

**THE EFFECT OF COMMERCIAL BANK LOANS ON THE ECONOMIC
GROWTH OF KENYA**

BY

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**A RESEARCH PROJECT PROPOSAL PRESENTED IN PARTIAL
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DECLARATION

I declare that this research project is my own work and it has not been submitted for any degree or examination in any other University.

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Signature.....

Date.....

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

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Date.....

DEDICATION

I would like to dedicate this research project to my parents Mr. Benson Makali & Mrs. Agnes Makali who have been with me through every step of my life. They have been a great motivation as well as an inspiration in making me not to give up on my dreams. I thank them for every sacrifice they have made to enable me reach this far.

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I am heavily indebted to various people and organization without whose material and non material support this research would not have succeeded. I take this opportunity to express my sincere thanks to each of these people and organizations.

The staff of the Jomo Kenyatta Library provided the opportunity to use the facilities especially in the MBA and the Electronic Library section. From these able staff I was able to access not only research reports from earlier MBA research findings but I was able to access scholarly publication from the wider academic sphere.

Much of the direction on at each stage of this research was provided by my supervisor Mrs. Winnie Nyamute. She was there to give highly needed guidance right from the formation of the topic to the drafting of the final project. I wish to express my sincere gratitude.

The data of analysis was got from all the 43 commercial banks in Kenya. I wish to thank them for two reasons: first they kept the data I needed for the research and, two, they availed the data to me when I needed them to. With the data I was able to complete this project.

In my literature review I have cited quite a lot of scholarly publication. Some are from earlier research finding from project done by other MBA students. I have used scholarly papers from the wider academia. These are works without which I could not have had a scholarly insight into this research

Finally I would wish to thank my family that provided me with encouragement throughout the period I was conducting this research.

ABSTRACT

The Basel Committee on Banking Supervision noted the influence of loans on economic growth by asserting that the monetary policy affects the supply of bank credit and banks, being the players in the credit market, contribute to the transformation of the monetary policy into macroeconomic outputs in the economy. One of the macroeconomic outputs is economic growth. This research, therefore, sought to determine the effect of commercial bank loans on Kenya's economic growth.

The research was time series correlation study. Economic growth, the dependent variable, was correlated with the annual rates of changes in lending by commercial banks as proxied by the financing arrangements by commercial banks. The data on economic growth were obtained from the Kenya National Bureau while the data on loans were collected from the audited financial statements of the 43 commercial banks in Kenya. The data used covered the period 2008 to 2012 and covered all the 43 commercial banks. Economic growth was regressed against rates of change in amounts lent by commercial banks lagged one year.

The findings show that, first; the distribution of economic growth rate was not normally distributed, but skewed towards the right. Secondly, the distribution of the rate of change in the amounts of loans issued to borrowers was normally distributed. Thirdly, the correlation between economic growth rate and the rate of change in the amounts of loans issued was -0.097 as measured by the Pearson's Correlation Coefficient. This indicates that a positive change in amounts of loans issued was matched with a slight drop in economic growth. In the regression analysis, the constant term was 5.98074 which was statistically insignificantly different from zero as indicated by a p-value of 0.3066. The coefficient of the rate of change in the amounts of loans was -0.0372122 and statistically insignificant as indicated by a p-value of 0.7971. The whole regression was statistically insignificant as shown by $F(1, 1) = 0.108844$ ($p > 0.05$). The research concludes that economic growth in Kenya is not driven by changes in lending. This is an indication that Kenya's economic growth is not strongly determined by the loans issued by banks to private borrowers. This research, therefore, recommends the use of driving forces, other than commercial bank loans to push economic growth.

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ABBREVIATIONS AND ACRONYMS

- ADF - Augmented Dickey Fuller
- ARLD - Autoregressive Distributed Lag
- CBK - Central Bank of Kenya
- GDP - Gross Domestic Product
- GMM - Generalized Method Of Moments
- M3 - Broad Money Supply
- OLS - Ordinary Least Squares
- REITs - Real Estate Investment Trust
- VECM - Vector Error Correction Modeling

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CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

The Basel Committee on Banking Supervision (2012) noted the influence of loans on economic growth when it argued that the monetary policy affects the supply of bank credit and banks, being the players in the credit market, contribute to the transformation of the monetary policy into macroeconomic outputs in the economy. One of the macroeconomic outputs is economic growth. Kenya is a developing market which is leaning towards ensuring that credit is made available to citizens as an approach to spurring economic growth.

However, Boyd & Champ (2006) posited that loans did not always lead to economic growth. They presented the argument that the effect of bank loans on economic growth is context-based. While loans drove growth in some countries, they did not do much to encourage growth in others. Such divergent views indicate that, unless established so, it cannot be taken for granted that commercial bank lending drives economic growth and casting doubt on whether encouraging access to loans is a mechanism that can spur growth.

This study will focus on loans provided by commercial banks given their important role in the monetary policy of any country. According to (1927) bank is a person or corporation which holds receives from the public, deposits payable on demand. A later definition by Gobat (2012) asserts that a bank is a financial institution whose primary role is to take in deposits from those with idle money, pool the deposits, and lend them to

those who need the funds. A bank becomes a commercial bank when it deals in money and credit for profit. According to Kugiel (2009) a commercial bank, therefore, is a financial institution that deals in money by way of accepting deposits of money from the public to keep them in its custody for safety. This research will investigate the effect of loans given to investors by commercial banks on Kenya's economic growth.

1.1.1. Commercial Bank Loans

Jacoby & Saulnier (1942) defined a loan in terms of term loan which is credit extended to a business concern within the context of a direct relationship between a borrower and lender where some part of the principal is repayable after the passage of one year. However, there is the recognition that a loan can be given to non-business entities too. This widens the definition of a loan.

Dhikhary (2006) therefore defines a loan as a written or oral agreement for a temporary transfer of a property, usually cash in cash form, from its owner called the lender to a borrower who promises to return it according agreed terms. The terms involve interest, time of repayment and the pattern of the repayment. If the loan is a term loan, it is repayable when the lender demands for its repayment. If it is an installment loan of the lender requires repayment in equal monthly payments. In case the lender requires a lump sum to be made at the end of the time agreed then this type of loan is a time loan. Banks also classify their loans into categories such as consumer loans, commercial loans, industrial loans, construction and mortgage loans, and secured and unsecured loans.

In this study the adopted meaning of commercial bank loans is that used by De Haas, Ferreira & Taci (2010) in which commercial bank loans were the sum of all the loans

issued. Commercial bank loan is therefore any type of loan issued out to any type of borrower by a registered commercial bank in Kenya. Bank loans will be measured by commercial banks' financing arrangement item in the assets of banks. To compare with economic growth, annual percentage change in the total amount of financing arrangements will be used.

1.1.2. Economic Growth

The term economic growth is a term that is not easy to define though it connotes changes in quantity. Kuznets (1955) indicated that the measure of economic growth should have a quantitative aspect. In this perspective, he defined economic growth for any nation as a sustained increase in its population and product per capita. The United Nations' Human Development Report (1996) defines economic growth as simply as increase in a nation's total wealth. However, this definition ignores the effect of the population on the wealth.

