THE RELATIONSHIP BETWEEN LOAN DURATION AND INTEREST RATES FOR COMMERCIAL BANKS IN KENYA

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DECLARATION

This research project is my original work and has not been presented for any academic award at any other university.

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

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DEDICATION

I dedicate this research project to my family and friends especially in memory of my mum and grand mum Keturah and Belliah.

TABLE OF CONTENTS

LIST OF TABLES

ABBREVIATIONS

CBK	-	Central Bank of Kenya
CBK	-	Commercial Banks of Kenya
CBR	-	Central Bank Rate
ECB	-	European Central Bank
EME	-	Emerging Market Economies
MFC	-	Mortgage Finance Company
MPC	-	Monetary Policy Committee
SPSS	-	Statistical Package for Social Sciences
TB	-	Treasury Bill
US	-	United States

ABSTRACT

Commercial banks' loans still remain the largest proportion of total financial sector assets even if a number of new financial institutions have arisen to provide increased competition to commercial banks. The analysis of changes in bank lending interest rates and loan duration is of great significance both in terms of monetary policy and financial stability. The study sought to establish the relationship between loan duration and lending interest rate in Commercial Banks in Kenya. This study was conducted through a case study research design. The study targeted commercial banks in Kenya. Time series secondary data on a monthly basis covering the period 2009 to 2013 was used in the estimations. The study adopted the regression model for data analysis. The study found that there exist a positive relationship between the lending interest rate and average loan duration. This implies that an increase in lending interest rate in months results to a decrease in average loan duration and vice versa. It found that increase in regulatory framework results to an increase in average loan duration. Effective regulatory framework enforces better liquidity and reserve ratios offered in the respective Commercial Banks thus leading to better and favorable average loan duration. The study found that an increase in lending risk results to an increase in commercial banks' average loan duration. As a result of increase in lending risk, banks can control their exposure to risk by first limiting the quantity they lend and also monitor the actions of borrowers to protect their investment. Finally, the study found a positive relationship between interbank lending and average loan duration which shows that an increase in interbank lending results to an increase in average loan duration.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Commercial banks' loans still remain the largest proportion of total financial sector assets even if a number of new financial institutions have arisen to provide increased competition to commercial banks. Central banks routinely state monetary policies in terms of interest rates. In Europe, the European Central Bank (ECB) in 2001 had not changed interest rates because it considered current rates "consistent with the maintenance of price stability over loan duration" (Goodhart, 2013). Brazil's central bank increased interest rates in 2001 because it was worried about the duration for repaying loans (Rich, 2001).

Despite this common practice, central banks do not control interest rates directly. They can target interest rates, but they can only attempt to hit those targets by adjusting other instruments they do control, such as the term for loan repayment. Changes in these instruments directly affect a country's stock of money and financial market reactions to money supply changes are what actually change the level of interest rates. Clearly, in order to hit interest rate targets, central banks must have a reliable view about the relationship between loan duration and interest rate changes.

According to Harry (2010), monetary policy is a policy employing the central banks control of the supply of money as an instrument for achieving the objectives of general economic policy. Monetary policy rests on the relationship between the rates of interest

in an economy, that is, the price at which loanable money can be borrowed, and the total supply of loanable money (Hammed, 2011). Monetary policy uses a variety of tools to control one or both of these, to influence outcomes like economic growth, interest rates with other currencies and unemployment. Where currency is under a monopoly of issuance, or where there is a regulated system of issuing currency through banks which are tied to a central bank, the monetary authority has the ability to alter the loanable money supply and thus influence the interest rate to achieve policy goals (Gichuki, Oduor and Kosimbei, 2012).

Economic theory offers two seemingly contradictory views of this relationship. One view, which follows from the interaction of loanable money demand and supply, is that money and interest rates are negatively related: increasing interest rates, for example, requires a decrease in the stock of loanable money. According to this view, money demand is a decreasing function of the nominal interest rate because the interest rate is the opportunity cost of holding cash (liquidity). So a decrease in the supply of loanable money must cause interest rates to increase in order to keep the money market in equilibrium. This current study will show the link between loan duration and interest rates.

1.1.1 Loan Duration

Loan is a monetary loan that is repaid in regular payments over a set period of time. The set term of payment is referred to as loan duration. As explained by Benchimol (2013), term loans usually last between one and ten years, but can last as long as 30 years in

some cases. A term loan usually involves an unfixed interest rate that will add additional balance to be repaid.

Loan duration can be given on an individual basis but are often used for small business loans. The ability to repay over a long period of time is attractive for new or expanding enterprises, as the assumption is that they will increase their profit over time. Term loans are a good way of quickly increasing capital in order to raise a business' supply capabilities or range. For instance, some new companies may use a term loan to buy company vehicles or rent more space for their operations (Signoriello, 1991).

Signoriello (1991) explains two things to consider when getting loan duration. The first is whether the interest rate is fixed or floating. A fixed interest rate means that the percentage of interest will never increase, regardless of the financial market. Low-interest periods are usually an excellent time to take out a fixed rate loan. Floating interest rates will fluctuate with the market, which can be good or bad for you depending on what happens with the global and national economy. Since some loan durations last for 10 years, getting that the rate will stay consistently low is a real risk. The second is whether the loan duration uses compound interest. If it does, the amount of interest will be periodically added to the principal borrowed amount, meaning that the interest keeps getting higher the longer the term lasts.

1.1.2 Interest Rate

Interest rate spread is one of the measures of financial sector efficiency. With an end to financial repression on the one hand and interest rate liberalization on the other, the spread is expected to narrow down. Sepehri and Moshiri (2004) defines interest rate is the

rate of return on investment and the cost of borrowing funds. It is determined by the supply and demand for money. Long-term interest rates are paid to a borrower of flawless solvency for a loan of indefinite duration.

Among the many industries affected by fluctuations in interest rates, real estate and banking are perhaps the most directly impacted. When interest rates increase, borrowing becomes more expensive, dampening consumer demand for mortgages and other loan products and negatively affecting residential real estate prices. Rising interest rates can also lead to increased default rates, as holders of adjustable rate debt find themselves faced with higher payments. Vendors of mortgage backed securities, which consist of bundled mortgages, will see their ability to monetize the securities lessens as a result of the deterioration of the quality of the underlying asset (Buiter, 2009).

