

**THE IMPACT OF INTEREST RATE CAPPING ON THE FINANCIAL  
PERFORMANCE OF COMMERCIAL BANKS IN KENYA**

**BY**

**ALEX KAGOMBE NG'ANG'A**

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN  
FINANCE, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI**

**2017**

## **DECLARATION**

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

Signature..... Date.....

**Alex Kagombe Ng'ang'a**

**Registration No: D63/85593/2016**

This research project has been submitted for examination with my approval as the university Supervisor:-

Signature: ..... Date:.....

**Martin Odipo**

**Project Supervisor**

## **ACKNOWLEDGEMENT**

I would like to highly appreciate my parents' support. They have held my hand since the planning of doing a Masters in Finance to the completion of this project. My brothers, sisters, have made this journey possible. They encouraged me, pushed me and always gave me the nudge to do more and better. I would also like to acknowledge the efforts of my fellow students from whom we always found someone to consult in. And to God from whom I always drew strength and peace.

The project was made possible by my dedicated supervisor Mr. Martin Odipo from whom I received guidance consistently and persistently in an effort to get a quality paper. The positive criticism and feedback has made the project possible and is an eye opener even to further studies that I may undertake. Finally, I appreciate my colleagues who were patient with me throughout the project.

## **DEDICATION**

I dedicate this project to God and to my loving family. My wonderful parents Stephen Kagombe and Mary Wairimu. My loving nephew and niece Nathan and Abigail. And to my precious siblings Margaret, Joyce, Moses and Olive. And finally to my special friends Joan, Oliver and Charles.

## TABLE OF CONTENTS

|  |      |
|--|------|
| <b>DECLARATION</b> .....   | ii   |
| <b>ACKNOWLEDGEMENT</b> .....   | iii  |
| <b>DEDICATION</b> .....  | iv   |
| <b>LIST OF TABLES</b> .....  | viii |
| <b>ABBREVIATIONS</b> .....   | ix   |
| <b>ABSTRACT</b> .....  | x    |
| <b>CHAPTER ONE: INTRODUCTION</b> .....   | 1    |
| 1.1    Background of the Study .....   | 1    |
| 1.1.1    Interest Rate Capping.....  | 2    |
| 1.1.2    Commercial Banks Performance in Kenya.....                              | 4    |
| 1.1.3    Interest Rates Capping and Commercial Banks Financial Performance ..... | 5    |
| 1.1.4    Commercial Banks in Kenya .....   | 6    |
| 1.2    Research Problem .....  | 6    |
| 1.3    Research Objective .....  | 7    |
| 1.4    Value of the Study.....   | 7    |
| <b>CHAPTER TWO: LITERATURE REVIEW</b> .....                                      | 9    |
| 2.1    Introduction.....   | 9    |
| 2.2    Theoretical Review .....  | 9    |
| 2.2.1    Rent Seeking Theory.....  | 9    |
| 2.2.2    Free Market Theory .....  | 10   |
| 2.3    Determinants of Commercial Banks' Financial Performance .....             | 13   |
| 2.3.1    Asset Quality.....  | 13   |

|  |                                   |           |
|--|-----------------------------------|-----------|
| 2.3.2  | Financial Risks.....              | 13        |
| 2.3.3  | Liquidity.....                    | 14        |
| 2.3.4  | Levels of Inflation.....          | 15        |
| 2.3.5  | Foreign Exchange Rates .....      | 16        |
| 2.4  | Empirical Studies .....           | 16        |
| 2.4.1  | International Studies .....       | 16        |
| 2.4.2  | Local Studies.....                | 18        |
| 2.5  | Conceptual Framework.....         | 19        |
| 2.6  | Summary of Literature Review..... | 20        |
| <b>CHAPTER THREE: METHODOLOGY.....</b>                           |                                   | <b>21</b> |
| 3.1  | Introduction.....                 | 21        |
| 3.2  | Research Design.....              | 21        |
| 3.3  | Population .....                  | 22        |
| 3.4  | Sample Design .....               | 22        |
| 3.5  | Data Collection .....             | 22        |
| 3.6  | Data Analysis .....               | 23        |
| 3.7  | Test of Significance.....         | 24        |
| <b>CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION .....</b> |                                   | <b>25</b> |
| 4.1  | Introduction.....                 | 25        |
| 4.2  | Response Rate.....                | 25        |
| 4.3  | Data Validity .....               | 26        |
| 4.4  | Descriptive Statistics.....       | 26        |
| 4.4.1  | Mean and Standard Deviation.....  | 26        |
| 4.5  | Kurtosis and Skewness .....       | 27        |

|  |  |           |
|--|--|-----------|
| 4.6  | Correlation Analysis.....              | 28        |
| 4.7  | Test for Multicollinearity .....       | 28        |
| 4.8  | Regressions Analysis .....             | 29        |
| 4.8.1  | Analysis of Variance (ANOVA).....      | 30        |
| 4.8.2  | Model Coefficients.....                | 30        |
| 4.8.3  | Model Summary Results.....             | 32        |
| 4.9  | Discussion of the Findings.....        | 32        |
| <b>CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS .....</b> |  | <b>34</b> |
| 5.1  | Introduction.....                      | 34        |
| 5.2  | Summary of the Findings.....           | 34        |
| 5.3  | Conclusion .....                       | 35        |
| 5.4  | Recommendations.....                   | 35        |
| 5.5  | Limitations of the study .....         | 36        |
| 5.6  | Suggestions for Further Research ..... | 37        |
| <b>REFERENCES.....</b>   |  | <b>38</b> |
| <b>APPENDIX: LIST OF COMMERCIAL BANKS .....</b>                    |  | <b>42</b> |

## LIST OF TABLES

|   |    |
|---|----|
| <b>Table 1:</b> Mean and Standard Deviation ..... | 26 |
| <b>Table 2:</b> Kurtosis and Skewness .....       | 27 |
| <b>Table 3:</b> Correlation Analysis .....        | 28 |
| <b>Table 4:</b> Multicollinearity .....           | 29 |
| <b>Table 5:</b> ANOVA <sup>a</sup> .....          | 30 |
| <b>Table 6:</b> Model Coefficients .....          | 30 |
| <b>Table 7:</b> Model Summary .....               | 32 |

## **ABBREVIATIONS**

**CBK:** Central Bank of Kenya

**CBR:** Central Bank Rate

**NIM:** Net Interest Margin

**NSE:** Nairobi Securities Exchange

**ROA:** Return on Assets

**ROE:** Return on Equity

## ABSTRACT

Over the centuries, Kenyan banks have enjoyed interest rates above the average world interest rates that were deemed too high and thereby slowing economic growth. The banks were viewed to be making exorbitant profits by charging high interest rates at the expense of the people in the country. This resulted to the Government of Kenya introducing interest rate capping in September 2016. The lending interest rates in the country were capped at a maximum of 4% above the Central Bank Rate while the deposit rates were capped at a minimum of 70% of the Central Bank Rate. The Central Bank Rate is periodically set by the Central Bank of Kenya. The entire economy faced uncertainty on the impact of interest rate capping on the financial performance of commercial banks in Kenya. The objective of this project was to determine the impact of the capping interest rates on the financial performance of commercial banks in Kenya. A descriptive research design was used to make an analysis of the impact of interest rate capping on the financial performance of commercial banks in Kenya. The descriptive research was coupled with content analysis. All the 42 banks in the country were the population of this project. Secondary data was used which comprised of information obtained from the financial statement of the banks. The project found out that the financial performance of banks as measured by Return of Equity was negatively affected by the introduction of capping of interest rates in the country. This is because the interest rate spreads reduced after the introduction of interest rate capping. Asset quality which is measured by Non Performing Assets ratio was found to have a negative relationship with Return on Equity and hence the higher the Non Performing Assets ratio the lower the Return on Equity. Operating efficiency as measured by operating costs to total operating income was found to have a negative relationship to Return on Equity since the higher the operating costs vis a vis the operating income, the lower the Return on Equity. The conclusion of this project is that the interest rate spread had a negative impact on the financial performance of commercial banks in Kenya. This indicates that the Government of Kenya should revise the policy on interest rate capping to ensure that the performance of banks is not negatively affected while at the same time the people in the country are not exploited by the banks. It is also recommended that the banks should introduce innovative products so as to reduce reliance on interest income and to shield themselves against the impact of lower interest rate spreads. The study also recommends that banks should explore ways of improving operating efficiency so as to remain profitable and to protect the shareholders wealth.

## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background of the Study**

The year 2016 saw the Central Bank of Kenya capping the banks' lending interest rate to a maximum of 4% above Central Bank Rate (CBR) while the deposit rate to a minimum of 70% of the Central Bank Rate. Over the centuries, Kenyan banks have enjoyed interest rates above the average world interest rates that were deemed too high and thereby slowing economic growth. The interest rate cap is a financial control tool that has become unpopular in industrialized countries but is becoming common in developing countries, as it goes against the ideals of a capitalist economy. The entire economy faced uncertainty on the impact that the capping would have on financial performance of commercial banks in Kenya.

It is fundamental to note that the government places interest rate caps for varied reasons which could be economic or political. The key aim of introducing a cap is consumer protection as many people would be unable to borrow at the exorbitantly high-interest rates set by commercial banks whose key objective is staying in business and maximizing shareholders wealth. The caps would, therefore, ensure that people are guaranteed access to credit at interest rates that are reasonable.

The caps additionally protect banks since consumers with poor credit ratings would be unable to get credit and thereby lowering the levels of bad debt. Economically, banks make a margin through the difference between lending and borrowing rates. Placing a cap means that the margin is reduced substantially. However, in the event of a foreseen economic crisis, the cap is critical in stabilizing the financial system. It is fundamental to note that the cap should be in place only up to the period where the economy is stable (Miller, 2013).

The argument against interest rate caps indicates that it is an inefficient tool in the long run as it limits people's access to credit due to limitations placed by the bank to giving loans. They reduce transparency in the market as the setting of the CBR is at the discretion of the Central Bank. They reduce innovation in the bank and thereby limiting the diversity of products provided by the bank. There is also reduced competition in the banking sector due to the similarity in the interest rates offered.

African countries including Zambia have been known to use capping of interest rates to manage the financial status of their economies. Bank of Zambia (BOZ) introduced a ceiling on its interest rates that the non-bank institutions were charging in the year 2013. The regulation required that interest rates charged by the institutions not to exceed 42% and the annual effective interest rate not to exceed 30%. The capping of interest rates in the country was meant to protect consumers against the high-interest rates. The institutions were justifying based on the risk they were exposed to based on the clientele. However, the capping was unsustainable and was lifted in the year 2015 (Djibril, 2013).

The underlying issue in the study is understanding the ultimate impact that capping of interest rates has had over a two-year period on commercial banks in Kenya.

### **1.1.1 Interest Rate Capping**

Interest rate caps have been in existent over the decades though with limited use due to the perceived limitations that they place on the economy. The capping of interest rates means that the rates can fluctuate but within a given limit. In Kenya, the lending interest rate has been set at a maximum of 4% above the CBR rate, and deposit interest rate has been set at a minimum of 70% of CBR rate. Different governments adopt different strategies including an entirely rigid system

or a flexible system where there is discrimination in capping based on the type of loan and the nature of clients. A flexible cap means that the interest rates are pegged to a base rate set by the Central Bank such as in Kenya and Zambia (Miller, 2013). A fixed interest rate cap would mean that the government gives a specific interest rate that would be adopted by all the commercial banks operating in the country.

To understand the impact that capping has on commercial banks, it is fundamental to appreciate the composition of interest rates. The banking interest rates are composed of four major elements including bank profitability, provision for non-performing loans, overheads and the actual cost of funds. Every financial institution exists to maximize the wealth of their shareholders through profitability, and for this to be achieved cost has to be borne by the borrower. Borrowers additionally need to bear the cost of loans that are likely to be written off. Overheads and cost of funds related to administrative costs that the bank incurs to run the institution including salaries, cost of expansion, loan processing fees and technological costs (Miller, 2013). The costs vary between different banks meaning that placing caps could place a financial strain on some of the commercial banks.

The rationale behind interest rate caps in Kenya is due to the excessive profits that the banks were making at the expense of borrowers. The government therefore through the Central Bank of Kenya (CBK) saw the need to intervene to protect consumers. The ultimate goal being the creation of an incentive for lenders to increase the number of loans as more people can access credit. However, this comes back negatively as banks create high limits on borrowing and only clients with high levels of collateral can obtain finances while others are left out (Miller, 2013).

Interest rate caps have been deemed to be effective only in the short term meaning that the CBK would have to explore alternative means to create a desirable economy including creating a market structure where there is competition based on a variety of financial products that would ultimately support the cost of the organization. Interest rates measurement is done through a study of the impact that they had before the capping and during the capping period.

### **1.1.2 Commercial Banks Performance in Kenya**

Kenya has 42 commercial banks operating under the CBK regulations through the Banking Act. 11 of the banks are listed on the Nairobi Securities Exchange (NSE) which is an essential reflection of how well or poorly a bank is performing. The regulations are meant to protect the depositors of money in the bank, to ensure that banks are not being misused and are operating clean business as opposed to money laundering and to the fundamental role of maintaining confidence in the banking sector by ensuring clients are given quality service given the levels of competition in the market. The banks differ in size, capital and the number of branches with some opening branches and subsidiaries in other countries.

The financial performance of commercial banks is influenced by many factors including the level of competition, financial risk, asset quality, the market share a bank controls, interest rates, the level of technology adopted by the bank, levels of regulation and the level of capital that the bank controls. The ability of the bank to attract a clientele that can generate interest rates is fundamental to the sustainability of the firm. The performance of the bank is measured through ratios such as return on equity (ROE), Return on assets (ROA), and Net interest margins (NIM). NIM is key as it indicates the difference between the interest income generated by the bank versus the interest paid out to lenders of the bank including the depositors. Imposition of the

limit on interest rates means that performance is affected by a reduction of interest margins earned. The data to measure performance is available from already existing financial statements.

### **1.1.3 Interest Rates Capping and Commercial Banks Financial Performance**

The law relating to the capping of interest rates was signed in August 2016 and came into effect in September 2016 amidst debate relating to its impact it would have on the performance of commercial banks. Before signing the bill, commercial banks enjoyed a regime where interest rates were determined by forces of demand and supply through the existing market conditions. Capping of interest rates has been seen as a move that limits the freedom of a liberal country by commercial banks as it suppresses the growth of the economy with studies showing that countries such as China and Malaysia would have grown faster without restrictions on interest rates (Kurlantzick, 2016).

Interest rate capping tends to create a distortion in the market and consequently create market biases. Commercial banks are inclined to lend to clients exhibiting low risks thereby creating an inefficient market through the mediation that was expected to create a positive impact. Studies highlight that such biases lead to lack of finance by clients that are deemed high risk. It means that both the client and the banks suffer and people are forced to seek funds from other sources. The caps could also lead to commercial banks opting to lend to the government who are considered low risk which ultimately draws away capital from the public and makes the situation unprofitable. Interest being the primary source of income for the banks means that they are rendered unprofitable and could take measures such as downsizing to cut costs and remain sustainable. It is fundamental for the study to look into both the adverse and the positive impact that capping has had on the financial performance of commercial banks.

#### **1.1.4 Commercial Banks in Kenya**

Kenya has 42 commercial banks operating under the CBK regulations through the Banking Act. Commercial banks in Kenya are expected to provide safekeeping of clients' money kept in the bank through deposits. They are expected to facilitate transfers of money from one client to another hence creation of convenience. They carry out other roles including managing foreign exchange, facilitating international trade, provision of financial advice and providing investment services. A pivotal role lies in the provision of lending services where loans are disbursed for a set period while attracting interest above the principal amount borrowed. Banks are expected to additionally provide an interest on the deposits lying in client accounts as they are a form of investment to the client. Commercial banks are the key institutions affected by capping of the interest rates as their main source of income is limited.

