

**THE EFFECT OF INTEREST RATES CAPPING ON THE LEVELS OF  
PERSONAL LOANS GRANTED BY COMMERCIAL BANKS IN KENYA**

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## DECLARATION

This research project is my original work and has not been presented for any award to any examination body.

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This research proposal has been submitted with my approval as the University Supervisor.

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## **DEDICATION**

This research project is dedicated to my lovely wife Hellen Wambua, and daughter Joy Amanda Wambua. To my parents and family for their support and encouragement.

## **ABSTRACT**

This study sought to determine the effects of interest rates capping on the levels of personal loans granted by commercial banks in Kenya. This study was necessitated by the law passed in August 2016 that came into effect in September 2016 seeking to regulate and place a cap on interest rates charged by commercial banks in Kenya. The argument by commercial banks in Kenya was that this law would have negative repercussions, and that there would likely be cases of credit rationing in the economy, and the economy and commercial banks would end up suffering. A total of 40 commercial banks in Kenya were studied, with data collected for a period of 20 months for analysis, 10 months prior (Oct-2015 to July-2016) and 10 months after (Oct-2016 to July-2017) the passing of the law. Secondary data from the CBK'S monthly banks supervision reports was analysis using the Statistical Package for Social Sciences software(version 16), and the t-test results analysis for statistical significance. The results showed p-values of  $< 0.001$ , thus  $p$  being  $< 0.05$  leading to a conclusion that the difference is significant, and that interest rates and levels of personal loans advanced by commercial banks are dependent, and that the law on interest rates capping lead to an increase in the levels of personal loans granted by commercial banks in Kenya.

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## **LIST OF ABBREVIATIONS**

<b>ANOVA</b>	Analysis of Variance
<b>CBK</b>	Central Bank of Kenya
<b>CBR</b>	Central Bank Rate
<b>COLLATERAL</b>	Security or guarantee given by a borrower to a lender for amounts lent as a loan
<b>EMH</b>	Efficient Market Hypothesis
<b>GDP</b>	Gross Domestic Products
<b>INTEREST RATE</b>	The proportion of return a lender charges for amounts borrowed by a borrower
<b>KNBS</b>	Kenya National Bureau of Statistics
<b>MBA</b>	Master in Business Administration
<b>NPL</b>	Non -Performing Loans
<b>PERSONAL LOAN</b>	Loan given to an individual for his or her own personal use.
<b>UON</b>	University of Nairobi

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

For a better part of the last 20 years, there has been a continuous debate on whether to place interest rates caps on Commercial banks in Kenya, and if doing so would pose any adverse effects to the operations of the banks. One of the consequences of capping the interest rates would be a slowdown in lending by commercial banks, mainly affecting micro and small business and personal loans as well. There has been an ongoing debate that despite the good intentions, setting interest rates ceilings would end up hurting sections of the populations regarded as being in the low-income bracket in that they would find it a challenge accessing credit from commercial banks. Arguments on whether the capping of interest rates would slow down the growth of financial institutions had been advanced, since it would be more difficult to recover costs of operation. Hualan (1992) argues that one of the most critical determinants of the financial performance of commercial bank is the interest rate. Thus, if interest rates are set at a minimal level, this would curtail the growth of commercial bank, and hurt the capacity of commercial banks in recovering operational costs (Hara, 1983).

In instances where lending rates are capped, lenders may result to some other strategies in order to maintain profitability in the market. This may include loan terms being much more rigid, an increase in fees and charges that are not interest related, and a rigorous screening of borrowers. Lasher (2008) argues that banks impose a risk premium on lenders based on their risk profiles, and that if interest rates capping is done, then other strategies of covering the risk maybe implemented and this would

usually end up pushing higher the costs of loans therefore having no positive impact in the economy. Were and Wambua (2013) note that since most commercial banks rely on having a big interest rates spread, the contraction of the same would push commercial banks into finding other means of minimizing risks and maximizing returns. The setting of rigid loan terms usually will favour those who have higher incomes and are able to pay higher monthly instalments. The increasing of non-interest fees and charges usually will have an impact of eliminating those unable to bear the huge fees from the market.

