The analytical methodology was also very scientific. The study failed to extract qualitative information that would have explained the soft and hidden issues that affect the relationship between customer deposits and financial performance. An open

ended questionnaire, an interview or a focus group discussion would have yielded qualitative information and hence collaborate this results.

The study only focused on 8 years (year 2004 to year 2008). Perhaps using a longer time series would have yielded different trends and results. One may therefore ask, do the relationships hold over a 30 year span?

The study also did not also put into consideration other factors that could have affected the ROE and ROA over the tie of study. Perhaps, a dummy for post election violence of year 2007 and another one for global financial crisis running from year 2007 to year 2009 would have added the explanatory power of the model. Perhaps, a dummy fro innovation and Mpesa running from year 2007 to 2011 would have improved the explanatory power of the model. Perhaps, a dummy to capture the effects of the sharp rise in the Central Bank base lending rate in the year 2011 would have added the explanatory power of the model. Other banking ratios would also perhaps improve the explanatory power of the model.

5.5 Areas for Further Study

The study suggests that further studies should include a qualitative analysis of the relationship between deposits and financial performance of banks. Such a study would involve interview of key informants in the banking sector and would provide hidden insights into the intricate relationship between deposits and financial performance of banks.

Further areas of study should be focus on a longer time span, probably 20 to 30 years. This would clarify whether the observed relationship changes over the years. Such a study would call for advanced econometric and statistical analysis such as time series and panel data analysis.

Future studies should include dummies for improving the explanatory power of the model linking deposits to financial performance of commercial banks. Such dummies include; a dummy for global financial crisis running from year 2007 to year 2009, a dummy for alternative delivery channels e.g. mobile money as away of reaching the unbanked running from year 2007 to 2011, a dummy to capture the effects of the sharp rise in the Central Bank indicative rate in the year 2011 which forced the banks to increase their base lending rates and interbank lending rates. Further studies should also include other components of deposits to take a more portfolio approach to deposits and their effects of commercial bank profitability.

REFERENCES

- Andrianaivo, M. and Yartey, C.A. (2009) Understanding the growth of African financial markets, *IMF working paper number* WP/09/182
- Aretis ,P., Luintel, A.D., Luintel, K.B. (2005) Financial Structure and economic growth, *CEPP.working papernumber*06/05
- Bald, J. (2008) *Stability of Small balance deposits: A technical note: Consultative Group to assist the poor/World Bank.*
- Benhabib, J. and Spiegel, M. (2000). The role of financial development in growth and Investment, *Journal of Economic Growth*, Vol. 5 issues 4: 341-60
- Berlin. M. and Mester, L.J. (1999) Deposits and relationship lending. *The Review of Financial Studies* Fall 1999; vol. 12, no 3 pp 579-607
- Black. F. (1971) 'Implications of the random walk hypothesis for portfolio management.' *Financial Analysts Journal* 27:16–22.
- Black. F. (1972): 'Capital market equilibrium with restricted borrowing.' *Journal of Business* 45: 3–18.
- Bologna, P (2011), Is there a role for funding in explaining recent US bank failures, *IMF working paper number* wp/11/180
- Central Bank of Kenya (2009). *Bank Supervision Annual Report 2009*. Central Bank of Kenya, Nairobi.
- Cihak, M and Podpiera R. (2005) Bank Behavior in developing countries: Evidence from East Africa, *IMF working paper number* WP/05/129
- Demirguc-Kunt, A., & Huizinga, H., (1998). Determinants of Commercial Bank Interest Margins and Profitability: Some International Evidence. *World Bank Economic Review* 13, 379-408.

- Diamond, D.W. (1984). Financial intermediation and delegated monitoring, *Review of Economic Studies* 51, 393-414.
- Dietrich, A., & Wanzenried, G. (2009). Determinants of bank profitability before and during the crisis: Evidence from Switzerland. *Journal of International Financial Markets, Institutions and Money*, 21(3), 307-327.
- Emmanuelle, N.Y.S., (2003). A European Study Of Bank Interest Margins: Is Net Fees Revenue A Determinant. *Doctoral Thesis*. United Kingdom, U.K: University of Birmingham
- Flamini, V., McDonald, C. and Schumacher, L.(2009). The determinants of commercial banks profitability in Sub-Saharan Africa. *IMF Working Paper*. WP/09/15:
Retrieved from <http://www.imf.org/external/pubs/ft/wp/2009/wp0915.pdf>
- Fraser, D.R., Wallace P., Jr. and Peter S. R. (1974). *The Journal of Financial and Quantitative Analysis* Vol. 9, No. 2 (Mar., 1974), pp. 287-295 (article consists of 9 pages) published by: University of Washington School of Business Administration Stable
- Grigorian, D. A. and Manole, V. (2002). Determinants of Commercial Bank Performance in Transition: An Application of Data Envelopment Analysis. *World Bank Policy Research Working Paper 2850*, June 2002
- Guest, D.E., Michie, J., Conway, N. and Sheehan, M. (2003). Human resource management and corporate performance in the UK. *British Journal of Industrial Relations*. 41(2): 291-314.
- Gul, S., Irshad F. and Zaman, K (2011), Factors affecting bank profitability in Pakistan, *Romanian Economic Journal* Year XIV, No 39 pages 61-87.