### **1.2 Research Problem**

The banking sector plays a key role in provision of financial services to clients since their establishment. Despite the huge role entrusted on them, the interest rate charged by the sector has been high ranging from 20-30%. The huge interest rate raised concerns with policy makers whose aim is protecting consumers from exploitation leading to the capping of interest rates.

The announcement that the president had signed the bill capping interest rates came with a lot of uncertainty. There had been vast speculation on the effect that it would have both negatively and positively (Aligonby, 2016). Speculations included that people with low incomes would flood the banking halls in a bid to get cheap credit. However, a gap exists on the impact that the bill would have on the financial performance of banks which will consequently have an impact to the

confidence of bank users in the economy. It is also unclear the impact it would have if banks wanted to raise funds through trading of equity.

The financial performance of banks has a vast number of interested parties both locally and internationally. The law was bound to have an impact on every person with a stake in the banking sector including employees, customers and shareholders. It therefore importance to determine the impact that the bill has had on these key stakeholders both in the short and long term. Though the bill was made with the intent of making the economic life of people easier, the first reaction that the markets had was a decline in security prices falling with up to 10% (Aligonby, 2016).

The study will focus on the impact that capping of interest rates has had on financial performance of banks with specific focus to answer the questions: What is the importance of interest rates on asset quality of the bank? What is the impact of interest rate capping on operating efficiency of the listed banks? What is the impact of capping of interest rates on interest rate spread of listed banks?

### **1.3 Research Objective**

The main objective of the study is to determine the impact of capping interest rates on the financial performance of banks in Kenya.

### **1.4 Value of the Study**

The debate on capping interest rates is a fundamental one with people keenly following it but not grasping its impact. It is key to understand the key stakeholders affected by the bill. Interest rates are critical to everyone in the society and as we move into an era where more people are

interested in investing in stock whether through public or private equity, understanding the impact that changes and restrictions have is fundamental. The study is key to managers of commercial banks as they will understand the skepticism that investors have with regards to buying shares in a given industry as opposed to buying in another. The study will also open a platform for other academicians to do further study on the issue and will also add to the existing pool of knowledge. Finally, policymakers will be enlightened on the way forward with regards to interest rates and understand considerations that should be made before implementing such critical bills.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

The chapter brings to an understanding existing research on financial performance of banks. The literature will analyze how interest rate capping affects the performance of the banks. An in-depth study will be done on how banks' lending and deposit rates influence performance through events studies.

### **2.2 Theoretical Review**

The theoretical review provides an appreciation of phenomena that explains existing knowledge. It explains how theories support the study and some of the assumptions adopted. No single theory can account for the concept of capping of interest rates, and therefore a set of differing theories will be analyzed.

#### **2.2.1 Rent Seeking Theory**

Economics studies show that controlling prices leads to unproportioned allocation of goods and services resulting in a rent-seeking situation (Bulow and Klemperer, 2012). According to Adam Smith in 1776 rent-seeking means that organizations are out to make financial gains at the expense of clients by manipulating the trade environment. Adam Smith indicated that imposing policies meant to protect the poor is a bad move for the economy.

Central banks were set up by the government with the aim of managing the supply of money and regulating interest rates. They are the institutions that come in to control the economy in the event of financial crisis. However, historically, their role was more political and endured high levels of bureaucracy (Toma 1982). Economists suggest that the market can handle market

regulation and the central bank could be considered irrelevant. The theory highlights that the foundation of managing interest rates could be based on the interests of government officials. The theory proposes that representatives of the government can create barriers to entry into the market and can allocate resources according to their preference when resources become unavailable due to the capping of interest rates. The rent seeking theory indicates that interest rates could be further controlled for the benefit of state and national banks that can introduce funds in the economy when there is a shortage. The theory suggests that interest rates are not necessarily meant to manage the well-being of the economy but that of particular individuals (Toma 1982).

The rent seeking theory relates to overcharging of interest to borrowers for the benefit of the lender. Argument for rent seeking theory on interest rates indicates that such efforts as capping interest rates will always be fruitless and are likely to achieve reverse results. Such restrictions have been seen to end up hurting the people that they are meant to protect. Thus it is key to determine the impact that capping of interest rates has had on the economy in the short run and expected impact in the long run.

### **2.2.2 Free Market Theory**

Institutions that do not advocate for capping of interest rates bring out the theory of failing the free market. Milton Friedman in the year 1962 advocated for a free market system as he indicated that money in circulation would grow as the economy grew as opposed to situations where money supply was controlled by the government. Gelfond (2001) highlights that the central bank money is not an exclusive product compared to other goods and services in the

market that the Central Bank should be given the discretion to make a judgment in the setting of policies and removing them when they do not meet a certain criteria.

In a free market, the difference between the deposits interest rates and the lending interest rates is called the spread. Spread is different from the rates because they are determined by the individual financial institution (Chirwa and Mlachila, 2004). The economy of Kenya has been a free market, and the central bank has the role of signaling interest rate charged but should not dictate to the financial institution on what to charge. The banking sector has historically been given the liberty to determine the margins on the spread of interest rates based on the level of expenses and the level of risk averseness. Banks willing to take a higher risk are known to have a higher spread compared to risk-averse banks that operate with smaller margins in a bid to retain their existing clientele. The spread is influenced by existing monetary and fiscal policies but should not be dictated (Emmanuelle, 2003).

Banks have a set of target clients whether they are listed on the securities exchange or not, and it is key they are given a platform to enjoy the free market. Frenkel (2010) indicated that a free market does not necessarily oppress consumers as the spread is managed by the levels of competition in the market.

Priti (2016) in a study indicates that fluctuations in interest rates have a direct influence on the performance of commercial banks. Valuation of assets of the bank are the most important indication of the performance of the bank followed by the valuation of stocks for banks listed on the securities exchange due to the rise or fall of interest rates (Rosenbaum, 2015).

Historically, banks in the retail have been able to forecast profitability through the relationship between interest rates, levels of deposits and loan uptake by their clients. Priti (2016) thus

indicates that it is of utmost importance that financial analysts take a keen focus on interest rate fluctuations. Studies have shown that banks in the United States in the years the 1970s' failed due to high-interest rates and the sensitivity of interest rates in the market.

An examination of the mean and the volatility of short term and long term interest rates is key in the valuation of stocks of commercial banks (Priti, 2016). The examination indicates the levels of risk that banks are facing. An appreciation of how interest rates influence the value of stocks is key especially for foreign investors (Zaman et al., 2013). A steep interest rate yield curve indicating the difference between interest paid to short-term savers and long-term depositors indicates that commercial banks are generating high levels of interest. The United States has been known to maintain a low short term and long term interest rates thus limiting the earnings of commercial banks in the country (Rosenbaum, 2015; Priti, 2016).

The securities market is deemed the basis for valuation of equity. It, therefore, indicates that the value of stocks are an indicator of the performance of the bank and consequently the cash flows available to the bank (Tran, 2013). Given the critical role that interest rates play in determining how commercial banks perform, capping of interest rates comes in as a factor of interest in the choice of stocks that people choose to trade in the market.

A free market provides a platform for market forces of demand and supply to influence prices of securities in the market. However, with the introduction of interest rate capping the profitability of the banks is influenced which consequently affects the financial performance of the banks. The study will determine whether a free market should be encouraged with banks being encouraged to give reasonable interest rates or controlling the interest rates is the best policy.

## **2.3 Determinants of Commercial Banks' Financial Performance**

Interest rates play a crucial role in influencing the financial performance of the bank. However, other factors play a vital role in determining financial performance include foreign exchange rates, levels of inflation, the supply of money in the economy, asset quality and financial risks as discussed below.

### **2.3.1 Asset Quality**

Asset quality has a direct impact on the performance of commercial banks. Assets handled by the banks include loan portfolio, investments and fixed assets. The asset portfolio is the major source of income generator for the bank and thus bearing a direct impact on the profitability of the banks. Banks face the highest loss due to non-performance of assets and specifically non-performing loans. Ratios relating to non-performing loans are the best indicators of banks performance with low levels being a key focus for the banks. Low non-performing loans to total loans ratio shows the banks' performance is healthy (Sangmi and Nazir, 2010).