Interest-rate targets are a vital tool of monetary policy and are taken into account when dealing with variables like investment, inflation, and unemployment. The central banks of countries generally tend to reduce interest rates when they wish to increase investment and consumption in the country's economy. However, a low interest rate as a macro-economic policy can be risky and may lead to the creation of an economic bubble, in which large amounts of investments are poured into the real-estate market and stock market (Benchimol, 2013). This happened in Japan in the late 1980s and early 1990s, resulting in the large unpaid debts to the Japanese banks and the bankruptcy of these banks and causing stagflation in the Japanese economy (Japan being the world's second largest economy at the time), with exports becoming the last pillar for the growth of the Japanese economy throughout the rest of 1990s and early 2000s.

The same scenario resulted from the United States' lowering of interest rate since late 1990s to the present substantially by the decision of the Federal Reserve System. Under Margaret Thatcher, the United Kingdom's economy maintained stable growth by not allowing the Bank of England to reduce interest rates. In developed economies, interest-rate adjustments are thus made to keep inflation within a target range for the health of economic activities or cap the interest rate concurrently with economic growth to safeguard economic momentum (Sepehri and Moshiri, 2004).

In Kenya, interest rates decisions are taken by The Monetary Policy Committee (MPC) of Central Bank of Kenya. The official interest rate since August 2005 is the Central Bank Rate (CBR), which replaced the 91-day Treasury Bill (TB) rate. These are reflected by interest rates for long-term bonds. Short-term interest rates on the other hand are indicated by the treasury bills. The short-term rates are averaged lower than long-term rates but have higher fluctuations.

1.1.3 Relationship between Interest Rate and Loan Duration

The traditional analysis of the commercial banking sector postulates that the assets of the banks should mainly be of a short-term maturity, as this would allow banks to effectively meet their demand deposit liabilities when required (Roussakis, 1977). Larger loans with greater maturity periods would be charged a higher rate of interest than smaller loans with lower maturity periods.

However, in response to changing private sector credit demand, increased technology in the banking industry and new banking techniques, commercial banks' portfolios have shifted towards consenter, mortgage and business loans, with an increase in maturity

periods (Codrington and Coppin, 1987). Thus, modern commercial banks are much less constrained to holding short-term liquid assets. As a result of this shift in commercial banking policy, it has been argued that commercial banks are biased against certain types of borrowers. For example, because of the relatively greater risk of small businesses, they are usually charged higher rates of interest in comparison to larger business (Strahan, 1999). This is closely related to the credit rationing literature based on the contributions of Keeton (1979) and Stiglitz and Weiss (1981). These models assume that the same loan contract is offered to loan applicants exhibiting differing risks of insolvency. It is then shown that equilibrium credit rationing can occur in credit markets with imperfect information if the positive effect of an increase in the interest rate on bank's profit, is outweighed by the negative adverse selection effect induced by a declining average probability of loan repayment.

1.1.4 Commercial Banks industry in Kenya

The Companies Act, the Banking Act, the Central Bank of Kenya Act and the various prudential guidelines issued by the Central Bank of Kenya (CBK), govern the Banking industry in Kenya. The banking sector was liberalised in 1995 and exchange controls lifted. The CBK, which falls under the Minister for Finance's docket, is responsible for formulating and implementing monetary policy and fostering the liquidity, solvency and proper functioning of the financial system. The CBK publishes information on Kenya's commercial banks and non-banking financial institutions, interest rates and other publications and guidelines. Banks in Kenya have come together under the Kenya Bankers Association (KBA), which serves as a lobby for the banks' interests and addresses issues affecting its members.

As at 31st December 2014, the banking sector consisted of the Central Bank of Kenya, as the regulatory authority, 44 banking institutions (43 commercial banks and 1 mortgage finance company -MFC), 5 representative offices of foreign banks, 8 Deposit-Taking Microfinance Institutions (DTMs), 2 Credit Reference Bureaus (CRBs) and 112 Forex Bureaus (FXBs) (CBK Bank Supervision Annual Report, 2012). Out of the 44 banking institutions, 31 locally owned banks comprise 3 with public shareholding and 28 privately owned while 13 are foreign owned as shown in Chart 1. The 8 DTMs, 2 CRBs and 112 forex bureaus are privately owned. The foreign owned financial institutions comprise of 9 locally incorporated foreign banks and 4 branches of foreign incorporated banks.

The ever changing consumer needs, innovative financial products, deregulation, information technology upgrades, and the onset of multiple delivery channels are reshaping the financial services industry. To remain competitive in the new landscape, banks have continued to expand their product lines and add new delivery channels to develop more effective marketing systems and techniques, and enhance the service quality levels. Use of alternative channels such as e-banking and m-banking continue to be the frontiers upon which banks seek to enhance access to customers as well as differentiating their products (CBK 2013).

1.2 Research Problem

The analysis of changes in bank interest rates and loan duration is of great significance both in terms of monetary policy and financial stability. Knowledge of how the monetary authority is able to influence bank interest rates is crucial to a proper assessment of the

macroeconomic impact of changes in their official intervention rates, both in terms of final magnitude as in respect of the path leading to this adjustment. In turn, credit contributes to a more efficient allocation of resources in the economy, while assuming particular importance for the activity of banks. This reinforces the need for a conceptual framework permitting an assessment on which of the developments observed are in line with the determinants commonly identified in the literature, in terms of duration of credit granted and interest rates associated with operations.

Despite the various reforms done by the Central Bank like the abolition of its control over interest rates and credit, and licensing new commercial banks, the financial industry and banking sector in particular has continued to have high lending interest rates. Studies that focus on the relationship between interest rates and loan duration have are scarce (Meese, 1990). The closest study found that resembles the approach taken in this study was done by Craigwell (2000) who investigated the relationship between commercial banks' interest rates and loan sizes in Barbados. The study used the square coefficient of variation to measure the dispersion in interest rates and found that there was a statistically significant greater dispersion between interest rates on loans from smaller banks, as ranked by deposit size. In addition, the smallest loans seem to exhibit the greatest rate of fluctuation. The author did not factor in loan duration in his study.

