EFFECTS OF INTEREST CAPPING ON RETAIL CREDIT GROWTH IN KENYA COMMERCIAL BANKS

BY

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DECLARATION

I declare that this research project is my original work and has not been presented for any award in any other university.

Sign_____   Date_____

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

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ACKNOWLEDGEMENTS

DEDICATION

First and foremost I dedicate this work to almighty God by whose guidance I have been able to achieve this far. Secondly, to my whole family for their assistance and understanding during the busy times that I had to work on the entire project.

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ACRONYMS AND ABBREVIATIONS

CBK: Central Bank of Kenya

CBR: Central Bank Rate

CRR: Credit Reserve Ratio

GDP: Gross Domestic Product

KCB: Kenya Commercial Bank

NPLs: Non Performing Loans

ABSTRACT

Introduction of capping of interest rates by the government through parliament was meant to make borrowing affordable to most of Kenyans. However, this has led to criticisms due to escalation of the overall cost of borrowing due to other additional charges to the possibility of banks withdrawing from lending and hence making credit accessibility. The aim of the study was to assess how the interest rate capping affected retail growth in commercial banks in Kenya. This research was descriptive in nature. The population of this was all the 43 Kenyan commercial banks registered in Kenya. The study adopted a census survey since the study population is not so large. Data on credit supply was obtained from CBK website for the past one year prior the capping and one year post of capping interest rate. A bivariate regression analysis was used to establish link between retail credit growth and capping interest rates. Data was captured and analyzed using Statistical Package for the Social Sciences (SPSS).The study established that interest rates charged by commercial banks are a main factor that affects retail credit growth. Introduction of capping interest rates interfere with the market and hinder financial institutions from offering loan products to those at the lower end of the market. Introduction of interest cap rate has discouraged supply of funds to the financial system, thus encouraging informal mechanisms. From the above findings, the study recommends diversification of funding sources which will enable borrowers tap into Alternative Avenue. Consumer education is also important to enable borrowers how to access credit and establishing a strong credit history. On the other hand, banking (Amendment) Act can be repealed given the current regulatory framework has proved to be a hindrance to credit growth.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Interest is the reward that accrues to people who provide the funds with which capital goods are bought (Armendariz & Marduch, 2010). Interest can also be explained as the payment made to a lender by a borrower for the utilization of money given for specified period of time (Beck, 2011). Commercial banks are the leading renders to retail borrowers (Kingsley, 2012). They are key in an economy as they consolidate savings for investments and facilitating capital flows among various sectors in the economy. (Nils, 2014; Abdul & Khan, 2014), thus, stimulating investments and increasing productivity (Beck & Maimbo, 2013; Moses & Daniel, 2013). Banks act as intermediaries whereby individuals makes deposits and loans are advanced to them meaning they essentially generate income from the differences between the rate charged to borrowers and the rate awarded to the depositors. (Keith & Abo, 2010; Isaiah, 2008; Friedman & Schwartz, 1971). Their operations are guided by monetary policy actions under central bank directives (Philemon & Alex, 2016).

Before September 2016 banks were charging interest at a percentage of 18, as per data from Central Bank of Kenya with some individual borrowers paying 24 per cent for short- to medium-term loans contrary to the policy actions (Philemon & Alex, 2016) which triggered legislative action from Parliament to capping interest rates (Klaus, 2016).In September, 2016 legislative members approved a bill that amended the Banking Act by putting restriction on rates which banks offer to deposits and loans (Philemon & Alex, 2016). The amendment provided a ceiling on 4.0% lending rate above the Central

Bank Rate and at 70 % floor on the deposit at the Central Bank Rate (CBR). This effort was seen by borrowers as a good move that would generally boost business and growth in the economy (Daily Nation, 2017). Nevertheless, the economic underpinnings may not necessarily present this scenario as desirable as the effects are both favorable and unfavorable respectively (Chiquier & Lea, 2009). Interest capping will have an impact on the efficiency of banking industry as it does not consider several factors that could affect the conclusions made by banks while making decisions to opt for certain spreads (Hershbein, 2014).

Banks in Kenyan have been experiencing an average of 11.4% of interest spreads, which is exceeds 6.6 % of the world average for the past 20 years (Philemon and Alex, 2016). Dr. Patrick Njoroge, the Central Bank Governor, has acknowledged that the spread of 11.4 % is high though he wasn't advocating for ceiling of interest rate because it would lead to rigidity in the banking industry and may lead to the crop up of shylocks and sham banking as individuals who gets precluded from access credit from financial institutions due to their low rating on credit are excluded from the financial market (Daily Nation, 2017). There exists market driven prescriptions for addressing the cost of credit in order to improve access to finance (Ledgerwood 2013). These include enhanced competition in the banking industry, product re-engineering and innovation, improved protections of financial consumer framework, increased financial education, promotion of bureaus of credit reference, enforced disclosures of rates of interest and total cost of borrowing, and promoting micro-credit products (Nelson, 2012). All these initiatives have been launched in Kenya and hence the overall impacts are expected to be favorable than when capping interest rates, as observed by various economic literatures.

Fundamentally, the decision to control banking interest rates on lending was not warmly welcomed by banks in what was thought to be an interference of the rights in which the banks would decide how to lend based on the perceived cost of lending as well as the interaction between demand and supply (market forces) (Klaus, 2016). In a report on Kenya's Daily Nation on 27th January 2017, it was clear that the International Monetary Fund was for the opinion that capping interest rates was ideally not a good move for the country's economy which cited that the move will eventually slow down the economic growth of a country that is considered the largest economic hub in East Africa, hence making it possible to destabilize the entire East Africa financial market (Daily Nation, 2017). "The outlook of macroeconomic is positive, including reduced external imbalances and robust growth. It also maintained that given the negative impacts of the controls in the short run are manageable, it extend a financial risk to the stability of Kenya financial industry if permitted to hold on the long run (Daily Nation, 2017).

The new status quo is definitely splendid news for loan seekers, but not so much for banks, as it turns out the banks are starting to feel the negative effects of the interest rate cap. While acknowledging the need to lower the overall cost of credit, banks continue to be a bit apprehensive of the outcomes of ceiling interest rates on banks. Some of these effects such as – credit rationing, inefficiencies in the market of credit, increase in the growth of unregulated lending entities, and underrating the effectiveness of policy for monetary transmission- are already being felt. In the today's business environment, several entrepreneurs with their different forms of businesses are over represented in the pool of borrowers; these individuals bring into discussion the subject of borrowing. Borrowing in the real world is subject to lending standards that extends beyond the

interest rates, this in other words is to say, banks play a key role in mitigating adverse selection by providing borrowers with incentives. Hence any interference with the normal lending system results in a significant deficiency in the credit market.

1.1.1 Interest Capping

A "Capped Rate" is a rate allowed to fluctuate, but may not exceed a specified interest rate cap. Custom Values should provide the borrower with a hybrid from a variable and fixed rate loan. The fixed part is derived from the maximum rate, while the variable portion is derived from the loan and the ability to move upwards or downwards, with the fluctuations of the market. The basic idea is that ceilings of the rate of interest limit the efforts of some banks in increasing their interest yield (summation of income from loans as a percentage of the average lender's annual portfolio of gross loans) more so in the industry defined by having no transparency, low level of financial literacy and limited disclosure requirements. Despite its good intentions, interest rate capping has potential of hurting segments of populations with low income by limiting their finance accessibility and tinting transparency in pricing of loans. Too low capping of interest rate may expose financial institutions to experience difficulties in recovering total costs attached to loans, slow down their growth, reduce their scope of service delivery undeveloped areas and other perceived high risk markets, and even make them to be less transparent in regard to the total cost of loan and by large extent exit them from the market entirely.