Department for Business, Innovation and Skills (2011) of in the United Kingdom provides a more sophisticated definition of economic growth by positing that economic growth is the continuous improvement in the capacity to satisfy the demand for goods and services, resulting from increased production scale, and improved productivity. "

This study assumes a statistically simplified definition of economic growth provided by Haller (2012) that economic growth is the process of increasing the sizes of national economies as indicated by macro-economic indicators especially the GDP per capita, in an ascendant but not necessarily linear direction. Deriving from this definition, economic growth in this research will be measured as the annual percentage change in GDP per capita in Kenya.

1.1.3. Commercial Bank Loans and Economic Growth

Obamuyi, Edun & Kayode (2010) assert that there is close connection between commercial bank lending and economic output. This is because, ordinarily, more lending increases investment in goods and service production which by simple mathematical logic would increase the GDP of a country. On the contrary, reduced commercial bank lending would reduce investment in the production of goods and services and therefore contracting GDP. This summarizes to a positive relationship between commercial bank lending and economic growth.

On the contrary, a study by Louzis, Vouldis & Metaxas (2010) showed that lending was not an automatic means to economic growth. The contexts within which the loans are given out are a contributing factor to the effect of the lending on economic growth. The relationship was affected by the management of the loans both by the lending commercial banks and the borrowers.

This research, basing on the findings above, expects a relationship between bank loans and economic development but cannot conclude whether the relationship is positive or negative. Other than the findings in the studies cited above, the theory by Wicksell in 1901 that lending would be encouraged as long as interest rates are below the marginal productivity of capital and this would stimulate economic growth. On the other hand if interest rates are higher than the marginal productivity of capital, borrowing would be discouraged leading to stifled economic growth. This study, therefore, asserts a close relationship between commercial bank lending and economic growth but the nature of the relationship will depend on the context within which the study is done.

1.1.4. The Banking Sector in Kenya

The Central Bank of Kenya (2013) reports that Kenyas banking sector is made up of 43 commercial banks, one mortgage finance company, eight deposit taking microfinance institutions, seven representative offices of foreign banks, 108 foreign exchange bureaus and two credit reference bureaus. This sector is supervised by the central bank of Kenya.

According to the Central Bank (2013), the banking sector which has 43 commercial banks registered improved performance with assets standing at Ksh. 2.4 trillion and loan advances amounting to Ksh. 1.4 trillion. Deposits into the banks stood at Ksh. 1.8 trillion. The number of loan accounts stood at 2.3 million respectively. The major components of the balance sheet of the sector were loans and advances accounting for 55.8 total assets. The Central Bank (2013) goes further to report that the sector's gross loans and advances had increased from Ksh. 1.36 trillion in December 2012 to Ksh. 1.40 trillion in March 2013. This was a growth of 3.0 percent.

Cracknell (2012) argued that facilitating financial access is a key drive behind the strengthening of the financial sector. There has been a notable improvement in the level of financial access in Kenya. One indicator of this drive to improve access to funding through loans is the increased inclusion of the adult community into the main pipe banking. The percentage of adults not in the formal banking sector reduced from 38.40 percent in 2006 to 32.70 in 2009 and the trend has persisted. On the contrary, the percentage of adults in formal banking sector increased from 18.90 percent to 22.60 during the same period.

With the understanding that the sector has to play a key role economic growth, the sector has taken measures to increase access to financial services and credit. For instance, in line with the push to increase access to finance for economic growth, there is increased push towards reduction of credit risk. This is evident in the creation of Credit Bureau regulations in February 2009 to ensure repayment of loans despite the ease of getting them. The credit bureaus were to ensure careful and confident lending. The confidence was to be built through negative reporting of defaulters while positively reporting on non-defaulters. Further, banks are offering little amounts of loans to those who need them through phone and agency banking. All these policies are increasing the accessibility to finances through commercial banks (Ndung'u, 2012).

1.2. Research Problem

According to the Wicksell (1901) theory, lending had a close effect on economic growth within the context of interest rates. If the interest rates are below the rate of return on capital, entrepreneurs would borrow at the money rate to purchase capital goods which would spur a higher economic growth rate. Conversely, if the interest rates are above the rate of return on capital entrepreneurs would sell the capital goods and hold money in effect reducing economic growth.

The government of Kenya has encouraged lending from banks to private investors in Kenya. Cracknell (2012) argues that facilitating financial access provides impetus to the strengthening of the financial sector which is a key player in economic growth and development. Kenya seems to have borrowed this argument and increased access of Kenyans to more financial facilities from banks to drive economic growth. However,

there seems to be no automatically positive relationship between lending and economic growth.

Kelly, McQuinn & Stuart (2013) did a study whose aim was to investigate and establish the relationship between private sector credit and economic growth in Ireland which had experienced expanded access to credit. The private sector credit was defined as credit extended to private Irish residents by all resident credit institutions in Ireland. The research was done for the period between 1983 and 1997. Findings showed that there was a strong positive relationship between private sector credit and economic growth.

Similar findings had been presented before by Caporale et al (2009). This study was done to establish the connection between economic growth and private credit for countries that were new entrants in the European Union between 1994 and 2007. These were ten countries in total. To establish the relationship the study conducted a regression between economic growth rate and financial development measured by domestic credit indicators and country specific macroeconomic indicators like banking efficiency and stock market capitalization. The findings showed that there was a close connection between economic growth and private credit in a sense that the poor availability of credit caused the poor economic growth in the ten countries.

On the Kenyan scene, the study between credit and economic development has focused on public debt. One such study was conducted by Maana, Owino & Mutai (2007). This study aimed at establishing the effect of domestic debt on real output in Kenya. The study was done for the time starting 1996 to 2007. The research used a regression analysis in which the dependent variable was the growth rate of real GDP while the

independent variables were domestic debt to nominal GDP ratio and other macroeconomic variables like government expenditure, private sector credit, broad money supply (M3), secondary school enrolment, and trade. The study indicated a positive relationship between domestic debt and economic growth.

The study by Kamaan & Nyamongo (2014) showed different results. In their study they sought to establish how Kenya's monetary policy affected her economic growth. The study covered the time period between 1997 and 2012. The study focused on how interest rates affected economic growth. By regression analysis with the study showed lending negatively affected economic growth given high interest rate.

The studies above do not demonstrate an express relationship between economic growth and lending from commercial banks. The relationships are context dependent and depend on the nature of the variables used in the assessment. In Kenya, no study has been done to expressly connect lending from commercial banks to economic growth. This study will investigate this connection and will answer the question: what is the effect of commercial bank loans on Kenya's economic growth?

1.3. Research Objective

The objective of this research is to determine the effect of commercial bank loans on Kenya's economic growth.

1.4. Value of the Study

To scholars, the study will establish the effect of commercial bank loans on Kenya's economic growth. This research will contribute to the scholarly discussion concerning

whether credit is a driver of economic growth. This study will provide a different approach to credit since it takes on the amounts that banks give to loan takers as opposed to using public debt as a measure of credit. Future researchers and other scholars will use the findings of this study in advancement of the discussion.

