

**THE RELATIONSHIP BETWEEN CHANGES IN CENTRAL BANK RATE
AND THE LEVEL OF NON-PERFORMING LOANS IN COMMERCIAL
BANKS IN KENYA**

PRESENTED BY;

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DECLARATION

STUDENT

I, the undersigned, declare that this research project is my original work and that it has not been presented in any other university or institution for academic credit.

SIGNED

DATE

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JAMES MUNIU

SUPERVISOR

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

SIGNED

DATE

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DR. LISHENGA

DEDICATION

I would like to dedicate this Project to my adored Wife Patricia, my sons Denis and Brian and finally my earnest friends Victor Sabila, Victor Ochola and Richard Ngali for both their financial and moral support during entire period of the project.

ACKNOWLEDGMENT

Writing this paper marked an important milestone in my life- regardless of the challenges faced; the learning experience has proved to be of immense value to me. It marks a key achievement in my life, which was made possible through the contribution of many resource persons who devoted their time to provide guidance and information necessary to realise the objectives of this study. To them am eternally indebted.

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ABSTRACT

The Kenyan Banks for last five years have faced drastic changes in central bank rate hence forcing commercial banks to increase their base rate. Majority of borrowers have always rushed to the banks to as to loan restructuring when changes in bank rate occur, however banks have been adamant to restructure such loan hence making the borrower unable to repay their loans. The above problem has lead to the rise of none performing loans in commercial banks making banks to declare huge losses

Faced with this scenario, the purpose of this study was to establish the relationship between changes in central bank rate and the level of none-performing loans in commercial banks in Kenya. The research design employed in this study was descriptive in nature. The target population in the study was a total of 43 commercial banks in Kenya. The secondary data for five years (2007-2012) was obtained from annual publications by central bank as well as financial statements of commercial banks. Multiple linear regression Analysis was used to examine the relationship between CBR and NPL in commercial banks in Kenya

Based on the findings, the study concludes that while central bank rate has a negative significant effect on net non-performing loans, interest rates charged by commercial banks very much affect non-performing loans positively so that an increase in this rate results into an increase in net non-performing loans.

It is recommended that central bank through its mandate to ensure economic stability through monetary policy, could occasionally help commercial banks by increasing the bank rate so as to send panic wave to borrowers from commercial bank.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the study

In the last few years Kenya has experienced changes in the central bank rate where Central Bank of Kenya (CBK) changed its interest rate to 11 percent in October 2011 and by November the interest rate moved to 16.6 percent, the rate settled at 18 percent by the close of year 2012. Commercial Banks have always sighted increase in Central Bank Rate (CBR) as an excuse to increase their rates hence making consumers more overburden by this high cost of borrowing. Interest rate is the price a borrower pays for use of money they borrow from a lender or financial institution or fee paid on borrowed loan (Crowley, 2007). Interest can be thought of as “rent of money”. Interest rates are fundamental in capitalist society and are normally expressed as a percentage of amount money given out as loan over the period of one year (Ngetich, 2001). Interest rate as a price of money reflect market information regarding expected change in purchasing power of money of future inflations (Ngugi, 2001).

The central bank rate is the rate charged by central bank to commercial banks as a lender of last resort. The Monetary Policy Committee of the Central Bank prepares the Monetary Policy Statement specifying the policies and the means by which the Bank intends to achieve the policy targets; the reasons for adopting such policies and means is to enable the country have stable economic growth as a well maintain the required levels of inflation.(Central Bank of Kenya [CBK], 2013).

The Central Bank’s principal objective is formulation and implementation of monetary policy directed to achieving and maintaining stability in the general level of prices. The aim is to

achieve stable prices, that is low inflation and to sustain the value of the Kenya shilling. As is the case the world over, a central bank exists in a country to safeguard the value of its currency in terms of what it can purchase. When prices of goods and services in an economy keep on rising, the value of these goods and services that the currency can purchase or exchange for- diminishes (Ngugi, 2001). This leads to loss in value of the currency. Monetary policy is the main tool used in the preservation of the value of the currency in an economy. It involves the control of liquidity circulating an economy to levels consistent with growth and price objectives set by the Government (CBK, 2013). The volume of liquidity in circulation influences the levels of interest rates, and thus the relative value of the local currency against other currencies. It is the responsibility of the Monetary Policy Committee to formulate the monetary policy of the Central Bank. Maintaining price stability is crucial for a proper functioning of a market-based economy. It encourages long-term investments and stability in the economy. Low and stable inflation refers to a price level that does not adversely affect the decisions of consumers and producers (Howells, 2008). Price stability is a precondition for achieving a wider economic goal of sustainable growth and employment. High rates of inflation lead to inefficiency in a market economy and, in the medium to longer term, to a lower rate of economic growth. Movements in the general price level are influenced by the amount of money in circulation, and productivity of the various economic sectors, the Central Bank of Kenya regulates the growth of the total money stock to a level that is consistent with a predetermined economic growth target as specified by the Government and outlined in its Monetary Policy Statement

There are three major tools the CBK uses to implement monetary policy:(CBK, 2013)

Open Market Operations: Through open market operations, the Bank buys or sells securities in the secondary market in order to achieve a desired level of Bank reserves. Alternatively, the

Bank injects money into the economy through buying securities in exchange for money stock. As the law of supply and demand takes effect to determine the cost of credit (interest rates) in the money market, money stock adjusts itself to the desired level. This process influences availability of money in the economy. (CBK, 2013).

Discount window operations: The Bank, as lender of last resort, may provide secured short-term loans to commercial banks on overnight basis at punitive rates, thus restricting banks to seek funding in the market resorting to Central Bank funds only as a last solution. The discount rate is set by the Central Bank to reflect the monetary policy objectives. (CBK, 2013)

Reserve Requirements: The Central Bank is empowered by the law to retain a certain proportion of commercial banks' deposits to be held as non-interest bearing reserves at the Central Bank. An increase in reserve requirements restricts commercial banks ability to expand bank credit and the reverse is regarded as credit easing. (CBK, 2013).

The above mentioned tool are implemented for making sure that citizen of a nation do enjoy stable prices for loan acquired from commercial bank but this has not been the case since many commercial bank have over the years complained on non repayment of loan by borrower hence making banks incur huge losses. One of the tools that have brought about public outcry is the use of CBR by the central bank. This bring in the need to establish weather this tools are effective in making sure that the consumer are not overburden in terms of interest rate sine interests are distressing and if they persist for long the economy will be hit hard and the net effect is the slowdown of economic growth. Commercial banks being one of the players in the economy may suffer since if the borrowers are pressed and are unable to repay their loans the bank may run into losses. This makes the borrower not to meet his or her obligations on time hence loan fall into arrears such loans are termed as loan portfolio at risk. This triggers the question whether the

rate charged by central bank as lender of last resort to commercial bank over certain given period has in anyway affected the ability of borrowers to repay their loans .The loan portfolio is the largest and the greatest revenue stream for commercial bank but it's one of the greatest source of risk to a bank financial soundness. Whether due to lax credit standards or poor portfolio risk management, loan portfolio problems have been the major cause of bank losses. Loans that have been advanced must be repaid as the value of a loan portfolio depends not only on the interest rate earned but also on the likelihood that interest and principal will be repaid (Luenberger, 1993).

