THE RELATIONSHIP BETWEEN LENDING RATE AND NON PERFORMING LOANS IN COMMERCIAL BANKS IN KENYA

BY

ANTHONY JAMES LUSWETI MUNIALO

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DECLARATION

This research project is my original work and it has not been submitted for an award of any degree at any University.

Signature……. Date……..

Anthony James Lusweti Munialo

School of Business

University of Nairobi

SUPERVISOR'S APPROVAL

This research project has been submitted for review with our approval as University Supervisor.

Supervisor's Signature…… Date…….

Mr. Mirie Mwangi

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DEDICATION

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LIST OF ABBREVIATIONS

CBK	Central Bank of Kenya
CBR	Central Bank Rate
CRB	Credit Reference Bureau
COF	Cost of funds
FI	Financial intermediaries
MS.	Market segmentation theory
MPC	Monetary Policy Committee
NPA	Non Performing Assets
NPL	Non Performing Loans
OPCE	Operating cost efficiency
SPSS	Statistical package for social sciences

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ABSTRACT

Kenya has experienced high lending rate regime over the past years by commercial. The craving for higher profits by commercial has lead to this unending debate about lending rates charged on loans and advances. Those taking new facilities together with those already having a facility have had to content with additional funds demanded by banks inform of increased monthly repayment. The public outcry has been loud, resulting serious legal battles between borrowers and commercial banks. The central bank has been urged to intervene in many instances as the public feels that banks are overcharging lending rates on borrowed funds and thus forcing them to be unable to repay their loans on time. The above problem has lead to the rise of none performing loans in commercial banks making banks to declare huge losses.

The aim of this research therefore was to determine if there exists a relationship between interest rate and the level of non-performing loans as reflected in the books of the various commercial banks in Kenya. The researcher wanted to find out how the Borrower has been affected by the increased installments arising from the lending rate change. The study involved collecting financial statements for the various banks and analyzing them to determine if there is any relationship between interest rates and non-performing loans. As a consequent, data for the past five years (2009-2013) was analyzed with the help of SPSS statistical software and the results presented in form of correlations, regression and coefficients. Test of significance were further carried out. The results showed that there was no significant relationship between lending rate and non-performing loans in commercial banks in Kenya.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Commercial banks play a key role in the development of the country by providing a medium of exchange. They assist in credit distribution within an economy to productive sectors (Keynes, 2008). Lending represents the engine of the entire banking industry and its good performance translates to enhanced prosperity while their failure can lend to an economic crisis like what was experienced in 2007-2008 according to Justin (2013). The purpose of this research is to analyze the relationship between lending rates by commercial banks and non-performing loans in Kenya.

Commercial banks overall performance is pegged to the rate at which it lends its monies to borrowers. On the contrarily, borrower's ability to repay back these funds are strained by lending rates that reduce their disposal income within an economy (Walsh, 2010). Therefore managing lending rates in a proper way not only has a positive effect on the overall banks performance but also on the borrower and the country as a whole. This therefore demands for the need to put in place a strong institutional framework to regulate and monitor the lending rates by banks to keep the financial sector stable and efficient for a sustainable economic growth.

The prevailing margin between deposit rates and loan lending rates in an economy has important implications for the growth and development of such an economy, this being a link between efficiency of bank intermediation and economic growth. Quaden (2004),

argued that a more efficient banking system benefits the real economy by allowing higher expected returns for savers with a financial surplus, and lower borrowing costs for investing in new projects that need external finance. Any increase in the lending rate weakens the loan repayment capacity of the borrower thereby resulting to an increase in the bad loans and NPLs within the banking sector. Accumulation of nonperforming loans is bad for the banking sector and economy at large Quaden (2004). This research was carried out to establish the correlation between lending rates and NPLs. Failure to manage lending rates, which contribute to a larger share of the banks income, would likely lead to an episode of high level of nonperforming loans.

1.1.1 Lending Rate

According to Keynes (2008), lending rate is the bank rate that usually meets the short- and medium-term financing needs of the private sector. This rate is normally differentiated according to creditworthiness of borrowers and objectives of financing. The terms and conditions attached to these rates differ by country, however, limiting their comparability.

Commercial banks individually determine the lending rate to be used on their loan disbursement. Whenever there is unfavorable economic condition and high volatility in inflation rates and pressure on exchange rates, banks can adjust their lending rates upwards to compensate for high risk of default from risky borrowers. Banks on the other hand can also reduce their lending rates if the central bank reduces it rates during favorable economic environment. The lending rate charged will ultimately determine the overall cost of the loan advanced (Beck and Fuchs, 2004).

Lending rates force borrowers to also invest in very risky business in order to compensate them for higher costs of funds. If such returns are lower than the costs of funds, borrowers are unable to fulfill their agreed terms of credit. A significant portion of a bank's income comes from interest earned on advanced loans. Lending rate is the price a borrower pays for the use of money they borrow from a lender/financial institution or a fee paid on borrowed assets (De Bock and Demyanets, 2012). Commercial banks rate are usually determined by the CBR or the base rate. The central bank raised its central bank rate (CBR) from 6.25 percent in July 2011 to 18 percent in December 2011 CBK (2013). According to Kidwell (2008), the CBR is very closely monitored by the central bank as this assists them in effecting monetary policy. The central bank funds according to Kidwell consist of borrowing and lending overnight reserves among commercial banks and financial institutions. CBR is therefore of great importance as it measures the return on the most liquid assets and also closely related to monetary policy and directly measures the available reserves in the banking sector, which in turn influences commercial banks decision on lending to customers (Kidwell, 2008).

Due to the nature of their business, commercial banks expose themselves to the risk of default from borrowers. These lending rates therefore tend to positively increase the level of poverty within an economy causing a financial crisis and political uncertainty in the long run. People invest to improve our welfare and if the returns from such investments are lower than the interest charged on the borrowed funds then repayment becomes a major challenge. According to Ngugi (2010), interest rate as a price of money reflects market information regarding expected change in the purchasing power of money or future inflation.

1.1.2 Non-performing Loans

A non-performing loan is the money lent to an individual that does not earn income and full repayment of principal and interest is no longer anticipated or maturity date has passed and payment in full has not been made (Boudriga et al, 2009).The percentage of NPLs constitutes an objective measure of capital adequacy for individual banks and an indicator of economic efficiency. According to Justin (2013), NPLs were responsible for the financial crisis experienced in 2007. When markets stop functioning and buyers and sellers are unable to agree on the best price (interest) then a crisis occurs. Increases in NPLs are attributed to lending rates charged by commercial banks. Despite the fact that loans and advances are the major source of banks income and constitutes their major assets CBK (2013), lending still remains the most risky area of their entire business. In fact of all the risks banks face, credit risk is considered as the most lethal as bad debts and NPLs directly impair their overall profit margins.

Banks often report their ratio of nonperforming loans to total loans as a measure of the quality of their outstanding loans. A smaller NPL ratio indicates smaller losses for the bank, while a larger (or increasing) NPL ratio can mean larger losses for the bank as it is required to writes off a percentage of nonperforming loans, according to theoretical and empirical studies (Walsh, 2010). A considered view is that banks' lending policy could have crucial influence on non-performing loans as a default is not entirely an irrational decision by borrowers as this affects their reputation and character. Rather a defaulter takes into account probabilistic assessment of various costs and benefits of his decision' (Boudriga, Boulila and Jellouli, 2009).