To the managers of the commercial banks in Kenya the research will provide evidence that will shed light on whether injection of credit into the Kenyan economy brings about economic growth. In case commercial bank loans will be found to have a great bearing on economic growth, this will then be a channel they can use not only to make profit for their institutions, but also a channel of driving economic growth.

For government policy makers this research will establish whether the borrowing of commercial loans drives economic growth. If not, it will stimulate curiosity of finding out how Kenyans spend the amounts they borrow from banks or how the loans contribute to growth and come out with a policy tailored specifically for the Kenyan environment.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter focuses on the theoretical literature and the empirical literature upon which this research is based. The theories discussed are the Wicksell Theory of economic growth, Cobb-Douglas Theory and the Solow Theory of economic growth in the first section of the chapter. The second section discusses other factors that affect economic growth while the last section discusses other research conducted on the relationship between debt and economic growth in Kenya and in other countries.

2.2 Theoretical Review

2.2.1 Wicksell Theory of Lending and Economic Growth

As posited by Weise (2006) this theory was postulated by a Swedish economist called Knut Wicksell in 1901 with strong influence from the quantity theory of money. Wicksell based his theory on a comparison of the marginal product of capital with the cost of borrowing money. The theory by Wicksell therefore took a monetary approach to economic growth.

Wicksell (1901) argued that if the interest rate of borrowing money of was below the natural rate of return on capital, entrepreneurs would borrow at the money rate to purchase capital goods. This would lead to increased demand for all types of resources and, in turn, their prices. Conversely, if the interest rate of borrowing money of was above the natural rate of return on capital entrepreneurs would sell the capital goods and

hold money. This would lead to a higher demand for money and in turn the cost of borrowing. Wicksell connected the rate of interest with the production gap. The production gap represented the variance between what ought to be produced and what is produced.

This theory is important to this study since it give a direct connection between the demand for and the cost of money and output in a country. It shows how interest rates affect borrowing, which in turn affects the purchase of capital goods and how production is affected. If interest rates are higher than the natural rate of return, borrowing will reduce therefore reducing economic growth as a result of low investment. On the contrary, if the rate of interest is lower that the natural rate of return, then more borrowing will take place and this will spur economic growth through more investment (Weise, 2006).

2.2.2 Cobb-Douglas Theory of Economic Growth

This theory was put forth by Charles W. Cobb and Paul H. Douglas in 1928 to explain the relationship between production (and therefore economic growth), labour and capital. Based on data on population, capital and production for the period 1899 to 1922, Cobb-Douglass (1928) established that output was a function of labour supply and capital connected within a given level.

The capital component provided the way through which lending enters the equation. A significant portion of credit borrowed from banks or elsewhere is used for capital accumulation. The accumulated capital becomes one of the variables of economic growth in the Cobb-Douglas theory (Ghani & Suri, 1999).

This theory is relevant to this research for it provides a mathematical connection between production, labour and capital though it was operational within a context of constant technology. Loans given by the banks are used as capital for the production process whose change indicates growth. This theory therefore provides the connection between capital and growth (Tan, 2008).

2.2.3 Robert Solow Model of Growth

This theory was suggested by Robert Solow in 1956. This is a model of long-run economic growth within the neoclassical economics framework. The model attempts to explain long-run economic growth means of capital accumulation, labor (population) growth, and the increases in productivity otherwise called technological progress.

The Solow model has the following assumptions. First it assumes that capital is subject to diminishing returns in a closed economy. Secondly, holding the stock of labour constant, the impact of the last unit of capital accumulated on output will always be less than the one before. Thirdly, given no technological progress or growth of the labor force, at some point the amount of new capital produced is only just enough to make up for the amount of existing capital lost due to depreciation. At this point there is no more economic growth (Romer, 2011).

The Solow model added the component of changing technological context in order to reduce the effect of diminishing returns in the Cobb-Douglas model. The Solow model therefore suggested that production is a function of state of technology, supply of labour, and capital. The production function made technological progress equivalent to an

increase in the effective (supply of labor supply of labour given the state of technology) which grows not at the rate of population growth only, but at the rate equal to the sum of growth rate of population and productivity (Solow, 1956).

This theory is relevant to this study in the following sense. First, the model approaches the level of economic growth from the output perspective just like in this research. Secondly, commercial loans are assumed to provide capital which is used to improve the production in a country. The theory simply provides the connection between the capital, the other factors of production and level of national output given the level of technology (Romer, 2011).

2.3 Determinants of Economic Growth

2.3.1 Initial Human Capital

Initial human capital is a strong determinant of economic growth. Strongest economic growth has been established in economies where the average years of attainment of schooling for males aged 25 and over in secondary and higher schools at the start of each period, the life expectancy at birth at the start of each period and the years of male secondary and higher schooling (Barro and Lee, 1993).

The indication here is that the higher the years spent in schooling and the healthier the population, the higher the rate of population growth rate. Though not strongly related to economic growth, female schooling is important for other indicators of economic development, like fertility, infant mortality and political (Schultz, 1989).

2.3.2 Fertility Rate

In a growing population, a larger portions of the economies investment is used to create and provide capital for new workers instead of raising capital per worker. For this reason, a higher rate of population growth reduces GDP by reducing the level of output per effective worker.

Further, in a growing population, the resulting higher fertility rate means that increased resources are devoted to childrearing, rather than to production of goods. This in effect reduces the rate of economic growth (Becker and Barro, 1988).

2.3.3 Government Expenditure

The amount and nature of government expenditure has a strong bearing on the economic growth of any country. When the government spends more, it basically stimulates demand which in returns sparks investment and the production o f more goods and services (Behrman, 1990).

However, the manner in which the government spends funds can determine how strong the growth rate shall be realized. If a government spends too much money on unproductive ventures, then the expenditure may not affect economic growth at all. However, if the expenditure is in productive investment, the economy grows at a high rate (Behrman, 1990).

2.3.4 The Rule of Law

Knack and Keefer (1995) argue that legal issues like the quality of bureaucracy, level of political corruption, likelihood of government repudiation of contracts, risk of government expropriation, and overall maintenance of the rule of law have great bearing

on the economic growth of a country. The most attractive countries to invest in are those with good investment climate which are made so by the effectiveness of law enforcement, the sanctity of contracts, and the state of other influences on the security of property rights

2.3.5 The Terms of Trade

Changes in the terms of trade have often been stressed as important influences on the economic growth of developing countries. The developing countries have their economies dependent upon the exports of a few primary products. When there is a change in their terms of trade the economy can either improve or take a beating (Barro and Lee, 1994).

However the relationship is not mechanically straight forwards. If the physical quantities of goods produced domestically do not change, then an improvement in the terms of trade raises real domestic income and probably consumption, but would not affect real GDP. Movements in real GDP occur only if the shift in the terms of trade stimulates a change in domestic employment and output (Barro and Lee, 1994).

2.3.6 The Investment Ratio

A higher saving rate raises the level of output per effective worker and thereby raises the growth rate for a given starting value of GDP. Empirical studies of cross-country economic growth have also reported an important positive role of the investment ratio on economic growth (DeLong and Summers, 1991).