In September 2016, following the directives of parliament through Central Bank (CBK) the Baking Act was successfully amended placing a restriction on interest rates which commercial banks offer to deposits and loans. The amendment provided a ceiling on

lending rate at 4.0% above the CBK rate and a 70 % floor on the deposit at the Central Bank Rate (CBR). This legislative action was provoked by the high interest rates that the Kenya banks charged, with some borrowers being charged as high as 24 per cent for short- to medium-term loans contrary to the policy actions (Philemon & Alex, 2016). The government hoped to achieve financial inclusion of all citizens (borrowers) with the affordable loan interests.

According to a presentation at the 25th Institute of Certified Public Accountants of Kenya, (ICPAK) Economic Symposium, 16th February 2017 by Habil Olaka, Chief Executive Officer, Kenya Bankers Association concluded that structural and policy issues that influence interest rates need to be addressed since the short-cut of fixing the price will not work. This was arrived at after the various considerations of case-scenarios of countries that had previously introduced a fixed cap on interest rates. The effects in Zambia after introduction of an interest cap in 2013 were seen in the near-collapse of the credit market – credit to households, SMEs; the local currency was hard hit as lenders gave hard currency loans to non-tradable sectors (not earning foreign exchange). Though later repealed in November 2015, the implication of removing the caps is that there is no limit as to the maximum rate of interest that financial institutions can provide.

1.1.2 Retail Credit Growth

Credit control is a measure meant to encourage lending to creditworthy and discourage lending to low credit rating borrower thus increasing turnover and reducing bad debts, hence enhancing a company's cash flow. The effectiveness of these controls procedures are based on the lender's capability to provide sober judgment on the creditworthiness of potential borrowers which is less costly compared to the cost incurred while reclaiming

money from the delinquent borrowers. Creditworthiness is an analysis executed by lenders that aims at determining the possibility of a borrower in defaulting his debt obligations. Among other factors considered are credit score and previous repayment history. Lending institutions also consider the value of available assets and the magnitude of liabilities to determine the probability of a customer's default. Credit risk assessment is a vital aspect of management of credit risk as it seeks to reduce bank failures caused by defaults (Kegode, 2006).

Financial institutions grant credit as a method of generating revenue from interest and commissions. Credit risk assessment aims at ensuring that only creditworthy customers are granted credit. For banks to reduce the non-performance of SME loans there is need for effective credit policies to be put in place. (Nduba, Florence M 2010). Nduba further stated in her study that while evaluating the creditworthiness of SMEs, banks should not be driven by competition for market share or the achievement of high revenue targets as this was found to be a major contributor to the high level of NPLs in banks. Good communication and avoiding over reliance on past performance or on large networths as this has led to increased non-performing loans. 'Credit policy' refers to statement of guidelines, philosophy and standards that bankers need to adhere to while granting loans or rejecting loan requests while 'performance' refers to change in number or value of loan granted and profit level. (Wanja, Mwaura Dorcas 2013)

A study carried out by Wanja, Mwaura Dorcas in 2013 aimed at investigating the effects of credit policy employed by commercial banks on their performance concluded that the nature terms and conditions attached to loan had a large effect on the competitiveness of the bank and the size of loan applications received by the bank on a small extent. Finally,

the study concluded that most financial institutions in a large extent rely on the previous credit history of the borrower, his account movement and his personal behavior in awarding loans. The findings of the investigation portrayed that the status of the credit policies employed by the commercial banks dictates on the volumes of loans procured by commercial banks and thus bank's competitiveness in lending and performance in the industry. Net result of capping of interest rates has been reduced credit supply, exit of lenders due to high operational costs and risk, increase in informal lending channels like 'shylocks', and an increasement on loan's cost due to additional supervisory fees (Woodford, 2009) thus small and medium enterprises may lack credit. Banks are only willing to lend to prime borrowers who have security as a way of credit rationing, away from the average lender because no one wants the cost of more NPLs.

1.1.3 Interest Rate Capping and Retail Credit Growth

According to Mwangi (2016) who assessed the effect of interest rate lending in the performance of microfinance institutions in Kenya by use of regression analysis, revealed a positive and significant relationship between lending rate, management efficiency, operating efficieny and performance of microfinance institutions in Kenya. Although, the study adopted use of regression analysis it would have been appropriate to use panel analysis approach since the data was panel in nature. Moreover, exlcusion of panel data diagnostic tests and regression model assumotion may have led to biased results.

Further, Nyakio (2017) carried out a study on the the effect of interest rate capping in the performance listed commercial banks in Nairobi securities exchange. A check list was used to collect the secondary data. Correlational analysis was used to analyse the data. Results of the study revealed an inverse relationship between between stock prices and

lending rates. In contrast there was a positive relationship between lending rates and trading volumes. It would have been more appropriate to adopt panel data analysis approach rather than analyse the data as if it was cross sectional in nature. There was also a need to carry out panel data diagnostic test which would have assisted in the best optimal model to fit in the data.

1.1.4 Commercial Banking in Kenya

The Central Bank of Kenya (CBK), the Companies Act, and the Banking Act are the key regulators of banking Industry in Kenya. The above mentioned Acts are concurrently applied in conjunction with the prudent guidelines issued from time to time by CBK. In 1995 controls on exchange were lifted following the liberalization of the banking in Kenya. CBK is mandated to be formulating and implementing fiscal and monetary policies, to function as the banker to commercial banks as well as being the lender of last resorts. It also ensures proper functioning of the Kenyan financial system, the solvency of the Kenya shilling and the liquidity in the country. For matters relating to the banking sector in Kenya, banks have formed a union within a forum framework of the Kenya Bankers Association.

1.2 Research Problem

Despite the fact that the government through parliament had the best interest of the Kenyans in terms of making the borrowing cost affordable, the capping of interest rates however has received strong criticisms which range from possible escalation of the overall cost of borrowing due to other additional charges to the possibility of banks withdrawing from lending and hence making credit accessibility low (Philemon & Alex,

2016). Employing economic principles on lending could have long-run effects rendering Kenyans to lack accessibility to credit, as well as depolarising the country's economy significantly (Tseganesh, 2012). Due to these facts, this study sort to put emphasis on the perception of commercial banks as well as the efforts that they have already put up in order to ensure they continue to be in business sustainably.

Empirical enquiries on the factors influencing credit access globally and locally, has registered inconsistent results in both micro and macro factors in credit access, for example Ivanovic (2015) reported on the need for soundness in the banking sector so as to propel economic growth through linking deficit and surplus finance providers. This study had a combination of both time series and panel data which would have not been possible to model them concurrently. Moreover, these findings are in a different economic set up as compared to Kenya in both economic development and bank regulatory framework. Secondly, a Ghanian case by Nkuah, Tanyeh and Gaeten (2013) only considered the attributes of the borrow in regard to access to credit, since the study relied on cross sectional data it would not have been appropriate to evaluate the findings for more than one period and since the influence of regulatory changes cannot be evaluated within a single period then the applicability of the study in evaluating credit growth is in admissible. A Kenyan perspective by Mose and Namusonge (2013) considered SMEs drawn from Kitale, the study was simplistic in nature, drew cross sectional data and hence could not allude the findings to be true measures of credit access by considering single period evaluation.

Therefore it is imperative, due to the inconsistency of the findings with both empirical and theoretical literature. Persistent use of cross sectional data in both local and global

studies. Glaring methodological challenges in data analysis and choice of sampling techniques there is need to evaluate on the effect of interest rate capping on retail credit growth more so in Kenya through use of time series analysis and consequently compare and contrast its effect. The main research question is what is the effect of interest rate capping on retail sector growth?

1.3 Study Objectives

1.3.1 General Objectives

The main objective of this investigation was to establish the effects of interest rate capping on retail credit growth in Kenya Commercial Banks.

1.3.2 Specific Objectives

The following were the specific objectives to guide the study;

1. To investigate if capping of interest rates has led to reduced credit supply.
2. To determine if capping of interest rates has led to exit of lenders from the financial market.
3. To determine if a capping of interest rates has led to an increase in the cost of loans through additional fees.