### **1.1.1 Interest Rates**

It is argued that interest rates are a representation of the price of money in a financial market. It has also been defined as a price that a borrower or a loan client pays for use of borrowed funds from a lender or the fee which is paid for the use of an asset that is borrowed from a lender (Maigua & Gekara, 2016). According to Kwak (2000) interest rates represent the price demanded by a lender in order to lend out their money to a borrower. Kwak (2000) goes on to further state that in order for a borrower to be able to consume resources now, they have to pay a price, and that this price is usually represented by interest rates. A Shilling today is worth more in the pocket than the same shilling tomorrow, and thus a lender would expect a reward for money lend out. Crowley (2007) defined interest rate as what a borrower ends up paying as compensation for the use of money borrowed from commercial banks or other lenders, or the fees they pay out on borrowed assets.

According to Lasher (2008), interest rates have two components, the base rate which constitutes the risk free rate of lending, and the risk premium, which is the interest

that lenders demand for issuing out risky loans. Banks usually charge a higher interest rate if they think that there is a lower chance that a borrower will fully repay the debt. They charge a higher rate to borrowers who are categorized as risky. There are several schools of thoughts in regards to interest rates. The classical school argues that what determines levels of investments and savings are the prevailing interest rates. Hoff and Stiglis (1990), argue that imperfect information paradigm form the modern view of interest rates.

### **1.1.2 Demand for Personal loans**

Credit drives economic activities usually by enabling businesses, households and other economic entities to have investments that are beyond their cash on hand. Individuals and households are able to do purchasing without having at present all the entire cost of their purchase. Saunders (2010) explains that the driver of economic growth is the demand for loanable funds, as this enables individuals as well as institutions to undertake productive economic activities even when they don't have enough funds or savings. Governments also seek for credit from both local and international sources in order to fund infrastructure and development projects, as well as to meet other rising obligations. Financial markets are the key providers for credit in any market and economy. They provide a protection to investors, households and governments against urgent and abrupt needs for funds. Financial institutions are central and at the core of the economy as they offer to provide liquidity both through offering line of credit and offering demand deposits that offer withdrawal at any given time.

According to Amonoo et al., (2003), credit helps in the bridging of the gap that may exist between enterprise owner's financial assets and what may currently be the required financial assets an enterprise. As in most instances there exists an imbalance between the two, then forcing a demand of credit by enterprises. According to Aryeetey et al., (1994), categorization of demand for credit can be put into three; demand that is perceived, potential demand and demand that is revealed. Demand that is perceived may arise in situations whereby enterprises that assume to be in need of finances mention cash as a constrain. On the other hand, Potential demand may arise in instances whereby an imperfections in the markets and institutions make it impossible to actualize the desire for credit. Demand that is revealed is the written application for financial support based on a given rate of interest prevailing at the time of application. Gale (1991) defines effective demand as what lending institutions are willing and able to disburse to borrowers.

### **1.1.3 The Effect of Interest rates capping on the level of personal loans advanced by commercial banks in Kenya**

There has been a continuous and endless debate on what really is the impact that interest rates have on the level of personal loans advanced by commercial banks and other financial institutions. Besley (1994) argued that loan seekers may face adverse selections occasioned by high interest rates. Financial institutions charge individuals perceived as being of higher risk and higher rates in order to cover for default risk. There are however, those who differ and argue that the rates of interest charged does not have an impact on levels of personal loans advanced or demanded in an economy. According to Aryeetey et al., (1994), the level of interest rates was not a major concern for SME'S seeking credit from financial institutions.

According to Pandula (2011) and Carreira (2010) banks may prefer certain sectors having lower risks and defaults, high growth rates and high cash flows. Lending decisions are highly influenced by the policies and procedures laid down by banks (Burns, 2007). According to Yehuala 2008, borrowers may be put off by lending terms that are too stringent, even when viable investment opportunities are available to them. Besley (1994) indicates that interest rates may end up affecting the average quality of lenders loan portfolios, as well as playing an allocative role in that they may equate demand and supply for loanable funds.