An efficient and resilient financial system is essential for the development of any economy, and the achievement of high and sustainable economic growth. The loan quality is the best indicator of a sound financial sector. Indeed, the efficiency and stability of the financial system is a prerequisite for the optimal allocation of capital over different sectors, for adequate risk sharing across agents and ultimately for economic growth and stability according to (Quaden, 2004).

1.1.3 Lending Rate and Non-Performing Loans

According to De Bock and Demyanets (2012)**,** lending rate is the interest charged by banks when they advance loans to its customers. This lending rate is usually set in a way that the cost incurred by the banks will be taken into account and a profit made when customers service their loans. In economics, this interest is the payment for the services of the capital provided. Lending rate is the price paid for borrowing funds.

Lending rate is the most crucial factor used by banks when allocating funds to different productive sectors within an economy. Credit risk is the likelihood the borrower will fail to meet his obligations in accordance with agreed terms. It is measured by expressing total non-performing loans as a percentage of gross total advances. Commercial banks charge higher lending rates to riskier borrowers in anticipation of default. Whenever lending rates are raised, the cost of servicing such a loan also goes up forcing the borrower to seek extra funds to top up an increase in his installment. The borrower therefore is left with little money to meet agreed terms in his contract. This is because their income remains the same despite a sudden adjustment in the lending rates. It is inverse to the efficiency of financial sector, which is as a result of a competitive banking

environment. In economies with weak financial regulations, the administrative costs involved in deposit mobilization and channeling them to productive sectors are high (Nkusu, 2011).

The liberalization of lending rates gave banks greater flexibility in adjusting rates according to loan maturity. The lack of ceiling on the lending rates has allowed banks to charge higher risk premiums on loans advanced to risky borrowers. As a result banks try to maintain and report super normal profit margins at the expense of their borrowers. As the cost of borrowed funds goes up relative to level of income of borrowers, the level of nonperforming loans also tend to increase. There exist both internal and external factors that contribute to this high lending spreads. These include lack of adequate competition, scale diseconomies to small market size, high fixed and operating costs, High cash in transit costs, existence of regulatory controls and perceived market risks according to independent studies (Nkusu, 2011). He further stated that above costs lead to high spreads in interest rates charged by commercial banks. Small borrowers with no property rights have no collateral to offer and therefore deemed risky borrowers. As such they are perceived as high risk borrowers and thus charged punitive rates. When there is high intermediation costs involved, reflected in high lending rates spreads, the borrower may be unable to repay his/her loan owing to the cost of such borrowing. This leads to high risk of loan default hence increase nonperforming loans. This research therefore will analyze the sensitivity of non-performing loans to any movement in the lending rate.

1.1.4 Commercial Banks in Kenya

In Kenya, the banking sector is composed of the central bank of Kenya, as the regulated authority and the regulated; commercial banks, Non- bank financial institutions and forex bureaus (CBK, 2009). Currently there are 43 licensed commercial banks and 1 mortgage finance company. Out of the 44 institutions, 31 are locally owned and 13 foreign owned. The government has significant shareholding in 3 banks and 2 of the remaining ones are fully Islamic banks. List of all banks in appendix 1.

It is accepted that the percentage of nonperforming loans is associated with low economic activities, bank failures and financial crisis in both developing and developed countries. Commercial banks charge a premium or lending rate on loans advanced to their borrowers and at the same time payout interest to their depositors. The difference between the lending rate (income) and interest paid to depositors (expense) is the profit earned by the banks. The central bank rate is used by commercial banks to ascertain their lending rates to borrowers and is set by the monetary policy committee (MPC) at the CBK. The CBR measures the rate of return of liquid assets of commercial banks and therefore it adjustment assists the CB in the implementation of the monetary policy.

These NPLs therefore pose a major risk to the economy if not managed and regulations put in place to address it. Commercial banks are also required to write off bad debts or loans advanced to clients but are unable to repay. This research therefore tried to study the relationship between lending rates and the non-performing loans.

1.2 Research Problem

Banks provide financial intermediation services while at the same time attempt to maximise profits and increase their shareholders value. Banks major income is generated through loans and advances according to central bank of Kenya annual reports. Like any other business, success of banking is assessed on profit and quality of its loans book. Lending rates adjustment both upwards and downwards affects the economy in different ways. Whenever cost of funds goes up and an equivalent cost passed to borrowers inform of high lending rates, borrower's ability to repay is affected as disposable income to service such movement reduces. On the contrary downward movement leaves the borrower with excess disposable income that forces them to overpay and repay outstanding loans on time thereby reducing the chances of default. But this compel the CBK to intervene and adjust the CBR upward to reduce amount of excess cash in circulation through its monetary policy and thereby causing commercial banks to raise their lending rates.

During the year 2012, the CBR was at its highest in the country at 18 percent in the month of June as the central bank tried to mob out excessive cash within the economy through its monetary policy. Commercial banks increased their lending rates to as high as 30 percent to compensate for the high interbank rates used to lend among banks. This slowed down the economic activities as it resulted to high cost of living which impacted negatively on the borrower's disposal income. The volatility of the lending rates is what the researcher hopes to find out the relationship between lending rates and non performing loans in commercial banks in Kenya. The researcher is informed by the fact

that as the CBR rate raises resulting to increased cost of funds and high cost of living, little disposable income is left behind to service or repay due obligation on time.

In favorable economic conditions the ability to repay increases, which could be due a favorable lending rate environment, low inflation, increased income levels or a combination of these factors. On the contrary, during poor economic conditions the borrower's ability to repay is adversely affected due to a reduction in disposable income (Koch and MacDonald, 2003).Lending rate is the most crucial factor used by banks when allocating funds to different productive sectors within an economy (Beck, Jakubík, and Piloiu, 2013). Credit risk is the likelihood the borrower will fail to meet his obligations in accordance with agreed terms. The borrower therefore is left with little money to meet agreed terms in his contract. This is because their income remains the same despite a sudden adjustment in the lending rates. When there is high intermediation costs involved, reflected in high lending rates spreads, the borrower may be unable to repay his/her loan owing to the cost of such borrowing (Justin, 2013).

In spite of this banking crises and non-performing loans, the literature of NPLs has focused more on macroeconomic determinants and less on the influence of interest spread (Fofack, 2005). However, despite the implications of NPLs for the banking crisis, for investment and financial crises, very few studies have been done on the effect of lending rate spread on the level of NPLs in sub-Saharan Africa (Caprio and Klingebiel, 2001). According to Tireito (2012), who carried out a study on the relationship between interest rates and non-performing loans in commercial banks, concluded that there existed no relationship between interest rates and NPLs. The researcher therefore intends to fill this

gap by carrying out a study to establish the relationship between lending rates and non-performing loans in commercial banks in Kenya. Ongweso (2005) carried out a study on the relationship between interest rates and non-performing loans. His study between 2000-2004 findings found out a declining interest rate from 12 percent in 2000 to 2.96 percent in 2004 that was attributed to good economic environment. The level of NPLs also declined in the same period under study. The study revealed a weak relationship between interest rates and non performing loans and since then a lot economical activities have happened thus pointing to a need for further research of the same.