1.4 Value of the Study

The study will advise the government to appreciate the relevance of economic principles as far as controlling interest rate is concerned and specifically in a liberalised market economy. The study findings will also help CBK to come up with better policies and steer forward the enactment of appropriate laws that can help address the situation of

interest rates. This study will also be relevant to commercial banks in determining the best strategies they can employ especially in avoiding the losses and maximising of profit. It will also shed light on investment measures as well borrowing to investors and borrowers and advise legislators in coming up with policies that can actually help to remedy the situation if established that it will escalate negatively in the future. Finally this study will be of incredible value to academicians on adding knowledge on the effects of interest rate capping to commercial banks.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This provided a review of literature on the effects of interest capping on credit growth in Kenya Commercial Banks. The chapter developed a theoretical framework and a conceptual framework that will help to link each of the study variables to the research questions. A critical review was also discussed and the study identified research gaps.

2.2 Theoretical Review

2.2.1 The Financial Intermediation Theory of Banking

This theory was proposed by Gurley and Shaw in 1960 and holds that banks like other non-bank financial institutions are merely financial intermediaries which consolidate deposits and lend them out. The theory of intermediation on financial matters is specifically relevant as it re-looks at the main goal of banks in any economy (Greenbaum & Thaker, 2007). As a matter of fact, banks exist with a fundamental aim of mobilizing deposits from people who have the funds without any immediate use, and hence connects these people with those who actually need the funds (Berger, 2015). Of great importance in this case is that, the people who demand the funds may not be in a position to reach or meet with those who have the funds due to a number of factors. Firstly, the financial risks involved in the process where an individual may not with certainty trust another person probably if they are not appropriately acquainted may restrict borrowing from persons in the society. Secondly, it may be difficult for the people who need the funds to identify in the society those who have the funds that can be used. In order to solve these

uncertainties, banks came in to help link those who want to save and those who want to put into use funds for economic gain in both cases (Mallick & Marjit, 2008).

2.2.2 The Fractional Researve Theory of Banking

This theory originated many centuries ago before governmental monetary authorities were put in place. Its development was catalyst by bankers' realization that basically all depositors do not demand for payment at similar time. It became widely used from 1920 and its application highly appreciated by the Swedish Riks bank which was the first world's central bank, formed in 1668. This theory argues that all banks co-exist to form reserves, hence "fractional reserve theory" (Berger, 2015). The theory holds that indeed, banks are fundamental pillars in an economy as they provide a meeting ground for investors who has excess funds with borrowers who has deficit fund thus creating money reserves that can be used in funding development in the economy. The theory argues that, there could be no country that will be having any reserves, may it be in local currencies or even in foreign currencies were it not for the existence of banks. Precisely, when speaking of currencies in foreign denominations that is, foreign currency, commercial banks facilitates the translation of foreign currencies into local currency of specific country through their central banks, this is a main milestone as far as creation of reserve is concerned (Greenbaum & Thaker, 2007).

The significance of this theory to this study is based on the fact that the theory acknowledges that both regulated and unregulated financial institutions play a key role in the reserve creation process. The importance of both regulated and unregulated financial institutions in the banking industry as long as regulation is concerned makes the "shadow banking" industry to attract more focus and attention as being instrumental in reserves

creation in the entire economy. (Berger, 2015).However, the major challenge to this concept is based on disclosure requirement principle. The question that emerges is if the entire banking industry is not regulated, then could it be possible for government and other relevant authorities to ascertain with confidence the magnitude of their contribution to the economy.

2.2.3 The Credit Creation Theory of Banking

This theory was proposed by Alfred Mitchell-Innes and Anthropologist David Graeber in the beginning of 19th century. It supports banks existence in the economy irrespective of whether these financial institutions are unregulated or regulated. Fundamentally, this theory differs with the first two on the bases that banks existence is not for the purpose of "financial intermediations" but rather to lend out money for nothing (Berger, 2015). Based on this assertion, the theory propagates that as a result of banks' lending out funds in form of loans, they end up creating a portfolio that keeps on increasing over time, hence enabling those who wants to borrow for various use to have access to the funds. However, this theory fails to link the origin of funds that are advanced as loans and those that are deposited to the commercial banks as savings mobilized from the members of public.

It is vital to note that without credit accessibility; most of the economic activities such as entrepreneurship may fail to be successful because the funds provided by financial institutions acts as the seeding synergy to conduct the business into levels of stability and propagate expansion respectively (Mallick & Marjit, 2008).

2.3 Determinants of Retail Credit Growth

An investigation of the determinants of retail credit growth in Montenegro by Ivanovic (2015) established that there was a significant relationship between credit sector growth and soundness of banking systems, positive economic development which enhanced savings culture and consequently increased credit potentials. In contrast there was an inverse and significant relationship between credit growth and increased levels of nonperforming loans. This study relied on secondary data which was a mixture of both time series and panel data and would have been not possible to analyse their effects jointly. It would have been appropriate to analyse the macro and micro economic factors independently.

A study by Nkuah, Tanyeh and Gaeten (2013) on the examination of the determinants of credits access among small and medium enterprises in Ghana, through use of quantitative research design and simple random sampling to select 80 respondents who were drawn from Wa Community. Results of the study revealed that there was a significant effect of gender on credit access and male owned enterprises accessed more finance. Secondly, firm characteristics such as sector in which they operated influenced credit access with more preference being in service sector as compared to production sector. In contrast the highest level of education attained had no significant influence on credit access. It would have been appropriate to add use of non parametric analysis since most of the variables were in categorical scale rather than draw conclusions from descriptive statistics alone.

Mole and Namusonge (2013) investigated on the determinants of credit growth among SMEs in Kitale town. The study adopted descriptive research design and stratified random sampling to draw 256 respondents. Primary data was collected through use of

structured questionnaires. Data was analysed through use of descriptive statistics, correlation and regression analysis. Results of the registered positive and significant relationship between; lending procedures, availability of collateral security, credit rating as per credit reference bureau and availability of financial training and access to credit. There is need to stimulate SMEs training on financial management practices as such to enhance prudent accounting and budgetary procedures which would minimize the level of information asymmetry between lenders and borrowers. It would have been appropriate to adopt exploratory factor analysis in addition to regression more so in the calculation of regression weights.

Kabede and Abera (2014) investigated on the determinants of finance access among SMEs in Asella. The study applied descriptive research design; a structured questionnaire was used to collect primary data from 134 SMEs. Data was analysed through use of binary logistic regression model. The study found that operator's age, education level, value of collateral security and loan period all had significant influence on access to finance. The choice of binary logistic model was appropriate as such to calculate the odds for and against credit access. It would have been imperative to use more than type of scale rather than rely mostly on nominal scale to evaluate borrow characteristics.

2.4 Empirical Review

A study by Corazon (2014) on "the effects of monetary policy on economic growth in Kenya" categorized interest rates as a means of monetary control to some extent. Ideally, the overall impact of interest rates is an issue that is clearly noticed in the overall economic growth and development as revealed by (Corazon, 2014). This study aimed at quantitatively measuring the effect of monetary policy on Kenyan economic growth. The

conclusions from this study shown that one standard deviation financial policy shock provided by means of the CBR had a terrible and insignificant impact at the output in the first two months which then turns into positive and insignificant in the next four months. But, a one standard deviation shock of the interbank rate to inflation is positive and significant for the first and a 1/2 months. The effect remains advantageous however insignificant as much as the 6th month. The outcomes of this investigation drew conclusions that could influence policy decisions and also that could ensure growth in economy. Recommendations made from this investigation were considered relevant in assisting the CBK in formulation of policies that can make interest rate to reduce to desirable levels to stimulate growth of economy and at the same time achieve low levels of inflation (Corazon, 2014). In essence, it is behind such motives and foundations that the government of Kenya resorted to cap the interest rates through the Kenya Central Bank, which has thereafter has been received differently by different players in the industry (stakeholders).