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

Commercial banks are financial entities that offer a variety of financial services, such as accepting deposits and giving out credit, as well as offering basic investment products. As at July 2017, Kenya had a total of 40 commercial banks, down from 44 in early 2016, as Chase bank and Imperial bank are currently under receivership, and I & M holdings acquired Giro commercial bank, while Diamond Trust Bank is in the process of acquiring Habib Bank Limited Kenya. Kenya also has a single mortgage finance company, and the number of microfinance banks stands at 12. The total number of foreign banks representative offices stands at 8, as well as their being 86 foreign exchange bureau. There are 3 credit reference bureaus and 14 money remittance providers as well in the Kenyan financial market.

The banking sector has experienced dynamic changes in recent years, with technological advances and innovations at the heart of this growth. Internet and mobile banking, as well as agency banking innovations have enabled commercial



banks tap into new markets and increase revenue streams. The continued economic growth and expansion in the country has opened up more demand for credit to finance projects both in the private and public sector. This has led to a period of thriving by commercial banks in the country, whereby commercial banks reported high profit levels and expansion in their branch networks to cover many parts of the country.

## **1.2 Research Problem**

Interest rates are the major income source for financial institutions, and this institutions take into consideration a number of factors when determining the interest rates chargeable to its customers. Some of the factors include macroeconomic indicators such as rates of inflation and foreign exchange rates. Commercial banks may also factor in their operational and administrative costs. Other key factors include the prevailing treasury bills rates, cost of the funds, the inherent lending risk, as well as the relative rate of savings to borrowings. Boldbaater (2006) points out that the topic of how much or what is an acceptable interest rate level remains a controversial one For the better part of the last two decades, Kenyan banks have had to do with an unregulated interest rates regime, whereby interest rates in the country have at times risen to close to 30%. Commercial banks have argued that the high rates are as a result of market forces, and have come about after taking into consideration many factors prevailing in the economy. The new amendment in September 2016 to put a cap on interest rates sparked heated debates not only in Kenya, but regionally and internationally as well.

Economists have always argued that controls bring about economic distortions. The economists argue that the interventions of government curtail the efficient allocation

of economic resources in an economy whereby each agent maximizes their own welfare. Thus on one hand many have argued that by placing a cap on lending rates, banks will have no motivation to offer credit due to low returns, and thus this may lead to a shortage of credit, and by extension credit rationing. Siddiqui (2011) studied the factors affecting bank interest spread where a 14 commercial banks in Pakistan were analysed for the period spanning 2000 to 2008, and concluded that minimum interest margins in a dynamic environment of free market economies allow for the most efficient and best banking structure. Others have argued in support of the capping of interest rates, arguing that this will make it possible for a majority of the population to access credit from banks.

Many scholarly articles and research studies have been carried out in the past in regards to interest rates and their relationship with the credit and personal loans granted by commercial bank. Amanoo et al., (2003) carried out a research on what impact do interest rates have on the demand for credit by the poor in Ghana. The findings from the research were that a negative relationship exists between interest rates and demand for credit, and thus if interest rates were lowered, demand for credit and personal loans would go up, and vice-versa. Since the research was carried out in Ghana, this study will seek to carry out a research in Kenya to determine the effect that the capping of interest rates will have on amounts of personal loans that commercial banks in Kenya will grant to individuals. Odhiambo (2013) did a research study of the effect of changes in interest rates on the demand for credit and loan repayments by small and medium enterprises in Kenya. This study had its focus as the demand for loans and credit by SME'S, and found out that interest rates variations or changes did not necessarily have an effect on the demand for credit and laons by

SME'S. Since this research focused on the SME'S sector, there is a research gap on what effect interest rates changes and interest rates capping would have on the level of personal loans granted by commercial banks in Kenya. This study will therefore seek to fill this research gap.