Another related study was done by D'Auria, Foglia and Reediz (1999) who investigated the effect of banking relationships on the cost of credit in Italy. There groups of factors were found to have influenced the pricing policies of banks: the operating characteristics and risk preferences; size and a riskiness of borrowers; and the structure of credit relationships and bank competition. The authors found that the closeness of lending

relationships, measured by a bank's share of customer debt, was the main determinant of individual interest rates. The current study differs with them in the following aspects: it does not attempt to examine loan duration relationship with interest rate, but what impact credit has on average interest rate differences implemented by banks; and it explores a different set of determinants for the interest rate differences observed deriving a theoretical model in the process, which then serves as a starting point for the econometric specification.

Ndung'u (2000) did a study to understand the relationship between real exchange rate and the real interest rate differential and the implications they have on portfolio capital flows. The study shows that the nominal exchange rate deviates from the perceived long-run equilibrium level determined by the purchasing power parity relationship, and these deviations are governed by the interest rate differential. This study left out the issue of loan duration and the relationship that exists with interest rates.

Few studies have been done to link loan duration to interest rates. Most studies have covered other variables in their study like exchange rate, the 91 day Treasury bill rate and USA government Treasury bill. This chose on loan duration and showed the relationship that it has with interest rates. The key question in this study were whether there was a linkage between loan duration and interest rates.

1.3 Objective of the Study

To establish the relationship between loan duration and interest rate in Commercial Banks in Kenya.

1.4 Value of the Study

Commercial banks can be able to understand the relationship that exists between loaning duration and loaning interest rates and which lending technology they can deploy to minimize on the high transaction costs for loaning.

This study can be useful policy makers in their formulation and determination of the Interest Rate to adopt to achieve stability in the general price level which includes loan duration. With respect to accountability and communication, the law stipulates that the CBK, at intervals of not more than six months, submit to the Minister for Finance a monetary policy statement. The Statement specifies the policies and the means by which the Bank intends to achieve the policy targets; state the reasons for adopting such policies and means; and reviews the progress of the implementation by the Bank of monetary policy during the period to which the preceding policy statement relates. Thus the study is relevant for determination of this monetary policy rates.

Financial Institutions can also find the study useful in the prediction of loan duration by linking it with the interest rate. Like any other research the findings will be used as a reference as far as further studies are concerned and spark off further research in relationship between loan duration and interest rates in commercial banks.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the theoretical and empirical literature on how interest rates relate to each other and the relationship they have on loan duration.

2.2 Theoretical Literature

2.2.1 The Segmented Markets Theory

This theory assumes that markets for different-maturity bonds are completely segmented. The interest rate for each bond with a different maturity is then determined by the supply of and demand for the bond with no effects from the expected returns on other bonds with other maturities (Harrod, 1934). In other words, longer bonds that have associated with them inflation and interest rate risks are completely different assets than the shorter bonds. Thus, the bonds of different maturities are not substitutes at all, so the expected returns from a bond of one maturity has no effect on the demand for a bond of another maturity (Harrod, 1934).

Because bonds of shorter holding periods have lower inflation and interest rate risks, segmented market theory predicts that yield on longer bonds will generally be higher, which explains why the yield curve is usually upward sloping However, since markets for different-maturity bonds are completely segmented, there is not reason why the short and long yields should move together. And, because of the same reason, the segmented

market theory also cannot explain why the short-term yields should be more volatile than the longer-term yields.

2.2.2 The Expectations Theory

The theory of rational expectations was first proposed by John F. Muth of Indiana University in the early 1960s. He used the term to describe the many economic situations in which the outcome depends partly on what people expect to happen. According to this theory, people in the economy make choices based on their rational outlook, available information and past experiences. The theory suggests that the current expectations in the economy are equivalent to what the future state of the economy will be. This contrasts the idea that government policy influences the decisions of people in the economy.

The use of expectations in economic theory is not new. Many earlier economists, including Pigou, Keynes and Hicks, assigned a central role in the determination of the business cycle to people's expectations about the future. Keynes referred to this as "waves of optimism and pessimism" that helped determine the level of economic activity. But proponents of the rational expectations theory are more thorough in their analysis of expectations (Fischer, 1980).

The idea is that rational expectations of the players in an economy will partially affect what happens to the economy in the future. If a company believes that the price for its product will be higher in the future, it will stop or slow production until the price rises. Because the company weakens supply while demand stays the same, price will increase. In sum, the producer believes that the price will rise in the future, makes a rational

decision to slow production and this decision partially affects what happens in the future (Hicks, 1982).

According to Patinkin (2013), economists who believe in rational expectations base their belief on the standard economic assumption that people behave in ways that maximize their utility or profits. He discusses, economists have used the concept of rational expectations to understand a variety of situations in which speculation about the future is a crucial factor in determining current action. Rational expectations is a building block for the "random walk" or "efficient markets" theory of securities prices, the theory of the dynamics of hyperinflations, the "permanent income" and "life-cycle" theories of consumption, and the design of economic stabilization policies.

Hicks (1982) noted that the rational expectations theory of interest rates is based on the idea that people formulate expectations based on all the information that is available in the market. He saw that rational expectation theory holds that the best estimation for future interest rates is the current spot rate and that changes in interest rates are primarily due to unexpected information or changes in economic factors. He further found the limiting factors of rational expectation theory were mostly related to the difficulty in gathering information and understanding how the public uses its information to form its expectations.

2.3 Determinants of Interest Rates

2.3.1 Central Bank Regulatory Framework

CBK in its quest to regulate the financial markets has instituted monetary policy measures aimed at supporting stability in the exchange rate and striving for the principal goal of achieving low inflation. As part of the measures that it employs is the enforcement of minimum (or regulatory) liquidity and reserve ratios that CBs must adhere to. At present, two sets of regulatory ratios are enforced at the following levels: Liquidity Ratio. This ratio measures the value of liquid assets that a CB has as a percentage of liabilities to the public. The requirement by CBK is that 27% of a CB's public liabilities should be in liquid form and available on demand. This means that CBs must always ensure that, at least 27% of their total balance sheet assets are maintained as liquid funds or, near cash assets (equivalent assets); and, Reserve Ratio. Apart from the Liquidity ratio, CBs are also presently required to maintain 5.25% of both the Kenya Shilling and foreign denominated public liabilities in a sterile statutory reserve account with CBK. This means that CBs must maintain with CBK, cash reserves of not less than 5.25% of their total public liabilities. Central Bank Rate (CBR) was also adjusted by 50 basis points to 16.25% effective 1st December, 2011, implying that CBs can only borrow funds from CBK at 16.25% which has a very narrow margin with what their customers are willing to borrow at (CBK, 2011).