A study by Lucy (2012) of the University of Nairobi on "the effect of interest rates on the financial performance of firms offering mortgages in Kenya" defined interest rates as "*a price that relates to present claims on resources relative to future claims on resources. It is the price a borrower pays in order to be able to consume resources now*" (Lucy, 2012). Further, the scholar expounded that mortgage by their nature are long term investments that involves credit agreements ranging from 5 years to 30 years. For Mortgage Finance Institutions to deliver in such cases, there is need for a ready market to provide them with longer term funds. In turn, they can use these funds to invest in properties and provide the market with mortgage products. Limited long-term finance leads to limits the

construction of new properties which in turn makes the mortgage market to shrink as financiers are unable to provide long term finance as they are as well unable to access it as noted by Lucy (2012). Additionally, Lucy (2012) pointed out that the level of interest rates in an economy directly impacts that accessibility to loans or credits which in turn can be connected to the overall mortgage sector faster or slower growth rate.

Barasa (2016) of Institute of Certified Public Accountants of Kenya presented a research paper on "*banking sector reforms vital for growth*" in which he maintained that "it is worth noting that since 1906, when banking operation started in Kenya until 1992 interest rates were capped, that is 86 years of capping! In the same period of capping, banks still made reasonable profits and most of them prospered. In the year 2000, Honorable Joe Donde tried again through the Donde Bill to address the issue of interest rates but did not get much support from stakeholders. In the year 2015, there were fresh attempts to cap bank interest rates through the proposed amendments to the Finance Bill 2015. However, this did not go through as well. Capping of interest rates has been necessitated by the perception of a skewed credit pricing model which has been employed by the banking sector. This gave rise to the public cry that the banking institutions are making substantial profits to the detriment of borrowers. In consideration of whether or not to support the proposals to introduce interest rate ceilings in Kenya, it's imperative to look at the factors for and against such policy initiative. Whilst we appreciate the country's steps towards full liberalization of key sectors including the banking sector, an assessment of the impact of liberalization may be necessary. In the case of the banking sector, we must state clearly that liberalization has indeed mid-wifed significant growth within the sector. This notwithstanding, it would be a case burying our heads in the sand to assume that

liberalization is proceeding well in light of the credit financing challenges facing borrowers in light of the prevailing high loan interest rate regime" (Barasa, 2016).

"In this regard, Barasa held a position which asserted that the Institute is of the considered opinion that the banking sector in Kenya has operated on an oligopolistic market model where credit pricing does not reflect market fundamentals. Hence according to Barasa, the move to cap interest rates is welcome and should be implemented in public interest to yield benefits to consumers from high rates by making loans affordable and increase access to finance. In addition, interest rates ceilings should be used to support a specific sector of the economy where a market failure exists or where there is need for more financial resources. Such market failures often result from information asymmetries and the inability of financial institutions to differentiate between risky and safe customers" (Barasa, 2016).

Finally, Habil (2017) of Kenya Bankers Association's presentation of the capping of interest rates debate in a forum organized by ICPAK in February 2017 16[th]deemed the move as not necessary. He said and I quote, *"Capping interest rates does not address a market failure problem; it instead introduces one. The Kenyan experiment will play out like that of other economies that have tried this blunt tool and on the process hurt themselves. As a price, interest rate is an outcome of an interplay of many factors – some structural and others policy. If high interest rates are persistent, then the remedy lies in addressing the policy and structural problems"* (Habil, 2017).

2.4.1 Conceptual Framework

The proposed conceptual framework will consider independent variables (reduced credit supply, exit of lenders, increase of informal lending and increase of in total cost of loans), as well as the dependent variable (Retail credit growth) as conceptualised below.

Independent Variables   Dependent Variable

```
┌─────────────────────────┐
│  ➢ Change in Credit     │
│       Supply            │ ────────────┐
└─────────────────────────┘             │        ┌──┐      ⬤ Retail credit
                                        │        │  │              growth
┌─────────────────────────┐             │──────→ │  │
│  ➢ Fluctuation of       │ ────────────┤        │  │
│       willing Lenders   │             │        │  │
└─────────────────────────┘             │        └──┘
                                        │
┌─────────────────────────┐             │
│  ➢ Change in total cost │ ────────────┘
│       of Loans          │
└─────────────────────────┘
```
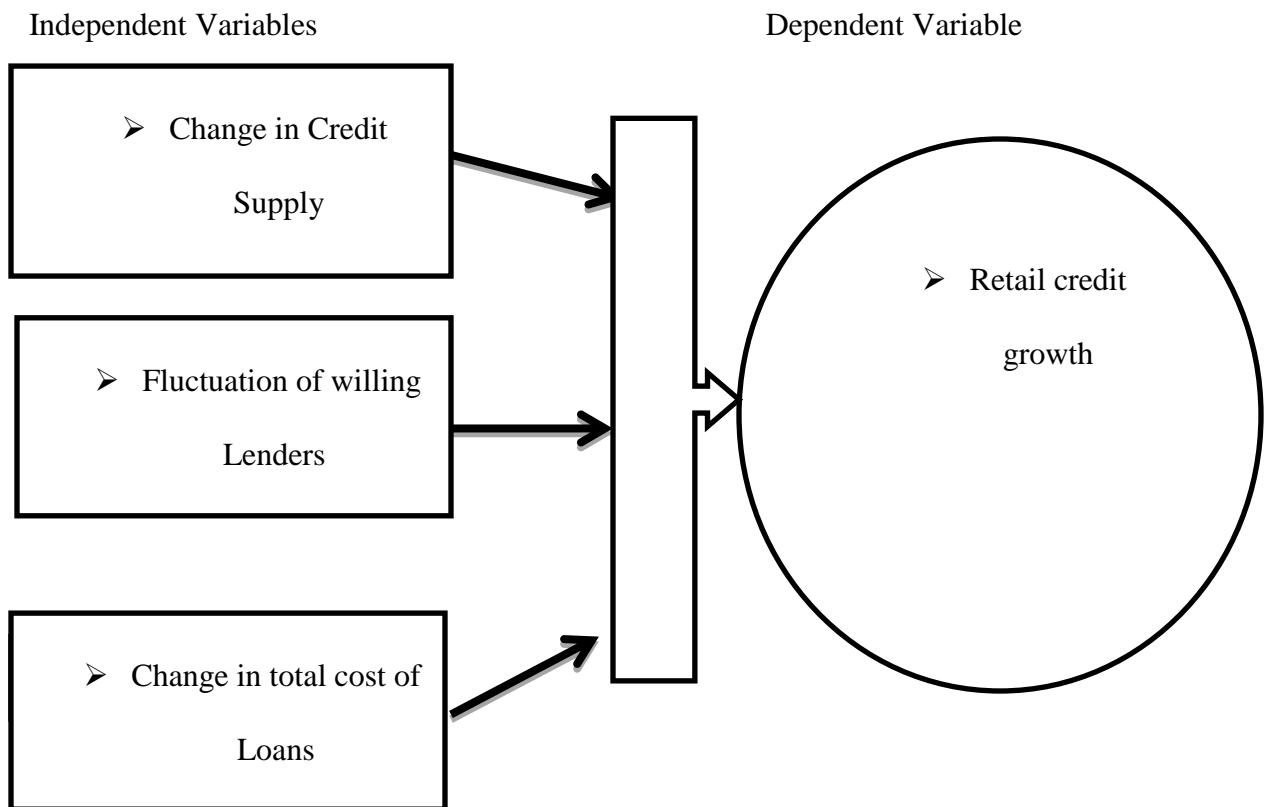
Source: Author, 2017

Figure 2.1: A conceptual framework

2.5 Chapter Summary

This chapter has provided a review of previous studies on the topic and the formulation of a conceptual framework to aid the study. Next chapter provides the chosen methodology.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This section covered the specific strategy embraced by the study for the conduct of the investigation. Areas of focus were the study design to be employed, the target population, the sampling approach and sample size to be used, data collection procedures, approaches to data analysis, diagnostic test, conceptual and analytical models, significance test and the level of reliability by the study instruments.