- Heggstad, Arnold J. (1977) "Market Structure, Risk and Profitability in Commercial Banking," *Journal of Finance*, vol. 32, no. 4, pp. 1207-16
- Hirshleifer, J. (1971), "The Private and Social Value of Information and the Reward to Inventive Activity," *American Economic Review* 61, pp. 561-574.
- Jobson, J.D. and Korkie B. (1981): 'Putting Markowitz theory to work.' *Journal of Portfolio Management* 7:70-74.
- Jobson, J.D. and Korkie, B. (1980): 'Estimation for Markowitz efficient portfolios.' *Journal of the American Statistical Association* 75:544-554.
- Jobson, J.D., Korkie, B., Ratti, V. (1979): 'Improved estimation for Markowitz portfolios using James-Stein type estimators.' *Proceedings of the American Statistical Association, Business and Economics Statistics Section* 41:279-284.
- Jorion, P. (1985): 'International portfolio diversification with estimation risk.' *Journal of Business* 58:259-278.
- Jorion, P. (1991): 'Bayesian and CAPM estimators of the means: Implications for portfolio selection.' *Journal of Banking and Finance* 15:717-727.
- Kamau, A. (2009) 'Efficiency and Productivity of the Banking Sector in Kenya: An Empirical Investigation'. *PhD dissertation*, University of Nairobi (forthcoming).
- Kamoyo, E. M (2010). Determinants of Liquidity of Commercial Banks In Kenya. An Empirical Study. www.uonbi.ac.ke/faculties/turntopdf.php?project_id=6653
- Kaplan, R.S, Norton D.P. (1992). The balanced scorecard: measures that drive performance. *Harvard Business Review* 70(1): 71-79.
- Kaplan, RS, Norton DP.(2004). *Strategy Maps: Converting Intangible Assets into Tangible Outcomes*. Harvard Business School Press: Boston, MA.

- King, R. and Levine R (1993) Finance and growth: Schumpeter might be right, *Quarterly Journal of Economics*, Vol. 108, No. 3 (Aug., 1993), pp. 717-737
- Kiragu. .C. M. (2010).The Relationship between Profitability and Capital Adequacy of Commercial Banks in Kenya. *Unpublished Masters Thesis*. University of Nairobi
- Leland, H.E., and Pyle, D.H. (1977). Informational asymmetries, financial structure, and financial intermediation, *Journal of Finance* .32, 371-387.
- Levine, R. and Zervos S. (1998) Stock markets, banks and economic growth, *American Economic Review*, Vol.88(3):537- 558
- Lintner, J. (1965): 'The valuation of risk assets and the selection of risky investments in stock portfolios and capital budgets.' *Review of Economics and Statistics* 47:13–47.
- Markowitz, H.M. (1959): '*Portfolio Selection*.' New York: John Wiley and Sons.
- Modigliani, F. and Miller, M.H. (1963), "Corporate income taxes and the cost of capital: a correction", *American Economic Review*, Vol. 53 No. 3, pp. 433-43
- Mugenda, O.M. and Mugenda, A.G. (2003). *Research Methods: Quantitative and Qualitative Approaches*, Acts Press, Nairobi-Kenya
- Mutuku, N. (2009) '*Financial Sector Regulation: The Way Forward*' Presentation in Institute of Investment Professionals East Africa Seminar,
- Mwathi, Z.N (2009). The relationship between commercial banks financial performance and ownership structure. *Unpublished Masters Thesis*. University of Nairobi
- Mwega, F.M. (2009). *Global Financial Crisis: Kenya: Discussion series*. Paper 7. [Online]. May 2009.

- Myers, S. (1984), "The capital structure puzzle", *Journal of Finance*, Vol. 39, pp. 575-92.
- Myers, S. and Majluf, N. (1984), "Corporate financing and investment decisions when firms have information that investors do not have", *Journal of Financial Economics*, Vol. 13, pp. 187-221.
- Naceur, S.B. and Goaied M. (2001), The determinants of the Tunisian deposit banks; performance, *Applied Financial Economics* Vol. 11 Issue 3, pp 317-319
- Nafula, N.N. (2003). *Bank Portfolios and Bank Earnings in Kenya: An Econometric Analysis*. Social Sector Division Kenya Institute for Public Policy Research and Analysis KIPPRA Discussion
- Ndung'u, S.N and Ngugi, R.W (2000). Banking Sector Interest Rate Spread in Kenya. Macroeconomic and Economic Modelling Division. Kenya Institute for Public Policy Research and Analysis. *KIPPRA Discussion Paper No 5*
- Ngugi, N., Amanja, D. & Maana, L. (2006). *Capital Market, Financial Deepening and Economic growth in Kenya*. [Online].
- Ngugi, R.W., (2001). An Empirical Analysis of Interest Rate Spread in Kenya. *African Economic Research Consortium, Research Paper 106*
- Ochung, D.O. (1999) An empirical analysis of the relationship between deposit portfolio and profitability: the case of publicly quoted banks and financial institutions in Kenya. *Unpublished MBA Thesis*. University of Nairobi
- Oloo, O. (2009). *The Banking Survey 2009*. Think Business. Nairobi
- Olweny, T. and Shipho, T.M (2010). Effects of Banking Sectoral Factors on The Profitability Of Commercial Banks In Kenya. *Economics and Finance Review* Vol. 1(5) pp. 01 – 30, July, 2011 ISSN: 2047 - 0401