A study was done on India's banks on the effect that asset quality has on the profitability in the periods between 2006 - 2011 using the Return On Assets (ROA) ratio. It was evident that there is a negative relationship between the financial performance of the bank and asset ratio (Khalid, 2012). Studies on performance of banks in Nigeria indicated that poor asset quality poses a risk to the performance of the bank and recommended adoption of policies that encourage diversification of products and minimization of credit risk (Abata, 2014).

### **2.3.2 Financial Risks**

Banks have a high level of sensitivity to financial risk compared to other financial institutions. Banks are affected by issues such as size, government guarantees, credit risk and bank default

risk (Ristolainen, 2016). Banks operate in an environment where they receive deposits that are short-term yet lend to clients on a long-term basis and thus differing interest rates. The difference brought by short term and long term interest is the spread earned by the bank. Risks exist on the amount lent as there could be prepayment or lack of payment that affects the portfolio of the bank and thus affecting the valuation of stocks.

The effect of prepayment risk influences the choices of investors as well as the bank managers. Mostly, they are medium and small sized commercial banks that are active in mortgage lending. Mortgage loans come with the risk of prepayment on top of the normal default and maturity risks faced by commercial banks (Irresberger, Mühlnickel, and Weiß, 2015).

### **2.3.3 Liquidity**

The management of short terms assets and liabilities of an organization is key to their overall success. A study done in Oman on impact of the liquidity position of a bank on its performance indicated that there is a significant relationship between the two. There exists a relationship between the loans held by the bank and total assets held. The study showed that there is a positive relationship between illiquid assets and liquid liabilities ratio. The study however indicated that there is minimal relationship between short term liquidity and long term risks experienced by the bank (Salim & Bilal, 2016).

The survival of commercial banks is critically dependent on the ability of the bank to manage risk. They need to understand the dynamics of liquidity as a key determinant to success. It means that banks are in a position to meet their commitments whenever they are required. Pradhan and Shrestha (2016) indicate that the liquidity ratio that measures the liquid assets to total assets is a good indicator of the performance of commercial banks. Banks facing liquidity risks have been

seen to hold low quantities of liquid assets and thus are vulnerable to large withdrawals by the customers. The study thus concluded that there exists a negative relationship between liquidity ratio and profitability of the bank.

#### **2.3.4 Levels of Inflation**

Inflation has been a major issue of concern as it is the general increase in prices of goods and services due to increase in money supply in the economy. Inflation leads to a situation where the purchasing power is reduced as one would require more money to get the same basket of goods. A constant increase in inflation creates a loss of confidence by the consumers and may lead to a situation where people may hoard goods to buffer themselves against further increases in prices.

Inflation has been seen to have both positive and negative impact on performance of companies in the economy. Inflation has been seen to initially have a negative impact on the financial sector due to friction with the credit market. When prices in the economy rises, each unit of currency only has the ability to buy fewer goods thus reducing the purchasing power of goods. This leads to the loss of money as a medium of exchange. This thereby negatively influences people's willingness to save and invest which consequently means that banks performance declines (Khan et al., 2014).

Chioma, Adanma and Clementina (2014) did a study in Nigeria and gave the conclusion that though inflation impacts positively on decisions of investments such as banks, however, the impact felt is insignificant. They further indicated that inflation has little significance to lending decisions of the bank and therefore little influence on the performance of the bank which is contrary to other studies.

### **2.3.5 Foreign Exchange Rates**

Exchange rates vary from time to time as influenced by factors of demand and supply. Benita and Lauterbach (2004) highlight that traders in international business are affected by prevailing exchange rates due to the cost of sales and impact of sales prices. It eventually affects the profitability of the organization which directly impacts the performance of commercial banks.

The foreign exchange market is a key part of the financial sector and the most extensive in financial services. In an empirical Lagat and Nyandema (2016) indicated that the exchange rate has a positive coefficient on the return on capital employed and return on capital employed of commercial banks in Kenya. The study further discussed that fluctuations in foreign currency in the United States led to the rise of the US dollar versus other currencies and thereby enhancing the earnings in financial institutions in the country. It was evident that exchange rates are positively related to performance of not only commercial banks but other institutions listed on the NSE. The positive relationship is explained by the fact that most of the imports are paid for in dollar by the locals leading to the weakening of the shilling leading to banks making an arbitrage profit (Lagat & Nyandema, 2016).

## **2.4 Empirical Studies**

The empirical review will give an understanding of knowledge acquired from other intellectuals locally and internationally. It entails a review of studies and analysis done on the topic.

### **2.4.1 International Studies**

Maimbo and Gallegos (2014) did a stock take on the countries engaged in putting ceilings or floors on the interest rates and found that it is a widespread phenomenon. 40 developing countries including transitional countries were found to practice interest rate capping. The

European Union was seen to have 14 of its member states have used interest rates caps by the year 2010. The study indicated that the key reason countries impose caps is the protection of its consumers from high-interest rates as was seen in Spain. Countries such as Greece and the United Kingdom imposed interest rate caps with the aim of limiting the freedom enjoyed by the banking sector that was leading to the exploitation of consumers. Countries such as Zambia imposed a cap on the interest rate to mitigate the risk that was perceived due to high levels of debt in the country and high levels of credit. The cap meant that the underserved clients can access credit.

Interest rate capping in South Africa was seen to be evaded by most of the financial institutions by the creation of other services such as insurance. They, therefore, reduced the levels of transparency on the cost of credit from the regulators (Helms and Reille 2004). In the country, the caps saw microfinance institutions withdrawing from giving loans to remote areas and thus limiting the amounts available for consumption and investment in the country.

Laeven (2003) did a study on the capping of interest rates in the United States and indicated that imposing liberal measures such as eliminating interest rates caps had a positive impact on the ability of small investors to access funding. The study further reported that investors tend to migrate to countries with fewer restrictions on interest rates. iff/ZEW (2010) did further studies in the United States and found that access to credit by high-risk borrowers is greater when interest rates caps are higher. However, accessing credit at high costs consequently results in high levels of default.

Capping of interest rates in the United States pushed down the profitability of banks and thus influencing their prices in the stock market. The move forced the banks in the region to seek alternative investment strategies to remain profitable (Irresberger, Mühlnickel, and Weiß, 2015). Financial reforms through such tactics as capping the interest rates were seen to increase investor confidence in countries such as Pakistan

which consequently brought an improvement in the valuation of shares in the country (Zaman et al., 2013).

Studies on reforms of interest rates intervention in the neighboring country Tanzania were seen to bring in a positive influence on the economy. According to studies, reforms on the interest rates influenced financial deepening in the country though minimally. Nigeria was seen to be positively influenced by interest rate capping as the performance of the banks and consequently the stock prices improved (Nkwoma,2014).

#### **2.4.2 Local Studies**

Odhiambo (2010) in his study indicates that interest rates in Kenya remained stable in the years 1960-1970s. During the period, the government-controlled interest rates through ensuring minimal interest rates were given to depositors, and there was a maximum lending rate for all financial institutions. However, in the year 1981, following recommendations by the World Bank and IMF the interest rates were reviewed nominally. The aim of the reform was based on the belief that government interventions on the interest rates were limiting the growth of the economy. Odhiambo (2010) established that liberalization of interest rates positively influenced Kenya's economy through financial deepening.

According to Nyakio (2017), interest rates are seen to influence commercial banks and specifically on the stock prices. There is a positive relationship between banks' rates of lending and prices of stocks in the market. Capping of interest rates in Kenya led to a fall in prices in the securities market. The study showed that the unexpected change in regulation though capping of interest rates influenced cash flows available for investment.

Nganga and Wanyoike (2017) in a study on the effect of interest rate controls on stock performance indicated that event analysis indicates significant impact. The study showed that there is a negative relationship between interest rates and performance of stocks in the market. This is in support to empirical studies done indicating similar results. The research indicates that controlling the interest rates is meant to improve the economic performance of the country including that of the stock exchange. Nganga and Wanyoike (2017) argue that the results are due to reduced availability of funds through loans and thus little money for investment.