However, Mankiw, Romer, and Weil (1992) argue that the relationship between economic growth and investment ratio is bidirectional. Economic growth leads to a

higher investment ratio on the one hand while a higher investment ratio will lead to economic growth on the other hand. This shows the bidirectional causality between these two variables.

2.4 Empirical Literature Review

Umaru, Hamidu & Musa (2006) conducted a research on debt and economic growth in Nigeria. The aim of the study was to establish the relationship between economic growth, external and domestic debt. The study used data on external debt, domestic debt and on economic growth for the period between 1970 and 2010. To establish the relationship, Ordinary Least Square analysis was used. The study also applied the Augmented Dickey-Fuller technique in testing the unit root property of the series and Granger causality test to establish the causation between GDP, external debt and domestic debt. The causality test suggested that there was a bi-directional causation between external debt and GDP, but no causation between domestic debt and GDP. The OLS analysis, however, revealed a negative relationship between external debt and economic growth and a positive relationship between domestic debt and economic growth. This study concluded that debt, local or external, did not cause economic growth. It also concluded that when domestic debt increased, so did economic growth, but when external debt increased, economic growth fell.

Maana, Owino & Mutai (2008) conducted a study aiming at establishing the development in public domestic debt in Kenya and its impact on the economy between 1996 and 2007. The study examined the relationship between economic growth and macroeconomic variables using the King and Levine's (1993) version of the Barro growth regression model. The macroeconomic variables used in the study included lagged real GDP growth,

ratio to GDP of government expenditure, private sector credit, broad money supply (M3), secondary school enrolment, and trade. The ratios to GDP of credit to private sector and broad money supply were used measures of financial development. The study found that domestic debt expansion had a positive but not significant effect on economic growth during the period. The research therefore concluded that domestic debt did not have an effect on economic growth.

Marijana (2009) also did another study focusing on financial intermediation by banks and economic growth. The objective of the study was to review empirical research that had been done to establish the link between financial intermediation by banks and economic growth in the two decades between 1989 and 2009. The study paid special attention to the issues of causality, non-linearity, time perspective, financial intermediation proxies, and interaction terms. The review showed that the relationship between financial intermediation by banks and economic growth cannot be taken for granted. Indeed the study questioned the prioritization of financial sector policies for economic growth. The study cast doubts on the assertion that financial intermediation by banks drove economic growth.

Zhang, Wang & Wang (2012) conducted a study on financial development and economic growth in China. The objective of the study was to investigate and establish the relationship between financial development and economic growth in China. The study was done at city level. 286 Chinese cities were studied over the five year period between 2001 and 2006. The study applied both traditional cross-sectional regression and first-differenced and system GMM estimators for dynamic panel data. The results of the research suggested that most traditional indicators of financial development like Credit,

Deposit, Savings, the share of fixed asset investment financed by domestic loans relative to that financed by state budgetary appropriation positively related to economic growth. However, the ratio of corporate deposits to total deposits had a negative effect on economic growth. This study showed that credit had positive effect on economic growth.

The study by Aurang (2012) was done on the contribution of the commercial banking sector on economic growth in Pakistan. The aim of the study was to investigate the contributions of the commercial banking sector on Pakistan's economic growth. The study was done on 10 banks for the period of 1981 to 2010. Analysis of the data from the 10 banks was done using the Augmented Dickey Fuller (ADF), Philip Perron unit root test, ordinary least square and the granger causality test. The regression results indicated that deposits, investments, advances, profitability and interest earnings had significant positive impact on economic growth. The Granger-Causality test confirmed that there was a bidirectional causal relationship between deposits, advances and profitability and economic growth. The study concluded that activities in the banking sector, including advances by the commercial banks, affected economic growth.

Aliero, Abdullahi & Adamu (2013) did a study on private sector credit and economic growth in Nigeria. The study sought to analyze and establish the relationship between private sector credit and economic growth in Nigeria. The study was conducted for the period 1974-2010. The Autoregressive Distributed Lag (ARDL) bound F-test for cointegration approach was used for analysis of the data. The results indicated that a long run equilibrium relationship existed between private sector credit and economic growth. However, causality results indicated that there is no causal relationship between private

sector credit and economic growth. The conclusion was that that private sector credit did not affect economic growth.

Waiyaki (2013) did a study focusing on financial development, economic growth and poverty in Kenya. This study was done with the aim of finding out the nature of the relationship between financial development, economic growth and poverty. The study covered the period 1997 to 2010 using data from annual reports from the Central Bank of Kenya. Data were analyzed using unit root tests, cointegration analysis and granger causality tests. The study found mixed results concerning the relationship between financial development variables and economic growth. For instance, for the benefit of this research, money supply and bank deposits had a significant influence on economic growth. On the other hand, financial indicators like stocks volume had no significant influence on real GDP. The conclusion was that money supply and bank deposits had great positive effect on economic growth.

Abubakar & Gani (2013) conducted on financial development and economic growth. The aim of the study was to examine and establish the long run relationship between financial development indicators and economic growth in Nigeria. The study was done for the period of time between 1970 and 2010. Among other indicators of financial development, the study also used liquid liabilities of commercial banks, credit to the private sector, interest rate spread and government expenditure. The study applied the Johansen & Juselius (1990) approach to cointegration and Vector Error Correction Modeling (VECM). The study found that in the long-run, liquid liabilities of commercial banks exerted significant positive influence on economic growth while credit to the private

sector, interest rate spread and government expenditure exerted significant negative influence. The study concluded that credit to the private sector deterred economic growth.

2.5 Summary of the Literature Review

As shown in the literature review, there seems to be agreement among the theories of working capital management that debt has an effect on economic growth. However, the nature of the effect varies from context to context. Some studies show a close connection between lending by commercial banks and economic growth with some showing causality between them. On the other hand, other studies show weak relationship or none at all

Kenya, being a country that has for some time followed the route of improving access to credit as a mechanism of spurring economic growth provides the opportunity for the investigation of whether this policy will yield results. There is need to conduct a research to find out the relationship between such debt and Kenya's economic growth. This provides the motivation for this research.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter set out the approach for conducting this research. The chapter identified the procedures and techniques that were used in the collection, processing, and analysis of data. The following subsections were therefore included; research design, target population, sample, data collection and finally data analysis.

3.2 Research Design

This research was a time series correlation study. Economic growth was correlated with the annual changes in the financing arrangements by commercial banks. The objective of this research required that the behavior of economic growth was studied together with the behavior of financial arrangement of commercial banks across time. For this to be achieved Webb et al (1966) posited that a time series study provides the best approach because it describes phenomena across time using continuous record in the variation of variables being investigated over the period of time being studied. Furthermore, Kamaan & Nyamongo (2014) who did a study to establish how the monetary policy affected economic growth between 1997 and 2012 in Kenya used a similar research design.