- Pagano, M. (1993) Financial markets and growth: an Overview, *European Economic Review* 37, 613-622. <http://www.csef.it/pagano/EER-1993.pdf>
- Ratnovski, L., and Huang, R. (2009) Why are Canadian Banks more resilient; *IMF working paper number WP/09/152*
- Rhynne, E., (2002). The Yin and Yang of Microfinance: Reaching the Poor and Sustainability. *Microbanking Bulletin*, July 1998, pp 45.
- Rousseau, P. and Wachtel P. (1998), Financial Intermediation and economic performance: Historical evidence from five industrialized countries, *Journal of Money Credit and Banking* vol 30 no. 4 pp 657-78:
- Sharpe, W.F. (1964): 'Capital asset prices: A theory of market equilibrium under conditions of risk.' *Journal of Finance* 19:425-442.
- Tobin, J. (1958). Liquidity preference as behavior towards risk, *The Review of Economic Studies*, 25, 65-86
- Waweru, N. and Kalani, V. (2009). Commercial Banking Crises in Kenya: Causes and Remedies. *African Journal of accounting Economics, Finance and Banking Research*. [Online] 4 (4).
- Zoeller, J.F. and D.D. Hester (1966): 'The relation between bank portfolios and earnings: An econometric analysis.' *Review of Economics and Statistics* 48:372-386

Appendix I: TOTAL ASSETS

Bank	TOTAL ASSETS 2004	TOTAL ASSETS 2005	TOTAL ASSETS 2006	TOTAL ASSETS 2007	TOTAL ASSETS 2008	TOTAL ASSETS 2009	TOTAL ASSETS 2010	TOTAL ASSETS 2011
Barclays Bank of Kenya	107530	104522	118021	157928	168786	165151	172691	167305
Standard Chartered Bank Ltd	67306	72970	81135	91252	99140	123909	142880	164182
Kenya Commercial Bank Ltd	66536	74338	87326	112211	174712	172384	223025	282494
Co-operative Bank of Kenya	46476	51835	57683	65697	83897	110531	153984	167772
National Bank of Kenya	30594	32584	36123	41414	42696	51404	60027	68665
Citibank, N.A.	25129	30928	37794	47301	47535	51372	62070	74646
Commercial Bank of Africa	20176	29667	37507	39509	50110	57593	63592	83283
CFC Bank Limited	17727	20896	25392	28021	83166	97337	107139	140087
National Industrial Credit Bank	16636	20630	26108	31396	42704	44655	54776	73581
Investment & Mortgages Bank	14912	18042	22348	29420	36656	44009	62552	76903
Stanbic Bank Kenya Limited	11479	14997	25823	34464	0	0	0	0
Diamond Trust Bank Kenya	11037	16234	21564	30313	41592	47147	58606	77453
First American Bank Limited	8928	0	0	0	0	0	0	0
Bank of Baroda	8355	9266	11773	14709	18361	21940	32332	36701
Equity Bank Limited	6707	11453	20024	53129	77136	96512	133890	176911
Bank of India	6138	7206	8702	10344	12049	15395	19671	23352
Fina Bank Limited	5948	6215	6502	8090	9865	12279	14112	14630
Imperial Bank Limited	5814	7773	9406	11723	13432	15358	19399	25618
Prime Bank Limited	5709	7154	10452	13862	19945	23700	32444	35185
Bank of Africa	4945	5349	6488	7657	12304	16920	26699	38734
Giro Commercial Bank	4744	4904	5098	5611	5938	6914	10234	11846
Habib AG Zurich	4453	4743	5323	6206	6557	7339	8127	8722
Akiba Bank Ltd	4210	0	0	0	0	0	0	0
African Banking Corporation	4188	5145	5357	6143	6584	8841	10297	12507