A Non-performing loan (NPL) is the money lent to an individual or an institution that does not earn income and full payment of principal and interest is no longer anticipated, principal or interest is 90 days or more delinquent or the maturity date has passed and payment in full has not been made (Boudriga et. al 2009).The issue of non- performing loan has therefore gained increasing attention since the immediate consequence of large amount of NPL in the banking system is a cause of bank failure (Ngetich, 2011).Financial institutions facilitate mobilization of saving, diversification and pooling of risk and allocation of resources .However, since the receipts of deposit and loans are not synchronized, intermediaries like commercial banks incur certain costs (Ngugi, 2001).They charge a price for intermediation services offered under uncertainty and set the interest rate levels for deposit and loans

Controlling NPL is very important for both the performance of an individual bank and the economy's financial environment. Due to the nature of their business commercial banks expose themselves to the risk of default from borrower (Macnulty, 2011). Product credit risk assessment and creation of adequate provision for bad and doubtful debts can cushion the bank risk. However, when the level of non-performing loans is very high the provisions are not adequate

protection (Waweru and Kalani, 2009). The occurrence of banking crises has been associated with massive accumulation of non-performing loans, which can account for sizable share of total assets of insolvent banks and financial institutions. Therefore, the determinants of loan default need to be established so as to reduce the level of non-performing loans

1.1.1 Central Bank of Kenya

The central bank of Kenya is the sole regulator of all commercial banks in Kenya. It was established in 1966 through an Act of Parliament - The Central Bank of Kenya Act of 1966.

and charged with responsibility of creating a financial sector that meets the developmental goals of the economy .the bank has also the responsibility to manage interest rates through its monetary policy operations .its objective is to formulate and implement monetary policy so as to achieve stability in general price level, maintaining price stability is crucial for a proper functioning of market-based economy

The monetary committee (MPC) of central bank sets the rate of interest known central bank rate which signals the monetary policy stance (CBK, 2013)

The Central Bank of Kenya Act of 1966 set out objectives and functions and gave the Central Bank limited autonomy. Since the amendment of the Central Bank of Kenya Act with effect from April 1997, the Central Bank operations have been brought into line with the changed situation in Kenya caused by economic reforms. (CBK, 2013)

Though required to support the general economic policy of the Government, the Central Bank of Kenya is not subject to any directive from the Government in exercising the powers conferred on

it by the Central Bank of Kenya (Amendment) Act, 1996. However, both the Government and the Central Bank make mutual consultations on important policy matters. (CBK, 2013)

The Central Bank, for example, is required to advise the Government on monetary policy matters of major importance and to provide information at the Governments' request. The Government in turn invites the Governor of the Central Bank to advice on fiscal issues that may have important ramifications on the Bank's monetary policy. (CBK, 2013)

The central bank rate (CBR) refers to rate of interest charged to commercial banks by central bank on all loan advanced to them. This interest rate is set by the monetary policy committee (MPC) (CBK, 2013)

According to Kidwell (2008), the CBR is one of the closed watched interest rate in the economy. The market for central bank funds, according to Kidwell, consists of borrowing and lending overnight reserves among large banks and financial institutions on unsecured basis. Its interbank lending rate and represents the primary role of short-term loanable fund. CBR is of particular interest because it measures the return on the most liquid assets (bank reserves),it is closely related to monetary policy and directly measures the available reserves in banking stem ,which in turn influences commercial banks decision on making loans to consumers .(Kidwell, 2008)

1.1.2 Non-performing loan

Non-performing loans refers to loan advanced to borrower which the borrower is experiencing difficulties in repayment as per the contract signed between the bank and the borrower. This can also be referred to as portfolio at risk. Several writers have defined NPL differently i.e. Ochola (2009), defines non -performing loans as loans which for relatively long period of time do not generate income .Casu, Giradone and Molyneux (2011), defines non-performing loans as loans

which debtors have failed to make contractual payment for a predetermined time. According to CBK portfolio at risk is loans whose interest and principal have not been paid for over three months from the date the contract was signed.

Loan that are non performing are provided for and this a cost to the loaning bank hence decreasing the profits of the bank .according to CBK prudential guidelines banks are supposed to put aside a percent of its profit for all non performing loans. The risks of nonperforming loans normally arise as external environment becomes worse off e.g. economic depression (Gaitho, 2010). Gaitho advises that controlling portfolio at risk is very important for both the performance of individual bank and the economy's environment .For the purpose of study I will define portfolio as risk as loan which have not been paid for over three months since the contract was signed or when the last installment was made

1.1.3 Commercial banks in Kenya

Currently there are 43 licensed commercial banks in Kenya which are regulated by the central bank. Majority of the commercial bank are owned by Kenyans .performance of banking sector is rated strong as the institution achieve satisfactory financial condition (Muchiri, 2012). However the performance of this commercial bank may be adversely affected if the level on non-performing loan moves to un manageable level forcing the bank to write the off as bad debts .writing off of bad debt in an expense to the commercial bank hence reducing of the profits of the bank

1.1.4 Relationship between central bank rate and Non-performing loans

Tireito (2012) examines the relationship between interest rate and non performing loans and concludes that there is no significant relationship between interest rates and non performing loans. Howells (2008), in his study, the impact of changes in official rate of interest concludes

that increase in interest rates makes savings from current income more attractive, increases repayment of existing floating -rate debt and thus lowering disposable income, with possible loan default; increases the cost of goods obtained on credit; lowers the prices of financial assets and hence influence estimates of private sectors wealth and lowers house prices.

1.2 Research Problem

Charges in central bank lending rate has forced commercial bank to increase or to lower the interest rate that they lend to customers. When the central bank rate goes up commercial banks tend to increase the lending rates, this high interest rate impacts negatively on borrowers making the cost of acquiring credit high and therefore loan facilities to majority of Kenyans become out of reach and for those who have acquired credit already become financially depressed hence unable to repay their loans on time. The overall effect of this increase in non performing loans in many commercial banks. The researcher will therefore seek to establish the relationship between changes in central bank rate and the level of NPL in commercial banks. The research is informed by the fact that the cost incurred by commercial banks in terms of provisions to the nonperforming loans will be finally passed to consumer and hence overburdening him further.

Based on literature findings most of the studies conducted have concentrated on the relationships between the interest charged by commercial banks and the levels of nonperforming loans in commercial banks in Kenya this includes: Musya (2009), who focused on the impact of nonperforming loans on the performance of commercial banks in Kenya; Akahegae (2011), who examined the determinants of nonperforming among commercial banks in Kenya; Gaitho (2010), who carried out a survey on the main causes of nonperforming loans in commercial banks in

Kenya; Kiptoo (2011), who carried out research on strategic response adopted by KCB to cope with nonperforming loans and Tereito (2012), who studied the relationship between interest rate and non performing loans in commercial banks in Kenya .