3.3 Data Collection

All the data required for this research were in the financial statements of the commercial banks and the Kenya National Bureau of Statistics. The researcher accessed published financial statements for the five year period of study from the banks to obtain data on

financial arrangements and the Kenya National Bureau of Statistics to obtain the data on growth rate. The data used covered the period 2008 to 2012

3.4 Data Analysis

This research used data for two the variables namely the annual economic growth and financing arrangement from commercial banks. The annual values of financial arrangements obtained from the annual financial records of the 43 banks were summed up to provide a single value of financial arrangements for the whole sector in a year. The annual rates of change, as percentages, in financial arrangements were then be calculated using the formula below.

Where,

- = The percentage change in lending in year ,
- = The amount of financing arrangement by bank in year ,
- = The amount of financing arrangement by bank in year .

The values of economic growth used were calculated from GDP values obtained from the Kenya National Bureau of Statistics. The relationship between economic growth and the change in financing arrangement was determined using a regression model. The regression model places economic growth as the dependent variable while percentage change in financial arrangements is the independent variable. However, in the regression, the change in financial arrangements was lagged by one year since the results of changes

in the financing policy are realizable in the economic performance reported in the following year. The regression model used for the analysis is as presented below:

Where,

The economic growth rate in year ,

The autonomous rate of economic growth

The responsiveness of to .

The changes in financial arrangements in year

To test the strength of the regression analysis, the , and the coefficient of determination were used. The at 95 % confidence level were used to determine the statistical significance of and . The was used to determine whether the regression analysis is of statistical importance at 95 % confidence level. The coefficient of determination and the Adjusted was used to determine how much variation in growth was explained by the variation in changes in lending.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

This chapter discusses the findings of the research. The objective of this research was to find out whether or not the lending by commercial banks in Kenya affected Kenya's economic growth rate. The research used regression analysis in which economic growth was the dependent variable while annual rate of change in commercial lending made the independent variable. The chapter therefore discusses how the two variables were operationalized and it provides a statistical description of the distribution of the data on the variables and their correlation. Further, the regression analysis findings are presented. The chapter ends with an interpretation of the results.

4.2 Descriptive Statistics

Economic growth rate generated from the values of GDP in Kenya between 2009 and 2012. Economic growth rates per year were calculated by expressing the change in GDP as a fraction of the GDP in the previous year. The values of GDP were in US Dollar standardized based on US Dollar rates of the year 2005. The GDP values are presented in Appendix III while the growth rates are presented in Appendix IV.

The independent variable which was the rate of change in commercial bank lending was calculated by first summing up the values of loans outstanding for all the 43 registered commercial banks. The values of commercial bank lending are presented in the table in Appendix II. Basing the totals, the annual rates of change were found by expressing the

change in lending as a fraction of the total loans lent the preceding year. The rates are presented in Appendix IV.

Descriptive statistics of Kenya's economic growth and change in lending were calculated to provide an insight into their nature. The mean, the minimum, the Maximum and the standard deviation values of each of the two variables were calculated. The findings are presented in Table 4.1 below.

As shown in the table, the highest economic growth rate for the study period was 5.80 percent which was achieved in 2010 while the lowest economic growth rate was 2.7 percent achieved in 2009. The average rate of economic growth was 4.4 percent with a standard deviation of 1.2832. The highest rate of change in commercial bank lending was 34.417 percent in 2011 while the lowest was 12.562 percent in 2012. The mean rate of change in lending was 23.57 percent with a standard deviation of 8.9227.

Table 4.2: Descriptive Statistics

STATISTIC	ECON GROWTH	CHANGE IN LENDING
Mean	4.4	23.579
Minimum	2.7	12.562
Maximum	5.8	34.417
Std. Dev	1.2832	8.9227

(Source: Research Data, 2014)

Figure 4.1 shows the graphs of GDP growth and rate of change in lending by commercial banks. As shown by the graphs, the rate of GDP growth in Kenya has always been on the

positive though the rates have variable. Though on a steady growth, the rate of economic growth does not change much since 2009. On the contrary, the rates of changes in commercial bank lending have been higher than economic growth rate and with a higher volatility. The rate of lending sharply increased from 2010 to 2011 to reach a high of 34.417 percent but dipped sharply to reach a low of 12.562 percent in 2012.

Figure 4.1: GDP Growth and Change in Lending

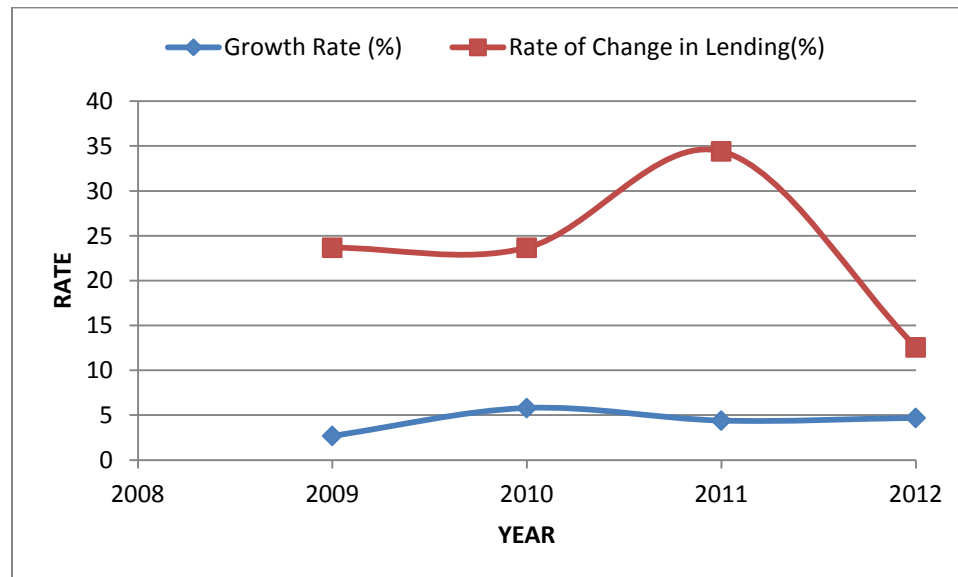


Fig. 4.2 is a plot of the distribution of economic growth rate. It shows the histogram of the rates compared with the normal curve. As shown, the distribution of economic growth rate is negatively skewed. Most of the values are tending towards the left of the histogram. They do not follow the symmetry indicated by the normal curve. Fig. 4.3 shows the distribution plot of rate of change in commercial bank lending. The distribution is normal since the histogram replicates the symmetry of the normal curve.