Guardian Bank	4112	4451	4917	5540	5558	6778	8031	8836
Middle East Bank of	3983	4051	3401	3097	3297	3141	4018	4639
Southern Credit Banking Corp.	3848	4221	4580	5306	5171	4491	0	0
Victoria Commercial Bank Ltd	3620	4212	4284	4131	4460	5130	6215	7645
Charterhouse Bank Limited	3407	4221	4028	0	0	0	0	0
Habib Bank Limited	3368	2890	2963	3845	4491	4659	5426	5861
Equatorial Commercial Bank	2873	3671	3962	4879	4410	4466	10399	12927
Consolidated Bank of Kenya	2767	2909	3437	4109	4657	6899	10479	15318
K-REP BANK	2710	3781	5220	7039	8184	7136	7670	9319
Credit Bank Limited	2708	2798	2610	3358	3637	3665	4530	5394
Development Bank of Kenya	2391	2745	3297	4708	6520	8136	10650	11523
Transnational Bank Limited	2342	2023	2566	3221	3388	3364	4762	7287
Chase Bank Limited	2086	2601	4123	5754	10300	12970	21859	36513
Oriental Commercial Bank	1630	1379	1449	1695	2289	3052	4558	5030
Fidelity Commercial Bank	1587	1666	2316	3192	4329	5499	8209	10789
Industrial Development Bank	1398	0	0	0	0	0	0	0
Paramount-Universal Bank	1328	1491	2197	2367	2646	3100	4420	4727
Dubai Bank Limited	926	1152	1248	1544	1639	1596	1874	2316
City Finance Bank	543	510	527	744	538	491	0	0
Daima Bank Limited	403	0	0	0	0	0	0	0

Appendix II: ROE AND ROA

Bank	ROE 2004	ROE 2005	ROE 2006	ROE 2007	ROE 2008	ROE 2009	ROE 2010	ROE 2011	ROA 2004	ROA 2005	ROA 2006	ROA 2007	ROA 2008	ROA 2009	ROA 2010	ROA 2011
Barclays Bank of Kenya	43.36	40.99	44.57	40.3	39.2	36.725	34.25	41.11	4.67	4.18	4.4	4.2	4.7	5.3	6.24	7.18
Standard Chartered Bank Ltd	49.66	36.81	37.83	45.27	41.3	39.62	37.94	40.11	3.83	3.36	3.3	5.3	4.7	5.39	5.37	5.03
Kenya Commercial Bank Ltd	13.49	19.15	26.44	30.07	26.9	27.565	28.23	31.18	1.32	1.83	2.6	3.1	3	3.57	5.17	4.98
Co-operative Bank of Kenya	10.72	17.39	25.64	33.61	23.9	25.71	27.52	29.41	0.57	0.99	1.6	3	3.7	3.26	3.61	3.68
National Bank of Kenya	28.32	26.66	24.28	32.41	28.9	28.035	27.17	23.37	1.24	1.32	1.3	3.1	4	2.27	4.49	3.56
Citibank, N.A.	10.14	23.99	24.46	24.31	36.5	29.42	22.34	31.77	1.37	3.47	3.4	3.7	7	5.92	4.64	6.43
Commercial Bank of Africa	22.95	26.33	36.1	31.03	34.2	35.13	36.06	30.04	1.94	1.68	2.9	3.5	3.3	3	4.24	3.58
CFC Bank Limited	20.77	15.36	22.7	27.59	18.4	19.68	20.96	30.82	1.91	1.54	2.1	3.1	1.5	1.35	1.96	2.23
National Industrial Credit Bank	14.09	14.81	22.24	22.13	26.7	28.65	30.6	33.95	2.12	1.73	2.3	3.2	3.4	3.3	4.41	4.57
Investment & Mortgages Bank	21.61	23.79	33.5	33.47	31.2	27.175	23.15	32.17	2.37	2	3.1	4.3	4.4	3.94	4.8	5.8
Stanbic Bank Kenya Limited	8.7	21.64	33.48	35.57	0	0	0	0	1.29	2.5	2.9	3.4	0	0	0	0
Diamond Trust Bank Kenya	15.77	25.67	26.26	18.61	24.5	30.07	35.64	31.34	1.65	1.94	2.6	2.8	3.1	3.44	4.9	4.19
First American Bank Limited	16.18	0	0	0	0	0	0	0	2.23	0	0	0	0	0	0	0
Bank of Baroda	28.28	22.3	0.029	32.44	33.1	35.81	38.52	33.96	3.17	2.35	2.9	3.3	3.4	3.24	5.65	4.57
Equity Bank Limited	17.17	31.4	49.99	15.85	24.2	28.55	32.9	34.53	3.05	4.06	4.9	4.3	6.1	5.66	6.95	6.84
Bank of India	12.82	14.42	27.13	36.09	36	35.97	35.94	28.87	1.94	1.51	2.9	4.5	5	3.91	5.04	4.18
Fina Bank Limited	-6.49	11.18	15.17	10.95	7	9.16	11.32	20.22	-0.78	1.1	1.7	1.3	0.8	0.18	1.07	2.12
Imperial Bank Limited	30.56	27.16	28.57	35.69	35.2	37.755	40.31	44.28	4.26	3.08	3.1	4.6	4.9	5.09	6.43	6.37
Prime Bank Limited	15.33	17.32	14.51	16.45	15	17.37	19.74	28.88	1.71	1.4	1.5	2.2	2.3	2.33	2.37	3.07
Bank of Africa	-4.95	1.15	27.13	12.5	5.6	11.025	16.45	11.87	-0.62	0.09	2.9	2	0.7	1.53	1.81	1.43
Giro Commercial Bank	3.25	-1.3	11.92	7.78	20.7	34.025	47.35	20.9	0.27	-0.09	1	0.7	2	2.63	6.2	2.79
Habib AG Zurich	12.5	27.04	25.4	27.51	31.2	26.675	22.15	19.82	1.22	2.74	2.8	3.2	3.6	3.85	3.05	2.91
Akiba Bank Ltd	-10.3	0	0	0	0	0	0	0	-1.24	0	0	0	0	0	0	0
African Banking Corporation	22.6	20.95	20.66	22.77	23.2	26.33	29.46	30.28	2.64	2.01	2.1	2.8	3.3	2.82	4.67	4.12