Prudent credit risk assessment, tight credit controls, regulations and CRB will cushion banks against bad and doubtful loans. However, when the level of NPLs is very high, provisions are not adequate protection (Waweru and Kalani, 2009). The researcher is therefore finding a solution to help banks mitigate the financial crises caused by accumulation of NPLs. This according to (Caprio and Klingebiel, 2001) very few studies have been done on the effect of interest rates spread on the level of non-performing assets in sub-Saharan Africa. Ngugi (2001) analyzing interest rates in Kenya found a widening interest spread following liberalization characterized by high implicit costs with tight monetary policy achieved through increased reserve and cash ratios. Public expectation has always been for banks to reduce their lending rates, but is the relationship between leading rate and NPLs positive to the benefit of the banks and borrowers?

1.3 Objective of the Study

To establish the relationship between lending rates and non-performing loans in commercial banks in Kenya.

1.4 Value of the Study

The study will be of great significance to the government and banking sector regulators and policy makers. The study is expected to expose challenges and weaknesses of lending rate which will help reduce the cases of non-performing loans. The recent financial crisis and subsequent recession experienced both in the under developed and developed economies have increased households and firms default, increasing NPLs and losses to banks. This calls for regular monitoring of our lending rates, possibly with an early warning system capable of alerting regulatory authorities of potential bank stress and avert a systemic crisis. This will therefore ensure that the main objective of the study will have been accomplished as the relationship between lending rates and non-performing loans in commercial banks in Kenya will have been established.

The study will be significant to the management of banks in Kenya. The finding of the survey will enable the bank managers formulate strategies to assist them mitigate the proportion of non performing debts in their books. The study findings will bring into perspective the relationship between lending rates and non-performing loans in commercial banks in Kenya.

The study will contribute to the body of knowledge in the area of credit information sharing. It will reconcile theory to reality while its finding will be used for further studies in the field in future. This will be of great importance to scholars and researched in the field of credit and finance. The study will facilitate individual researchers to identify gaps in the current research work and carry out further research in those areas.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter introduces the literature review applicable for the purpose of this research and captures both theoretical and empirical reviews. It will borrow from past studies findings on this research that will assist the researcher on his findings and conclusions.

2.2 Theoretical Review

The theories explain how lending rates are determined in the markets by commercial banks. The significance of these theories therefore is to assist us understand how lending rates are derived by commercial banks. The central banks of different countries of the world set the benchmark for banks rates of return on loaned funds. Commercial banks rates take into account the risk and costs associated with the lending of funds to borrowers which at times makes repayment punitive to an extent that contributes positively to high NPLs.

2.2.1 Loanable Fund Theory

The loanable funds theory is an attempt to improve upon the classical theory of interest. It recognizes that money can play a disturbing role in the saving and investment processes and thereby causes variations in the level of income. The impact on the changes in the interest rate has on disposable income and the overall market value of their firm, credit managers tend to identify factors that determine the level of interest rates at any moment in time, as well as what causes interest rate movement over time.

According to Saunders and Cornett (2008), the loanable funds theory of interest rate determination views the level of interest rates in financial markets as resulting from factors that affect the supply and demand for goods and services. Therefore the rate of interest is the price that equates the demand for supply of loanable funds. Thus, fluctuations in the rate of interest arise from variations either in the demand for loans or in the supply of credit funds available for lending. This implies that interest is the price that equates the demand for loanable funds with the supply of loanable funds. The loanable funds therefore are the sums of money supplied and demanded at any time in the money market. The supply of loanable funds is constituted by savings of the people and the additions to the money supply.

2.2.2 Liquidity Preference Theory

According to Saunders and Cornett (2008), the liquidity premium theory is based on the idea that investors will hold long term maturities only if they are offered a premium to compensate for the future uncertainty in a security's value, which increases with an asset's maturity. They argued further that because of uncertainty about future interest rates and future monetary policy actions and hence about future security prices, making these instruments risky in the sense that return over a future investment period is unknown. This future uncertainty of return makes it risky to hold long term securities of loans and that risk increases with the loans maturity. In addition, Keynes (2008), established that in a world of uncertainty, short term securities provide greater marketability (due to their more active secondary market) and have less price risk (due to smaller price fluctuations for a given change in interest rates) than the long-term securities.

Keynes (2008) defines the rate of interest as a reward for parting with liquidity for a specified period. Thus the rate of interest being a reward for parting with liquidity, it is a measure of the unwillingness of those who poses money to part with their liquid control over it. He argued further that the rate of interest is not the "price" which brings into equilibrium the demand for resources to invest with readiness to abstain from present consumption. It is the price which equilibrates the desire to hold wealth in the form of cash with the available quantity of cash thus to imply that if the rate of interest were lower, the aggregate amount of cash which the public would wish to hold will exceed the available supply, and that if the rates were raised, there would be a surplus of cash which no one would be willing to hold Keynes (2008). The liquidity preference fixes therefore the quantity of money to be held by the public at a given rate of interest (Boudriga, Boulila and Jellouli, 2009).

2.2.3 Market Segmentation Theory

The market segmentation theory posit that investors and borrowers have strong maturity preferences that they try to attain when they invest in or issue fixed income securities (Johnson, Zuber, and Gandar, 2004). He further highlighted that as a result of this preference, the financial markets are thus segmented into a number of smaller markets, with supply and demand forces unique to each segment determining the equilibrium yield for each segment. Thus according to this theory, the major factors the play a role in the determination of interest rates for a maturity segment are supply and demand conditions which are unique to the maturity segment. Individual investors have preferred investment horizons dictated by nature of the assets and liabilities they hold and these securities with different maturities are not seen as perfect substitutes under this theory.

Market segmentation theory assumes that neither investors nor borrowers are willing to shift from one maturity sector to another to take advantage of opportunities arising from changes in yields (Boudriga, Boulila and Jellouli, 2009). While commercial banks mainly deal with short term securities, insurance and investment trust deal in long term securities. Thus MST tends to overlook the fact that there is overlapping between markets.

2.3 Factors Contributing to Nonperforming Loans

2.3.1Regulations

Regulation in the financial sector is aimed at reducing imprudent actions of banks with regards to charging high interest rates, insider lending and reducing asset defaults. The central banks have achieved this through interest rate ceilings and other monetary policies. Demirguc-Kunt and Huizinga (1997) found that better contract enforcement, efficiency of the legal system and lack of corruption are associated with lower realized interest margins and asset non-performance. This is because they reduce the default risk attached to the bank lending rate. However, it is noted that in developing countries regulations tend to be on paper but in practice are not enforced consistently and effectively. Thus, leading to default on loans lent to clients.

Chand (2002), observed that the horizon of development of credit, better credit culture, positive macroeconomic and business conditions lead to lowering of NPAs. In its annual report (2010) CBK noted that management of NPA by banks remains an area of concern, particularly, due to the likelihood of worsening of the quality of restructured loans.