Dehejia, Montgomery & Morduch (2012) studied on whether interest rates really mattered on the determination of credit uptake, the study being carried out in Bangladesh. They found out that with varying interest rates, the effects were noticeable, and that the poor were more sensitive to changes in interest rates, with demand for credit rising as interest rates fell and vice versa. This study focused on Kenya, and whether the capping of interest rates has driven up the uptake of personal loans from commercial banks in the country. Maingi (2011) did a research study on what effects changes in interest rates have on credit granted by Commercial banks in Kenya. His focus was on the economy as a whole, aggregating both individual and institutional borrowers. The findings from the study were that there existed a weak relationship between the interest rates prevailing at a time, and the amount of credit granted by commercial banks. This study instead sought to have its focus on the individual or personal borrower, as opposed to the economy as a whole, in order to find out whether the capping of interest rates had any effects on the levels of personal loans granted by commercial banks to individual borrowers.

It is therefore evident from the studies done and discussed above that a research gap does exist in this area of study. Similar studies have been done in other countries, and this study sought to carry out a similar study in Kenya. Also, studies done in Kenya in regards to changes in interest rates and credit advanced by commercial banks have

either had their focus on the economy as a whole, or on SME'S. No study has had its focus on the individual as a borrower, and thus this study sought to bridge that gap. Therefore this sought answers on whether there was any effect of interest rates capping on the level of personal loans granted by commercial banks in Kenya, and if so what was the effect?

### **1.3 Objective and Scope of the Study**

To determine the effect of interest rates capping on the level of personal loans granted by commercial banks in Kenya.

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

As the debate rages on in the country in regards to whether the decision to put a cap on interest rates will positively or negatively impact the banking industry, there was a need to establish the real impact of this in the market. The public have argued that banks have enjoyed abnormal profits by charging way too high rates of interest on credit to consumers, where else banks have argued that by regulating interest rates, many financial institutions may end up collapsing. Financial experts and economists have argued in support of the market oriented economy where forces of demand and supply are left to play and determine the interest rates in the market.

This study sought to establish the true impact that the new interest regime has had in the market and economy. This sought to help the government to evaluate whether the law passed had had a positive or a negative impact in the economy. This study intended to also offer insight for the CBK in their mandate that they play as a regulatory body of the Kenya financial system through monetary policies set out from

time to time. The study also intended provide policymakers and the community in general. The study would also greatly benefit the academic fraternity in providing reference for further empirical and conceptual research studies in this broad area, as well as offering useful knowledge to academicians.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews the underlying theoretical and empirical theories regarding interest rates, interest rates capping and if at all there exists a relationship between interest rate capping and how much personal loans commercial banks in Kenya, as well as internationally, disburse to their customers. The chapter begins by reviewing the theoretical literature, then the empirical literature is analysed, both locally and internationally. Thereafter, a discussion of what are the determinants of personal loans and credit issued by commercial banks is done. The next part of the chapter deals with the studies conceptual framework. A summary and conclusion on the literature review is also done to highlight the research gap that exists in this field of study.

#### **2.2 Theoretical Literature**

There are various theories that the study is grounded on. Four of the studies have been discussed below;

##### **2.2.1 Classical Theory of the Rate of Interest**

This theory was initially advanced in the early 1930's by the economist Marshall and Fisher, and was later on propagated by others such as Pigou, Taussig and Knight. The rate of interest is regarded as the factor bringing about the willingness to save, as well as a demand for investments into a state of equilibrium with each other. This therefore implies that when savings exceed investments, the interest rates will fall, and when the investments exceed the savings, interest rates go up. Gorder (2009) argued that the

increase in interest rates, which is the reward for savings, will drive savings up. Caplan (2000) pointed out that the equilibrium point of interest rates is established at that point at which the supply and demand for capital are equal. Keynes however offered criticism of this theory of interest rates. He pointed out that the assumption by Marshall and Fisher that the level of income was given was erroneous. According to Keynes, income is not a constant but a variable, and that equality between investments and the saving levels can be established by the changes in the levels of income, and not due to the variations of interest rates.