Guardian Bank	16.58	7.45	6.12	3.1	5.3	8.535	11.77	15.94	2.44	0.99	0.8	0.4	0.7	0.83	1.39	1.92
Middle East Bank of	4.98	14.51	11.87	10.69	3.4	11.705	20.01	8.4	0.81	2.06	1.9	2.8	0.9	1.37	5.11	1.99
Southern Credit Banking Corp.	12.07	5.98	6.07	7.36	1.1	0.55	0	0	1.37	0.62	0.6	0.6	0.1	-14.7	0	0
Victoria Commercial Bank Ltd	8.92	22.01	21.93	22.99	22.3	25.245	28.19	26.32	1.21	2.56	2.7	3.6	3.8	4.22	5	4.31
Charterhouse Bank Limited	8.57	21.06	18.51	0	0	0	0	0	1.14	2.22	2.8	0	0	0	0	0
Habib Bank Limited	22.17	4.83	1.25	20.44	23.6	24.92	26.24	25.51	2.65	0.64	0.1	2.7	3.2	4.16	4.34	4.62
Equatorial Commercial Bank	20.34	18.83	15.24	10.89	-1.2	-2.45	-3.7	5.91	3.42	2.54	2.3	1.4	-0.2	1.69	-0.32	0.55
Consolidated Bank of Kenya	-12.57	-1.81	2.25	3.45	10	13.725	17.45	17.18	-1.55	-0.25	0.4	0.5	1.5	1.54	2.46	1.61
K-REP BANK	14.57	6.09	16.92	18.65	-41.8	-16.125	9.55	19.23	3.87	1.22	2.8	2.6	-5.6	-3.76	1.44	2.75
Credit Bank Limited	11.24	19.35	17.6	23.29	11.9	7.725	3.55	5.35	1.74	2.65	3.4	3.7	2.1	2.15	0.74	0.95
Development Bank of Kenya	10.02	15.81	11.92	13.76	13.9	14.875	15.85	10.08	3.36	5.05	3.4	3.1	2.6	2.27	2.22	1.37
Transnational Bank Limited	102.57	5.64	4.12	7.32	9.8	10.045	10.29	16.92	36.54	2.23	1.6	2.2	3.3	2.36	3.33	4.05
Chase Bank Limited	-17.42	10.88	17.48	25.81	29.3	30.25	31.2	28.62	-4.31	2.07	2.3	3	2.4	2.42	2.45	2.33
Oriental Commercial Bank	-95.07	-11.85	-9.67	25.54	7.2	11.635	16.07	14.93	-12.83	-3.27	-3.1	8.8	2.5	0.97	4.01	3.83
Fidelity Commercial Bank	0.65	6	9.12	15.27	17.1	32.045	46.99	29.64	0.1	0.84	1	1.4	1.7	0.94	4.59	2.79
Industrial Development Bank	-48.74	0	0	0	0	0	0	0	-4.86	0	0	0	0	0	0	0
Paramount-Universal Bank	4.06	5.25	7.24	9.47	10.4	23.09	35.78	11	0.58	0.64	1	1.3	1.4	1.23	6.35	2.39
Dubai Bank Limited	8.28	7.52	5.08	3.39	1.6	1.08	0.56	2.92	2.7	1.49	1.2	0.6	0.3	0.41	0.18	0.9
City Finance Bank	2.64	-12.63	-4.79	-8.74	-0.9	-0.45	0	0	1.77	-6.76	-2.3	-3.1	-0.5	-1.26	0	0
Daima Bank Limited	0.91	0	0	0	0	0	0	0	-0.24	0	0	0	0	0	0	0

Appendix III: NET ADVANCES (LOANS)