The nonperforming loans of banks are an important criterion to assess the financial health of banking sector. It reflects the asset worth, credit risk and competence in the allocation of resources to the productive sectors. Justin (2013) noted that since the reform regime there have been various initiatives to contain growth of NPA to improve the asset quality of the banking sector. Commercial banks have envisaged the greatest renovation in their operation with the introduction of new concepts like prudential accounting norms, income recognition and capital adequacy ratio which have placed them in new platform.

The growing competition from internal and external constituents and sluggish growth in economy coupled with poor credit-deposit ratio, the large volume of NPAs in the balance sheet and lack of automation and professionalization in the operation have been affecting the banking situation in the country, Mengle (2007), emphasized that the essential components of sound NPA management are i) quick identification of NPAs, ii) their containment at a minimum level and iii) ensuring minimum impact of NPAs on the financials. Ngugi (2001) noted that all kinds of lending involves three stages where discretion needs to be exercised (a)Evaluation and assessment of the proposal (b) Timely monitoring and evaluation and (c) Proper assessment of exit decision and modality.

2.3.2 Cost of Asset

Interest rate spread is a measure of profitability between the cost of short term borrowing and return on long term lending. Such costs are transferred to borrowers who end up not being able to service their loans. World Bank policy research paper on non performing assets in sub Saharan Africa revealed that bad assets are caused by adverse economic shocks with high cost of capital and low interest margins (Fofack, 2005).

Interest rate is the price a borrower pays for the use of money they borrow from a lender/financial institutions or fee paid on borrowed assets, Crowley (2007). Interest can be thought of as "rent of money". Interest rates are fundamental to a ‘capitalist society’ and are normally expressed as a percentage rate over one year. Interest rate as a price of money indicates market information concerning probable change in the purchasing power of money or future inflation (Ngugi, 2011).

Financial institutions facilitate mobilization of savings, diversification and pooling of risks and allocation of resources (Nkusu, 2011). However, since the receipts for deposits and loans are not harmonized, intermediaries like banks incur certain costs (Muniu, 2012). The study noted that interest rate spread affect performing assets in banks as it increases the cost of loans charged on the borrowers, regulations on interest rates have far reaching effects on assets nonperformance, for such regulations determine the interest rate spread in banks and also help mitigate moral hazards incidental to NPAs.

2.3.3 Credit Risk

Credit risk is the loss due to a debtor’s nonpayment of a asset or other line of credit (either the principal or interest).Movements in interest rates tend therefore to affect the borrower’s ability to honor his obligation when they fall due Saunders and Cornett (2008). Credit criteria are factors used to determine a credit seeker’s creditworthiness or ability to repay debt. The factors include income, amount of existing personal debt, number of accounts from other credit sources and credit history. Justin (2013) suggested that the most pervasive area of risk is an overly aggressive lending exercise. It is a

hazardous practice to extend lending term beyond the useful life of the corresponding collateral.

Besides that, giving out loans to borrowers who are already overloaded with debt or possess unfavorable credit history can expose banks to unnecessary default and credit risk (Quaden, 2004). In order to decrease these risks, banks need to take into consideration several common applicants' particulars such as debt to income ratio, business and credit history and performance record and for individual loan applicants their time on the job or length of time. Credit risk management is a process, a comprehensive system. The process that begins with identifying the lending markets, often referred to as "target markets" and proceeds through a series of stages to loan repayment. Banking institutions face intense challenges in managing credit risk (Coopers and Schindler, 2004).

Government controls, internal and external political interferences and pressures, production difficulties, financial limitations, market disruptions, delays in production schedules and frequent instability in the business environment undermine the financial condition of borrowers. Furthermore, financial information is frequently unreliable and legal framework does not always support debt recovery (Tireito, 2012). Some writers also hold the view that bad loans can be caused by problem accounts. Nkusu (2011) indicated in his work that problem loans can emanate from overdrawn account where there is no overdraft limit overdraft taken on an account which has not been actively operated for some time and overdraft taken in excess of reasonable functioning limits. Also he identified lack of technical good skills and judgment on the part of the lender is a possible cause of bad loans (Ng'etich, 2011).

Given the critical role of banks for a modern market economy, the opacity of banks' balance sheets, the dispersion of banks' creditors – typically many small depositors – and the maturity transformation banks perform converting short-term deposits into medium- to long-term assets there are limitations to market discipline and additional sources of fragility, compared to non-financial corporations. Banking has therefore historically been one of the most regulated sectors, with regulation ranging from licensing requirements to on-going supervision to a bank-specific failure regime and deposit insurance (Tireito, 2012).

2.3.4 Cost Efficiency

Commercial banks facilitate mobilization of savings, diversification and pooling of risks and distribution of resources. However since the receipt for loans and deposits are not synchronized, they incur certain costs (information costs, operational costs, administrative costs and default costs etc.) according to Ngugi (2001). Such costs are factored in when banks set their lending rates and this explains the variance in lending rates among commercial banks. Ng'etich argues that a number of studies have been done to investigate the effects of interest spread, and most of these are in the developed countries while a few in developing countries.

Depositors in Kenya are discouraged to save in commercial banks due to low returns which limit financing to potential borrowers. These implications of banking sector inefficiency have contributed to numerous debates about the determinants of banking sector interest rate spreads (Muniu, 2012).

Information asymmetry refers to a situation where business owners or managers know more about the scenario, for and risk facing, their business than do lenders. Information asymmetry describes the condition in which relevant information is not known to all parties involved in an undertaking (Keynes, 2008).It has been used extensively to explain a diversity of concept, including those in different market condition (Waweru and Kalani, 2009).

According to Prof. Njuguna Ndung'u, governor Central Bank of Kenya during annual address in year 2008,noted that the realization of credit information sharing in the banking sector will not only bring good news to the banks and the banking sector but also to the borrowers and the economy as a whole. This national success stands to significantly benefit the economy and is bound to stir changes in the way credit is managed in the industry in the sense that lenders will be in a position to access comprehensive credit data and will be able to price risk accordingly for both good and bad borrowers hence reducing their bad debt portfolios (Quaden, 2004).

2.4 Empirical Studies

Several studies have been on the determinants of nonperforming loans in commercial banks. Dimitrios (2011) study in the Greece banking sector, found that macroeconomic variables specifically the real GDP growth rate, the unemployment rate, the lending rates and public debt have a strong effect on the level of NPLs. According to Muhammad (2012), his study on the economic determinants of nonperforming loans in Pakistan, found out interest rates, energy crisis, unemployment, inflation and exchange rates have a significant and positive relationship with the nonperforming loans while GDP growth has

a significant negative relationship with the nonperforming loans of Pakistan banking sector. Bad performance of energy sectors along with poor economic settings/conditions were the main factors causing NPLs in Pakistan.

According to Adebola, Yusoff and Dahalan (2011), the study in Malaysia to investigate the determinants of nonperforming loans in the Islamic banking sector of Malaysia covering the period between 2007 and 2009 found out that interest rates had a positive significant relationship with nonperforming loans and producer price index a negative and significant relationship with nonperforming loans in the Islamic banking sector in Malaysia. They also concluded that other microeconomic variables played a role in the increase in NPLS in Malaysia.