3.2 Research Design

Research is the systematic flow on how the research questions in a study was achieved. Currently descriptive research design was employed. According to Kothari (2004) through this approach the researcher is able to explain why and what as per the current problem. It is the most appropriate in the current study since sought to explain the effect of interest rate capping on retail sector growth. Access to finance in the retail sector can act as a yard stick on which employment was promoted.

3.3 The Target Population

According to the authors of the survey, the target population should have similar characteristics that can help you locate the discrepancies (Khan, 2011). In this case, the study focused on retail credit growth rate in commercial banks in Kenya. The study was aimed at gathering views and ideas into specific and identifies areas to inform the study and help the researcher to answer the research questions and to identify cases. The population was 43 commercial banks in Kenya, as shown on appendix A.

3.4 Sampling Approaches and Sample Size

Although, sampling procedures can be broadly classified into: probabilistic whenever the respondents can be drawn with equal possibilities and non probabilistic whenever they can be drawn as per clearly elaborated inclusion and exclusion policies (Kothari, 2004). In the current study census sampling procedure was used to draw respondents from 43 commercial which are currently licensed and operating in Kenya since the target population is small.

3.4.1 Data Collection Procedures

Secondary data was collected from annual statistics of central banks of Kenya for the past one year prior the capping and one year post the capping of interest rate. The study therefore relied on panel data which had the merits of enabling researcher control on non measurable data attributes (Woodridge, 2012). As shown in the data collection sheet in Appendix B; data on credit supply changes in retails sector lending, number of informal lenders and loan costs.

3.5 Data Analysis

This section covers diagnostic test procedures, conceptual models, analytical model, test of significance and reliability. In this research, the collected data was cleaned, coded and analyzed using a Statistical Package for Social Sciences (SPSS). This tool is able to allow the researcher to organize data and output descriptive measures which include percentages in order to make it easier for interpretation. The results were displayed in tables and figures respectively to enhance easier understanding and elucidation respectively.

3.5.1 Diagnostic Test

Linearity show that variables X and Y are related by mathematical equation Y= bx + c, where c is constant number. The linearity test is through the scatterplot testing or F-statistic in ANOVA. Stationarity is process a where the statistical properties such as mean, variances and autocorrelation structure do not change with time. Stationarity can be shown from the run sequence plot. Normality is a test for the assumption that the residual of the response variable are normally distributed around the mean. This was determined by Shapiro-walk test or Kolmogorov-Smirnov test. Autocorrelation is the measurement of the similarity between a certain time series and a lagged value of the same time series over successive time intervals. It is tested using Durbin-Watson statistic.

Homoskedasticity of variance is required for multiple linear regressions and therefore is when the variance of the error term is constant over the population while the variance of y is constant and is not dependent on the x's. Otherwise, non-existence of a constant variance of the variance of error term posits heteroskedasticity. Homoskedasticity is graphically evaluated using residual plots where the regression residuals are plotted against the values of the independent variables. If an even pattern about the horizontal axis appears then heteroskedasticity is unlikely. It can also been shown by white test and ANOVA test.

Multicollinearity is said to occur when there is a nearly exact or exact linear relation among two or more of the independent variables. This can be tested by the determinant of the correlation matrices, which varies from zero to one. Orthogonal independent variable is an indication that the determinant is one while it is zero if there is a complete linear

dependence between them and as it approaches to zero then multicollinearity becomes more intense. Variance Inflation Factors (VIF) and tolerance levels were also carried out to show the degree of multicollinearity

3.5.2 Conceptual Model

The proposed conceptual framework considered independent variables (change in credit supply, fluctuation of willing lenders, change in informal lending and change in the total cost of the loans), as well as the dependent variable (Retail credit growth) as conceptualised below.

$Y = f(x_{i,})$

Where;

Y-is the change in the amount of the credit advanced by the banks.

Xi-is the interest capping and other control variables.

3.5.3 Analytical Model

Data analysis is to transform the raw data obtained from the secondary sources, to useful information for the interpretation and conclusion. In this research, data collection was cleaned and analyzed using SPSS. The outcome of the data analysis was used for the purpose of the study variables relationships through a model that is given as;

$$Y_{it} = \alpha_0 + \alpha_1 X_{1it} + \alpha_2 X_{2it} + \alpha_3 X_{3it;}$$

Where;

Yit- Represents the amount of the credit advanced from the bank i in the period t.

X_{1it}- Represents the amounts of loans approved in the bank i in the period t as measured

by the volumes of loans rendered.

X_{2it} - Represent the fluctuation of lending appetite by banks i in the period t as measured

by the number of loans approved with regards to loans applied.

X_{3it}-Represent change in total costs of loans offered by banks in period t as measured

by the interest rate on loans respectively.

3.5.4 Test of Significance

The study used t-test, to find evidence as to interest capping has an effect on retail credit growth in Kenya commercial banks. The t-value indicated the size of the difference relative to the variation in the sample data below are the null and alternative hypothesis for test of significance.

H_0= interest capping has an effect on retail credit growth

H_1= interest capping has no effect on retail credit growth

3.5.5 Reliability

This is the level of reliability developed by the study of instruments (Kuada, 2012). This was achieved through the pilot study and the subsequent tests to be applied to the final conclusions in effort to assess the level of reliability (dependency). A specific approach was employed which is referred to as Cronbach's Alpha, in determining how reliable the results were. If repeated from time to time, the same results should be obtained. This is a comment after the findings have been taken.

3.6 Chapter Summary

This chapter presented a comprehensive strategy that was used for the collection and presentation of data, with the aim of achieving the laid down objectives. To be specific, this chapter outlined the research design, the target population, sampling approaches and sample size, data collection procedures and finally the different methods to analyze data.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents the findings of the study. The main objective of the study was to determine the effect of the capping of interest rates on retail growth in Kenya Commercial Banks. The prevailing interest rate data and retail, credit used was obtained from the Central Bank of Kenya. Descriptive and inferential analytical techniques were used to analyze the data obtained. Tables and graphs were used to present the findings for simplified discourse.

The study targeted the 43 commercial banks and data was obtained for all the Banks. This therefore created a response rate of 100%. Mugenda and Mugenda (2003) argued that 50% response rate as adequate, 60% as good and whereas above 70% as a very good presentation. This also collaborates Bailey's (2000) assertion that a response rate of 50% is adequate, while a response rate greater than 70% is very good. Based on this assertions, it implies that the response rate which in this case was 100% was excellent.

Table 4.1: Response Rate

Response Rate	Frequency	Percentage
Response	39	90.70
Unresponsive	4	9.30
Total	**43**	**100.00%**

4.2 Descriptive Analysis

The research aimed at establishing the effect of capping interest rate on retail credit growth in commercial banks in Kenya.

4.2.1 Correlation between lending rate and retail credit supply 2015

A Pearson correlation test was done to investigate the statistical significance effects of the lending interest rates on the retail credit supply in 2015. It was found that retail credit supply of the sampled bank (CFC bank, NBK and Standard chartered bank) were statistically significantly influenced by the lending rates.

The effect of the lending interest rate was statistically significant at r=-0.763 and p-value=0.046< 0.05 level of significance for the CFC bank, r=-0.829 and p-value=0.021< 0.05 level of significance for the NBK and r=-0.816 and p-value=0.025< 0.05 level of significance for the standard chattered.

The study found that the prevailing lending rate can greatly affect the retail credit supply of Kenyan commercial banks with an increase in lending rate causing an increase in retail credit supply and vice versa. This confirms that the study has found a significant relationship between lending rate and share price of commercial banks in the NSE.

4.2.2 Correlation between lending rate and retail credit supply 2016

A Pearson correlation test was done to investigate the statistical significance effects of the lending interest rates on retail credit supply in 2016. It was found that the retail credit supply the sample banks (the equity bank, Barclays bank and coop bank) were statistically significantly affected by the lending rates.