None of above has focused on the relationship between the changes in CBR and the levels of NPL in commercial bank yet CBR is one of the most watched interest rate in the economy. This leads to the question; what is the nature of relationship between the changes in central bank rate and the level of NPL in commercial banks in Kenya given the high increase in number of defaulter in Kenya which has forced the commercial banks to declare war on defaulter, with commercial banks saying that they will adopt aggressive loan recovery methods to seek to rein the level on non performing loans as well as boost their profits (Omwenga, 2013). Will this relationship be the very strong to warrant the public outcry witnessed in Kenya in recent years which forced the members of parliamentary select committee to summon the governor of central bank to shed light on the high central bank rate. It's therefore worthy to carry out the above study so as to fill the this research gaps

1.3 Objective of the study

The objective of this research is to establish the relationship between changes in central bank rate and the level of nonperforming loans in commercial banks in Kenya

1.4 Significance of the study

This study will be of value to various players in the banking industry this will include:-

1.4.1 Commercial banks

This study will be able to provide an insight on the contribution on central bank rate to non-performing loans in commercial bank and hence the managers will be able take the necessary

action whenever central bank rate charges and not rush to increase their interest as it has been the case.

1.4.2 Central bank

The study will help central bank in increasing efficiency in its regulatory role. The finding of this study will inform CBK of necessary measures to adopt in balancing its role of monetary policy which aims at ensuring stable Kenya currency on one hand and on the other hand accelerating the economy through provision affordable credit .The central bank will also be able to make informed decision so as not to overburden commercial banks

1.4.3 Academician and Researchers

Finally the study will provide reference materials for further research on other related topics. The study will also highlight other important relationship that will require further research
To the academician the study will add knowledge in the research area

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter introduces the literature review adopted by the researcher where it captures the theoretical review and empirical review. It's guided by the past studies derived by the topic under study where findings would be helpful while making conclusions and summary in comparison of the researcher's finding and the literature finding

2.2 Theoretical Review

Theories explain how interest rates are determined in the market. Interest charged to customers is very important since it's what the bank earns as profit. There diverse writers and scholars who have tried to explain how rate interest are determined by the forces of the forces of demand and supply of funds in the market. Policy makers through the central bank of their respective countries determines the rate with predetermined objectives which may not necessary by result from the forces of demand and supply

2.2.1 The Theory of systematic information

The theory of systematic information tells us that it may be difficult to distinguish good from bad borrowers (Auronen, 2003), which may result into adverse selection and moral hazards problem. The theory explains that in market the party that possesses more information on a specific item to be transacted (in this case the borrower) is in position to negotiate optimal terms for the transaction that the other part (in this case the lender). The party that knows less about the same

specific item to be transacted is therefore in a position of making right or wrong decision concerning the transaction .Adverse selection and moral hazard have led to significant accumulation of non -performing loans loan in banks (Bester, 1994; Bofondi & Gobbi, 2003).

In scholar studies, problem loans are often used as an exogenous variable to explain other banking outcomes such as bank performance, failures and bank crises (Boudriga et al., 2009).

However, some studies investigating problem loans as an endogenous variable (Sinkey & Greenwalt, 1991), conclude that GDP growth, inflation and interest rate are common macroeconomic factor while size and lending policy are micro economic variables, these variables are by no means exhaustive, but provide a useful framework for monitoring the development of non- performing loans

2.2.2 The Loanable Fund Theory

This model is used to explain interest rates and interest movements. The loanable fund theory of interest determination views the level of interest in financial markets as resulting from factors that affect the supply and demand for loanable fund (Saunders, 2005). According to Saunders (2005), interest rate in this theory is determined just like the demand and supply for good is determined.

The term loanable funds market is used to describe the arrangements and institutions by which savings of household is made available to borrowers. According to classical theory the loanable funds markets acts as a conduit to transfer spending power from household to borrowing unit. Household saving is the source of loanable fund. Household save so to have a secure future while firms borrow to finance acquisition of long live capital goods. The rate of interest is the cost of borrowing or the cost of loanable fund

Factors that cause the supply and demand curves for loanable fund to shift is further explained by Saunders (2005), as a shift in demand or supply curves for loanable funds when quantity of financial security supplied or demanded changes at every given interest rate in response to change in another factor besides the interest rates. Saunders also identifies two factors among others that cause demand curves for loanable fund to shift; economic condition and monetary expansion. The underlying economic conditions include inflation rate, unemployment rate and economic growth

2.2.3 The Agency Theory

According to the agency theory, there are two parties in a large corporation (such as a bank): the shareholders who are the principals, and the managers who are the agents. The shareholders are the principal or the main party because the corporation belongs to them. As owners, they receive the profit or bear the loss managers are the agents because they are hired by shareholder to run the day to day task of the corporation. In principal, the agents are supposed to make decisions in the best interest of the principal. To ensure that agents are effective will required the principal to monitor the agent. Without monitoring, most of the managers will diverge from the principal's objectives. They will make decisions which enhance their interest at the expense of shareholders. The tendency for agents to act in their own interest instead of the principal is called the principal-agent problem.

2.2.4 Liquidity Preference Theory

According to Keynes interest is purely a monetary phenomenon because rate of interest is calculated in terms of money. It is a monetary phenomenon in the sense that rate of interest is

determined by the supply of and demand for money, Keynes defined interest as the reward for parting with liquidity for specified time.

Liquidity means shift ability without loss. It refers to easy convertibility. Money is the most liquid assets. Money commands universal acceptability. Everybody likes to hold assets in form of cash money. If at all they surrender this liquidity they must be paid interest. As water is liquid and it can be used for anything at will, so also money can be converted to anything immediately.

Other costly assets like gold and landed property may be valuable but they cannot be shifted at will. Thus they lack liquidity. As money are highly liquid people to hold money with than in form of Cash. This preference according to Keynes is popularly called liquidity preference. Thus according to Keynes interest is the price paid for surrendering their liquid assets. Greater the liquidity preference higher shall be the rate of interest. The liquidity preference constitutes the demand for money.

According Keynes rate of interest is demand by the supply of and demand for money. The rate of interest on the demand side is governed by the liquidity preference of the community arises due to the necessity of keeping cash for meeting certain requirements. The demand for liquidity arises due to three motives;

The transaction motive: An individual for his day to day transaction demand money. A man has to buy food and medicines in his day to day life. For this purpose people want to keep some cash with them. The amount of cash which an individual will require to keep in his possession depends on two factors (i) the size of personal income and (ii) the length of the time between

pay-days. The richer a community is the greater the demand for transaction motive (Keynes, 2008).

The precautionary motive: People demand to hold money with them to meet the unforeseen contingencies. An individual may become unemployed; he may fall sick or may meet serious accident. For all these misfortune, he demands money to hold with him. The amount of money under the precautionary motive depends on the individual's condition, economic as well as political which he lives. Thus the demand for money under this motive depends on size of income, nature of the person and farsightedness (Keynes, 2008).