Keeton and Morris (1987) conducted a research in America to identify the factors which contribute to non performing loans in the banking sector of this country by taking data from1979-1985 and according to them bad performance of agriculture and energy sectors along with poor economic settings/conditions are the main factors causing nonperforming loans, according to the authors energy crisis leads to bad of loans in the economy. According to Tireito (2012), the study examined the relationship between interest rates charged by banks between 2007 and 2011 and non-performing loans for the same banks. The author concluded that there was no significant relationship between interest rates and nonperforming loans.

For 25 emerging market economies in the period from 1996 to 2010, De Bock and Demyanets (2012) estimate various panel regressions on the basis of annual data that

include the lagged dependent variable and unobserved country effects. Real GDP contraction, currency depreciation against the U.S dollar, weaker terms of trade and outflows of debt-creating capital (portfolio debt and bank loans) lead to a higher aggregate NPL ratio of the banking sector. The sharp deterioration of loan quality following a reversal of portfolio inflows is particularly noteworthy. The (first lagged) increase in the private credit-to-GDP ratio has no significant impact in the whole sample but is significant with a negative sign in the 2004 to 2010 subsample.

In a second step, feedback effects from the financial sector on the wider economy are found to be significant according to a PVAR model with fixed effects, in which GDP growth falls in the wake of shocks that drive NPLs higher or generate a contraction in credit. For 26 advanced economies in the period from 1998 to 2009, Nkusu (2011) investigated the macroeconomic determinants of the NPL ratio and of the first difference of the NPL ratio in various panel regressions on the basis of annual data that include the lagged dependent variable. The results confirm that adverse macroeconomic developments, in particular a contraction of real GDP, a higher unemployment rate, higher interest rates, a fall in house prices and a fall in equity prices, are associated with rising NPLs.

Ongwezo (2005) carried out a research on the relationship between interest rates and non performing loans in commercial banks in Kenya. Her findings revealed that the general economic improved significantly in the country as market rate interest reduced from 12.02 in 2000 to 2.96 in 2004. The research covered the period between 2000 to 2005 and her findings revealed a positive relationship between interest rates and non performing

loans in commercial banks whereby an increase in the interest rate resulted to an increase in NPLs, a test of significance however revealed a weaker relationship between the two. Muniu (2012), carried out a study on the relationship between changes in central bank rate and the level of nonperforming loans in commercial banks in Kenya. The research covered the period 2007-2012 and his findings was that while bank rate has a negative significant effect on the net nonperforming loans, lending rates very much affect non performing loans positively so that an increase in interest rates results into an increase in net performing loans. To augment on the gap that might not be captured on quantitative survey and to understand deeper understating of the relationship between lending rates and NPLs, cost of funds borrowed will be used to assist understand this relationship better.

Gaitho (2010), carried out a research to investigate the causes of nonperforming loans in Kenya, and found out that the main causes were economic downturn which leads to depression of businesses, reduced buying ability of consumers, insider lending, owner concentration, inadequate procedure for credit risk, misuse of loans and legal delays.

2.5 Summary of Literature Review

The above empirical studies points to a gap that needs to be filled through further study to establish the relationship between lending rates and nonperforming loans. To start with Tireito (2012), research on the relationship between interest rates and nonperforming loans found that there exists no relationship between the two factors. This therefore gap calls for a further research on the relationship between lending rates and nonperforming loans in commercial banks.

Ongwezo (2005), study found out a positive relationship interest rates and nonperforming loans but since then the economic environment has changed greatly leading to a research gap. The study was carried out when the economic environment was favorable to both the banks and borrowers. Gaitho (2010), study on causes of NPLS never mentioned lending rates as a factor that contributed to an increase in nonperforming loans in commercial banks.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines study design and location, study population, sample size and sampling procedures. The study concludes with data analysis procedures and methods that will be used in presentation.

3.2 Research Design

Research design is the outline, plan or scheme that will be used to generate answers to the research problem. It is basically the plan and structure of investigation.The population of study will consist of all the licensed commercial banks in Kenya. According to CBK (2012) there are 43 licensed commercial banks in Kenya. Census survey methodology of all the licensed commercial banks will be used in order to increase accuracy and reliability of data collected in this research.

3.3 Target Population

Census survey will be conducted on all licensed commercial banks in Kenya. According to CBK (2012) there are 43 licensed commercial banks in Kenya.The licensed 43 commercial banks will be used for the study. The published financial statements and annual reports from CBK will be used. Census survey methodology of all the licensed commercial banks will be used in order to increase accuracy and reliability of data collected in this research.

3.4 Data Collection

The research will use secondary data. This secondary data will be obtained from documents that included financial reports of commercial banks operating in Kenya and annual CBK supervision reports. This data will be collected through data collection form and will be limited to five years 2009-2013.

3.5 Data Analysis Techniques

Quantitative data analysis techniques will be used in the analysis.This approach is used to answer question about relationship among measured variables with the objective of explaining, predicting and controlling phenomenon. From the sample the researcher generalises about the population. The experimental will be used to the effect of intervention on an outcome, controlling all other factors which may influence the outcome. In experimental design a researcher identify a sample and generalise it to a population according to (Creswell, 2009). The descriptive and inferential statistics will be used in analysis of relationships, differences, trends and comparisons. Key to the research will establish the linkage between lending rate and non-performing loans. Multiple regressions will be employed to test the relationship between lending rate and non-performing loans in commercial banks.

Statistical Package for sciences (SPSS version 17) will be used as an aid in the analysis. It will be preferred because SPSS has the ability to cover a wide range of the most common statistical and graphical data analysis and is very systematic. The results obtained from the models will be presented in tables to aid in the analysis and ease with which the inferential statistics will be drawn.

The relationship equation is as shown below-

$Y=\alpha+\beta_1X_1+\beta_2X_2+\beta_3X_3+\varepsilon$

Where;

Y= Non performing loans measured as ratio of net nonperforming loans to gross loans and advances.

$X_{1=}$ Average weighted commercial banks lending rates.

$X_{2=}$Cost of funds measured by ratio of total interest expense to total liabilities excluding unspecified (others).

$X_{3=}$Operating cost efficiency measured by ratio of total operating expenses to total operating Income.

$\beta1 - \beta3$ = are regression coefficients $\beta1$ and $\beta3$ are negative while $\beta2$ is positive

ε = Error term.

3.6 Test of Significance

F statistic and significance f will be used as a measure of the overall significance of the regression model i.e. whether the resulting regression model was reliable to predict the values of economic growth. The model is significantly fit at 5% level of significance if the calculated p value is less than 0.05. However, the model is rendered unfit for estimation if the calculated p value is greater than 0.05 (rule of the thumb). t- Statistics will be used to gauge if the regression coefficient is significant in causing the variation in the dependent variable.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The research objective was to establish the relationship between Interest rates and Non-performing Loans in commercial banks in Kenya. This chapter presents the analysis and findings with regard to the objective and discussion of the same. The findings are presented in correlation and regression. Data was collected from 43 commercial banks from 2009 to 2013. The data sources included published annual reports for a period of 5 years (2009-2013) as well as other publications. Data was collected based on the variables of the study, that is, financial performance depicted by Nonperforming loans, cost of funds and operating cost efficiency.