Figure 4.2: Distribution of Economic Growth Rate

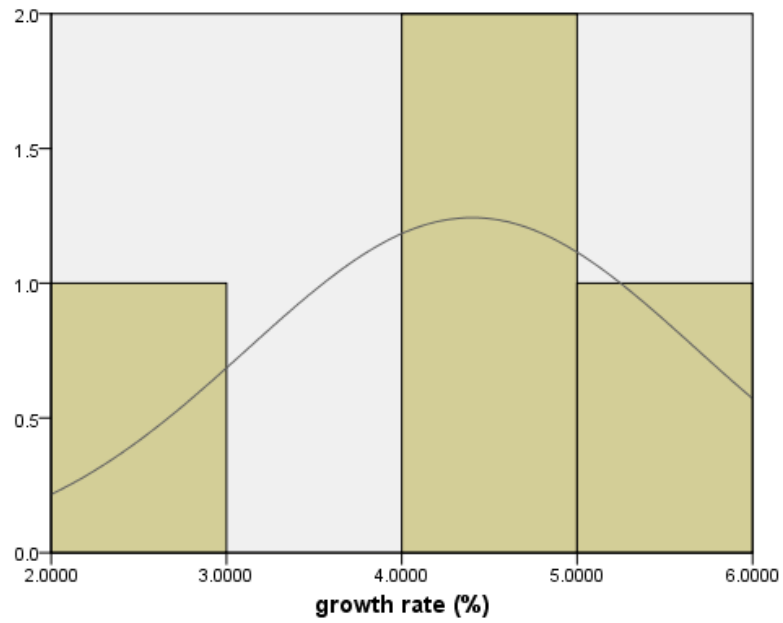
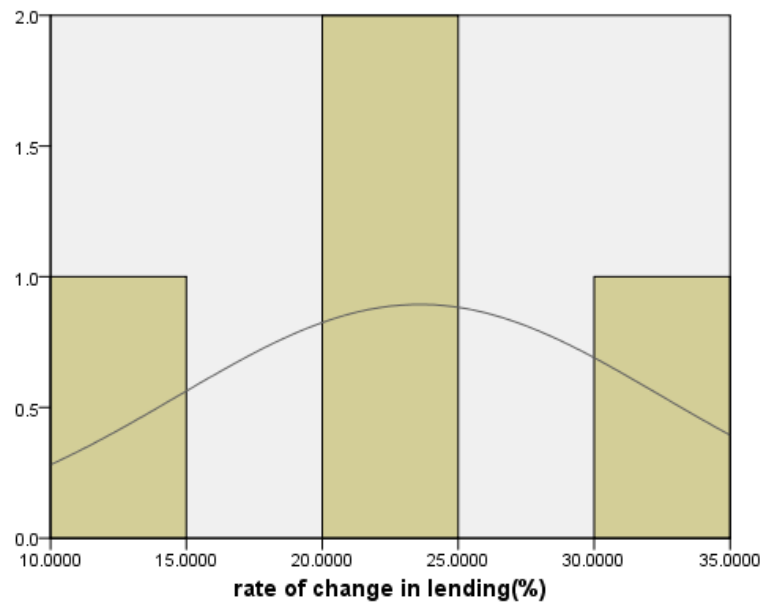


Figure 4.3: Distribution of Rate of Change in Commercial Bank Lending



More tests for the normality of economic growth rate and rate of change of commercial bank loans was done using the Q-Q plot and the calculation of kurtosis and skewness.

The Q-Q plot shown in Figure 4.4 assesses the normality of the distribution of economic growth and shows negative skewness of the distribution. The skewness was -0.6758 with kurtosis of 1.5. These show that the distribution is platykurtic and negatively skewed. The Q-Q plot for rate of change of commercial bank loans is presented in Figure 4.5. The figure shows that the distribution is symmetric on the left and on the right. The data had a skewness of -0.06 which is negligible. The kurtosis was 1.5 which indicates slight mesokurtosis. The distribution passed as a normal distribution.

Figure 4.4: Q-Q Plot for Economic Growth Rate

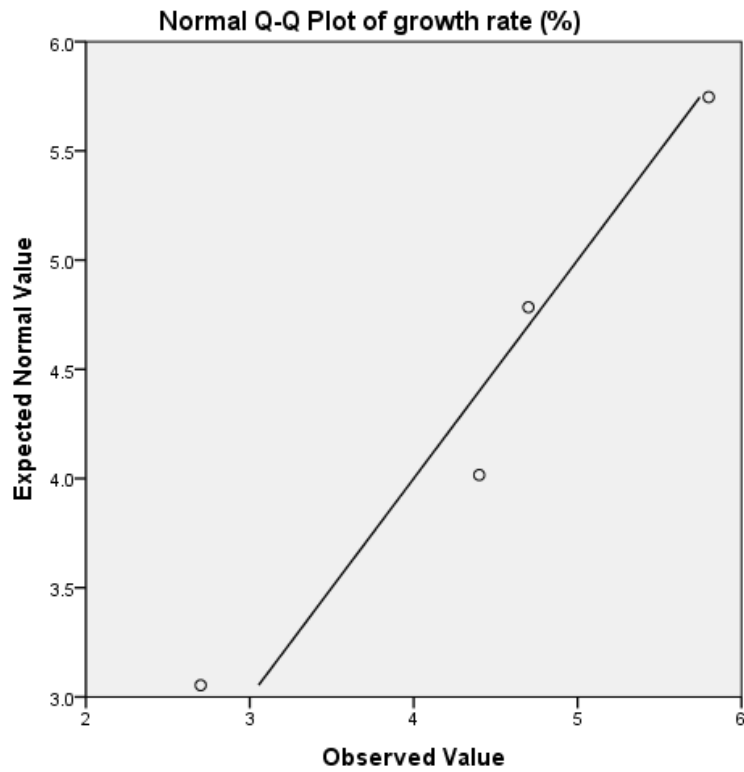
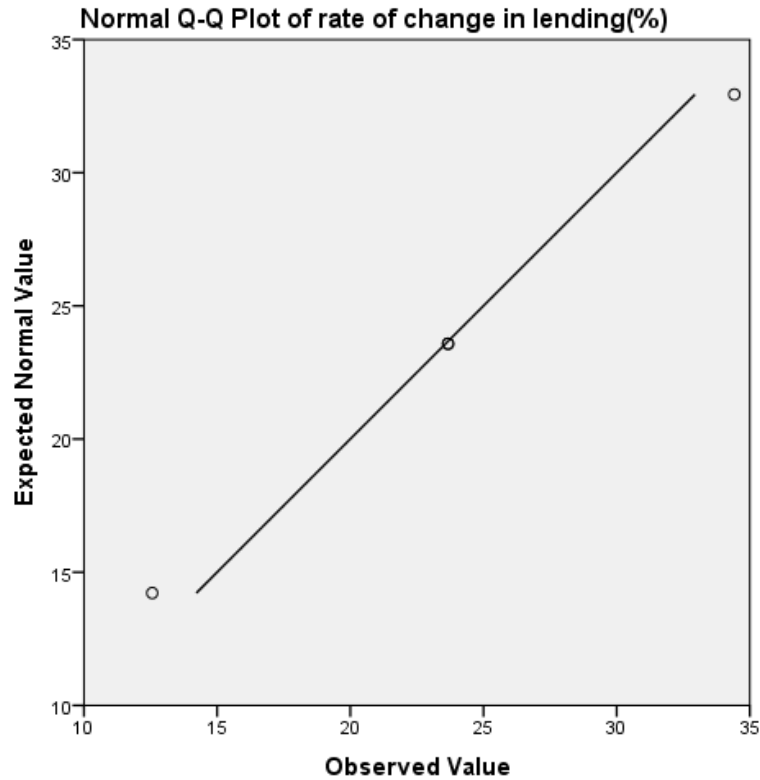


Figure 4.5: Q-Q Plot for Rate of Change in Commercial Bank Lending



4.3 Correlation Analysis

This sub section provides the correlation analysis of economic growth rate and rate of change of commercial bank loans. The Pearson Correlation coefficient was used to show how the two variables co-move. As shown by the correlation matrix in Table 4.4, there was weak negative correlation between economic growth rate and rate of change of commercial bank loans. The correlation,

Table 4.2: Correlation Matrix

	Growth Rate	Loan Rate of Change
Growth Rate	1.0000	-.097
Loan Rate of Change		1.0000

(Source: Research Data, 2014)

4.4 Regression Analysis

Table 4.5 provides the regression analysis results and the regression statistics concerning the relationship between economic growth rate and rate of change of commercial bank loans. The constant term of the correlation was 5.98074 which was not statistically significantly different from zero, . The coefficient of Rate of

Change of Loans was -0.0372122 which was not statistically significant,

. The regression was not statistically significant, .