Speculative motive: Under speculative motive people want to keep each with them to take advantage of the changes in the price of bonds and securities. People under speculative motive hold money in order to secure profit from the future speculation of the bond market. If the prices of bonds and securities are expected to rise speculator will like to buy them. In such a situation the demand to hold cash diminishes. Thus liquidity preference will be more at lower interest rates (Keynes, 2008).

Money under the above three motives constitute the demand for money. An increase in the demand for money leads to a rise in the rate of interest, a decrease in the demand for money leads to a fall in the rate of interest. According to Keynes the first two motives for liquidity preference namely the transaction and precautionary are interest inelastic. That is why the speculative motive is important in the sense that speculative motive is interest elastic (Saunders, 2005).

2.2.5 Monetary policy

Monetary policy is the process by which the government through its agent controls the supply of money, availability of money and cost of money or rate of interest to attain a set of objectives oriented towards the growth and stability of the economy. Monetary theory provides insight into how to craft optimal monetary policy.

Monetary policy rests on the relationship between the rates of interest in an economy, that is the price at which money can be borrowed, and the total supply of money. Monetary policy uses a variety of tools to control one or both of these, to influence outcomes like economic growth, inflation, exchange 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 money supply and thus influence the interest rate (Friedman, 1970).

It is important for policymakers to make credible announcements. If private agents (consumers and firms) believe that policymakers are committed to lowering inflation, they will anticipate future prices to be lower than otherwise. If an employee expects prices to be high in the future, he or she will draw up a wage contract with a high wage to match these prices. Hence, the expectation of lower wages is reflected in wage-setting behavior between employees and employers (lower wages since prices are expected to be lower) and since wages are in fact lower there is no demand pull inflation because employees are receiving a smaller wage and there is no cost push inflation because employers are paying out less in wages. (CBK, 2013)

To achieve this low level of inflation, policymakers must have credible announcements; that is, private agents must believe that these announcements will reflect actual future policy. If an announcement about low-level inflation targets is made but not believed by private agents, wage-setting will anticipate high-level inflation and so wages will be higher and inflation will rise. A high wage will increase a consumer's demand (demand pull inflation) and a firm's costs (cost push inflation), so inflation rises. Hence, if a policymaker's announcements regarding monetary policy are not credible, policy will not have the desired effect.

If policymakers believe that private agents anticipate low inflation, they have an incentive to adopt an expansionist monetary policy (where the marginal benefit of increasing economic output outweighs the marginal cost of inflation); however, assuming private agents have rational expectations, they know that policymakers have this incentive. Hence, private agents know that if they anticipate low inflation, an expansionist policy will be adopted that causes a rise in inflation. Consequently, (unless policymakers can make their announcement of low inflation credible), private agents expect high inflation. This anticipation is fulfilled through adaptive expectation (wage-setting behavior); so, there is higher inflation (without the benefit of increased output). Hence, unless credible announcements can be made, expansionary monetary policy will fail.

Announcements can be made credible in various ways. One is to establish an independent central bank with low inflation targets. Hence, private agents know that inflation will be low because it is set by an independent body. Central banks can be given incentives to meet targets (for example, larger budgets, a wage bonus for the head of the bank) to increase their reputation and

signal a strong commitment to a policy goal. Reputation is an important element in monetary policy implementation. But the idea of reputation should not be confused with commitment.

While a central bank might have a favorable reputation due to good performance in conducting monetary policy, the same central bank might not have chosen any particular form of commitment. Reputation plays a crucial role in determining how much markets would believe the announcement of a particular commitment to a policy goal but both concepts should not be assimilated. Also, note that under rational expectations, it is not necessary for the policymaker to have established its reputation through past policy actions; as an example, the reputation of the head of the central bank might be derived entirely from his or her ideology, professional background, public statements, etc.(Muchiri, 2010).

Despite the frequent discussion of credibility as it relates to monetary policy, the exact meaning of credibility is rarely defined. Such lack of clarity can serve to lead policy away from what is believed to be the most beneficial. For example, capability to serve the public interest is one definition of credibility often associated with central banks. The reliability with which a central bank keeps its promises is also a common definition. While everyone most likely agrees a central bank should not lie to the public, wide disagreement exists on how a central bank can best serve the public interest. Therefore, lack of definition can lead people to believe they are supporting one particular policy of credibility when they are really supporting another.

2.3 Empirical Studies

Several related studies have been carried out but there is no specific study that has been carried out to establish the link between central bank rate and the levels of non –performing loans in commercial bank

Jamines and Saurina (2005), examine the Spanish banking sector from 1984 to 2003. They provide evidence that non performing loans are determined by GDP growth, high real interest rate and lenient credit terms. The study attributes the later to disaster myopia, herd behavior and agency problems that may entice bank manager to lend excessively during boom periods.

Meanwhile, Rajir and Dhal (2003), utilize panel regression analysis to report the favorable macroeconomic conditions and financial factors such as maturity, cost and terms of credit, bank size and credit orientation impact significantly on non-performing loans of commercial banks in India

Babihuga (2007), in an IMF working paper explores the relationship between several macroeconomic variables and financial soundness indicators (capital adequacy, profitability and loan quality) base on country aggregate data. She explained the cross-country heterogeneity by difference in interest rate, inflation and other macroeconomic factors

Siddigui, Malik and Shah (2012), carried out a study on the impact of interest rate volatility on non performing loans in Pakistan .The research covered the period between 1996 and 2012. The researcher used weighted average lending rates published quarterly by the state of Pakistan .The study concluded that rising NPL in Pakistan are significantly but not solely impacted by the volatility in the cost of borrowing.

Kinyua (2011), carried out a research on the determinants of lending rates of commercial banks in Kenya .She found out that cost of fund was determined by taxation policies, transaction cost, CBK and its regulatory role, management fee and staff costs. The research further reveled that interest rate were majorly influenced by inflation, demand for loans, foreign exchange rate and other micro and macroeconomic environmental factors.

Gaitho (2010), carried out an investigation on the causes of non-performing loans in Kenya; she found out that the main cause of nonperforming loans in Kenya were; the national economic downturn which lead to depression of for business in general, reduced buying ability for consumer, insider lending, and owner concentration, inadequate procedure of credit risk assessment and credit management, misuse of loans and legal delays.

Akahega (2011), carried out a research on the determinant of NPL among commercial bank in Kenya. His study found out that poor credit analysis by bank source of income, interest rate charged by banks loan repayment period, staff turnover and other behavioral aspect like morality of individual were the major causes of loan default which resulted in NPL in banks.

Ongweso (2005), carried out a study on the relationship between interest rate and non-performing loans in commercial banks in Kenya. The study covered the period 2000-2005. Her finding first revealed that the general economic condition improved significantly in the country since the market interest rate reduced from 12.02 in 2000 to 2.96 in 2004. Secondly the study revealed that there was a positive relationship between interest rate and non-performing loans whereby an increase in the interest rates resulted in high non-performing loans.