The effect of the lending interest rate was statistically significant at r=--0.938 and p-value=0.02< 0.05 level of significance for the equity bank, r=-0.794and p-value=0.033< 0.05 level of significance for the Barclays bank and r=-0.879 and p-value=0.009< 0.05 level of significance for the coop bank.

All the Pearson correlation values are negative meaning that introduction of cap rate negatively affect the volume retail credit supply. This means that in the year 2016 decrease in the lending interest rate lead to a decrease in retail credit supply for the commercial banks.

4.3 Requisite Analysis

4.3.1 Normality Test

In this study, normality text sought to assess the normal distribution for the retail credit supply. Both numerical and graphical methods were used for testing the Gaussian distribution. Indiana (2011) noted that methods of data analysis such as regressions, ANOVA, and t-test rely on the assumption that data were sampled from Gaussian distribution.

Table 4.2: Kolmogorov-Smirnov and Shapiro-Wilk tests

	Kolmogorov-Smirnov[a]		Shapiro-Wilk		
	Df	Stats Sig	Dif	Sig	Statistics
Retail credit supply	23	0.088	23	.200[*]	0.956

a. Lillierfors Significance Correction

Lower bound of true significance
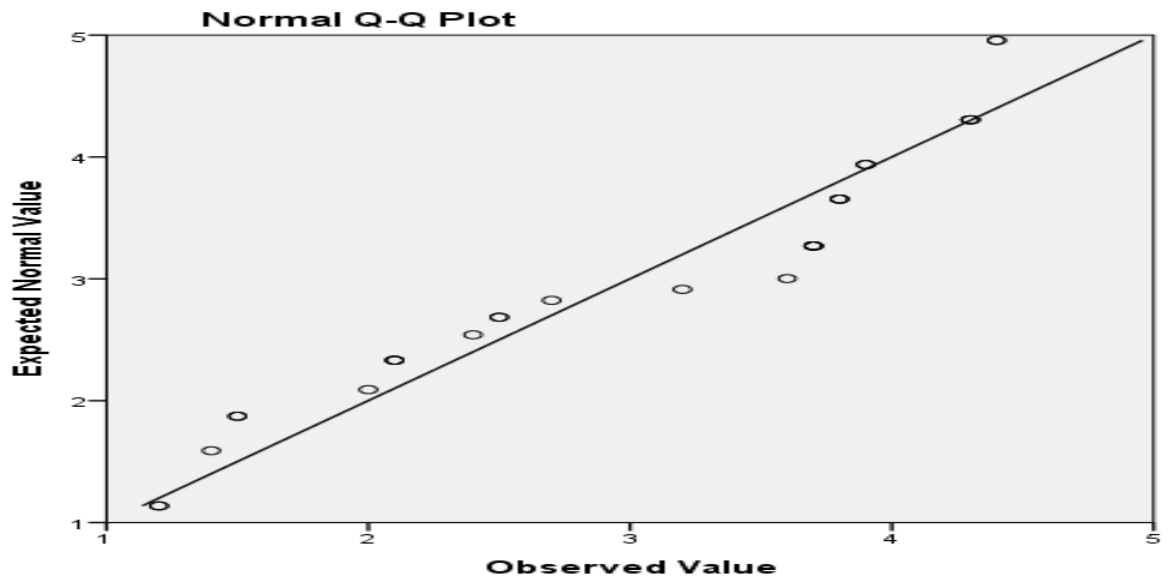
Figure 4.1: Normal Curve Plot

From values acquired from Kolmogorov-Smirnov and Shapiro-Wilk test suggests that retail credit supply disclosure is usually disbursed. However, this is proven through insignificant data with a p-value of 0.200. Further, figure 4.1 shows the visualized distribution of random variables of distinction between an empirical distribution and theoretical distribution of retail credit supply. It is critical to note that minimal deviation from normality is seemed as normal even when there are very low values of the variable. In regard to the calculated insignificant take a look at information, normality of the based variable becomes maintained. Shelvin and Miles (2010) stated that importance for such data is taken into consideration as fairly accurate.

4.3.2 Test for Heteroscedasticity

Table 4.1: Breusch-Pagan/Cook-Weisberg test Results

Breusch-Pagan / Cook-Weisberg test for Heteroscedasticity
Ho: Constant variance
Variables: fitted values of board of director's disclosure
Chi2 (1)   =   0.22
Prob > chi2 =   0.7134

To test Heteroscedasticity, Breusch-Pagan/Cook-Weisberg test was used. The findings indicated that Chi-square value was small meaning that Heteroscedasticity was not a problem. In this study, the p-value of 0.7134 was greater than 0.05 significant levels and this implied that there was no desecration of homoscedasticity.

4.4 Regression Analysis

The restudy conducted a linear regression analysis to establish the effect of interest capping on retail credit supply in commercial banks. The regression was of the form:

$$Y_{it} = \alpha_0 + \alpha_1 X_{1it} + \alpha_2 X_{2it} + \alpha_3 X_{3it;}$$

Whereby Y was the amount of the credit advanced from the bank I in the period t. X_{1it} was the amount of loans approved in the bank i in the period t as measured by volumes of loans rendered, X_{2it} represented the fluctuations of lending appetite by banks i in the period t as measured by the number of loans approved with regards to loans applies and

X_{3it} represented change in total costs of loans offered by banks in the period t as measured by the interest rate on loans respectively.

Table 4.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.831[a]	.753	.710	1.99864

The study sought to determine the regression model significance, the data of which was presented in Table 4.3. A correlation coefficient value of 0.831 was established from the regression model. This portends a very good dependence of loans approved, lending appetite, cost of loans and loans approved in commercial banks. A coefficient of determination (R-square) value of 0.710 was established. This underscores the fact that loans approved fluctuations of lending appetite and cost of loans accounted for 71% changes in credit advanced in commercial banks in Kenya. A Durbin Watson value of 1.998 shows that the data entered was devoid of autocorrelation among its residuals; a justification for linear regression analysis.

Table 4.2 Analysis of Variance

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	6.034	1	6.034	5.798143852	.003[b]
Residual	769.692	43	34.986		
Total	**775.726**	**44**			

The analysis of variance in this study was used to determine whether there was significant relationship between dependent and independent variables. From the findings,

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the p-value was 0.02 which is less than 0.05 and hence the model is good in predicting

how the four independent variables influence credit supply in the banking industry.

Table 4.3 Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	21.816	2.316		9.418	0
Loans approved	1.432	0.324	-1.387	4.419	0.003
Fluctuations of lending appetite	-0.011	0.07	-0.01	0.157	0.004
Total cost of loans offered	- 0.347	0.048	0.463	7.229	0.000

The regression equation becomes:

Credit advanced = 21.816 -1.432X_1

From the above regression model, in the absence of independent variables (loans
approved, fluctuations of lending appetite and cost of loans offered, credit advanced
would be 21.816 which according to the descriptive data is slightly below its minimum
value. A unit increase in loans approved would increase credit advanced by 1.42 units. A
t-test value of 4.419 was established at p = 0.003 depicting that this relationship was
significant. A unit increase fluctuations of lending appetite might lower credit advanced.
A t-test value of -0.157 was established at p = 0.004 depicting that this relationship was

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significant. Finally, a unit increase in total cost of loans offered would decrease credit advanced by 0.347 units. A t-test value of 7.229 was established at p = 0.000.

4.5 Discussions

The results from the tests revealed a significant decline in credit advancement after the introduction of capping rate by the Central Bank of Kenya. According to a report by CBK 2017, the loan growth in commercial banks in Kenya has also been affected, with listed banks recording a loan growth of 7.1% as at Q1'2017, compared to 15.7% in Q1'2016 and a 5-year average growth of 14.6%. The most affected banks in terms of loan growth are those banks with a focus on SME's and the retail market, the segment that the law was meant to protect, indicating the rate cap might not have achieved its intended objective. A report by Cyton 2017 where they firmly disagreed with the rate capping proposal as a measure to make credit more accessible, they prescribed a market with free and open information on loan pricing and alternative products as effective methods to increase competition and drive down loan costs.