4.2 Descriptive Statistics

The findings of the study are summarized in the table 4.1 below.

Table 4. 1: Descriptive Statistics

	Minimum	Maximum	Median	Mean	Std. Deviation
NPLs	.44	39.14	5.84	8.9230	7.89096
WAIR	27.87	41.91	37.52	37.7544	2.50796
COFs	1.60	27.42	6.52	9.0791	6.36052
OPCE	26.20	274.80	57.80	65.7349	39.62228

The findings above indicate that OPCE had the highest standard deviation of 39.62228 and highest mean of 65.7349. The NPLs have a standrad deviation of 7.89096 which is

close to the mean at 8.9230 and this mean that data is closely spread out over a wide range of values. The OPCE had the highest standard deviation meaning data in this group is widely spread out over a wide range of values. The WAIR had the smallest standard deviation of 2.50796 has its data sets with a small standard deviation have tightly grouped, precise data.

4.3 Correlation Analysis

The findings from the study on correlation analysis is summarized in table 4.2 below.

Table 4.2: Correlation Matrix

	NPLs	WAIR	COFs	OPCE
NPLs	1			
WAIR	-.530	1		
COFs	.082	.014	1	
OPCE	.132	-.369	-.093	1

From the findings above, the relationship between weighted average lending rates and nonperforming loans is -.530. This implies that there exists an inverse relationship between these two variables. The negative but strong relationship means that as nonperforming loans goes up, lending rates tend to go down in a different direction. The correlation between Nonperforming loans and cost of funds is .082 positive but of less significance. Therefore cost of funds and nonperformance has a weak positive relationship. Lastly, the findings show a weak positive relationship between operating cost efficiency and nonperforming loans. Therefore the relationship between lending rates and nonperforming loans is insignificant.

4.4 Regression Analysis and Hypotheses Testing

This section presents a discussion of the results of the multiple regression analysis. The study conducted a multiple regression analysis to determine the relative importance of each of the variables with respect to financial performance of the commercial banks in Kenya. The study applied the statistical package for social sciences (SPSS) to code, enter and compute the measurements of the multiple regressions for the study. The findings are presented in the following table 4.3;

Table 4.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.541[a]	.293	.239	6.88593

a. Predictors: (Constant), OPCE, COFs, WAIR

b. Dependent Variable: Nonperforming loans

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (nonperforming loans) that is explained by all the three independent variables (weighted average lending rate, cost of funds and operating cost efficiency).

The three independent variables that were studied, explain 29.3 per cent of variance in nonperforming loans in commercial banks as represented by the R^2. This therefore means that factors related to nonperforming loans not studied in this research contribute 70.7 per

cent of variance in the dependent variable. Therefore, further research should be conducted to investigate the other factors that affect the nonperforming loans of commercial banks in Kenya and have a higher and significant effect on the loan quality. Therefore the three independent variables have an insignificant or weak relationship with lever of nonperforming loans in commercial banks.

Table 4.4: ANOVA (Analysis of Variance)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	766.000	3	255.333	5.385	.003[a]
	Residual	1849.227	39	47.416		
	Total	2615.227	42			

a. Predictors: (Constant), OPCE, COFs, WAIR

b. Dependent Variable: NPLs

Analysis of Variance (ANOVA) consists of calculations that provide information about levels of variability within a regression model and form a basis for tests of significance. The "F" column provides a statistic for testing the hypothesis that all $\beta \neq$ 0 against the null hypothesis that β = 0 (Weisberg, 2005). From the findings the significance value is .003 which is less that 0.05; thus the model is statistically significance in predicting how lending rates, cost of funds and operating cost efficiency affect nonperforming loans in commercial banks. This implies that with a null hypothesis that the dependent variable is

influenced by the independent variables; the null hypothesis can be rejected. With the rejection of the null hypothesis, it means that the accuracy of the model is high. At the 0.01 level of significance, the critical t value is 4.125 and the region of rejection of Ho is all t values of 4.125 or lower. The t value is in the rejection region, so that the WALR is enough different from 0 to accept hypothesis of no relation between nonperforming loans and weighted average lending rate.

Table 4.5: Multiple Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	74.872	18.151		4.125	.001
	WAIR	-1.749	.456	-.556	-3.835	.000
	COFs	.103	.168	.083	.615	.542
	OPCE	-.013	.029	-.066	-.452	.654

a. Dependent Variable: NPLs

From the regression findings, the substitution of the equation

($Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$) becomes:

$Y = 74.872 - 1.749\ X_1 + 0.103\ X_2 - .013\ X_3$

Where Y is the dependent variable (Nonperforming loans), X_1 is the weighted average lending rate, X_2 is the cost of funds, X_3 is the operating cost efficiency.

According to the equation, taking all independent variables constant at zero, nonperforming loans will be 74.872. The data findings therefore show that the three independent variables have an insignificant effect on the nonperforming loans. At 5% level of significance and 95% level of confidence, weighted average lending ratehad a 0.000 level of insignificance; cost of funds had a 0.542 level of significance while operating cost efficiency had a 0.654 level of significance, implying that there are other factors affect the nonperforming loans more than lending rates which are insignificant.

Therefore if lending rate is increased by one unit and all other independent variables remain constant, nonperforming loans will reduce by -1.749.Therefore high lending rates translates to lower nonperforming loans. The weighted average lending rate has the highest beta coefficient at -.556 and COFs has the smallest at .083. Therefore a one standard deviation increase in WALR, leads to a .556 standard deviation decrease in predicted NPLs, with other variables held constant.

4.5 Discussion of Research Findings

The objective of the study was to establish the relationship between lending rates and nonperforming loans in commercial banks in Kenya. The above findings show that the relationship between lending rate and non-performing loans is insignificant at 0.000. Secondary data was collected from central bank of Kenya supervision reports from 2009 to 2013.The study found out that there is a negative but strong relationship between lending rates and non performing loans in commercial banks in Kenya. Specifically, an increase in lending rates resulted to a decrease in nonperforming loans. The other independent variables although showed a weak positive relationship with nonperforming

loans, which means that as the level of nonperforming increase, the cost of funds and operating efficiency increase in the same direction. These findings are consistent with Tireito (2012) whereby according to his research on the relationship between interest rates and nonperforming loans, found out that the relationship was insignificant.

The non-performing loans therefore are as a result of other key economic factors that greatly contribute to its increase. The lending rates for all commercial banks were standardized with their bank size in order to make the result consistent. The findings also showed that while lending during the year 2012 when lending rates were highest at 19.85 per cent, nonperforming loans reported lowest figure of 7.616 per cent. According to Muniu (2013) study on the relationship between changes on central bank rate and the level of nonperforming loans in commercial banks in Kenya, he concluded that bank rates have a negative significant effect on the nonperforming loans. Borrowers therefore need to be thoroughly screened before disbursement of loans and advances as there exists other factors that lead to loan default other than lending rates in commercial banks.