Tireito (2012), carried out a study on the relationship between interest rate and non performing loans in commercial banks in Kenya. The study revealed that there was no significant relationship between interest rate and non-performing loans .However he recommended further Research since the rate of interest in the year 2012 was far above the rest of the year.

Muchiri (2012), studied the impact of central bank of Kenya rates on the market interest rates of commercial banks in Kenya. She revealed that central bank rate had a low but significant relationship .She also concluded that a unit increase in the level of central bank rate would lead to an increase in market interest rate.

Mbote (2006), identifies the following as possible sources of non-performing loans in commercial banks, Poor credit evaluation, Poor governance, Insider lending, changing economic condition and Incomplete and inadequate credit information. Hou and Dickinson (2007), examined the non-performing loans on microeconomics, specifically of the bank level. They empirically evaluated how NPLs affects commercial banks' lending behavior. In particular they illustrated some consequences of NPLs on economies. They have used empirical methodology for testing the effect of NPL using data taken from individual bank's balance sheet to assess whether NPL will negatively affect banks lending behavior

2.4 Conclusion

The above empirical studies points a gap that need to be filled through further research to establish whether central bank rate has any effect on the level of non-performing loans in commercial banks in Kenya. Akahega (2011), on his study on determinants of NPL in commercial bank never mentioned in CBR as a factor that can be attributed to high level of non-performing loans hence a gap to be filled.

Muchiri (2012), who studied the effect of central bank rate to commercial bank rate never mentioned whether this relationship could have attributed to the high non-performing loans in commercial banks hence the need to carry further research on this topical issue. Changes in commercial banks rate may be assumed to be a factor when looking at the level of nonperforming loans in commercial banks but this doesn't mean that CBR has a direct relationship with the level of non-performing loans in commercial banks, Hence the need to carry out research on the relationship to get the facts right. This study aims to contribute to gap on the changes in levels of nonperforming loans in reference to charges in central bank rate

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the procedures and strategies that were used during the study. The study design and locations of the study, study population, sample size and sampling procedures are described in this chapter. The chapter explains the instruments used for collecting data. The section concludes with the overview of data analysis procedures and data presentation methods employed in the study.

3.2 Research Design

The research design employed in this study was descriptive in nature. Descriptive studies describe characteristics related with the subject population. Saunders et al (2003) assert that a descriptive research portrays an accurate profile of persons, events or situations. The methods involves range from the survey which describe status quo, the correlation studies which investigates he relationship between variables, to developmental studies which seek to determine changes over time (Key, 2007).

3.3 Population

According to Cooper and Schindler (2000), a population is the total collection of elements about which we wish to make inferences. The target population in this study was the 43 commercial banks that were fully registered with CBK by December 2012

A census survey was carried out on all commercial banks therefore there was no need for sampling.

3.4 Data Collection

The data used in this study was quantitative in nature. The secondary data for five years (2007-2012) was obtained from annual publications by central bank as well as financial statements of commercial banks. This includes statement of financial position and directors reports. Secondary data from CBK was used to supplemented with data issued by Kenya National Bureau of Statistics (KNBS).The researcher organized, tabulated, summarized and carried out the necessary analysis

3.5 Data Analysis Techniques

Data analysis generally involves reducing accumulated data to a controllable size, developing summaries, looking for patterns, and applying statistical techniques (Cooper & Schindler, 2000). Multiple linear regression Analysis was used to examine the relationship between CBR and NPL in commercial banks in Kenya. In Linear regressions two or more independent variables are applied to explain or predict the dependent variable. The purpose it to make the model more realistic, control other variables and explain more of variance in the dependent variables. The regression model appeared in the following form.

$$Y_t = \alpha + \beta_1 X_{1t} + \beta_2 X_{2t} + \epsilon$$

Where:

Y_t is the dependent variable –Non-performing loans (Net non-performing loans to total loans)

α is the constant

β_1 and β_2 are regression coefficients

X_1 , Is the change central bank rate (CBR)

X_2 is the average change in commercial bank interest rate (control variable)

The Pearson's product moment coefficient (r) was used. This was used to estimate the association between variables (NPL and CBR) based on the sampling data. A coefficient of determinations (R^2) will be performed to determine how much of dependent variable comes about as a result of the independent variable being tested. The data was analysed using statistical package for social science (SPSS)

Measurement of non-performing loans

There are three common ratios used to measure NPL by commercial banks. Nonperforming loans to operating income which measures how much of banks operating income has been swallowed by provisions set aside for NPL, Net non-performing loans to total loans which measure how much of the total loans portfolio is non-performing and Total provisions for non-performing loans to total NPL which measures how far the banks operating income cover the provisions (Mbote, 2006).

CHAPTER FOUR

FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter looks at the findings on Central bank rate, interest rate, total net non Performing loans and the relationship between these variables. Regression analysis with the help of SPSS is used to determine this relationship. Finally a summary of the findings and interpretation of regression analysis is also covered.

4.2 Findings of the Study

4.2.1 Findings on Central Bank Rate

The study examined changes in Central bank rate over the year 2007 to 2012. On average, Central bank rate was highest in 2012 at 14.5%. 2009 registered an average bank rate of 9%, while the year 2007 had registered an average bank rate of 8.75%. The lowest bank rate was registered in 2010 and 2011 at 6.37 and 6.125

Year	2007	2008	2009	2010	2011	2012
Central Bank Rate	8.75%	9%	7%	6.37%	6.125%	14.5%

Table 1 Data on changes in bank rate.