CBs are amenable to severe penalty charges by CBK where they fail to adhere to the regulatory ratios at any one time. This has meant that CBs must always ensure that they retain sufficient liquidity to stay within the limits of the CBK regulations. It has thus been

shown that when determining the cost of lending, commercial banks consider factors such as regulatory ratios, deposit rates and mismatch risk. It is therefore necessary to address these issues before the high cost of borrowing in the country can be brought under manageable levels (Zamtie, 2003).

2.3.2 Lending Risk

Lending risk is the risk of loss due to a debtor's non-payment of asset or other line of credit. The default events include a delay in payment, restructure of borrower's payment and bankruptcy. Interest rate affects lending risk since the borrower might not be keen to pay cost of funding/credit or might find such assets expensive in the future. Low interest rates encourage ex-ante risk taking (Kashyap and Stein, 2000).

Partly due to the factors indicated above, assessment of lending risk has become a critical part of CBs' management of credit. This emphasis has been instigated by a number of factors associated with the business environment. Firstly, business enterprises are operating under unstable parameters making it difficult for them to plan cash flows and meet debt service obligations when these fall due. Volatility in the movement of the exchange rate has been one of the major sources of this problem.

The knock on effects of slow supplier payments, especially where the Government is involved at some stage in the cycle, has been a lending risk. This is attributed when a supplier of goods to Government may have obtained inputs from a manufacturer who also borrowed from a CB to cover production costs. Where the supplier is unable to collect dues from Government on time, thus making them default in meeting the credit terms agreed with the manufacturer. In turn, the manufacturer will not have received the

sales proceeds to enable them meet service payments to the CB. This cycle of slow creditor payments is most prominent where the government is involved as a consumer of goods and/or services. Its track record of timely creditor payments is virtually non-existent. On the other hand it is the biggest consumer (both directly and indirectly) of goods and services in the economy (Zamtie, 2003).

Adjustment to the more liberalized market environment has therefore, been slow for a number of borrowers who also have to compete for the limited credit available from CBs. This factor has also meant that CBs have to make large provisions for loan losses thus making credit more expensive and subject of stringent collateral requirements ZAMTIE, (2003).

2.3.3 Interbank Lending Rate

Interest rates increased sharply on all financial instruments following aggressive monetary policy tightening adopted by the Central Bank to address inflationary pressures and stabilize the exchange rate (MPC, 2011). The Central Bank Rate (CBR) was first reduced to 5.75 percent in January 2011 from 6.0 percent in December 2010. In subsequent reviews of domestic economic developments conditions by the Monetary Policy Committee (MPC), the CBK opted to tighten monetary policy stance by raising the CBR from 5.75 percent in January 2011 to 6 percent in March 2011. In the follow up meetings of July and September, the CBR was raised to 6.25 percent and 7 percent, respectively. The strength of monetary policy tightness made little impact on inflation and the exchange rate trends. Inflation continued to increase albeit at a decelerating rate while the Kenya Shilling exchange rate remained volatile and depreciating. Further action

on the stance of monetary policy resulted in raising the CBR by an unprecedented 400 basis points to 11.0 percent in October 2011 and by 550 basis points and 150 basis points to 16.5 percent and 18.0 percent, respectively in November 2011 and December 2011. These measures were taken to also slow down private sector credit demand which had partly contributed to the deterioration of the current account balance (MPC, 2011).

The increase in CBR rate raised short term interest rates, particularly the interbank rate. The average inter-bank lending rate increased from 1.18 percent in December 2010 to 21.75 percent in December 2011. The average 91- day Treasury Bills rate also increased steadily throughout the year from 2.28 percent to 18.30 percent. The average commercial bank lending rates and deposit rates maintained an upward trend between December 2010 and December 2011. Commercial banks average lending rate increased from 13.87 percent in December 2010 to 20.04 percent in December 2011, with an annual average of 15.05 percent. Over the same period, the average interest rate paid by banks on deposits increased from a 3.59 percent in December 2010 to 6.99 percent in December 2011. Consequently, the interest rate spread widened to 13.06 percent in December 2011 from 10.28 percent in December 2010 reflecting the increase in the lending rate (CBK, 2011).

2.4 Empirical Evidence

From the available empirical studies done in the area, Kurihara (2012) did a study a study between the years 2000 to 2010 to determine the effect interest rates have on loan size. The period was divided twice (5 years each). During the 2000 to 2004 period interest rates were relatively flat. The average difference in interest rates between loans under $5,000 (the lowest amount) and loans over $500,000 (the largest amount) was

approximately 1%. Only in the first quarter of 2001 was there any significant fluctuation which resulted mainly from a 1% point increase to 5% in deposit rates. In an attempt to protect the balance of payments a number of monetary measures were introduced. First: the bank rate was raised from 5% to 10%, and was increased further to 18% later in the year. In addition to changes in the bank rate, the required holding of treasury bills was expanded from 14% to 16% and then to 17% in the year 2007 August and October respectively. The savings rate and mortgage rate were also increased, magnifying the effect of the policies above. These measures expanded the cost of lending for commercial banks, which was reflected in rising average interest rates on all loans. The general augmentation in interest rates was also indicative of the difficulty in obtaining credit during this period. The increased cost of loans was also reflected in the maximum average interest rates charged.

In a study by Sanchez (2005), the link between term loan and interest rates discussed that the link between term loan and interest rates features prominently in the theoretical and empirical literature on small open economies given the important role these variables play in determining developments in the nominal and real sides of the economy, including the behavior of domestic lending and borrowing activities. Further among Emerging Market Economies (EME), this interest is further spurred by the fact that many of them have recently introduced changes in their monetary and interest rate policies. His paper revisited this relationship using a simple model that incorporates the role of loan term pass-through into domestic prices and distinguished between cases of expansionary and contractionary depreciations. In doing so, it builded on the modeling approach of Gerlach and Smets (2000).The model results showed that the correlation between loan

term and interest rates, conditional on an adverse risk premium shock, is negative for expansionary depreciations and positive for contractionary ones.