Lagat and Okendo (2016) in their research on the impact of fluctuation of interest rates on financial performance indicated that there is a positive relationship between interest rates and banks financial performance. The study was done with a focus on Return on Equity, Earnings per Share and Return on Capital Earnings. The study highlighted that banks should be able to maintain a margin that allows them to make a profit to remain attractive to potential investors.

## **2.5 Conceptual Framework**

Theories provide a broad aspect of the relationship between interest rate capping and performance of commercial banks in the stock market. The conceptual framework shows the how the dependent variable which is the bank performance relates to the specific measures of bank performance in the securities exchange which are the dependent variables. The bank performance is measured in two years, a year before introduction of interest rate caps and a year during the interest rate cap.

Independent Variables

Dependent Variable



## 2.6 Summary of Literature Review

The chapter on literature review has provided a comprehensive study of existing literature on the factors that influence the financial performance of commercial banks including interest rates, inflation, foreign exchange rates, financial risks and asset quality. The literature further reviewed international studies on the impact of interest rate on the performance of bank and it was seen that though there is a positive impact in the short term, the long-term impact could be negative. Local studies have shown that there is a negative relationship between capping of interest rates in the market and financial performance of banks. Theories on the capping of interest rates were discussed including the free market theory and the rent seeking theory. The chapter gave a theoretical and empirical background of the study.

Chapter three will look into the research methodology by highlighting the research design, the study population, data collection techniques and analysis of the data.

## **CHAPTER THREE: METHODOLOGY**

### **3.1 Introduction**

The methodology segment brings out the research design, the study population, the sampling frame, the sample size and the data analysis. These are the factors that were considered when making a decision on how to collect data to answer the research questions which look into establishing the impact of interest rate cap on the financial performance of commercial banks.

### **3.2 Research Design**

The research design provided a platform to incorporate the components of the study to ensure that the study answered the research question. It ensured that the question is studied with minimum ambiguity and was rationally done. The research design provided a guide for the researcher on areas of data collection, analysis and interpretation (Kothari, 2004).

A descriptive research design was used to make an analysis of the impact of interest rate capping on the financial performance of commercial banks. The descriptive research was coupled with content analysis. Bank performance though not abstract in nature could be measured using many factors, and none contains qualities that can be measured to in terms of intensity (Barako, 2006). Therefore for such a study content analysis will be used to determine the impact on specific measures of performance.

The study was done through an analysis of information on financial statements of banks obtained from the media, the banks and past studies. The data collected was systematically gauged and deduced to enable the research to answer the research questions that were raised.

### **3.3 Population**

Blume and Stambaugh (2012) make reference to the study population as all individuals in the study. The population is known to share similar characteristics. According to Coopers and Schindler (2008), the population is the total pool of components that the researcher wishes to study. The population could further be discussed as the categories of entities that meet certain criteria that though with varying properties draw down to having similar components of the study. The study population in the study on impact of interest rate capping on commercial bank performance was the 42 commercial banks in Kenya.

### **3.4 Sample Design**

Sampling entails selection of elements from the entire population that act as a representative of the total population under study. Under this study, the population size was not large, and thus the census method was used to select study elements (McDaniel and Gates, 2001). A census was viable for this study as there was adequate time to collect the necessary data and it brought out high levels of accuracy.

### **3.5 Data Collection**

Data collection is an important stage as it influences the validity of the results received from the study. Data collection ensured that information required to make an analysis and a conclusion is available and further, records are kept in a bid to pass information to future generations.

The research was based on available secondary information. Secondary data is already existing information based on what other parties have done on the topic. Data on the study was collected

from existing bank financial statements that are already publicly available. The period covered was a year before and after interest rate capping on a semiannual basis.

A checklist was made for purposes of collecting information as it provided a starting point to interpret trends. The checklist contained a list of the banks, their profitability, asset levels, interest income and expenses and operating income and expenses. The checklist was used to compute the required ratios that will be used for data analysis.

### **3.6 Data Analysis**

Data analysis was done with the aim of answering the research questions and establishing the impact that interest rate capping has had on the performance of commercial banks listed on the NSE. It was fundamental that data analysis was done through the arrangement of data systematically to allow the researcher to draw meaningful conclusions. Data in the study was organized in tables and spreadsheets to ensure the relationship between the variables in the study are established. Data analysis was run through SPSS tool.

The aim of the study was achieved through the use of a multiple linear regression analysis model.

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + \varepsilon$$

Where

Y = Performance as measured by Return on Equity (ROE)

a = constant (The part of commercial bank performance that is influenced by other factors other than interest rate capping).

Commercial bank performance is the dependent variable that is determined by various performance measures indicated as  $x_1$ ,  $x_2$ , and  $x_3$ .

$X_1$  = Interest rate spread which is (interest received/all interest bearing assets)-(interest Paid/interest earning liabilities)

$X_2$  = Asset quality as measured by non-performing loans ratio

$X_3$  = Operating costs efficiency measured by operating costs/total operating income

$\varepsilon$  = Disturbance Term

### **3.7 Test of Significance**

The test of significance in the study was used to determine whether there is a significant relationship between interest rate capping and the financial performance of commercial banks in Kenya. In this research, the standard deviation was determined, and the t-test of significance was used.

The test statistic was computed as:

$$t = \frac{x - \mu_0}{\sigma / \sqrt{n}}$$

Where

t is the t-statistic

x is the sample mean

$\mu$  is the normal mean

n is the number of companies under the study

$\sigma$  is the standard deviation

## **CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION**

### **4.1 Introduction**

The chapter will look into the analysis of data that was collected as per the requirements of chapter three. The aim will be to understand the findings directed towards understanding the impact of interest rate capping on commercial banks in Kenya. Data collection was done through secondary methods of analyzing the financial statements of commercial banks in Kenya. The results will be presented as analyzed through SPSS and a discussion will follow based on the theories looked into and the empirical studies. Issues on the response rate, the correlation analysis and the regression analysis will be addressed with the aim of determining whether the research objective was achieved comprehensively.

### **4.2 Response Rate**

There are a total of 42 banks in Kenya. The study was able to make an analysis of 36 banks which is 85% of the total banking sector. The remaining six banks included Giro Bank which was acquired by the I&M Bank, Dubai Islamic Bank, Habib Bank Limited which was acquired by Diamond Trust Bank and Mayfair Bank whose operations are yet to start. Additionally, Imperial Bank and Chase Bank have been under receivership. The banks analyzed represent 85% of the banking sector in Kenya with all the major banks having been included in the analysis and thus they are a good representation of the banking sector in Kenya.

Data in the study will be analyzed for the period before the interest rate capping and after the interest rate capping to establish the impact that it has had on performance of the banks. Performance was measured for the period between 2015 and 2017 on a half year basis with the

period up to August 2016 considered pre-interest rate capping period and after September 2016 considered post interest rate capping.

### 4.3 Data Validity

The data in the analysis is considered valid based on the fact that all the banks in Kenya were considered during the analysis. Further, consistency can be found in the ratios that were used as they can be replicated in other studies as they are the true financial ratios of the banks under the study. Consistency can be found in the analysis of the findings.

### 4.4 Descriptive Statistics

Descriptive statistics will bring to an understanding the features of the data under the study with a highlight of the mean, the standard deviation, coefficient of variation, kurtosis and skewness.

#### 4.4.1 Mean and Standard Deviation

The standard deviation is a measure of dispersion of the data in a study. Standard deviation that is low means that the data lies close to the mean while a higher standard deviation means that data is spread out from the mean.

**Table 1: Mean and Standard Deviation**

|                            | Mean    | Std. Deviation | N  |
|----------------------------|---------|----------------|----|
| Interest rate spread       | .033881 | .0128938       | 36 |
| Asset quality              | .100433 | .0755464       | 36 |
| Operating costs efficiency | .864870 | .3906071       | 36 |

Source: Author, 2017

The interest rate spread and asset quality have low standard deviation from the mean meaning that the data from the banks is closely related to each other. The lowest standard deviation was

seen on the interest rate spread at 1%. However, the operating cost efficiency has a higher standard deviation meaning that it is widely spread from the mean. There was a 39% standard deviation from the mean. The banks have varying operating efficiencies depending on the level of technology adopted, the size and economies of scale.