Source: Central Bank Supervision Reports

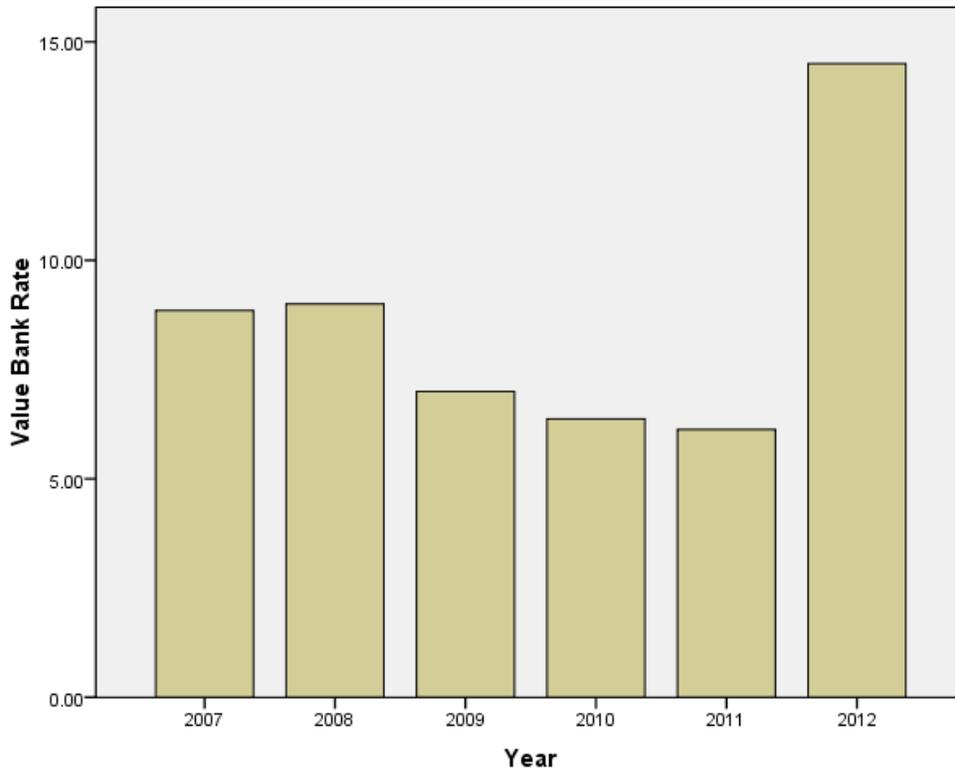


Figure 1

4.2.2 Findings on Interest Rate

Interest rate is the rate at which commercial banks lend to the final loan consumers. There is a relationship between bank rate and interest rate. Data collected and examined over the year 2007 to 2012 showed that interest rate was highest in the year 2012 same as the bank rate. In this year, the average interest rate rose to 18.1% from 15.05% in 2011. The lowest interest rate was registered in 2007 at 13.32% followed by 14.36% in 2010. The year 2008 registered an average interest rate of 14.8% while 2009 had an average of 15.09%. The results of the study are summarized in the table and graph below.

Year	2007	2008	2009	2010	2011	2012
Average Interest Rate	13.32%	14.80%	15.09%	14.36%	15.05%	18.1%

Table 2 Data on changes in interest rate.

Source: Central Bank Supervision Reports

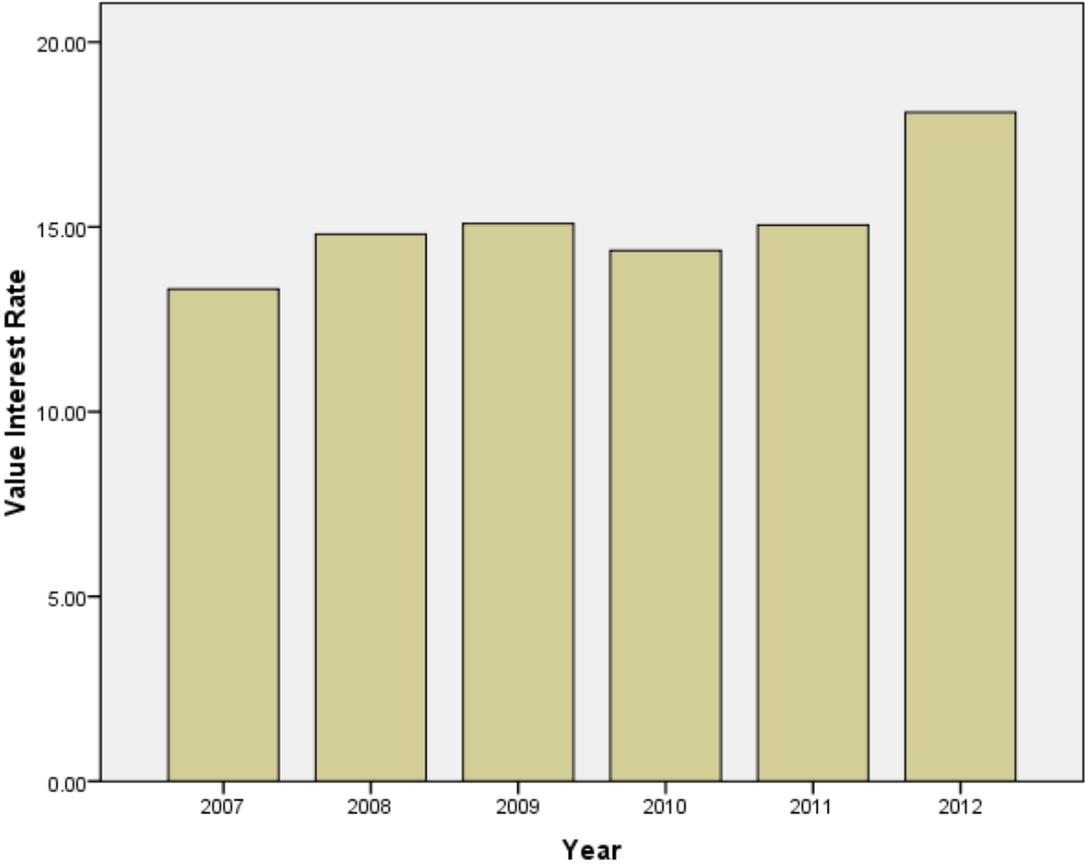


Figure 2

4.2.3 Findings on Total Net Non Performing Loans

The highest amount of non Performing loans was registered in 2009. The amount stood at Ksh. 50.902 billion followed by the year 2012 which registered a total net non Performing loan of ksh.50.122billion. Other years were Ksh. 41.9billion in 2007, ksh.48.175billion in 2008, ksh.47.73billion in 2010 and ksh.42.928billion in 2011.This data is summarized in the table below

Year	2007	2008	2009	2010	2011	2012
Total Net Non Performing Loans(Billions)	41.9	48.175	50.902	47.73	42.928	50.122

Table 3 Data on changes in total net non performing loans.

Source: Central Bank Supervision Reports

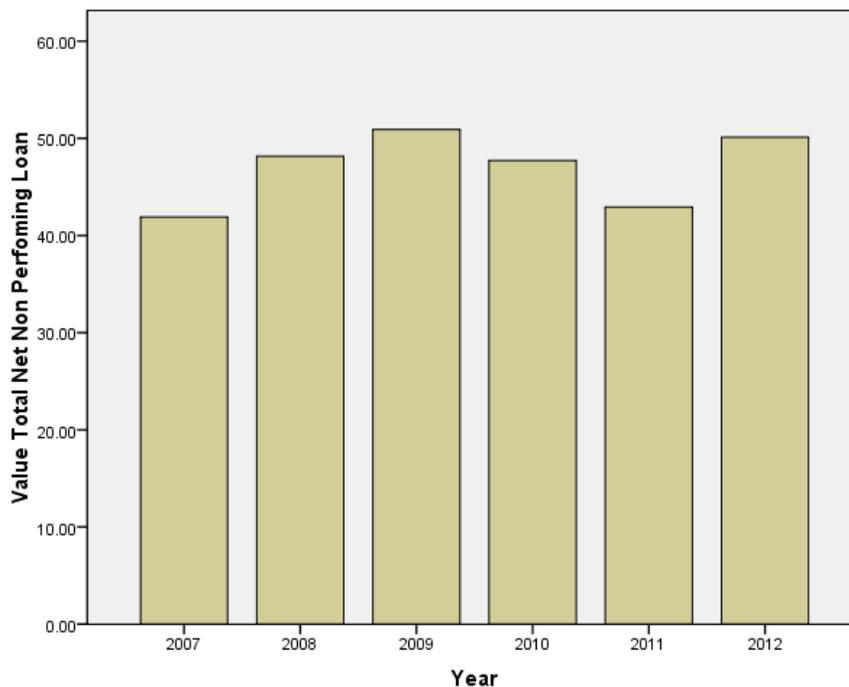


Figure 3

4.2.4 Data on Bank Rate, Interest Rate, and Total Net Non Performing Loans

The data on bank rate, interest rate and total net non Performing loan are as below