Mishkin (1992) explains why there is a high correlation between the level of interest rates and loan term in certain periods and not in others. Using monthly data from January 1953 to December 1990, he finds no support for a short-run Fisher effect, but did find evidence in support of a long-run Fisher effect, where a change in expected short term interest rate is associated with an immediate change in the duration loans are borrowed and a long-run Fisher effect, where loan term and interest rates trend together in the long-run. The study concludes that the Fisher relationship would only hold in periods when inflation and interest rates display stochastic trends.

Mugume (2008) studied about the dispersion between interest rates for the various loan sizes within banks as well as formal statistical measures to test the significance of observed interest rates in Kenya. The coefficient of variation was calculated to examine the dispersion between interest rates within each commercial banks. Generally, there seemed to be a correlation between the dispersion in interest rates and the bank's loan term and size, measured by the value of deposits. The study found a coefficient of variation of 0.0766 for bigger banks while for smaller banks, the average value of the coefficient of variation was 0.3432. This implies that for smaller banks there is a greater dispersion between interest rates on loans.

Empirical studies using Kenyan data done in the late 1990s have been to some extent supportive of the Fisher effect. For instance, Atieno (1992) find support for a long-run Fisher effect, but not a short-run Fisher effect, prompting the conclusion that short-run

changes in interest rates indicate the stance of monetary policy, while longer-term levels are primarily driven by loan size. However, the study did not present the link interest rate has on loan duration.

Abdirizack(2012) did a study on the effect of monetary policy on interest rates in Kenya t to establish the effect of loans on interest rates. In doing this, the study set to answer the question: how does a loan relate to interest rates in Kenya? The study adopted a quantitative comparative design. The target population for this study included 44 banking institutions which included 43 commercial banks and 1 Mortgage Finance Company (MFC), transacting business in Kenya between 31st January 2001 and 31st December 2011. The study focused on three major monetary policy instruments including: Central bank rate, 91-Day Treasury bill rate, and repo rate. The researcher conducted a multiple regression analysis on the data. The study concluded that loaning rates in Kenya were affected by various factors key among them being the 91 Day Treasury bill Rate which had the highest impact among the three variables studied.

2.5 Summary of Literature Review

Kurihara (2012) did a study a study between the years 2000 to 2010 to determine the effect interest rates have on loan size. Sanchez (2005) looked at the link between term loan and interest rates whose findings showed that the correlation between loan term and interest rates, conditional on an adverse risk premium shock, is negative for expansionary depreciations and positive for contractionary ones. These studies were not done in Kenya. A similar study needs to be done to determine the relationship that exists between loan duration and interest rate in Kenya. Mishkin (1992) explained why there is a high

correlation between the level of interest rates and loan term in certain periods and not in others. The current study thrives to show the relationship between loan duration and interest rate in all the periods by looking at the average loan duration and lending interest rate.

Mishkin (1992) studied about the dispersion between interest rates for the various loan sizes within banks as well as formal statistical measures to test the significance of observed interest rates. This study did not link interest rate and loan duration which this study looks at. In Kenya, Abdirizack (2012) established the effect of loans on interest rates and concluded that loaning rates in Kenya were affected by various factors key among them being the 91 Day Treasury bill Rate which had the highest impact among the three variables studied. This study looked at the effect of loans and not loan duration.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the framework for data collection and analysis of the study. It covers the research design, study population, sources of data, research instruments, and measurement of variables and limitation of the study.

3.2 Research design

This study was conducted through a case study. As Ngechu (2004), states, the use of case study comes in handy when an in depth investigation of an individual group, institution or phenomenon is required. Since a case study is an in-depth investigation of a single individual, group, institution or phenomena, it may serve to explore causation in order to find underlying principles. The data obtained is usually more detailed, varied and most extensive. Ngechu (2004) indicates that a case study, in most cases, involves qualitative data. Owing to the nature of this study, the design was appropriate. Correlation and regression analysis were employed to establish the relationship between the variables (relationship between loan duration and interest rates).

3.3 Population of the study

The target population covered by the study was all licensed Commercial Banks in Kenya. These Commercial Banks are 43 in number as per the CBK's directory of listed

Commercial Banks in Kenya. The study covered entire Commercial Banking Industry so sampling was not undertaken.

3.4 Data Collection

Time series secondary data was used in this study. The consolidated data on the average loan durations and lending interest rates will be collected by the researcher from the Commercial Banks of Kenya. Secondary data on a monthly basis covering the period 2009 to 2013 will be used in the estimations. This period will be selected because it has the most current data which will show how Loan duration relates to lending interest rates currently.

3.5 Data Analysis

Qualitative data analysis was used in this study and will utilize inferential statistics to analyze data. In this regard, Statistical Package for Social Sciences (SPSS) version 20 and Microsoft excel software packages will be used in analyzing the data. Correlation and regression analysis will be used to determine the degree and significance of the relationship between loan duration and interest rates. The independent variable will be interest rate while dependent variable will be loan duration. The researcher will mainly test to see whether loan duration has an effect on lending interest rates.

The study adopted the regression model for data analysis: The regression model specifically connects the average values of Y for various values of the X variables. A regression equation is in no way a mathematical linking two variables but serves as a pointer to questions to be answered. Basically, the regression analysis is used in two

distinct ways: as a means of considering data taking into account any other relevant variables by adjustment of the random variable; and to generate mathematical forms to be used to predict the random variable from the other (independent) variables. The regression model will be as follows:

$Y = \alpha_0 + \alpha_1 X1 + X2 + X3 + \alpha_4 X_4 + \varepsilon$

Where:

Y = Average Loan Duration X1 = Lending Interest rate in Months

X2 = Regulatory Framework X3 = Lending Risk

X4 = Interbank Lending α_0 = Constant Term

ε = Error Term α_1 = Percentage contribution of X1 to Y.

In order to determine the coefficients of the model, data will be coded in SPSS Version 20 and regression analysis be conducted. The software will therefore generate the coefficients for X1, X2, X3 and α_0 which is the constant.

Lending interest rate was measured by the supply and demand for money. Long-term interest rates are paid to a borrower of flawless solvency for a loan of indefinite duration. The short-term rates are averaged lower than long-term rates but have higher fluctuations. Central Bank Regulatory Framework will be measured in terms of Liquidity Ratio and Reserve Ratio. Liquidity ratio measures the value of liquid assets that a CB has as a percentage of liabilities to the public. Lending Risk will be measured through volatility in

the movement of the exchange rate. Interbank lending interest rate will be measured in terms of the rates that central bank uses to lend to the commercial banks.