The research findings also show that cost of funds tends to have a positive effect on the nonperforming loans. Commercial banks therefore need to entice depositors by offering good returns on their deposits. This was at 54.20 per cent level of significance and therefore banks must mobilize deposit from cheaper sources for loans. This will cushion them against high interest expense paid out on all borrowed funds and deposit cash from customers. Two independent variables had negative unstandardized coefficients implying that when one unit of change in these independent variables results to a decrease in the standard deviation of the dependent variable (NPLS). The WALR has the largest beta

coefficient of -.556 and OPCE has the lowest at -0.066.Thus a one standard deviation increase in weighted average lending rates leads to a .556 standard deviation decrease in nonperforming loans holding other variables constant.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This section covers the summary, conclusions and recommendations.

5.2 Summary of Findings

The purpose of the study was to examine the relationship between lending rates and nonperforming loans of commercial banks between the year 2009 and 2013. The study included all commercial banks published financial statements. Commercial banks charge different lending rates to their loans advanced to borrowers. These rates are determined by the prevailing CBR rate set by the CBK and also the overall cost of funds used to disburse to clients as loans and advances. The liberalization of the banking sector in the early 1990s by the government gave commercial banks autonomy to determine their own lending something that has at times brought about friction between borrowers and banks.

Data was collected from different commercial banks operating in Kenya. The data was obtained from the financial statements of the respective banks for five years period 2009 to 2013. The data was analyzed using SPSS software where the results showed insignificant relationship between lending rates and non-performing loans. The implications of the findings are that other factors are responsible for non-performing loans in the commercial banks in Kenya. The findings show that the only independent variable that has a weak positive relationship with nonperforming loans was cost of funds. The cost of funds had a 0.082 correlation effect on any increase in the

nonperforming loans holding other independent variables constant. This therefore means that as the cost of funds go up, commercial banks adjust their lending rates to cushion themselves against this effect and therefore increase their nonperforming loans with an equivalent per cent. The lending rates were standardized depending on the size of the bank in order to make the weighted average lending rates significant in this study. Banks could not disclose their lending rates because of the sensitivity of the information that is not publicly available. Thus a one standard deviation increase in weighted average lending rates leads to a .556 standard deviation decrease in nonperforming loans holding other variables constant.

The three independent variables only accounted for 29.3 per cent of the total nonperforming loans in the commercial banks. Other factors accounted for 70.7 per cent of all the nonperforming loans in commercial banks in Kenya. According to results by the CBK 2013, commercial banks generate 52.4 per cent of all their income from loans and advances and this therefore supports the findings of this study that lending rates has a insignificant effect on nonperforming loans. The weighted average lending rate had a 0.0 level of significance which means there is no relationship between lending rates and nonperforming loans.

5.3 Conclusion

In conclusion there is no significant relationship between lending rates and non-performing loans in commercial banks in Kenya. Despite the public perception that commercial high lending rates positively contribute to nonperforming loans, the finding of this study was that the relationship was insignificant. As per the findings only two

banks did not report nonperforming loans during the period and under study, while the remaining commercial banks reported nonperforming loans at a mean of 8.9230. This implied that despite efforts put in place by the CBK concerning NPLs, most commercial banks are still experiencing the burden of nonperforming loans.

Therefore commercial banks need to put in place proper credit policies that will cushion banks against high nonperforming loans. The 70.7 per cent of other factors contributing to the high NPLs is of concern to the stakeholders in this industry. The screenings of both the borrowers and collaterals that can help them reduce NPLs. The cost of funds cost had a weak positive correlation with nonperforming loans, commercial banks therefore have to come up with cheaper ways of raising deposits. The study showed that high cost of funds affected banks lending rates. As cost of funds rose, lending rates also increased in the same direction. The cost of funds had a mean of 9.0791 compared to a mean of nonperforming loans at 8.9230. The two mean values were very close to each other indicating how close they affect each other.

Therefore mean of 9.0791 reported for cost of funds is an indication and reason for the continued increase in leading rates. Commercial banks therefore have to mobilize deposits and reduce monthly charges and might encourage more customers to open accounts and save through this account. Based on this finding, commercial banks should put in place prudent credit policies to assist them reduce the level of their NPLs.

The study further concludes that, the main factors that lead to bad loans among commercial banks in Kenya are; lending to borrowers with questionable characters, serial

loan defaulters, high interest rates that make it hard for some to pay, and diversion of funds by borrowers. These causes make many borrowers not to honor their obligations as and when they fall due, hence leading to increased levels of non-performing loans. Most of these factors are due to information asymmetry in the banking industry.

The study concludes that emergence of many competitors such as micro finances, mobile money transactions and changing customer profiles are threatening the future growth of the commercial banks lending. The banking industry should therefore embrace new technology and innovations that could reduce high administrative costs related to loan processing.

5.4 Recommendations

The purpose of the study was to determine the relationship between lending rates and non performing loans in commercial banks in Kenya. Due to time and resource constraints, the study covered a five year period between 2009 and 2013. 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.

Banks should ensure low nonperforming loans through prudent lending and strict loan recoveries. The ability and qualifications of the credit officer is of importance in assessing the credit worthiness of the borrower. Therefore the banks staff should be given occasional training to equip them with the relevant skills as this will go a long way in reducing the levels of non-performing loans among commercial banks.

The study recommends the bank to come up with loan differentiation strategies by segmenting the customers based on their needs, size and type of business and designing products that meet the unique needs of these customer segments and also creating a pricing strategy for each segment. Most banks are concentrated in urban areas instead of spreading their branches to rural areas where most people don't have access to banking services.

There is an upcoming niche of young generation who are economically powerful and require a financial institution that can best meet their needs. Targeting this niche therefore will enable the bank to broaden its customer base and consequently loan book and also increase their deposit base in the run that will help them reduce their cost of funds. The study further recommends that E-Banking and M-Benki should be given more advertisement as it's an area with great growth potential. E-banking enables the unbanked in remote areas to save and acquire loans without visiting a branch. This increases loan book and also the diversification reduces the loan risks

5.5 Limitations of the Study

The study was faced with lack of availability of information on lending rates of individual banks. The competitive nature of commercial banks and the sensitivity of the lending rates made it hard to access this information. The commercial banks have different lending rates for their loans and advances products and this makes it hard to analyze data in an individual commercial bank.

The study was limited by lack of co-operation by the study respondents owing to their busy work schedule when the researcher sought clarification from the commercial banks. The descriptive research design also has inherent limitation such as the risk of non-response rate because is conducted on the basis of voluntary participation.

Due to the sensitivity of the banking information the respondent may have had an imaginary fear of giving the information to competitors. All banks were not willing to give information on their individual lending rates. Most banks staffs in the credit and finance department were uncooperative during due to their busy schedule at work.

5.6 Suggestions for Further Research

Since this study explored the relationship between lending rates and nonperforming loans of commercial banks in Kenya, the study recommends that; similar study should be done in other financial institutions within the financial sector such as micro-finance institutions in Kenya for comparison purposes and to allow for generalization of findings on the relationship between lending rates and nonperforming loans.