Year	2007	2008	2009	2010	2011	2012
Central Bank Rate	8.75%	9%	7%	6.37%	6.125%	14.5%
Interest Rate	13.32%	14.80%	15.09%	14.36%	15.05%	18.1%
Total Net Non Performing Loans (Billions)	41.9	48.175	50.902	47.73	42.928	50.122

Table 4 Summary on data on bank rate, interest rate ,total net non performing loans

Source: Central Bank Supervision Reports

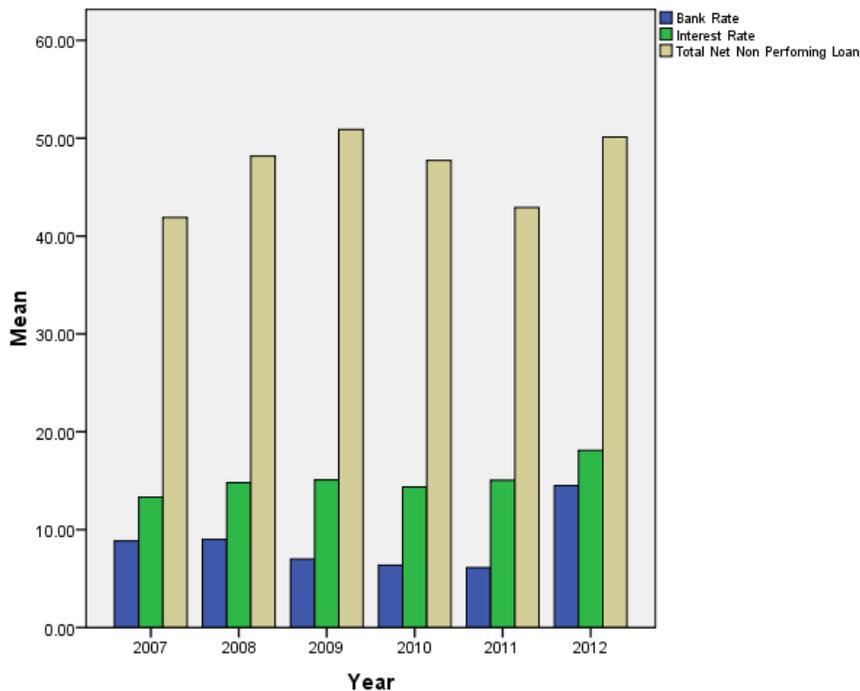


Figure 4

4.3 Results of Regression Analysis

This study sought to determine the relationship between total net non-Performing loans, change in Central bank rate and interest rate. In this study, independent variable is the total net non-Performing loan, while the dependent variables are the bank rate and interest rate. The results of regression analysis are summarized below.

	Unstandardized Coefficients		P-value
	B	Std. Error	
(Constant)	21.841	19.698	0.002
Bank Rate	-0.306	.832	0.00
Interest Rate	1.836	1.621	0.001

R	R Square	Adjusted R Square	Std. Error of the Estimate	F-sig
.617 ^a	0.381	-.032	3.78600	0.487

4.4 Summary of Findings and Interpretation

The purpose of this study was to determine the relationship between non performing loans, changes in interest rate and changes in bank rate. In this study, Net non performing loans are the dependent variable while independent variables are bank rate and interest rate. Secondary data was collected from central bank of Kenya supervision reports from 2007 to 2012.

The study found that there is a positive relationship between interest rates and net non performing loans. Specifically, an increase in interest rate by 1% results in a change in an

increase in net non performing loans by 1.836%. This relationship is significant at 5% level of significance since the p-value is less than 0.005.

The study further found that there is a negative relationship between net non performing loans and bank rate such that an increase in Central bank rate by 1% results into a decrease in net non performing loans by 0.306%. This relationship is equally significant at 5% level of significance since the p-value is less than 0.05.

In this study, R-square was found to be 0.381 meaning that 38.1% of the changes in net non performing loans can be attributed to changes in Central bank rate and interest rate. The model is significant 5% level of significance since the F-value is less than 0.05. The model is thus summarized below:

$$Y_T = 21.841 - 0.306X_1 + 1.836X_2 + 3.78600$$

Where:

Y_T is the dependent variable –Non-performing loans (Net non-performing loans to total loans)

X_1 Is the change central bank rate (CBR)

X_2 is the average change in commercial bank interest rate (control variable)

CHAPTER FIVE

SUMMARY CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter looks at summary of the study, draws conclusions of the study from the findings and makes recommendations for further studies.

5.2 Summary of the Study

In the last few years Kenya has experienced changes in the central bank rate where Central Bank of Kenya (CBK) changed its interest rate to 11 percent in October 2011 and by November the interest rate moved to 16.6 percent, the rate settled at 18 percent by the close of year 2012. Commercial Banks have always sighted increase in Central Bank Rate (CBR) as an excuse to increase their rates hence making consumers more overburden by this high cost of borrowing. Interest rate is the price a borrower pays for use of money they borrow from a lender or financial institution or fee paid on borrowed loan (Crowley, 2007).

Tireito (2012) examines the relationship between interest rate and non performing loans and concludes that there is no significant relationship between interest rates and non performing loans. Howells (2008), in his study, the impact of changes in official rate of interest concludes that increase in interest rates makes savings from current income more attractive, increases repayment of existing floating -rate debt and thus lowering disposable income, with possible loan default; increases the cost of goods obtained on credit; lowers the prices of financial assets and hence influence estimates of private sectors wealth and lowers house prices.

This study sought to determine the relationship between non performing loans, interest rate and bank rate. In this study, bank rate and interest rate were the independent variables while net non performing loan was the dependent variable. Data on the changes of these variables was collected from 2007 to 2012 from central bank supervision reports. The study found that bank rate was highest in 2012 at 14.5% and lowest in 2011 at 6.125%. Interest rate was highest in 2012 at 18.1% and lowest in 2007 at 13.32%. Net non performing loan was highest in 2009 at 50.902billion and lowest in 2007 at 41.98billion. The study further found that interest rate and bank rate have a significant effect on net non performing loans. While interest rate has a positive effect on net non performing loan, bank rate was found to have a positive effect on net non performing loans.

5.3 Conclusion and Recommendations

5.3.1 Conclusion of the Study

The study used longitudinal research design. In this study, secondary data extracted from central bank supervision reports were used. With the help of SPSS software, a regression analysis was run. The study concludes that while bank rate has a negative significant effect on net non performing loans, interest rates very much affect non performing loans positively so that an increase in interest rate results into an increase in net non performing loans.