## 4.5 Kurtosis and Skewness

Skewness is a measure of the availability of symmetry in data. Data is considered to have symmetry when it has similarity on the right and the left in relation to the center point. Kurtosis measures whether the data in a study is heavy tailed or light tailed relative to normal distribution. The kurtosis levels between -2 to +2 are considered acceptable to prove the existence of normal univariate distribution while a skewness of -1.96 to +1.96 is considered within the normal distribution (Trochim & Donnelly, 2006).

**Table 2: Kurtosis and Skewness**

|                            | N         | Minimum   | Maximum   | Mean      | Std. Deviation | Skewness  |            | Kurtosis  |            |
|----------------------------|-----------|-----------|-----------|-----------|----------------|-----------|------------|-----------|------------|
|                            | Statistic | Statistic | Statistic | Statistic | Statistic      | Statistic | Std. Error | Statistic | Std. Error |
| Interest rate spread       | 36        | .0129     | .0570     | .033881   | .0128938       | -.002     | .393       | -1.066    | .768       |
| Asset quality              | 36        | .0000     | .3093     | .100433   | .0755464       | 1.139     | .393       | .610      | .768       |
| Operating costs efficiency | 36        | .3762     | 1.8628    | .864870   | .3906071       | 1.326     | .393       | 1.127     | .768       |
| Valid N (listwise)         | 36        |           |           |           |                |           |            |           |            |

Source: Author, 2017

From the analysis kurtosis fell between -1.066 and 1.127 which is within the acceptable levels. Skewness fell between -0.002 and 1.326 which is within the acceptable ranges for existence of a normal univariate distribution.

## 4.6 Correlation Analysis

Correlation analysis measures the degree and the direction of the linear association between coefficients of a study. The correlation could be positive meaning that the higher one variable is, so will be the other variable. Negative correlation means that the variables move in negative direction. The degree of correlation is measured by the closeness to either -1 or +1. Correlations closer to -1 are strongly negatively correlated while those close to +1 are strongly positively correlated.

**Table 3: Correlation Analysis**

|                                   | <b>Return on<br/>Equity</b> | <b>Interest rate<br/>spread</b> | <b>Asset<br/>quality</b> | <b>Operating costs<br/>efficiency</b> |
|-----------------------------------|-----------------------------|---------------------------------|--------------------------|---------------------------------------|
| <b>Return on Equity</b>           | 1.000                       |                                 |                          |                                       |
| <b>Interest rate spread</b>       | .454                        | 1.000                           |                          |                                       |
| <b>Asset quality</b>              | -.640                       | -.150                           | 1.000                    |                                       |
| <b>Operating costs efficiency</b> | -.731                       | -.377                           | .675                     | 1.000                                 |

Source: Author, 2017

The Pearson correlation between interest rate spread and return on equity is positive indicating that the higher the spread, the higher the returns to the bank. The spread between asset quality and return on equity is negative showing that they move in opposite directions. The relationship between operations cost efficiency and ROE is negative. Interest rate spread is highly positively correlated with the ROE at 0.454.

## 4.7 Test for Multicollinearity

Multicollinearity is determined by examining the Variance Inflation Factor (VIF) and levels of tolerance. A small tolerance indicates that the linear relationship between the variables is almost

perfect and should not be added to the regression analysis. A low tolerance of 0.1 should be subjected to further investigation. VIF is a measure of the impact of collinearity among the variables indicated in the regression analysis. The VIF should always be greater than 1. No formal value of VIF has been determined to establish whether multicollinearity exists. However, values greater than 10 are considered to indicate the existence of multicollinearity.

**Table 4: Multicollinearity**

| Model |                      | Unstandardized Coefficients |            | Standardized |        | 95.0% Confidence Interval for B |             | Collinearity Statistics |           |       |
|-------|----------------------|-----------------------------|------------|--------------|--------|---------------------------------|-------------|-------------------------|-----------|-------|
|       |                      | B                           | Std. Error | Beta         | t      | Sig.                            | Lower Bound | Upper Bound             | Tolerance | VIF   |
| 1     | (Constant)           | .116                        | .033       |              | 3.490  | .001                            | .048        | .184                    |           |       |
|       | Interest rate spread | 1.297                       | .623       | .246         | 2.082  | .045                            | .028        | 2.566                   | .837      | 1.195 |
|       | Asset quality        | -.284                       | .133       | -.316        | -2.127 | .041                            | -.556       | -.012                   | .531      | 1.883 |
|       | Operating costs      | -.074                       | .028       | -.425        | -2.678 | .012                            | -.130       | -.018                   | .466      | 2.147 |

Source: Author, 2017

The model in the study had a VIF above 1 and tolerance levels above 0.1 showing that multicollinearity does not exist.

## 4.8 Regressions Analysis

The study was done through the secondary collection of data that was available through the financial statements of banks that are readily available to the public. The analysis of the data was done through the use of ratios that were used to establish the impact of interest rate capping on commercial banks performance in Kenya. Performance was measured for the period between 2015 and 2017 on a half year basis.

#### 4.8.1 Analysis of Variance (ANOVA)

**Table 5: ANOVA<sup>a</sup>**

| Model        | Sum of Squares | df | Mean Square | F      | Sig.              |
|--------------|----------------|----|-------------|--------|-------------------|
| 1 Regression | .101           | 3  | .034        | 17.763 | .000 <sup>b</sup> |
| Residual     | .060           | 32 | .002        |        |                   |
| Total        | .161           | 35 |             |        |                   |

Source: Author, 2017

a. Dependent Variable: Return on Equity (ROE)

b. Predictors: (Constant), Operating costs efficiency , Interest rate spread , Asset quality

The study was done at 5% significance level which is 0.05. The study provided a p value of 0.00 which is lower than the significance level of 0.05 thus we reject the null hypothesis and conclude that interest rate capping has an impact on the performance of commercial banks.

#### 4.8.2 Model Coefficients

**Table 6: Model Coefficients**

##### Coefficients

| Model                      | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig.   | Collinearity Statistics |       |
|----------------------------|-----------------------------|------------|---------------------------|-------|--------|-------------------------|-------|
|                            | B                           | Std. Error | Beta                      |       |        | Tolerance               | VIF   |
| (Constant)                 | .166                        | .033       |                           | 3.490 | .048   |                         |       |
| Interest rate spread       | 1.297                       | .623       | .246                      | 2.082 | .028   | .837                    | 1.195 |
| Asset quality              | -.284                       | .133       | -.316                     | 2.127 | -0.556 | .531                    | 1.883 |
| Operating costs efficiency | -.074                       | .028       | -.425                     | 2.678 | -.130  | .446                    | 2.147 |

Source: Author, 2017

The following is the linear regression model:

$$Y = 0.166 + 1.297X_1 - 0.284X_2 - 0.074X_3 + \varepsilon$$

Where:

Y = Performance as measured by Return on Equity (ROE)

a = constant (The part of commercial bank performance that is influenced by other factors other than interest rate capping).

Commercial bank performance is the dependent variable that is determined by various performance measures indicated as  $x_1$ ,  $x_2$ , and  $x_3$ .

$X_1$  = Interest rate spread which is (interest received/all interest bearing assets)-(interest Paid/interest earning liabilities)

$X_2$  = Asset quality as measured by non-performing loans ratio

$X_3$  = Operating costs efficiency measured by operating costs/total operating income

$\varepsilon$  = Disturbance Term

The model indicates that interest rate capping has an impact on the performance of commercial banks. The test was done at 5% significance level and the interest rate spread is seen to have a large impact on performance of commercial banks based on the p value of 0.028. Asset quality and operating cost efficiency have a minimal impact based on their significance levels of -0.556 and -0.130.

There is a positive relationship between interest rates and the performance of the commercial banks based on the positive coefficients of interest rate yield and the ROE. It means that when the interest rates decline, the performance of the banks decline which is what is expected on the

capping of interest rates. When the interest rate spread increases, banks performance is expected to increase.