Rochan and Vernengo (2001) argued that if the classical theory of interest rates holds true, banks that are highly liquid should offer credit at lower interest rates since savings exceed investments, and thus a need to attract customers, where else banks which have low liquidity should offer credit at higher interest rates since investments far outweigh savings, and the high interest rates would act in discouraging high borrowing, and all this would help in the mechanism of establishing an equilibrium position in the market or economy.

### **2.2.2 Loanable Funds Theory**

This was a theory advanced by the Swedish economist Knut Wicksell that seeks to differ in part with the classical theory of interest rates and thus offered improvements on the classical theory of interest rates. This theory states that the relationship between quantities of loanable funds demanded and the interest rates is inverse in nature. The rate that brings about an equality between the supply as well as the demand of loanable funds can be defined as the equilibrium interest rate. This theory sought to improve the earlier classical theory of interest rates by arguing and

recognizing how important hoarding as a factor affects interest rates. The theory also tried to link together investments, savings, and quantity of money and liquidity preference. The theory also took into consideration the role that bank credit will have as an important source of loanable funds.

This theory sheds light and takes into account both aspects of the problem, be they monetary or non-monetary. Ngugi (2001) points out that interest rate is that price which brings about an equity in the supply as well as the demand of loanable funds, thus establishing an equilibrium point. There are three primary or key sources for the demand of loanable funds, i.e. the government, businessmen and consumers. Funds may also be demanded for purposes of hoarding, in both forms, liquid and cash. Savings help in the supply of loanable funds, as well as dis-hoarding and credit from the bank. If interest rates are high, there is a higher incentive to save and vice versa. This theory also applies as well to bank credit or money as more credit is issued at a higher than at a lower rate of interest.

Saunders (2010) argued that the interest are determined similarly to how the economy determines the demand and the supply of goods and services. Accordingly, assuming all other factors are held constant, then as when supply of loanable funds goes up, interest rates will also go up. Saunders (2010) goes further to argue that as the interest rates fall, demand for loanable funds increases, and the demand going down as interest rates rise up. Olokoyo (2011) explains the attendant risks of commercial banks having to set very high rates of interest in order to optimize their returns from lending. Commercial banks will induce the problem of adverse selection and moral hazards by setting high interest rates. The effects that this has is that banks attract



borrowers who have very risky projects into their portfolio. Ngetich and Wanjau (2011) argue that interest rate control help to keep in check how much spread banks will enjoy, and this goes a long way in keeping a control on the moral hazards associated with nonperforming loans.

### **2.2.3 Efficient Markets Hypothesis**

For many years, the Efficient Market Hypothesis (EMH), has been considered one of the most important and central propositions in finance. Markowitz introduced the theory in 1952, and subsequently Fama advanced it in the 1970's. According to this theory, financial markets efficiencies exists, and this enables all the stock prices to reflect all relevant information, thus rendering it nearly impossible for an investor to "beat the market". Information that is correct is of profound importance to investors in a market, and this information is of great importance to investors in forming expectations, as well as in making investment returns (Samuelson and Fama, 1965).

According to Fama, there are three forms of market efficiency. First there is the Weak form of market efficiency whereby only historical information is the only information available in a market to the investors. Both public and private information may not be available in the market to the investors. Secondly, there is the Semi-strong form of market efficiency, whereby additionally to the historical information and data available to the weak form, there is also public information now available to the market. Finally, in the Strong form, we now have historical, public, as well as private information being available in the market. Thus in such a scenario, insider information is of no benefit, since the markets will reflect all the information relevant to a given security.

However, it hasn't been all smooth sailing for the efficient market hypothesis. Several anomalies of the markets have been noted and documented over time, that conflict with the efficient market theory. Some of the anomalies include "small-firm anomaly", January effect and the Day of the week effect. The "small-firm anomaly" argues that since smaller firms have a larger leeway for growth and performance, they may end up outperforming stocks of larger companies which can't grow at a similar rate. According to the Day of the Week effect, Fridays have been noted to provide better returns for example when compared to Mondays. The January effect points out that since many investors may seek to cut their losses during year end and offset capital gain taxes by selling underperforming shares, and that come January, investors may flock the market looking to buy, and thus driving up prices of securities.