Historically, the average rates for commercial banks loans and advances have been at 16.5% and 16.1% in 2015 and 2016, respectively, while the average rate in 2016 has come in at 16.5%, with interest rate caps introduced in August 2016, and have been fixed at 14.0% throughout 2017. When this is compared to loan growth, as shown in the chart below, it is noticeable that loan growth was highest during a time of no interest rate caps, dipping to 6.3% in 2016 when the interest rate caps were introduced. With loan growth coming in at 7.3% in the first half of 2016, also attributed to structural factors in the banking sector brought about by increasing Non-Performing Loans (NPLs) due to a

challenging operating environment, it is clear that the introduction of the interest rate caps has not served to increase credit growth, which has worsened since the introduction of the rate caps. As such, free pricing of loans with no government interference is associated with higher credit growth, when compared to the fixed rate regime the economy is currently under, which has only served to subdue credit growth further.

Further, the study found that total cost to acquire credit is high given the fact that the high interest rate charged by commercial banks. The additional costs accounts for 12.3% of the total cost of credit in the sector and that the larger banks in the industry, which control a substantial amount of the loan book, are the costliest, and hence are able to sway the market, given the low customer bargaining power.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMENDATIONS

5.1 Introduction

This chapter presents a discussion of the findings, conclusions and suggestions for further studies on the problem. The chapter starts with a summary of the study, followed by discussions on the major findings and finally draws conclusions based at the outcomes.

5.2 Summary of the Findings

The aim of this study was to assess the effects of interest rates capping on retail credit growth in Kenya Commercial Banks. Based on the above objective, the study sought to respond the following questions:

I. Whether introduction of capping interest rates has led to reduced credit supply?

II. How capping of interest rates led to an exit of lenders from the financial market?

III. To what extent was the capping of interest rates on cost of loans through additional fees?

The study was conducted in the 43 commercial banks using data of past one year prior the capping interest rate and one year post this capping interest rate.

The chain behind implementing interest rates cap may have an effect at the wider economy via its effect on consumer and commercial enterprises. The major puzzle to be looked into by any cap is whether or not it bites and consequently impacts borrower behaviour at the margin.

Kenyan banking sector were recording high profits while other sectors were struggling. Last year, banks posted a mean return of 24% on equity while more than 18 companies listed at Nairobi Securities exchange issued earnings warnings to the public. Kenya's biggest financial institution through clients' base, equity bank, posted a return on equity of 47.2 per cent in 2015, that's in line with a CBK report. Large banks didn't extend to their clients the benefits of economies of scale they acquired.

Other than rationalizing interest rate spreads in the banking area, capping of interest rates has led to challenges which include; (i) locking out of SMEs and different "excessive risk" borrowers, who cannot fit in the 4.0% risk margin, from getting access to credit, with banks who prefer to lend to government, (ii) the ongoing hunch of private sector credit boom, slowing to 4.0% within the first quarter of 2017, that's primed to adversely have an effect on GDP boom for 2017, (iii) widespread lay-offs within the banking area as banks modify to the difficult operating environment added about by using the modern-day regulatory framework, as well as in other principal sectors of the financial system, which is bound to take a toll on the unemployment stages in the u . s ., pronounced at 39.1% in 2016, and (iv) straining small banks who efficaciously were close out from the interbank marketplace and now have to mobilize price range at fees better than what they're getting now and might only lend out within the stipulated margins. it's far clean from the above that the consequences of interest rate capping, while but to be completely felt, are greater disastrous than effective with the cons a long way out-weighing the pros, and the onus is on policymakers to arrest the scenario earlier than it receives out of hand, impacting negatively on the economic system.

Further, it is important to note that introduction of interest cap rate has discouraged supply of funds to the financial system, thus encouraging informal mechanisms. Also, commercial banks have been found to concentrate their credit to large borrowers, with the attendant risks of non-performing loans and possible systemic risks.

5.3 Conclusions

From the findings discussed above, interest rates charged by commercial banks are a major factor that affects the retail credit growth. There is a general positive relationship between the lending rates and the retail growth credit. When the lending rates were capped, there was a general decline of the lenders. Also, introduction of capping rate led to decrease of retail credit growth. These changes in regulations have an impact in the future cash flows of banks. The study concludes that interest rates capping distort the market and preclude financial institutions from offering loan products to those at the lower end of the market and have no other alternative access to loans.

This study concludes that the signing into law of the bill that capped interest rates at 400 basis points above the CBR qualifies to be an event study. During the event window, which was between August 2016 and October 2017, there were significant changes in the lending rates in the commercial banks. However, the effect of other informational events during the same period should be considered to understand the full impact of capping interests rates on the financial performance of banks. In addition, the study concludes that an interest cap exacerbates the problem of adverse selection as it restricts lenders' ability to price discriminate and means that some enterprises that might have received more expensive credit for riskier business ventures will not receive funding. There has been

some attempt to link this constraint in the availability of credit to output. Further, the study concludes that an interest cap exacerbates the hassle of unfavorable selection as it restricts creditors' potential to price discriminate and means that a few businesses that could have obtained greater costly credit for riskier commercial enterprise ventures will not acquire funding. There have been a few attempts to link this constraint in the availability of credit score to output

5.4 Limitation of the Study

The fact that the study only used secondary data limited the scope of the study. Primary data may have been collected by way of questionnaires to determine factors like the loan application processes, if checks were done on all loans and advances awarded and if the banks stakeholders thought that CRBs had an effect on the level of loans defaulted.

5.5 Recommendations

Given the current state of low lending in the economy, and that we are under a fixed-rate regime on interest rates, below are the initiatives that need to be taken to spur credit growth once again in the economy:

i.   Repeal the Banking (Amendment) Act 2015, given the current regulatory framework has proved to be a hindrance to credit growth, evidenced by the continued decline of private sector credit growth, which is at 2.1% as at March 2017, compared to 5.4% when the amendment was introduced in August 2016,

ii. Diversify funding sources, which will enable borrowers to tap into alternative avenues of funding that are more flexible and pocket-friendly. In more developed economies, bank

funding accounts for just 40.0% of funding for businesses, yet in this market, bank funding accounts for over 95.0% of funding. Alternative sources of funding, especially capital markets based funding and competing alternative products need not only be developed but encouraged,

iii. Consumer education, where borrowers are educated on how to be able to access credit, the use of collateral and establishing a strong credit history,

iv. Increased transparency, in a bid to spur competitiveness in the banking sector and bring a halt to excessive fees and costs, with recent initiatives by the CBK and KBA, such as the stringent new laws and cost of credit website, being commendable initiatives, and

v. Improved and more accommodative regulation, such as the Movable Property Security Rights Bill 2017, which seeks to facilitate use of movable assets as collateral for credit facilities, allowing borrowers to use a single asset to access credit from different lenders

5.6 Suggestions for Further Research

The study suggest further studies to be carried out in other sectors of the economy other than the banking industry on the factors that may influence the level of defaulted loans which may result in different findings. Multi regression can also be used with more than three factors affecting the level of credit advance. Also, the study suggest that the same study can be undertaken but secondary data to be collected should cover a wider period of time such as 5 years and this may lead to totally different results.

REFERENCES

Abdul, S. & Khan, A. (2014). Impact of interest rate changes on the profitability of four major commercial banks in Pakistan. *International Journal of Accounting and Financial Reporting*, 4 (1); 142-155.

Aimer, T. (2009). *The economics of ignorance and coordination: subjectivism and the Austrian School of Economics*. Cheltenham: Edward Elgar.

Armendáriz, B. & Morduch, J. (2010). *The economics of microfinance*. Cambridge, Mass: MIT Press.

Beck, T. & Maimbo, S. (2013). *Financial sector development in Africa:* opportunities and challenges. Washington, DC: World Bank.

Beck, T. (2011). *Financing Africa: Through the crisis and beyond.* Washington, DC: World Bank.