CHAPTER FOUR

DATA ANALYIS AND DISCUSION

4.1 Introduction

This chapter presents analyzes collected data, interpretation and discussion of findings. Ordinary Least Square (OLS) analysis through correlation and regression models of analysis was adopted.

4.2 Reliability Analysis

Cronbach statistics was used in the study to test for reliability. In Cronbach, any alpha more than 0.7 is acceptable for a measurement scale. The findings are presented in table 4.1 below.

Table 4.1 Reliability Statistics

Cronbach's Alpha	Number of Items
.879	5

From the findings, Cronbach's alpha is 0.879 which is more than 0.7 indicating that data is reliable.

4.3 Descriptive Statistics

This section sought to deliver a description of the variables for the averages of the variables used in describing the relationship between variables. Table 4.2 presents the results.

Table 4.2: Descriptive Statistics for the Averages of Variables

	N	Mean	Std. Deviation
Average Loan Duration	60	9.1653	5.61083
Interest rate in Months	60	9.4792	3.99186
Regulatory Framework	60	6.5987	2.00608
Lending Risk Premium	60	7.9612	1.52892
Interbank Lending	60	7.4228	6.24983
Valid N (listwise)	60		

In the findings above, there were 60 observations which were used for this study for all the variables. Mean score for the dependent variable (Average Loan Duration) was 9.1653. Mean scores for independent variables, Lending Interest rate in Months, Regulatory Framework, Lending Risk and Interbank Lending were 9.4792, 6.5987, 7.9612 and 7.4228 respectively.

The mean for Average Loan Duration shows that over the period under study, Average Loan Duration was averaging at 9.1653%. The descriptive statistics for average Lending Interest rate in Months explains that average financial sector efficiency for the companies under study was 9.4792%. Average mean for Regulatory Framework explains the average instituted monetary policy measures for the companies which were at 6.5987%. Mean score for Interbank Lending explains the inflationary pressure which was at 7.4228% averaged during the duration under study.

4.4 Correlation Analysis

The study applied Pearson correlation to examine if there was any correlation between loan duration and interest rates for commercial banks in Kenya. The results are shown in table 4.3.

ALD = Average Loan Duration

LIR = Lending Interest rate in Months

RF = Regulatory Framework

LR = Lending Risk

IL = Interbank Lending

Table 4.3: Correlation Analysis

Pearson Correlation	ALD	LIR	RF	LR	IL
ALD	1				
LIR	.542**	1			
RF	.625**	-.313*	1		
LR	.287*	-0.243	.267*	1	
IL	.361**	.834**	-0.168	-.291*	1

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

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

The findings show a positive significant correlation between average loan duration (ALD) and lending interest rates (LIR) in months with a correlation coefficient of 0.542. This implies that if commercial banks' lending interest rates can be of a given terms, the average loan duration will be highly effective and this can improve performance of such Commercial Banks.

The findings also show a positive significant correlation between average loan duration (ALD) and interbank lending (IL) with a correlation of 0.361. This implies that if firms can have relatively favourable average loan durations, the rate of interbank lending will increase which further improves performance.

The study shows a positive significant correlation between average loan duration (ALD) and regulatory framework (RF) with correlation of 0.625. This implies that better enforcement of minimum (or regulatory) liquidity and reserve ratios can significantly increase average loan duration.

There is a positive significant correlation between lending risk (LR) and average loan duration (ALD) with a correlation coefficient of 0.287. Lending risk measures risk of loss due to a debtor's non-payment of asset or other line of credit and this implies that low interest rates encourage ex-ante risk taking thus high average loan durations.

The findings illustrate the results obtained from the correlation analysis for the sampled commercial banks for the period of study at a 0.05 and 0.01 significance levels.

4.5 Regression Analysis

A multivariate regression model was used to determine the relationship between loan duration and interest rates for commercial banks in Kenya. This involved the use of ordinary least squares / regression model. The resultant regression model was as follows;

$$ALD = \alpha_0 + \alpha_1 LIR_1 + \alpha_2 RF_2 + \alpha_3 LR_3 + \alpha_4 IL_4 + \varepsilon$$

The researcher conducted regression analysis using ordinary least squares in which all the variables under study were included. Table 4.4 presents the model summary.

Table 4.4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.732[a]	.536	.503	3.95751

a. Predictors: (Constant), Interbank Lending, Regulatory Framework, Lending Risk Premium, Interest rate in Months

Analysis in table 4.4 shows that the coefficient of determination (the percentage variation in the dependent variable being explained by the changes in the independent variables) R^2 equals 0.575 that is; Lending Interest rate in Months (LIR), Regulatory Framework (RF), Lending Risk (LR) and Interbank Lending (IL) explains 53.6% only of average loan duration leaving 46.4 percent unexplained. The P- value of 0.000 (Less than 0.05) implies that the model is significant at the 5 percent significance.

Table 4.5: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	995.997	4	248.999	15.898	.000[b]
	Residual	861.403	55	15.662		
	Total	1857.400	59			

a. Dependent Variable: Average Loan Duration

b. Predictors: (Constant), Interbank Lending, Regulatory Framework, Lending Risk Premium, Interest rate in Months

ANOVA findings (P- value of 0.00) in the table above show that there was a strong significant relationship between the predictor's variables (lending interest rate in months, regulatory framework, lending risk and interbank lending) and response variable (average loan duration). An F ratio represents the variance between the groups, divided by the variance within the groups. A large F ratio indicates that there is more variability between the groups (caused by the independent variable) than there is within each group, referred to as the error term. A significant F test indicates that we can reject the null hypothesis which states that the population means are equal. The P value is 0.000 which is less than a 0.005 significance level.

Table 4.6: Coefficients Distribution

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.783	3.750		1.009	.317
	Interest rate in Months	.739	.248	-.525	-2.982	.004
	Regulatory Framework	1.308	.283	.468	4.615	.000
	Lending Risk Premium	.319	.363	.087	.879	.383
	Interbank Lending	.163	.155	.182	1.050	.298

a. Dependent Variable: Average Loan Duration

From the regression model:

$ALD = \alpha_0 + \alpha_1 LIM_1 + \alpha_2 RF_2 + \alpha_3 LR_3 + \alpha_4 IL_4 + \varepsilon$

The regression equation is presented below.