#### **2.2.4 Credit Market Theory**

This is a neoclassical theory that argues that it is usually the terms of credit that clear the market. The theory points out that if the collateral that is required for a loan, as well as any other covenants or restrictions do remain unchanged, then the interest rates will be the only price mechanism applicable in the market. If then demand for credit increases against a given customer supply, then the interest rates will go up, and vice versa. Ewert et al., (2000) argue that if then there is a higher default risk of a borrower, then the banks will demand a higher interest premium, and vice versa. If then an instance of control of interest rates chargeable by commercial banks arises in the market, the argument could be made according to the credit market theory that banks would be wary of lending out to risky borrowers at lower levels of interest rates as this would leave them exposed to defaults. Thus, this would imply that banks would seek to limit credit facilities advanced to risky segments of the economy.

## **2.3 Determinants of personal loans issued by commercial banks**

### **2.3.1 Interest Rates**

Interest rates, it may be argued, may perhaps be the single most key motivation that influences credit markets and the access to issuance of credit facilities by lending institutions. The Monetary Policy Committee usually sets the benchmark lending rate on a monthly basis, and commercial banks reference this in setting out the interest rates to issue out credit at to the markets. Since the early 1990's up to August 2016, there was a liberal interest rates regime in the country, whereby banks would determine their preferred basis point above the set out rate by the MPC. However, since September 2016, this has changed, as banks are required by law to set out their interest rates at a maximum of four basis points above the base rate set by the MPC.

### **2.3.2 Credit Risk**

This refers to the risk that arises when a comparison of non-performing loans to the total loans issued is done. Coyle (2000) defines credit risk as the loss suffered due to default in the repayment of credit granted to customers, this can be done intentionally or due to one just not being able to pay back what is owed, and according to the terms of agreement. Banks closely monitor this ratio with a view of taking corrective action in cases of adverse outcomes. If the ratio goes up, then banks will raise up the interest rates charged to borrowers in order to cushion themselves against losses, and if the ratio goes down, then banks may lower interest rates. Banks may also limit credit issued out to risky clients when the ratio is high, and may be open to issuing out more credit when the ratio is low, thus opening up opportunity to more riskier clients.

### **2.3.3 Liquidity Risk**

Watanabe (2012) argues that a banks weaker (stronger) balance sheet such as a poorer (greater) capital adequacy and lower (higher) liquidity has a positive effect on the banks' lending rate, as this may help the bank push down on the rate of interest that will be charged to customers, hence able to attract more customers, issuing more loans as opposed to the vice versa whereby higher rates of interest would draw away customers.

### **2.3.4 Operating Costs**

Were and Wambua (2013) argued out that a rise in the operational expenses and costs of commercial banks will have an effect of driving up interest rates in an effort by the banks to cover up as much of the operational costs as possible. The higher the rates of interests charged, the more potential customers are driven further away, and this may severely limit the amount of credit issued out by commercial banks. When the interest rates lower, demand for credit goes up, and commercial banks may be in a position to issue more credit. Lower operating costs translating to lower interest rates on the other hand will have the positive impact of opening up an opportunity for more customers to access credit facilities, and this will drive up the levels of credit advanced by commercial banks.

## **2.4 Empirical Literature Review**

### **2.4.1 International Evidence**

Crowley (2007) carried out an analysis of interest rates spreads in English speaking African countries, taking into account known factors that may play in influencing interest rates spreads in this countries. The findings were not clear on whether the

quality of a loan had any effect which was direct and significant on interest rate spreads. In a regression of adjusted interest rate spreads loan quality was insignificant while in a regression of adjusted net interest rate margins it was significant. Chirwa and Mlachila (2004) studied the reforms in the financial sectors well as the spread of interest rates in the commercial banking market of Malawi. They used Panel data regression in carrying out an in-depth look at different determinants of interest rate spreads for the period 1989 to 1999. They analysed Provision for doubtful debts, costs that are not financial in nature, the average market share, market concentration, liquidity reserve requirement, the discount rate, inflation rate and industrial production growth. The study carried out showed that discount rate and the market concentration resulted to a high elasticity of interest rate spreads. With respect to the other factors such as liquidity reserve requirement, inflation, non-financial costs, market share and loan quality, Spreads were found to be relatively inelastic.