### 4.8.3 Model Summary Results

**Table 7: Model Summary**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |          |     |     |               |
|-------|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|
|       |                   |          |                   |                            | R Square Change   | F Change | df1 | df2 | Sig. F Change |
| 1     | .790 <sup>a</sup> | .625     | .590              | .0434744                   | .625              | 17.763   | 3   | 32  | .000          |

Source: Author, 2017

A higher  $r^2$  indicates that the model fits the data under the study and the models explains most of the variability of the response data around its mean. The  $r^2$  for the model is 62.5%. It is an indication that the study model explains more than 62.5% of the study variables and thus the model is a good fit.

## 4.9 Discussion of the Findings

The findings of the study indicates that there is a relationship between interest rates and the performance of commercial banks. The variables in the study were seen to have a significant impact on the performance of commercial banks. A total of 36 banks were analyzed for the period between 2015 and 2017 which is a good representative of the Kenyan Banking Sector.

Performance of the banks was better in the period before the capping of interest rate due to the higher interest rate compared to the lower interest rates after the interest capping period. Banks were enjoying a period where interest rates could be determined by forces of demand and supply

as opposed to the Central Bank dictating the rate that banks should operate within and thus enjoying higher returns through the return on equity.

According to the rent seeking theory controlling prices leads to unproportioned allocation of goods and services resulting in a rent-seeking situation (Bulow and Klemperer, 2012). According to Adam Smith (1776) rent-seeking means that organizations are out to make financial gains at the expense of clients by manipulating the trade environment. Adam Smith indicated that imposing policies meant to protect the poor is a bad move for the economy. From our regression analysis it is evident that the performance of the banks slows down on the introduction of interest rate caps as seen in the reduction of the ROE after the capping of interest rates.

Milton Friedman in the year 1962 advocated for a free market system as he indicated that money in circulation would grow as the economy grew as opposed to situations where money supply was controlled by the government. The findings are supported this study that shows that controlling the interest rates financial performance of the banking sector. People get to a position that they cannot borrow due to limitations to borrowing while the banks are skeptical to give loans for fear of their becoming non-performing.

In our empirical studies, Laeven (2003) did a study on the capping of interest rates in the United States and indicated that imposing liberal measures such as eliminating interest rates caps had a positive impact on the ability of small investors to access funding. Our study has shown that imposing interest rate caps has reduced the loan book of the banks showing that the bank is lending to fewer people who are considered to have lower risk compared to small investors who are considered to be of higher risk.

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Introduction**

The study fundamental issue was to establish the impact of capping of interest rates on the financial performance of commercial banks in Kenya. The final chapter of the study will give a summary of the study which will be followed by a synthesis of whether the objectives of the study were met and finally give recommendations to the readers.

### **5.2 Summary of the Findings**

The findings of the study indicates that banks in Kenya were performing better in the period before the capping of interest rates compared to the period after the capping due to existence of higher interest rate spread. Banks were seen to reduce the rate at which they gave loans to people due to the risk related to payment. Further, the interest rate yield was seen to reduce after the capping as banks had to comply with the requirements of the CBK and maintain the interest rate yields within a specific margin. It means that banks can no longer give loans at interest rates going to up to 25% as was previously experienced.

The findings of the study through the study of the financial statements indicated that banks are opting for different modes of making money as opposed to relying on the margins made through interest rate yield. Banks today are seen to be increasing non-interest income such as through increased ATM withdrawal fees. Further, some banks have been seen to introduce hidden charges while giving loans to their customers in a bid to meet their operational costs.

### **5.3 Conclusion**

The study indicates that interest rate capping has a negative impact on the financial performance of the banks which spirals down to the poor performance of the economy. In the event that interest rates go down due to capping. Further, the key aim of introducing a cap was consumer protection as many people would be unable to borrow at the exorbitantly high-interest rates set by commercial banks whose key objective is staying in business and maximizing shareholders wealth. The caps would, therefore, ensure that people are guaranteed access to credit at interest rates that are reasonable. However, this has not been achieved as banks have taken a position of securing themselves through the imposition of barriers to taking up loans such as the need for high collateral.

The capping of interest rates is expected to have further adverse impact in the future on the banks and the economy as the banks continue to deplete their profit reserves. There will be a tendency to look for alternative means to make an income including introducing charges that were not in existence before. It would mean that people would no longer want to work with the existing financial systems and opt for other methods of acquiring loans to service their investments.

Capping of interest rates has limited access to credit by the private sector who may be unable to raise the collateral required by the banks. It means that areas of investments such as real estate will experience slow growth, there will be less jobs and the effect will eventually be felt by everyone using the bank services or not.

### **5.4 Recommendations**

Imposition of the interest rate caps was a move made by the CBK to protect the borrowers against exorbitant borrowing rates imposed by the banks. However, it is evident that this has not

worked since its imposition. It leads to the recommendations that the CBK needs to find new ways of protecting the borrower without slowing down the economic performance. The CBK should consider protecting both the bank and the borrower by imposing policies that work for both parties.

The second recommendation is on the banks to innovatively bring in products that yield an income to the bank as opposed to relying on the interest income alone. Relying on the interest income has seen a reduction in income received by the banks and thus lowering the return on equity. Banks should work aggressively to bring in new products that generate them non-interest income.

It is recommended that banks explore the improvement of operational efficiency. In the period after the introduction of interest rate capping banks have engaged in reducing costs through closure of branches, laying off of employees and merging with other banks to enhance efficiency. In the event that banks introduce other products, there would be avoidance of the negative repercussions.

## **5.5 Limitations of the study**

A key limitation of the study is the fact that there are other factors affecting the performance of commercial banks in addition to interest rate capping. It means that the reduction of the ROE could be explained by other factors such as the size of the bank, the period of existence of the bank and the general operations of the bank.

The study had a focus on the impact that interest rate capping has had on commercial banks and not on other critical areas of the economy.

Another key limitation was on the period of study. Interest rate capping was introduced in 2016 in Kenya and thus the study could only be done within a short period of time. It is a limit since interest rate capping could have a different impact in the long term.

## **5.6 Suggestions for Further Research**

Further research is recommended on other areas affecting the financial performance of commercial banks as compared to interest rate capping. It will ensure that the study assesses the most important factors in the performance of banks.

The study proposes further research into the impact of interest rate capping on the economic performance of the country with a specific focus on certain industries such as manufacturing who are large bank borrowers. It could also study the impact of the ability to borrow given their ability to access collateral. The study could be compared with the impact that the capping has had on small business owners who have limited ability to borrow.

Additional further studies are recommended on the long term impact that interest rate capping will have on the performance of commercial banks and whether the capping should be lifted or maintained.

## REFERENCES

- Abata, M. (2014). Asset Quality and Bank Performance: A Study of Commercial Banks in Nigeria. *RJFA*, 5(18).
- Aligonby, J. (2016). *Shares in Kenyan bank hit after interest rates cap move*. Financial Times
- Barako, D.G., Hancock, P., & Izan, H.Y. (2006). Factors influencing voluntary corporate disclosures by Kenyan companies, *Corporate Governance: An International Review*, 14(2), pp. 107–125. <http://dx.doi.org/10.1111/j.1467-8683.2006.00491.x>
- Benita, G., & Lauterbach, B. (2004). Policy Factors and Exchange Rate Volatility. *Jel Classification*.
- Blume, M. E., & Stambaugh, R. F. (1983). *Biases in Computed Returns: An Application to the Size Effect*. *Journal of Financial Economics*, 9, 3-18.
- Bulow, J., & Klemperer, P. (2012). Regulated Prices, Rent Seeking, and Consumer Surplus. *Journal Of Political Economy*, 120(1), 160-186. <http://dx.doi.org/10.1086/665416>
- Chioma, D., Adanma, S., & Clementina, N. (2014). Empirical Study of the Impact of Inflation on Bank Performance: Implication for Investment Decision Making in Banking Industry in Nigeria. *Humanity & Social Sciences Journal*, 9(2), 61-71.
- Chirwa E. W & Mlachila, M. (2004). Financial Reforms and Interest Rate Spreads in the Commercial Banking System in Malawi, *IMF Staff Papers*, 51(1).
- Coleman, A. & Tettey K., (2008). “Impact of Macroeconomic Indicators on Stock Market Performance. The Case of the Ghana Stock Exchange.” *The Journal of Risk Finance*, 9(4): 365-378.
- Djibril, M., (2013). *The worrying trend of interest rate caps in Africa*. CGAP blog. November 11.
- Cooper, D. R., & Schindler, P. S. (2008) *Business research method* (2nd ed.). NY: McGraw Hill Higher Education.
- Emmanuelle,J.(2003).*Monetary and fiscal policy.Kenya*: University of Nairobi.
- Fama, E. F., Fisher, L., Jensen, M. C., & Roll, R. (2011). *The Adjustment of Stock Prices to New Information*. *International Economic Review*, 10: 54-67