$ALD = 3.783 + 0.739LIR + 1.308RF + 0.319LR + 0.163IL$

A constant of 3.783 indicates that if lending interest rate in months, regulatory framework, lending risk and interbank lending are all rated as zero, average loan duration would be 3.783.

The regression coefficient for Lending Interest Rate in Months is 0.739. This means that the relationship between the lending interest rate and average loan duration is positive. This implies that an increase in lending interest rate in months results to a decrease in average loan duration and vice versa.

The regression coefficient for Regulatory Framework is 1.308. This means that the relationship between the regulatory framework and average loan duration is positive. This implies that effective regulatory framework results to stability and low cost incurred during loan duration in the selected commercial banks, thus an increase in regulatory framework results to an increase in average loan duration and vice versa.

The regression coefficient for Lending Risk is 0.319. This means that the relationship between the lending risk and average loan duration is positive. This implies that an increase in Lending Risk results to an increase in commercial banks' average loan duration and vice versa.

The regression coefficient for Interbank Lending is 0.163. This means that the relationship between the interbank lending and average loan duration is positive. This implies that an increase in interbank lending results to an increase in average loan duration and vice versa.

4.6 Discussion of Findings

The study found that the relationship between the predictor's variables (Lending Interest Rate in Months, Regulatory Framework, Lending Risk and Interbank Lending) and response variable (Average Loan Duration) is positive. These findings are consistent with Robert L.H (1969) who asserts that when lenders or investors are uncertain about the future interest rates, they may wish to hedge their belts by introducing new dimensions into the interest rates calculations and gives rise to the term structure of the interest rates. Harrod (1934) in his study found that interest rate for each bond with a different maturity is determined by the supply of and demand for the bond with no effects from the expected returns on other bonds with other maturities.

The study also found a positive relationship between the lending risk and average loan duration. Demirgüc-Kunt and Huizinga (2010) show that banks with a high level of fee and trading income are more risky and banks that heavily rely on wholesale funding are more risky as well. Delis and Kourtas (2011) further found that the risk-taking behaviour of banks is dynamic as bank risk may be persistent over time due to inter-temporal risk smoothing, competition, banking regulations or relationship banking with risky customers. Beatty and Gron (2001) in their study found evidence suggesting that banks with higher capital growth relative to assets have greater increases in their loan portfolios, with the most significant effects coming from the most capital-constrained banks.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the findings presented in chapter four according to the study objective. The objective of the study was to investigate the relationship between loan duration and interest rates for commercial banks in Kenya. It presents the conclusions and the recommendations to the study.

5.2 Summary of Findings

The study sought to investigate the relationship between loan duration and interest rates for commercial banks in Kenya. Commercial Banks were sampled and the period of study was five years between 2009 and 2013. All the data required was obtained from the commercial banks' audited financial statements.

The study found that there exist a positive relationship between the lending interest rate and average loan duration. This implies that an increase in lending interest rate in months results to a decrease in average loan duration and vice versa. Tiny average loan duration with very low default rates incur high administrative expenses that may not be offset by economies of scale.

The study also found a positive relationship between regulatory framework and average loan duration. This implies that increase in regulatory framework results to an increase in average loan duration. Effective regulatory framework enforces better liquidity and

reserve ratios offered in the respective Commercial Banks thus leading to better and favorable average loan duration.

The further found a positive relationship between lending risk and average loan duration. This suggests that an increase in lending risk results to an increase in commercial banks' average loan duration. As a result of increase in lending risk, banks can control their exposure to risk by first limiting the quantity they lend and also monitor the actions of borrowers to protect their investment. Through monitoring, commercial banks can refuse to renew a loan that has reached its maturity or "call" a loan early when a borrower has failed to meet the terms of the loan contract, recontract with distressed borrowers and efficiently salvage collateral when borrowers default.

The study found a positive relationship between interbank lending and average loan duration. This denotes that an increase in interbank lending results to an increase in average loan duration. An increase in counterparty risk reduces lending banks' expected payoffs from providing unsecured funds to other banks and thus lowers their incentive to transact with one another. An increase in interbank lending can lead safe borrowers to drop out of the market, making the remaining pool of borrowers more risky.

5.3 Conclusions

Interest rates still remain the very important component of financial performance because they directly affect the liquidity and profitability of commercial banks. Ordinary Least Square (OLS) regression concluded that lending interest rate is positively associated with average loan duration. It concluded that tiny average loan duration with very low default rates incur high administrative expenses that may not be offset by economies of scale.

The study concluded that regulatory framework and average loan duration were positively related. It concluded that effective regulatory framework enforces better liquidity and reserve ratios offered in the respective Commercial Banks thus leading to better and favorable average loan duration.

The further resolved that lending risk and average loan duration are positively related. The study concluded that increase in lending risk cause banks to control their exposure to risk by first limiting the quantity they lend and also monitor the actions of borrowers to protect their investment. The study concluded that interbank lending and average loan duration are positively associated. An increase in counterparty risk reduces lending banks' expected payoffs from providing unsecured funds to other banks and thus lowers their incentive to transact with one another. An increase in interbank lending can lead safe borrowers to drop out of the market, making the remaining pool of borrowers more risky.

5.4 Limitations of the Study

The study excluded commercial banks from other Counties within the country since it was limited to commercial banks within Nairobi County, Kenya.

The period of study was too short (2009-2013) to observe changes in variables overtime. Time provided for the study was therefore small that it could not allow extensive analysis of the relationship between loan duration and interest rates which also resulted to a limitation.

It was difficult for the study to get data from some commercial banks since some of the banks regarded the information as confidential. The information provided was exact that made the researcher not determine whether it was distorted hence a limitation.

5.5 Recommendations

From the findings, efficient loan duration results to favourable interest rates among commercial banks in Kenya. Based on the findings, the following recommendations were made for the determinants of loan duration.

The relationship between lending interest rate and average loan duration is positive. This implies that an increase in lending interest rate in months results to a decrease in average loan duration and vice versa. The study therefore recommends that commercial banks should introduce new dimensions into the interest rates calculations and gives rise to the term structure of the interest rates and inflationary policies that would often bring about an increase or the fall in the general level of the interest rates in regard to loan duration. This will enable commercial banks to regularly make profits.