Grenade (2007) carried out a study in the Eastern Caribbean Currency Union study on the various factors that may influence or have an impact on interest rate spreads of commercial banks, undertaking an analysis of commercial banks' interest rate spreads trends in the Eastern Caribbean Currency Union (ECCU) for the period covering 1993 to 2003. The sample of the study consisted of foreign and indigenous banks, a total of sixteen with 8 on each category. The relevance of macro and micro factors in determining commercial banks interest rates spread over the period was done by employing the panel data techniques. According to the study, the outcome or findings were, first, spreads have been strong and persistently showing little signs of narrowing and second, foreign owned banks have been operating with larger spreads compared to their indigenous counterparts.

Siddigui, Malik & Shah (2012) studied how the volatility of interest rates would impact non-performing loans in Pakistan, for the period between 1996 and 2012. The researchers used weighed average lending interest rate as published quarterly by the state bank of Pakistan. The study covered a total of twenty one commercial banks whereby the weighted average NPL was obtained from the banks financial statement. Conclusions from the study were that as much as there was a rise in the NPLs of Pakistan commercial banks, this were significantly but this were not solely impacted by the volatility in the cost of borrowings.

Wensheng (2002) did a study on what impact the interest rates shocks had on the banking sector's performance. The sample was two commercial banks whereby financial data from the period of 1992-2002 was collected from the bank published financial statements, and the data was then analysed using Microsoft excel and content analysis. Conclusions from the study were that banks performances were impacted by interest rates positively and thus a recommendation to come up with strategies that would minimize the interest rate spread among Hong Kong's commercial banks.

Boldbaatar (2006) studied SEACEN banks in regards to interest rate spreads in SEACEN banks. 40 Commercial banks formed his sample for the period between 1998-2004, obtaining data from published financial statement and analysing the data using SPSS. According to the study, banks' spreads were influenced by bank specifics, market forces as well as the regulatory environment and thus he recommended that reserve requirements were very expensive to bank customers and thus strategies were needed to protect the customers.

### **2.4.2 Local Evidence**

According to Kinyura (2011), the determinants of the rates commercial banks in Kenya lend at are the taxation policies, core liquid asset requirement, transaction cost, CBK and its regulatory role, management fees and staff costs. Additionally, the findings from the research further revealed that interest rates were affected in a large part by inflation rates, the demand for loans, prevailing foreign exchange rates as well as other macro and micro economic environment factors.

Kiptoo (2011) carried out a case study on what the strategic responses by KCB were in order to cope with the rising challenge of NPL at the time. Data was collected data by interviewing all the bank managers at the bank. The conclusions of the study identified the following strategies that had been applied by KCB; the bank had equipped itself with the latest software for analysis of its customer and loan requests, there was a setting up of several regional portfolio offices in order to bring about ease in decision making, as well as trainings carried out by the bank to staff on sound credit management policies within the organization.

Were and Wambua (2013) researched about what factors commercial banks in Kenya base their determination of interest rate spread on between the years of 2002 to 2011. They utilized the panel data analysis approach to determine the effects of the variables. The studied variables that included bank size, market concentration, credit risk, operating costs, liquidity risk, return on average assets, inflation rate and real GDP growth. From the regression analysis done on this, the results showed that all the coefficients of bank variables were highly significant at 1% in all the estimated equations except operating costs ratio which was significant at 5% level. They

observed that a relationship that was positive existed between interest rates spread and credit risk associated with non-performing loans ratio. This may mean that banks are faced with the temptation to shift the risk premium usually associated with non-performing loans to the borrowers and this may also be coupled with squeezing the rates offered to the depositors to the minimum possible. Their conclusion was that the bank specific factors do play a significant role in determining what the interest rate spreads in the banking sector in Kenya are.