- Frenkel, J. A., & Razin, A. (2010). *Budget deficits and rates of interest in the world economy*. Cambridge, Mass.: National Bureau of Economic Research.
- Gelfond, R. (2001). *Toward Free Market Money*. *Cato Journal*, 21.
- Helms, Brigit, and Xavier Reille. 2004. *“Interest Rate Ceilings and Microfinance: The Story So Far.”* CGAP Occasional Paper 9, Consultative Group to Assist the Poor, Washington, DC.
- iff/ZEW. 2010. *“Study on Interest Rate Restrictions in the EU.” Final Report for the EU Commission DG Internal Market and Services, Project No. ETD/2009/IM/H3/87, Brussels/Hamburg/Mannheim.*
- Irresberger, F., Mühlnickel, J., & Weiß, G. N. (2015). *Explaining bank stock performance with crisis sentiment*. *Journal of Banking & Finance*, 59, 311-329.
- Ivković, Z., & Weisbenner, S. (2007). *Information Diffusion Effects in Individual Investors' Common Stock Purchases: Covet Thy Neighbors' Investment Choices*. *The Review of Financial Studies*, 20(4), 1327-1357.
- Khalid, A.C., (2012). *The impacts of Assets Quality on Profitability of Private Banks in India: A case study of JK, ICICI, HDFC and YES Banks: Journal of African Microeconomic Review* 2 (1), 1 – 22.
- Kurlantzick, J. (2016). *State Capitalism: How the Return of Statism is Transforming the World* (1st ed.). England: Oxford University Press.
- Jagongo, A., & Mutswenje, V. S. (2014). *A Survey of the Factors Influencing Investment Decisions: The Case of Individual Investors at the NSE*. *International Journal of Humanities and Social Science*, 4(4), 92-102.
- Kothari, Rita (2004): *Hardening Identities after Partition'*, *Economic and Political Weekly*, Vol 39, No 35.
- Kurlantzick, J. (2016). *State Capitalism: How the Return of Statism is Transforming the World* (1st ed.). England: Oxford University Press.

- Laeven, Luc. 2003. "Does Financial Liberalization Reduce Financing Constraints?" *Financial Management Association* 31 (4): 5-34.
- Lagat, C., & Okendo, E. (2016). Financial Performance Of Banks Listed At The Nairobi Securities Exchange: The Impact Of Interest Rate Fluctuations. *International Journal Of Current Research*, 8(7).
- Lathif, A., & Aktharsha, S. (2016). *Determinants of Investment Decision-Making: Behavioral Perspective*. SCMS Journal of Indian Management, 13(2), 122-128.
- Maimbo, S., & Gallegos, C. (2014). Interest Rate Caps around the World Still Popular, but a Blunt Instrument. *Policy Research Working Paper*, 1(1).
- Miller, H. (2013). "Interest Rate Caps and Their Impact on Financial Inclusion."
- Mukherjee, T., & Naka, A. (1995). Dynamic Relations Between Macroeconomic Variables And The Japanese Stock Market: An Application Of A Vector Error Correction Model. *Journal Of Financial Research*, 18(2), 223-237. <http://dx.doi.org/10.1111/j.1475-6803.1995.tb00563.x>
- Nkwoma, I. J. (2014). *Interest Rate deregulation, bank lending & deposits: An analysis of Nigerian Bank data*. African Journal of Business & Economic Research, 9(1), 89-117. Economic and Private Sector, Professional Evidence and Applied Knowledge Services. February 2013.
- Nyakio, S.K. (2017). *Effect Of Interest Rates Capping By The Central Bank Of Kenya On The Banks Listed On The Nairobi Securities Exchange*. United States International University
- Odhiambo, N. (2010). *Interest rate reforms, financial deepening and economic growth in Tanzania: a dynamic linkage*. Journal of Economic Policy Reform, 13(2), 201
- Ochieng, E., Abdulai, R., Obeng-Odoom, F., & Maliene, V. (2012). *Real estate, construction and economic development in emerging market economies*. London: Routledge.
- Priti, V. (2016). *The Impact of Exchange Rates and Interest Rates on Bank Stock Returns: Evidence from U.S. Banks*. Studies in Business & Economics, 11(1), 124-139.

- Rachael, N., & Moses, W. (2017). The Effect of Interest Rate Control on the Stock Market Performance, a Case of Nairobi Securities Exchange Market. *International Journal Of Current Aspects In Finance (IJCAF)*, 4(1).
- Ray, T., & Sarker, R. (2014). An Evolutionary Framework for Bi-objective Dynamic Economic and Environmental Dispatch Problems. *Proceedings In Adaptation, Learning And Optimization*, 495-508. [http://dx.doi.org/10.1007/978-3-319-49049-6\\_36](http://dx.doi.org/10.1007/978-3-319-49049-6_36)
- Ristolainen, K. (2016). *The relationship between distance-to-default and CDS spreads as measures of default risk for European banks*. *Journal of Banking & Financial Economics*(1), 121-143.
- Rosenbaum, E. (2015, April 13). *Playing for profits in bank stocks as Fed raises rates*. Retrieved from CNBC: <http://www.cnbc.com/2015/04/13/how-to-trade-bank-stocks-as-fed-rates-rise.html>
- Sangmi & Nazir (2010) Analysing financial performance of commercial banks in India; Application of CAMEL Model. *Pakistan Journal of Commerce and Social Sciences* 4(1). 40-55
- Toma, M. (1982). Inflationary Bias of the Federal Reserve System: A Bureaucratic Perspective. *Journal of Monetary Economics*, 10(2): 163-190.
- Tran, H. (2013). *Relationships Between Interest Rate and Bank Common Stock Return: Evidence from Top 10 United States Banks and Financial Sector Index*. Digital CommonsLibrary. Retrieved from: <http://digitalcommons.bryant.edu/cgi/viewcontent.cgi?>
- Zaman, A., Gull, A. A., Nasir, R., Bilal, M., Pervaiz, Y., Riaz, M. A., & Ashraf, M. (2013). *Interest Rate Fluctuations and Financial Outcomes of Banking Sector: A Case Study of Pakistan*. *CLEAR International Journal of Research in Commerce & Management.*, 4(7), 125-129

## **APPENDIX: LIST OF COMMERCIAL BANKS**

African Banking Corporation

Bank of Africa Kenya

Bank of Baroda

Bank of India

Barclays Bank of Kenya

Chase Bank (In receivership)

Citibank N.A. Kenya

Commercial Bank of Africa

Consolidated Bank of Kenya

Co - operative Bank of Kenya

Credit Bank

Development Bank of Kenya

Diamond Trust Bank Kenya

Dubai Bank

Ecobank Kenya

Equity Bank

Family Bank

First Community Bank

Giro Commercial Bank

Guaranty Trust Bank Kenya

Guardian Bank

Gulf African Bank

Habib Bank AG Zurich

HFC Limited

I&M Bank

Imperial Bank (In receivership)

Jamii Bora Bank

Kenya Commercial Bank

Mayfair Bank

Middle East Bank

National Bank of Kenya

NIC Bank

M-Oriental Commercial Bank

Paramount Universal Bank

Prime Bank

SBM Bank Kenya

Sidian Bank

Spire Bank

Stanbic Bank Kenya

Standard Chartered Bank

Trans National Bank

UBA Bank of Kenya

Victoria Commercial Bank