The relationship between regulatory framework and average loan duration is positive. This implies that increase in regulatory framework results to an increase in average loan duration. The study therefore recommends that commercial banks should impose tougher rules to regulate the financial markets while aiming at supporting stability in the exchange rate and striving for the principal goal of achieving low inflation.

5.6 Suggestions for Further Research

The study explained 53.6% only of firms performance leaving 46.4% unexplained. The 46.4% represented other variables that explain average loan duration this study did not include. The study therefore suggests that other studies on the same area be done to determine variables that explain the 46.4%.

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APPENDIX I: AVERAGE DATA FOR FIVE YEARS

		Average Loan Duration	Interest rate in Months	Regulatory Framework	Lending Risk Premium	Interbank Lending
Years	**Months**	**Y**	**X1**	**X2**	**X3**	**X4**
2009	**Jan**	6.64	8.50	6.64	7.43	5.95
	Feb	7.98	8.50	7.98	7.14	5.56
	Mar	4.63	8.50	4.63	6.92	5.49
	Apr	3.02	8.50	3.02	7.35	5.56
	May	2.19	8.25	2.19	7.91	6.50
	Jun	1.85	8.25	1.85	7.37	3.00
	Jul	1.96	8.00	1.96	6.81	2.69
	Aug	4.07	8.00	4.07	6.92	3.68
	Sep	5.48	7.75	5.48	7.72	3.38
	Oct	5.30	7.75	5.30	7.43	2.57
	Nov	5.53	7.75	5.53	7.21	3.11
	Dec	5.38	7.75	5.38	7.28	2.94
2010	**Jan**	6.08	7.00	6.08	9.11	3.70
	Feb	5.70	7.00	5.70	10.01	2.21
	Mar	9.40	7.00	9.40	10.12	2.46
	Apr	10.58	6.75	9.58	12.02	2.15
	May	11.90	6.75	9.90	11.25	1.15
	Jun	16.12	6.75	8.12	11.73	1.35
	Jul	18.61	6.75	7.61	10.30	1.66
	Aug	17.87	6.00	7.87	10.81	1.18
	Sep	17.12	6.00	7.12	10.72	0.98
	Oct	18.33	6.00	8.33	9.81	1.04
	Nov	18.73	6.00	8.73	10.21	1.18
	Dec	18.74	6.00	8.74	7.99	5.80
2011	**Jan**	19.54	6.00	9.54	6.32	1.21
	Feb	17.83	5.75	7.83	6.00	1.24
	Mar	13.22	5.75	8.22	6.00	1.13
	Apr	14.69	6.00	4.69	6.00	1.24
	May	14.60	6.00	7.60	6.28	3.97
	Jun	12.42	6.00	8.42	6.27	5.52
	Jul	9.61	6.25	9.61	6.15	6.36
	Aug	8.60	6.25	8.60	7.00	8.57
	Sep	8.44	6.25	8.44	11.00	12.46
	Oct	7.36	7.00	7.36	6.50	7.45
	Nov	6.74	11.00	6.74	5.73	14.92

	Dec	6.62	16.50	6.62	6.18	28.89
2012	**Jan**	5.00	18.00	5.00	7.14	21.72
	Feb	5.32	18.00	5.32	7.92	19.27
	Mar	5.95	18.00	5.95	7.13	18.01
	Apr	5.18	18.00	5.18	7.93	24.02
	May	3.97	18.00	3.97	7.63	16.15
	Jun	3.66	18.00	3.66	7.71	17.16
	Jul	3.88	18.00	7.88	6.81	17.02
	Aug	3.49	16.50	8.49	6.90	13.71
	Sep	3.57	16.50	6.57	7.73	7.05
	Oct	3.22	13.00	7.22	7.61	9.14
	Nov	3.21	13.00	4.21	7.75	7.07
	Dec	3.18	11.00	5.18	7.92	5.84
2013	**Jan**	3.84	11.00	5.84	8.39	5.86
	Feb	4.51	9.50	4.51	8.91	9.25
	Mar	5.42	9.50	5.42	7.32	8.89
	Apr	6.54	9.50	6.54	8.01	7.92
	May	9.19	9.50	9.19	8.03	7.16
	Jun	12.05	8.50	8.05	7.29	7.13
	Jul	12.95	8.50	7.95	7.91	7.93
	Aug	14.48	8.50	6.48	7.94	8.88
	Sep	15.53	8.50	5.53	8.11	7.52
	Oct	16.67	8.50	6.67	8.09	10.66
	Nov	17.32	8.50	7.32	8.33	10.77
	Dec	18.91	8.50	8.91	8.16	8.99

APPENDIX II: PROJECT BUDGET

Item No	Item Description	Ksh
1.	Proposal writing	4,000
2.	Stationery	5,000
3.	Travel expenses	5,000
4.	Data collection	3,000
5.	Data analysis	5,000
6.	Typing services for the research work	8,000
7.	Subsistence: meals and accommodation	2,000
8.	Printing and photocopying	4,000
9.	Spiral and Hard-cover binding	7,000
10.	Contingencies	5,000
	Total	**48,000**

List of Banks in Kenya Source: Central bank of Kenya

1. ABC Bank (Kenya)
2. Bank of Africa
3. Bank of Baroda
4. Bank of India
5. Barclays Ban
6. CFC Stanbic Bank
7. Chase Bank (Kenya)
8. Citibank
9. Commercial Bank of Africa
10. Consolidated Bank of Kenya
11. Cooperative Bank of Kenya
12. Credit Bank
13. Development Bank of Kenya
14. Diamond Trust Bank
15. Dubai Bank Kenya
16. Ecobank
17. Equatorial Commercial Bank
18. Equity Bank
19. Family Bank
20. Faulu deposit taking
21. Fidelity Commercial Bank Limited
22. Fina Bank
23. First Community Bank
24. Giro Commercial Bank
25. Guardian Bank
26. Gulf African Bank
27. Habib Bank
28. Habib Bank AG Zurich
29. I&M Bank
30. Imperial Bank Kenya
31. Jamii Bora Bank
32. Kenya Commercial Bank
33. K-Rep Bank
34. Middle East Bank Kenya
35. National Bank of Kenya
36. NIC Bank
37. Oriental Commercial Bank
38. Paramount Universal Bank
39. Prime Bank (Kenya)
40. Standard Chartered Kenya
41. Trans National Bank Kenya
42. United Bank for Africa
43. Victoria Commercial Bank