Berger, A., Molyneux, P. & Wilson, J. (2015). *The Oxford handbook of banking*. Oxford New York: Oxford University Press.

Bhattacharya, D. (2006). *Research methodology.* New Delhi: Excel Books.

Bhole, L. & Mahakud, J. (2009). *Financial institutions and markets*: structure, growth and innovations. New Delhi: Tata McGraw-Hill.

Chiquier, L. & Lea, M. (2009). *Housing finance policy in emerging markets*. Washington, DC: World Bank.

Corazon, K. (2014). The effect of monetary policy on economic growth in Kenya. *International Journal of Business Commerce*, 3 (8); 11-24.

Daily Nation (2017). *Get rid of interest rates cap, says IMF*. Nation Media Group on 27th January 2017.

Foroohar, R. (2016). *Makers and takers: The rise of finance and the fall of American business*. New York: Crown Business.

Friedman, M. & Schwartz, A. (1971). *A monetary history of the United States*, 1867-1960. Princeton, NJ: Princeton University Press.

Greenbaum, S. & Thakor, A. (2007). *Contemporary financial intermediation*. Amsterdam Boston: Elsevier Academic Press.

Habil, O. (2017). *The capping of interest rates debate: market failure or necessary intervention*? Presentation at the 25th ICPAK economic symposium, 16th February 2017.The Kenya Bankers Association.

Hershbein, B. (2014). *Student loans and the dynamics of debt. Kalamazoo, Michigan*: W.E. Upjohn Institute for Employment Research.

Isaiah, M., Raphael, O. & Nahashon, M. (2008). *Domestic debt and its impact on the economy*: a case study of Kenya. Central Bank of Kenya; 1-27.

Ivanovic, M. (2015). Determinants of credit growth: The case of Montenegro, *Journal of Central Banking Theory and Practice*, 16 (2): 101-118.

Jones, S. (2016). *Achieving financial stability and growth in Africa. City*: Taylor and Francis.

Kabede, S. N., & Abera, N., (2014). Determinants of micro and small enterprises' access to finance, *Journal of Developing Country Studies*, 4 (21): 90-103.

Keith, J. & Abo, T. (2010). *Botswana financial sector overview:* Capital resources; 1-45.

Keynes, J. (2007). *General theory of employment, interest and money*. New Delhi: Atlantic Publishers & Distributors Pvt Ltd.

Khan, J. (2011). *Research methodology*. New Delhi: APH Publishing Corporation.

Kothari, C. (2004). *Research methodology: Methods & techniques*. New Delhi: New Age International (P) Ltd.

Kuada, J. (2012). *Research methodology: A project guide for university students.* Frederiksberg C Denmark: Samfundslitteratur.

Ledgerwood, J., Earne, J. & Nelson, C. (2013). *The new microfinance handbook a financial market system perspective*. Washington, DC: World Bank.

Lucy, N. (2012). *The effect of interest rates on the financial performance of firms offering mortgages in Kenya*. University of Nairobi.

Mallick, I. & Marjit, S. (2008). *Financial intermediation in a less developed economy: the history of the United Bank of India*. New Delhi, IN: Sage.

Mole, S. A., & Namusonge, G. S., (2013). Factors affecting access to credit by small and medium enterprises: A case of Kitale town, *The international journal of social sciences and humanities invention*, 3 (10): 2904-2917.

Moses, W. & Daniel, K. (2013). Effects of credit information sharing on non-performing loans: The case of Kenya Commercial Bank. *European Scientific Journal*, 1 (13):168-194.

Mwangi, S. N, (2016). *The effect of lending interest rates on financial performance of deposit taking micro finance institutions in Kenya*, MBA Thesis, University of Nairobi, Unpublished.

Nehemiah, G. (2012). *The report. London*: Oxford business group.

Nelson, M. (2012). *Qatar: Staff report for the 2011 Article IV consultation*. Washington, DC: international monetary fund.

Nils, M. (2014). *Monetary policies implementation: operational issues for countries with evolving monetary policy regimes*. IMF Working Paper; 1-42.

Nkuah, J. K, Tanyeh, J. P., & Gaeten, K., (2013). Financing small and medium enterprises (SMEs) in Ghana: Challenges and determinants in accessing bank credit, *International Journal of Research in Social Sciences*, 2 (3): 12-25.

Nyakio, M. S. (2017). *Effect of interest rates capping by the Central Bank of Kenya on the banks listed on the Nairobi Securities Exchange*, MBA Thesis United States International University-Africa, Unpublished.

Philemon, M. & Alex, K. (2016). Effects of selected monetary policies on loans portfolio performance among commercial banks in Kenya. *European Journal of Business, Economics and Accountancy*, 4 (9); 1-16.

Richter, R. (2009). Money: Lectures on the basis of general equilibrium theory and the economics of institutions. Berlin, Heidelberg: Springer Berlin Heidelberg.

Rochon, J. & Rossi, S. (2015). *The encyclopedia of central banking. Cheltenham*, UK Northampton, MA: Edward Elgar Publishing.

Rotheim, R. (2013). *New keynesian economics/post keynesian alternatives*. Place of publication not identified: Routledge.

Scholtens, L. & Wensveen, D. (2003). *The theory of financial intermediation: an essay on what it does (not) explain.* Vienna: SUERF.

Soto, J. (2009). *The theory of dynamic efficiency*. London New York: Routledge.

Stockman, D. (2013). *The great deformation: the corruption of capitalism in America*. New York: Public Affairs.

Sylla, R. & Homer, S. (2013). *A history of interest rates.* Hoboken, NJ: Wiley.

Tseganesh, T. (2012). *Determinants of banks liquidity and their impact on financial performance: empirical study on commercial banks in Ethiopia.* Addis Ababa University.

Warren, E. & Tyagi, A. (2016). *The two-income trap: why middle-class mothers and fathers are going broke.* New York: Basic Books.

Woodford, M. (2009). *Interest and Prices: Foundations of a Theory of Monetary Policy.* Princeton: Princeton University Press.

Wright, R. & Cowen, D. (2006). *Financial founding fathers: the men who made America rich.* Chicago: University of Chicago Press.

APPENDICIES

Appendix A: A List of Commercial Banks in Kenya

	Bank Name
1	ABC Bank (Kenya)
2	Bank of Africa
3	Bank of Baroda
4	Bank of India
5	Barclays Bank of Kenya
6	Chase Bank Kenya (In Receivership)
7	Citibank
8	Commercial Bank of Africa
9	Consolidated Bank of Kenya
10	Cooperative Bank of Kenya
11	Credit Bank
12	Development Bank of Kenya
13	Diamond Trust Bank
14	Dubai Islamic Bank
15	Eco-bank Kenya
16	Equity Bank
17	Family Bank
18	First Community Bank
19	Giro Commercial Bank
20	Guaranty Trust Bank Kenya
21	Guardian Bank
22	Gulf African Bank
23	Habib Bank AG Zurich
24	Housing Finance Company of Kenya
25	I&M Bank
26	Imperial Bank Kenya (In receivership)

27	Jamii Bora Bank
28	Kenya Commercial Bank
29	Mayfair Bank
30	Middle East Bank Kenya
31	National Bank of Kenya
32	NIC Bank
33	Oriental Commercial Bank
34	Paramount Universal Bank
35	Prime Bank (Kenya)
36	SBM Bank Kenya Limited
37	Sidian Bank
38	Spire Bank
39	Stanbic Bank Kenya
40	Standard Chartered Kenya
41	Trans National Bank Kenya
42	United Bank for Africa
43	Victoria Commercial Bank

Appendix B: Data Collection Sheet

INSTRUCTIONS;

Kindly answer the following questions objectively by writing a brief answer or ticking in the space or boxes provided respectively.

TOPIC: EFFECT OF INTEREST CAPPING ON RETAIL CREDIT GROWTH IN KENYA COMMERCIAL BANKS

Month	Bank	Total Retail Sector Lending	Credit supply	Changes in retail sector lending	Loan cost