Bank	Net advances 2004	Net advances 2005	Net advances 2006	Net advances 2007	Net advances 2008	Net advances 2009	Net advances 2010	Net advances 2011	Net advances ratio 2004	Net advances ratio 2005	Net advances ratio 2006	Net advances ratio 2007	Net advances ratio 2008	Net advances ratio 2009	Net advances ratio 2010	Net advances ratio 2011
Barclays Bank of Kenya	63187	65562	73907	105346	108086	93543	107761.5	127589.7	0.59	0.63	0.63	0.67	0.64	0.57	0.62	0.76
Standard Chartered Bank Ltd	26557	34043	35762	39469	43299	56695	97515.4	99953.29	0.39	0.47	0.44	0.43	0.44	0.46	0.68	0.61
Kenya Commercial Bank Ltd	33644	32849	40659	56477	79343	96558	172259.5	212395.9	0.51	0.44	0.47	0.50	0.45	0.56	0.77	0.75
Co-operative Bank of Kenya	27009	29089	28037	38433	53263	62274	93161.9	119992.5	0.58	0.56	0.49	0.59	0.63	0.56	0.61	0.72
National Bank of Kenya	22302	24213	26491	7844	8950	13156	18013.2	20066.7	0.73	0.74	0.73	0.19	0.21	0.26	0.30	0.29
Citibank, N.A.	9595	10009	12327	12624	18154	21402	29113.14	29322.76	0.38	0.32	0.33	0.27	0.38	0.42	0.47	0.39
Commercial Bank of Africa	5305	11589	14223	16049	26309	30087	34452.62	44030.45	0.26	0.39	0.38	0.41	0.53	0.52	0.54	0.53
CFC Bank Limited	10940	11662	15053	16703	44205	44978	52264.44	68780	0.62	0.56	0.59	0.60	0.53	0.46	0.49	0.49
National Industrial Credit Bank	11307	14127	16570	22209	29955	31133	35961.73	42111.18	0.68	0.68	0.63	0.71	0.70	0.70	0.66	0.57
Investment & Mortgages Bank	8198	11084	14702	19215	25887	24592	29490.73	35949.2	0.55	0.61	0.66	0.65	0.71	0.56	0.47	0.47
Stanbic Bank Kenya Limited	6991	8741	11348	19663	0	0	0	0	0.61	0.58	0.44	0.57	-	-	-	-
Diamond Trust Bank Kenya	7137	10318	13833	19754	25460	30634	36279.85	45349.81	0.65	0.64	0.64	0.65	0.61	0.65	0.62	0.59
First American Bank Limited	5088	0	0	0	0	0	0	0	0.57	-	-	-	-	-	-	-
Bank of Baroda	2692	3373	4373	6886	8938	9084	11228.73	12014.74	0.32	0.36	0.37	0.47	0.49	0.41	0.35	0.33
Equity Bank Limited	2874	5524	10930	21836	40858	59868	76559.2	93249.1	0.43	0.48	0.55	0.41	0.53	0.62	0.57	0.53

Bank of India	1522	2300	3232	3564	4448	5440	7792.256	8415.636	0.25	0.32	0.37	0.34	0.37	0.35	0.40	0.36
Fina Bank Limited	2718	3358	3784	4913	6190	5937	6949.852	5344.436	0.46	0.54	0.58	0.61	0.63	0.48	0.49	0.37
Imperial Bank Limited	3870	4261	5420	7001	8276	9676	11724.41	14936.9	0.67	0.55	0.58	0.60	0.62	0.63	0.60	0.58
Prime Bank Limited	2612	3400	4880	6298	9426	10615	12075.62	15529.25	0.46	0.48	0.47	0.45	0.47	0.45	0.37	0.44
Bank of Africa	3053	2998	3774	4579	6856	9120	10503.5	14589.37	0.62	0.56	0.58	0.60	0.56	0.54	0.39	0.38
Giro Commercial Bank	3027	3277	3020	3070	3411	3682	4597.713	4878.174	0.64	0.67	0.59	0.55	0.57	0.53	0.45	0.41
Habib AG Zurich	1039	1123	1300	1647	2182	2175	3051.09	2932.097	0.23	0.24	0.24	0.27	0.33	0.30	0.38	0.34
Akiba Bank Ltd	2541	0	0	0	0	0	0	0	0.60	-	-	-	-	-	-	-
African Banking Corporation	2065	2611	2841	3342	3550	3992	4795.59	6056.83	0.49	0.51	0.53	0.54	0.54	0.45	0.47	0.48
Guardian Bank	2876	2945	2960	3290	3553	4122	4917.134	5433.433	0.70	0.66	0.60	0.59	0.64	0.61	0.61	0.61
Middle East Bank of	1608	1526	1982	1887	1651	1619	2469.461	2504.033	0.40	0.38	0.58	0.61	0.50	0.52	0.61	0.54
Southern Credit Banking Corp.	1972	1957	2270	2478	2655	1953	0	0	0.51	0.46	0.50	0.47	0.51	0.43	-	-
Victoria Commercial Bank Ltd	1877	1912	2168	2388	2778	3174	3919.89	4241.321	0.52	0.45	0.51	0.58	0.62	0.62	0.63	0.55
Charterhouse Bank Limited	1751	2335	2571	0	0	0	0	0	0.51	0.55	0.64	-	-	-	-	-
Habib Bank Limited	872	664	791	933	988	1254	1777.169	1716.745	0.26	0.23	0.27	0.24	0.22	0.27	0.33	0.29
Equatorial Commercial Bank	1750	1846	2413	2305	2307	2750	3148.475	3384.611	0.61	0.50	0.61	0.47	0.52	0.62	0.30	0.26
Consolidated Bank of Kenya	1129	1283	1642	2245	2751	3868	4377.802	3550.398	0.41	0.44	0.48	0.55	0.59	0.56	0.42	0.23
K-REP BANK	2044	2427	3755	5112	5935	4817	5857.954	5898.959	0.75	0.64	0.72	0.73	0.73	0.68	0.76	0.63
Credit Bank Limited	1352	1699	1422	1632	1810	1881	2587.88	4011.214	0.50	0.61	0.54	0.49	0.50	0.51	0.57	0.74
Development	647	1073	1577	2478	3439	4769	6065.214	6859.757	0.27							