There is also need to identify and understand the emerging changes in loan policy by commercial banks and how they influence nonperforming loans. Therefore a study on the other factors contributing to nonperforming loans in commercial banks is recommended. This study has looked at effect of lending rates on the levels of non-performing loans in commercial banks in Kenya. This study recommends that another study should be done to

augment finding in this study; it therefore recommends a study be done on the effect lending policies have on nonperforming loans for the consumer so as to look at how lending policy influences borrowers repayment ability

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Further, to augment the research finding of this study, the study recommends that another research on lending rates but also include micro-finance institutions.

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APPENDICES

Appendix 1:Licensed commercial banks in Kenya

1. ABC Bank (Kenya)
2. Bank of Africa
3. Bank of Baroda
4. Bank of India
5. Barclays Bank
6. CFC Stanbic Bank
7. Chase Bank Kenya
8. Charterhouse Bank
9. Citibank
10. Commercial Bank of Africa
11. Consolidated Bank of Kenya
12. Cooperative Bank of Kenya
13. Credit Bank
14. Development Bank of Kenya
15. Diamond Trust Bank
16. Dubai Bank Kenya
17. Eco Bank
18. Equatorial Commercial Bank
19. Equity Bank
20. Family Bank
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

Appendix 2: Commercial Banks' Weighted Average Interest Rates (%) 1/

YEAR	MONTH	Lending
2009	JAN	14.78
	FEB	14.67
	MAR	14.87
	APR	14.71
	MAY	14.85
	JUN	15.09
	JUL	14.79
	AUG	14.76
	SEP	14.74
	OCT	14.78
	NOV	14.85
	DEC	14.76
2010	JAN	14.98
	FEB	14.98
	MAR	14.8
	APR	14.58
	MAY	14.46
	JUN	14.39
	JUL	14.29
	AUG	14.18
	SEP	13.98
	OCT	13.85
	NOV	13.95
	DEC	13.87
2011	JAN	14.03
	FEB	13.92
	MAR	13.92
	APR	13.92
	MAY	13.88
	JUN	13.91
	JULY	14.14
	AUG	14.32
	SEP	14.79
	OCT	15.21
	NOV	18.51
	DEC	20.04
2012	JAN	19.54
	FEB	20.28
	MAR	20.34
	APR	20.22
	MAY	20.12

	JUN	20.3
	JULY	20.15
	AUG	20.13
	SEP	19.73
	OCT	19.04
	NOV	17.78
	DEC	18.15
2013	JAN	18.13
	FEB	17.84
	MAR	17.73
	APR	17.87
	MAY	17.45
	JUNE	16.97
	JULY	17.02
	AUG	16.96
	SEP	16.86
	OCT	17
	NOV	16.89
	DEC	16.99

1/ The weights correspond to each bank's market share in either deposit liability in the case of deposit interest rates or loans and advances in the case of lending rates**.**

Source: Central Bank of Kenya,https://www.centralbank.go.ke/index.php/balance-of-payment-statistics/interest-rates-2

Appendix 3: Summary of Data Collection Sheet

	BANK	WAIR	COFs	OCE	NPLs
1	Bank of India	38.0108709	2.00	26.20	2.26610765
2	Citibank N.A. Kenya	39.7267017	4.68	31.80	1.62462957
3	Habib Bank A.G. Zurich	36.5506928	7.46	45.80	4.45940713
4	Habib Bank Ltd.	35.9481675	1.60	38.20	7.25940713
5	Bank of Baroda (K) Ltd.	38.7945275	14.98	28.20	4.57940993
6	Barclays Bank of Kenya Ltd.	41.3433491	3.00	54.00	5.33141628
7	Diamond Trust Bank Kenya Ltd.	39.9420074	11.80	40.20	1.46634679
8	K-Rep Bank Ltd.	36.6164901	2.84	76.60	15.65940713
9	Standard Chartered Bank (K) Ltd.	41.2162728	5.26	42.20	2.63061583
10	Ecobank Ltd	38.3070305	3.20	145.20	21.31839425
11	Gulf Africa Bank (K) Ltd	36.9692325	4.12	95.00	3.85940713
12	First Community Bank	36.3275338	3.36	100.60	8.46778276
13	Bank of Africa (K) Ltd.	38.6851949	3.98	67.80	1.97606945
14	UBA Kenya Bank Limited	34.5296667	4.44	274.80	0.44208523
15	Consolidated Bank of Kenya Ltd.	37.1485606	15.28	76.80	14.80868823
16	Development Bank of Kenya Ltd.	36.9746436	3.82	54.00	15.04056334

17	Housing Finance Ltd.	38.5983773	14.94	51.00	8.40446067
18	Kenya Commercial Bank Ltd.	41.9114769	5.10	54.40	8.25940713
19	National Bank of Kenya Ltd.	39.7659266	15.10	65.60	7.43061583
20	CFC Stanbic Bank Ltd.	40.7942805	6.52	63.00	2.61101297
21	African Banking Corporation Ltd.	37.2064994	14.24	57.80	5.65944932
22	Jamii Bora Bank Ltd.	27.8733647	1.80	94.20	23.45940713
23	Commercial Bank of Africa Ltd.	40.1079812	2.00	47.80	5.44040546
24	Co-operative Bank of Kenya Ltd.	41.2374058	7.32	58.00	5.84344991
25	Credit Bank Ltd.	35.7368466	14.82	75.60	13.57683681
26	Chase Bank (K) Ltd.	38.6417323	14.98	64.40	4.20446067
27	Dubai Bank Kenya Ltd	34.4182478	8.22	66.60	39.13906573
28	Equatorial Commercial Bank Ltd.	36.8264511	16.20	105.60	14.02516472
29	Equity Bank Ltd.	41.1997934	5.70	47.20	4.72396901
30	Family Bank Ltd.	38.1929341	13.82	72.80	9.42081756
31	Fidelity Commercial Bank Ltd.	36.6369721	5.90	61.20	9.15669234
32	Fina Bank Ltd.	37.5173818	27.42	66.00	9.48056577
33	Giro Commercial Bank Ltd.	36.8469038	10.12	55.60	4.25940713

34	Guardian Bank Ltd.	36.6557049	17.80	57.40	12.45940713
35	Imperial Bank Ltd.	38.2519218	21.28	49.80	6.25940713
36	Investment & Mortgages Bank Ltd.	39.9184217	3.24	34.20	2.45940713
37	Middle East Bank (K) Ltd.	35.4864030	14.84	68.40	5.63061583
38	NIC Bank Ltd.	39.9162221	10.62	40.60	5.83061583
39	Oriental Commercial Bank Ltd.	35.6567408	4.50	56.60	15.23061583
40	Paramount Universal Bank Ltd.	35.7193802	19.70	62.80	27.43061583
41	Prime Bank Ltd.	38.7713446	14.24	46.20	3.83061583
42	Trans-National Bank Ltd.	36.0275533	3.22	65.00	17.83061583
43	Victoria Commercial Bank Ltd.	36.3927898	4.94	41.40	0.44208523

Notes: The weighted average interest rates have been standardized using the bank size
By the formula……..= WAIR * (Bank Size/Total weight of the Banks' Size).