The variation in economic growth was poorly explained by the variation in Rate of Change of Loans,

Table 4.3: Regression Model and Regression Statistics

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>
Constant	5.98074	3.12642	1.913	0.3066
Rate of Change of Loans	-0.0372122	0.112794	-0.3299	0.7971
F(1, 1)	0.108844			0.797128
R-squared	0.098160			
Adjusted R-squared	-0.803681			

(Source: Research Data, 2014)

The model for the relationship between end of the month returns and the average of the other returns of the month is, therefore:

4.5 Summary and Interpretation of Findings

This research sought to find out the effect of commercial bank loans on Kenya's economic growth. The research was to find, specifically, the relationship between economic growth and the variation in the amounts of loans issued. The following were established from the analysis. First, the distribution of economic growth rate was not normally distributed, but skewed towards the higher side, that is, towards 6.00 percent. Secondly, the distribution of the rate of change in the amounts of loans issued to borrowers was normally distributed around the mean changing rate which was 23.579 percent. Thirdly, the correlation between economic growth rate and the rate of change in the amounts of loans issued was negative but weak. This indicates that though weakly, increase in lending was paired with a marginal reduction in economic growth. In the regression, the constant term was statistically insignificantly different from zero, the coefficient of the rate of change in the amounts of loans was negative but statistically insignificant. The whole regression was statistically insignificant with variation in economic growth weakly explained by variation in the rate of change in the amounts of loans issued.

The interpretation of the findings is that there seems to be no relationship between lending and economic growth. In short, economic growth does not depend on changes in lending. These findings support those of Umaru, Hamidu & Musa (2006) who conducted a similar research in Nigeria. The study found no causation between domestic debt and GDP. This study concluded that debt, local or external, did not cause economic growth.

The findings are also similar to those of Maana, Owino & Mutai (2008) who did a study to establish the impact of domestic debt in Kenya. The study found that domestic debt

expansion had a positive but not significant effect on economic growth during the period. The research therefore concluded that domestic debt did not have an effect on economic growth.

The findings also agree with those of Marijana (2009) who reviewed empirical research that had been done to establish the link between financial intermediation by banks and economic growth in the two decades between 1989 and 2009. The study questioned the prioritization of financial sector in many countries' policies for economic growth. The study cast doubts on the assertion that financial intermediation by banks drove economic growth. This meant that lending, as one of the intermediation areas were not automatic drives of economic growth.

The study sharply differs with the findings of Zhang, Wang & Wang (2012) in China. Whereas this study finds no relationship between economic growth and commercial banks' lending, the study by Zhang, Wang & Wang (2012) found that lending by Chinese banks was positively related to economic growth indicating that lending spurred growth. However, the ratio of corporate deposits to total deposits had a negative effect on economic growth.

The findings also differ from those of Aurang (2012) who studied the effect of commercial bank borrowing on economic growth in China. The Granger-Causality test used for analysis confirmed that there was a bidirectional causal relationship between deposits, advances and profitability and economic growth. Whereas this research finds no relationship between lending and economic growth, Aurang (2012) concluded that

activities in the banking sector, including advances by the commercial banks, affected economic growth.

The study also sharply differs from the findings of Abubakar & Gani (2013) who found that, contrary to convention, loans to the private sector actually hampered economic growth. The study by Abubakar & Gani (2013) had applied the Johansen & Juselius (1990) approach to cointegration and Vector Error Correction Modeling (VECM). The study established that in the long-run, liquid liabilities of commercial banks exerted significant positive influence on economic growth while credit to the private sector, interest rate spread and government expenditure exerted significant negative influence. The study concluded that credit to the private sector deterred economic growth.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This is the final chapter of this project. It provides a summary of the findings and the discussions. The chapter also draws the conclusions from findings, highlights the limitations of the studies and provides consequent recommendations.

5.2 Summary of Findings and Discussions

The intention of this research was to establish whether lending by commercial banks in Kenya affected Kenya's economic growth. This was a test for the convention that commercial banks' lending spurred economic growth. To establish the relationship, rates of change in the amounts of loans given by commercial banks as regressed against economic growth.

Data used for the research was obtained from the financial statements of the 43 registered commercial banks in Kenya. The rate of economic growth was regressed and the dependent variable against a one year lagged rate of change in loans advanced by commercial banks.

The regression results show that constant term was positive but not significantly different from zero. The coefficient of regression was negative but not statistically significant and the whole regression was not statistically significant. Further, the variation in rate of change in commercial bank lending did not strongly explain the variation in economic growth.

The interpretation of the findings is that there seems to be no relationship between lending and economic growth. In short, economic growth does not depend on changes in lending. This is in sharp contrast to the policy of using loans from commercial banks to drive economic growth in Kenya. The findings of this research seem to indicate that loans given to the Kenyan citizens and organizations do not contribute greatly to GDP growth rate. The implication could be that, either the loans impoverish Kenyans even more, or the loans are used for activities that do not contribute much to economic growth.

This research provides a strong question concerning the prioritization of financial sector in many countries' policies for economic growth with focus on credit creation. The study casts doubts on the assertion that financial intermediation by banks drives economic growth. This means that lending, as one of the intermediation areas is not an automatic driver of economic growth.

5.3 Conclusions

From the analysis of the data on economic growth rate, Kenya seems to have had growth rates that tend towards six percent. This means the country is driving towards higher economic growth rate. The distribution of the rate of change in the amounts of loans issued to borrowers was normally distributed around the mean change in lending. This indicates that the policies towards lending and the actual purchase of credit products statistically normal.

However, the correlation between economic growth rate and the rate of change in the amounts of loans issued was negative but weak. This indicates that though weakly, increase in lending was paired with a marginal reduction in economic growth. This leads

to the conclusion that an increase in lending pairs with a slight drop in economic growth rate.

In the regression, the constant term was not statistically significantly different from zero; the coefficient of the rate of change in the amounts of loans was negative but statistically insignificant. The whole regression was statistically insignificant with variation in economic growth weakly explained by variation in the rate of change in the amounts of loans issued. This leads to the conclusion that Kenya's economic growth is totally variable. However, it is weakly related to changes in lending. This is an indication that Kenya's economic growth is not strongly determined by the loans issued by banks to private borrowers.