Bank of Kenya										0.39	0.48	0.53	0.53	0.59	0.57	0.60
Transnational Bank Limited	867	1202	1304	1208	1458	1689	2881 772	3729.013	0.37	0.59	0.51	0.38	0.43	0.50	0.61	0.51
Chase Bank Limited	1280	1674	2016	3251	5139	6745	7721 002	20754.05	0.61	0.64	0.49	0.56	0.50	0.52	0.35	0.57
Oriental Commercial Bank	544	308	414	517	958	1519	2065 688	2214.418	0.33	0.22	0.29	0.31	0.42	0.50	0.45	0.44
Fidelity Commercial Bank	1087	1045	1430	2017	2787	3293	3868.946	4182.33	0.68	0.63	0.62	0.63	0.64	0.60	0.47	0.39
Industrial Development Bank	1092	0	0	0	0	0	0	0	0.78	-	-	-	-	-	-	-
Paramount-Universal Bank	758	892	927	1052	1268	1356	1999.286	1599.429	0.57	0.60	0.42	0.44	0.48	0.44	0.45	0.34
Dubai Bank Limited	550	784	742	748	957	1144	1552 179	1583.223	0.59	0.68	0.59	0.48	0.58	0.72	0.83	0.68
City Finance Bank	308	277	230	155	193	184	0	0	0.57	0.54	0.44	0.21	0.36	0.37	-	-
Daima Bank Limited	218	0	0	0	0	0	0	0	0.54	-	-	-	-	-	-	-

Appendix IV: DEPOSITS

Bank	Deposits 2004	Deposits 2005	Deposits 2006	Deposits 2007	Deposits 2008	Deposits 2009	Deposits 2010	Deposits 2011	Deposits 2004	Deposits 2005	Deposits 2006	Deposits 2007	Deposits 2008	Deposits 2009	Deposits 2010	Deposits 2011
Barclays Bank of Kenya	82583	84275	93837	109097	126408	125869	123826	124207	0.77	0.81	0.80	0.69	0.75	0.76	0.72	0.74
Standard Chartered Bank Ltd	56971	59996	64879	73841	76898	86774	100504	122323	0.85	0.82	0.80	0.81	0.78	0.70	0.70	0.75
Kenya Commercial Bank Ltd	54560	61062	71495	85638	109845	137968	163189	210174	0.82	0.82	0.82	0.76	0.63	0.80	0.73	0.74
Co-operative Bank of Kenya	39486	44110	48201	54775	65869	91553	124012	142705	0.85	0.85	0.84	0.83	0.79	0.83	0.81	0.85
National Bank of Kenya	25470	27071	28639	34722	34278	41995	47805	56728	0.83	0.83	0.79	0.84	0.80	0.82	0.80	0.83
Citibank, N.A.	20001	23679	25331	29605	31192	33247	38215	46534	0.80	0.77	0.67	0.63	0.66	0.65	0.62	0.62
Commercial Bank of Africa	17774	26545	32517	33362	41715	44273	53195	67303	0.88	0.89	0.87	0.84	0.83	0.77	0.84	0.81
CFC Bank Limited	14268	16696	18507	20820	61529	55786	72778	74335	0.80	0.80	0.73	0.74	0.74	0.57	0.68	0.53
National Industrial Credit Bank	12788	16988	21978	24806	35238	36977	45318	62009	0.77	0.82	0.84	0.79	0.83	0.83	0.83	0.84
Investment & Mortgages Bank	12554	15307	18220	23626	28355	34799	45995	56944	0.84	0.85	0.82	0.80	0.77	0.79	0.74	0.74
Stanbic Bank Kenya Limited	8092	12640	19760	22692	0	0	0	0	0.70	0.84	0.77	0.66	-	-	-	-
Diamond	9203	13779	16726	24409	32689	36274	44904	59772								