5.3.2 Recommendations of the Study

Based on the findings of the study, that interest rate positively affects none performing loans while bank rate negatively affects non performing loans this study recommend that central bank through its mandate to ensure economic stability through monetary policy, could occasionally help commercial banks by increasing the bank rate so as to send panic wave to borrowers from

commercial bank. The shock wave prompts these borrowers to repay their loans immediately before the adjustments to interest rates following an increment in bank rate are implemented.

The study also recommends that since interest rate and non performing loans are inversely related, commercial banks could occasionally lower their interest rates as an incentive to borrowers to quickly repay their current loans so as to acquire cheaper loans.

5.4 Suggestions for Further Research

The purpose of the study was to determine the relationship between changes in central bank rate and non performing loans and bank rate was used as a control variable. Due to time and resource constraints, the study covered a six year period between 2007 and 2012. The researcher recommends that this relationship be tested in a longer time span of ten years so as to determine if there would be any consistency in the results.

References

- African Development Bank, (2012). Macroeconomic Developments. *Zimbabwe Monthly Economic Review*, 7, 2-10.
- Akahege, B. (2011). *The determinants of non-performing loans among commercial banks in Kenya*. (Unpublished MBA Project). University of Nairobi, Nairobi.
- Auronen, L. (2003, May 21). Asymmetric information: Theory and application. Retrieved from <http://riem.swufe.edu.cn/news/techupload/course/20071191742254245.pdf>.
- Babihuga, R. (2007). Macroeconomic and financial soundness indicators; An empirical investigation. *IMF Working paper*, 115, 893-896.
- Bofondi, M., & Gobbi, G. (2003). Bad loans and entry in local credit markets, Bank of Italy Research Department, Rome.
- Boudriga, A., Taktak, N. B., & Jellouli, S. (2009). Banking supervision and nonperforming loans: A cross-country analysis. *Journal of Financial Economic Policy*, 1(4), 286-318.
- Central Bank of Kenya. (2013). *Monetary policy*. Nairobi, NRB: Government Printers.
- Cooper, D. R., & Schindler, P. S. (2000). *Business research methods*. New York, NY: Irwin/McGraw-Hill.
- Friedman, G. (1970). The role of monetary policy. *The American Review*, 58, 152-156
- Gaitho, E. W. (2010). *A survey on causes of non-performing loans in commercial banks in Kenya*. (Unpublished MBA Project). University of Nairobi, Nairobi.
- International Monetary Fund, (2012). Article IV Consultation. *Zimbabwe Country Report*, 12, 275-279.
- Jimenez, G. & Sarina, J. (2005). Credit circle. *Credit Risk and Prudential Regulations*, 2(2), 126-129.

- Key, P. J. (1997). *Research design in occupational education: A thesis hand book*. Oklahoma, OK: Oklahoma State University.
- Keynes, M. J. (2008). *The general theory of employment, interest and money*. New Delhi, ND: Atlantic Publishers.
- Kimani, J. M. (2006). *The perceived role of external auditor in corporate governance*. (Unpublished MBA Project). University of Nairobi, Nairobi.
- Mbote, T. (2006). *Relationship between the type of mortgage and level of NPL in mortgage companies in Kenya*. (Unpublished MBA Project). University of Nairobi, Nairobi.
- Kidwell, D., Blackwell, W., Whidbee, D. A., Richard, C., & Pereso, R. C. (2008). *Financial institutions, Market and Money*. New York, NY: John Wiley & Sons.
- Muchiri, E. N. (2010). *The impact of central bank of Kenya rates on market interest rate of Commercial Banks in Kenya*. (Unpublished MBA Project). University of Nairobi, Nairobi.
- Omwenga, G. (2013, Jun 6). Bad loans shoot up to 5-year high. *Daily Nation*.
- Ongweso, B. A. (2005). The relationship between interest rate and non-performing loans in Commercial Banks in Kenya. (Unpublished MBA Project). University of Nairobi, Nairobi.
- Rajir, R., & Dhal, S. C. (2003). Non-performing loans and terms of credit of public sector bank in India: An empirical Assessment. *Occasional papers*, 24(3), 81-121.
- Saunders, A., & Cornett, M. M. (2005). *Financial institutions management: A risk management approach* (6th ed.). New York, NY: McGraw Hill publishers.
- Saunders, M., Lewis, p., & Thornhill, A. (2003). *Research Methods for United Kingdom*. New York, NY: Pearson Education.

- Siddiqui, S., Malik, K. S., & Shah, S. Z. A. (2012). Impact of interest rate volatility on nonperforming loans in Pakistan. *International Research Journal of Finance and Economic*, 84, 123-127.
- Solar, V., & Saurina, J. (2002). Credit risk in two institutional régimes: Spanish commercial and savings bank. *Journal of Financial Services Research*, 22(3), 203-224.
- Tireito, J. K. (2012). *The relationship between interest rate and non-performing loans in Commercial Banks in Kenya*. (Unpublished MBA Project). University of Nairobi, Nairobi.
- Waweru, N. M., & Kalani, V. M. (2009). Commercial banking crises in Kenya: Causes and remedies. *African Journal of Accounting, Economic, Finance and Banking Research*, 4(4), 12-33.

APPENDIX I

LIST OF COMMERCIAL BANKS IN KENYA

1. African Banking Corporation Ltd.
2. Bank of Africa Kenya Ltd.
3. Bank of Baroda (K) Ltd.
4. Bank of India
5. Barclays Bank of Kenya Ltd.
6. CFC Stanbic Bank Ltd.
7. Charterhouse Bank Ltd - UNDER - STATUTORY MANAGEMENT
8. Chase Bank (K) Ltd.
9. Citibank N.A Kenya
10. Commercial Bank of Africa Ltd.
11. Consolidated Bank of Kenya Ltd.
12. Co-operative Bank of Kenya Ltd.
13. Credit Bank Ltd.
14. Development Bank of Kenya Ltd.
15. Diamond Trust Bank (K) Ltd.
16. Dubai Bank Kenya Ltd.
17. Ecobank Kenya Ltd
18. Equatorial Commercial Bank Ltd.
19. Equity Bank Ltd.
20. Family Bank Ltd
21. Fidelity Commercial Bank Ltd
22. Fina Bank Ltd
23. First community Bank Limited
24. Giro Commercial Bank Ltd.
25. Guardian Bank Ltd
26. Gulf African Bank Limited
27. Habib Bank A.G Zurich
28. Habib Bank Ltd.
29. Imperial Bank Ltd
30. I & M Bank Ltd
31. Jamii Bora Bank Ltd.
32. Kenya Commercial Bank Ltd
33. K-Rep Bank Ltd
34. Middle East Bank (K) Ltd
35. National Bank of Kenya Ltd
36. NIC Bank Ltd
37. Oriental Commercial Bank Ltd
38. Paramount Universal Bank Ltd
39. Prime Bank Ltd
40. Standard Chartered Bank (K) Ltd
41. Trans-National Bank Ltd

42. Victoria Commercial Bank Ltd
43. UBA Kenya Bank Ltd.
44. Housing Finance: Mortgage Finance Company

Source: CBK's Website 2012

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