The findings agree with the postulations of research works of people like Aliero, Abdullahi & Adamu (2013) and Abubakar & Gani (2013) who found that, indeed loans to the private sector did not do much to improve economic growth. However, the findings seem to disagree with the findings of Marijana (2009) and Zhang, Wang & Wang (2012) who found that credit from commercial banks led to economic growth. One reason for such a result would be what the loans are used for. If loans are spend on projects that drive economic growth, than the economy grows with more loans.

5.4 Limitations of the Study

The strength of this research lies in its time limit. The scope of this research was for the five years ending and including the year 2012. It is not known whether the results would hold if a longer period would have been researched upon. Further it is not possible to tell whether the same findings will hold for the period after 2012.

There are very many commercial bank markets in the world at different levels of development. From this research one cannot tell what other countries experience concerning commercial bank lending and economic growth. This study has covered the Kenyan commercial bank market only.

The study has not been able to demonstrate that there is causality between commercial bank lending and economic growth. A causality relationship between economic growth and commercial bank lending would show how lending spurs economic growth. This study has limited itself on showing the correlation relationship.

5.5 Recommendations

5.5.1 Policy Recommendations

Concerning the skewness of economic growth rates that are skewed towards six percent, this study wishes to recommend that mechanisms are put in place to push Kenya's economic growth rate even further. However, lower growth rates like the one achieved in 2008 should be avoided by properly managing the political risk that is believed to have lowered the growth rate.

Basing on the correlation between economic growth rate and the rate of change in the amounts of loans issued which was weak, the study recommends that. Changes in amounts lent by commercial banks cannot be used as strong indicators of economic growth in Kenya. The economic growth rate realized cannot provide information concerning the lending in the country.

Concerning the weak regression between economic growth rate and lending, this study wishes to recommend the use of other driving forces to push economic growth. This is

because economic growth does not seem to respond to loans from commercial banks. In fact, at best, the loans seem to be suffocating economic growth in Kenya.

5.5.2 Suggestions for Further Research

There is a need to answer the question of whether the findings of this research can be made universal across time in Kenya. Banks have been lending since the first time a commercial bank was established in Kenya to date. The period of study, however, has covered only five recent years. This reduces the power of universally applying the results across time. A research can be done to determine the nature of the relationship between economic growth and commercial bank lending for a longer period of time.

There are very many commercial bank markets in the world at different levels of development. This study has covered the Kenyan commercial bank market only. A research can be conducted to determine the relationship between economic growth and commercial bank lending with regard to different levels of development. This can give insight into whether the environments within which lending is done contributes to economic growth.

There is need to determine whether there is a causality relationship between economic growth and commercial bank lending. Further, the nature of the causality needs to be established in order to enable the information become a guide to planning how to factor the banking sector in Kenya's development program.

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APPENDICES

Appendix I: List of Commercial Banks in Kenya

(Source: Central Bank of Kenya, 2014)

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
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.

Appendix II: Loans Advanced by Commercial Banks in Kenya (KSh. Million)

NAME OF BANK	2009	2010	2011	2012
CFC Stanbic Bank	44977.967	58984.96	64256.754	66149.841
Fina Bank Limited	5937.14	6047.276	7276.704	10077.068
African Banking Corporation	3992.127	4933.235	7073.553	9446.582
Bank of Africa	9120.438	14836.692	21639.691	29284.044
Bank of Baroda (K) Ltd	9084.43	13434.459	19144.038	29882.472
Bank of India	5439.539	6718.235	7229.142	10014.941
Barclays Bank	93542.609	60336.829	99072.495	112694.52
Chase Bank Limited	6745.468	9693.276	18139.459	21922.597
Citibank, N.A.	21401.747	20844.636	28451.457	55374.811
Commercial Bank of Africa	183.868	32608.876	39609.515	66381.215
Consolidated Bank of Kenya	30087.373	5392.436	9197.024	9789.658
Co-op Bank	3868.472	86618.311	109408.815	119087.75
Credit Bank Ltd	62274.421	1926.918	2883.261	3340.924
Development Bank of Kenya	1881	4472.541	5901.794	5519.203
Diamond Trust Bank Kenya	4768.579	35658.053	50943.685	42504.096
Dubai Bank Limited	30634.025	327.331	1516.83	439.993
Ecobank Kenya Ltd	1144.162	10208.137	11380.592	19038.319
Equitorial Commercial Bank	6444.336	4851.414	6635.194	8742.625
Equity Bank Limited	2749.529	87146.982	106486.367	122410.01
Family Bank	59868.232	5923.97	16332.359	13968.266
Fidelity Commercial Bank	7675.806	2249.351	6546.236	6638.611
First community Bank	3293.085	2983.55	4257.855	5452.627
Giro Commercial Bank	2290.296	6270.884	6360.245	6931.62
Guardian Bank	3682.333	5252.438	5864.527	5291.22
Gulf African Bank	4121.977	5286.18	7439.551	7538.442
Habib AG Zurich	4950.218	3484.944	2667.168	2328.071
Habib Bank Limited	2175.272	2450.6	2176.581	2739.612
Housing finance	1253.92	11131.009	25222.836	30293.711
I & M Bank	24591.5	21322.597	46778.935	59930.459
Imperial Bank Limited	9676.11	11262.362	14903.789	17868.745
Jamii Bora Bank	96557.588	302.034	302.034	1782.897
Kenya Commercial (KCB)	4816.96	137344.57	179843.987	187022.66
K-Rep Bank Ltd	1619.369	4732.471	6754.243	7153.027
Middle East Bank of Kenya	13156.455	279.274	2564.178	3144.797
National Bank(NBK)	31133.484	38340.879	28068.218	28346.668
NIC Bank Ltd	1518.545	37850.277	52025.475	23331.003
Oriental Comm. Bank	1355.655	1735.099	2851.069	3112.099
Paramount-Universal Bank	10615.38	2218.24	2067.01	3498.626
Prime Bank Limited	56694.876	14122.485	18393.706	21150.662
Standard Chartered Bank Ltd	1688.664	72902.021	96097.823	104204.3
Transnational Bank Limited	3174.092	1991.178	3381.98	4359.518
UBA BANK	1086.032	1086.032	505.57	1308.915
Victoria Comm. Bank Ltd	1595.752	1595.752	4110.436	6954.783
TOTAL	692868.831	856856.76	1151762.18	1296452

Appendix III: Kenya's GDP Data

YEAR	US DOLLARS (STANDARDIZED BASED ON 2005 DOLLAR RATES)
2007/08	21,643,728,537.00
2008/09	22,216,164,773.00
2009/10	23,449,508,351.00
2010/11	31,408,000,000.00
2011/12	33,621,000,000.00

Appendix IV: Kenya's Growth Rate

YEAR	GROWTH RATE (%)
2008	1.5
2009	2.7
2010	5.8
2011	4.4
2012	4.7

Appendix V: Kenya's Growth Rate and Rate of Change in Lending

YEAR	GROWTH RATE (%)	RATE OF CHANGE IN LENDING (%)
2009	2.7	23.67
2010	5.8	23.67
2011	4.4	34.42
2012	4.7	12.56