Trust Bank Kenya									0.83	0.85	0.78	0.81	0.79	0.77	0.77	0.77
First American Bank Limited	7500	0	0	0	0	0	0	0	0.84	-	-	-	-	-	-	-
Bank of Baroda	7130	8083	10122	12673	15165	18634	25600	30264	0.85	0.87	0.86	0.86	0.83	0.85	0.79	0.82
Equity Bank Limited	5074	9048	16337	31536	48977	65825	95204	121774	0.76	0.79	0.82	0.59	0.63	0.68	0.71	0.69
Bank of India	4935	6102	7146	8608	10211	13005	16076	18475	0.80	0.85	0.82	0.83	0.85	0.84	0.82	0.79
Fina Bank Limited	5021	5279	5199	6670	8113	9986	11590	12395	0.84	0.85	0.80	0.82	0.82	0.81	0.82	0.85
Imperial Bank Limited	4662	6441	7074	8588	10414	12270	13678	19245	0.80	0.83	0.75	0.73	0.78	0.80	0.71	0.75
Prime Bank Limited	4737	6113	8289	10358	15662	19184	25512	28872	0.83	0.85	0.79	0.75	0.79	0.81	0.79	0.82
Bank of Africa	3964	4396	4936	5523	8701	12405	19784	23986	0.80	0.82	0.76	0.72	0.71	0.73	0.74	0.62
Giro Commercial Bank	4137	4364	4493	4915	5127	5943	8308	10069	0.87	0.89	0.88	0.88	0.86	0.86	0.81	0.85
Habib AG Zurich	3763	4048	4347	5012	5373	5839	6672	6661	0.85	0.85	0.82	0.81	0.82	0.80	0.82	0.76
Akiba Bank Ltd	3169	0	0	0	0	0	0	0	0.75	-	-	-	-	-	-	-
African Banking Corporation	3446	4455	4081	5084	5365	7208	8353	10471	0.82	0.87	0.76	0.83	0.81	0.82	0.81	0.84
Guardian Bank	3261	3568	3995	4544	4586	5760	6971	7648	0.79	0.80	0.81	0.82	0.83	0.85	0.87	0.87
Middle East Bank of	3146	2984	2338	1904	2021	1893	2527	2703	0.79	0.74	0.69	0.61	0.61	0.60	0.63	0.58
Southern Credit Banking Corp.	3203	3620	3741	4322	4106	4308	0	0	0.83	0.86	0.82	0.81	0.79	0.96	-	-

Victoria Commercial Bank Ltd	3049	3585	3654	3430	3582	4073	4935	5907	0.84	0.85	0.85	0.83	0.80	0.79	0.79	0.77
Charterhouse Bank Limited	2820	3465	3154	0	0	0	0	0	0.83	0.82	0.78	-	-	-	-	-
Habib Bank Limited	2767	2344	2433	2730	3024	3525	3933	4718	0.82	0.81	0.82	0.71	0.67	0.76	0.72	0.80
Equatorial Commercial Bank	2294	3055	3281	4117	3668	3522	8037	9834	0.80	0.83	0.83	0.84	0.83	0.79	0.77	0.76
Consolidated Bank of Kenya	1907	1950	2463	2851	3279	4882	8008	12010	0.69	0.67	0.72	0.69	0.70	0.71	0.76	0.78
K-REP BANK	1602	1969	3308	4484	4502	4436	5454	6446	0.59	0.52	0.63	0.64	0.55	0.62	0.71	0.69
Credit Bank Limited	2252	2278	1960	2657	2774	2793	3258	3937	0.83	0.81	0.75	0.79	0.76	0.76	0.72	0.73
Development Bank of Kenya	620	1167	1351	1624	2231	2411	4105	4171	0.26	0.43	0.41	0.34	0.34	0.30	0.39	0.36
Transnational Bank Limited	1229	910	1264	1800	1891	1857	3037	5283	0.52	0.45	0.49	0.56	0.56	0.55	0.64	0.72
Chase Bank Limited	1452	1979	3235	4276	7147	10117	16880	24822	0.70	0.76	0.78	0.74	0.69	0.78	0.77	0.68
Oriental Commercial Bank	638	542	733	823	1314	2012	3266	3694	0.39	0.39	0.51	0.49	0.57	0.66	0.72	0.73
Fidelity Commercial Bank	1277	1384	1977	2749	3778	4888	0	9490	0.80	0.83	0.85	0.86	0.87	0.89	-	0.88
Industrial Development Bank	212	0	0	0	0	0	0	0	0.15	-	-	-	-	-	-	-
Paramount-Universal Bank	997	1163	1745	1875	2109	2547	3562	3674	0.75	0.78	0.79	0.79	0.80	0.82	0.81	0.78

Dubai Bank Limited	475	710	801	1000	1032	986	1206	1561	0.51	0.62	0.64	0.65	0.63	0.62	0.64	0.67
City Finance Bank	74	94	126	231	164	155	0	0	0.14	0.18	0.24	0.31	0.30	0.32	-	-
Daima Bank Limited	669	0	0	0	0	0	0	0	1.66	-	-	-	-	-	-	-