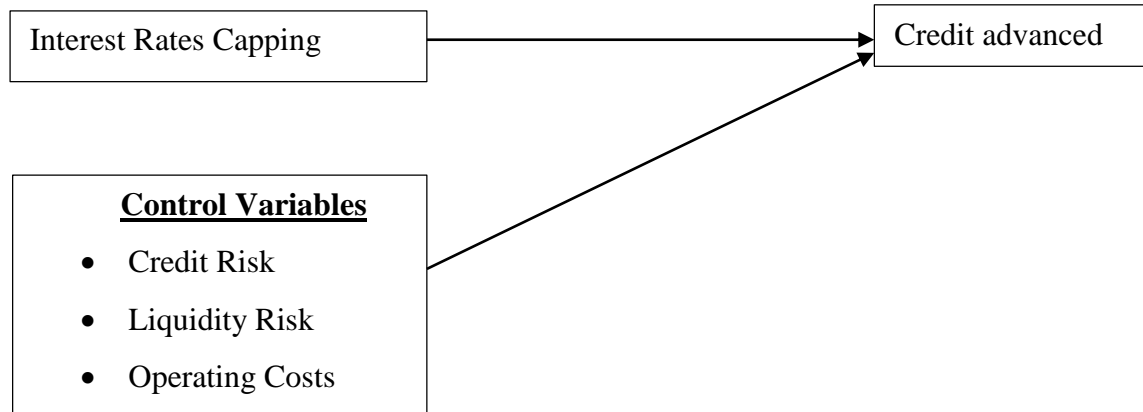
Kimutai and Jagongo (2013) researched on credit rationing in Kenya and factors that may bring about the rationing of credit, an indicator of perceived credit risk. The scholars found out that the real factors that had a major influence on the rationing of credit by commercial banks in Kenya are observable elements, loan features and the firm specific characteristics. The recommendations from the study were that it could be beneficial to banks, if done fairly and without any bias and professionally, to ration credit, and that what is of key priority before issuing credit is for a thorough review of all the factors that have an influence on the rationing of credit.



## 2.5 Conceptual Framework

### Independent Variables

#### Variable



**Figure 2.1: Conceptual Framework**

## 2.6 Summary of Literature review

It is evident from the review of literature that much has been done on the issue of interest rates and their relationship to levels of credit issued and commercial banks levels of non-performing loans, locally and internationally as well, but due to the recent developments with the introduction of capping of interest rates in Kenya, no scholarly study has been published yet to establish the effects and the relationship of this to the levels of personal loans granted by commercial banks in Kenya.

For example, Njenga and Wanyoike (2014) studied of the effects of risk factors on unsecured loans, while the research done by Were and Wambua (2013) focused on factors that are bank-specific, and which play a major role in the determination of a bank's interest rates spread.. Kimutai and Jagongo (2013) focused on what influences commercial banks in Kenya on credit rationing. Therefore it is clear that there is a

research gap on relation to the study of interest rates, personal loans and credit granted by commercial banks, and their relationship. This study therefore seeks to carry out a research in order to be able to shed a more clear light on whether there is any relationship at all between the capping of interest rates and levels of personal loans granted by commercial banks in Kenya, and if so, what this relationship is.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

In this chapter, a discussion on the research design, the population of the study, the description of the population, methods of data collection, as well as data analysis methods is done. The main aim of this study will be to establish the relationship between interest rates capping and the level of personal loans granted by commercial banks in Kenya.

#### **3.2 Research Design**

This is a plan which offers guidance to a researcher on how to organize their research activities (Bryman & Bell 2003). This study adopted and used a causal research design. Dooley, 2007 defines a causal research design as an approach that explores the effects of one variable on another variable. This is a research design that attempts to identify a causative relationship between an independent variable and a dependent variable (Kumar, 2009).

A period of 20 months was used as the basis for the study, with data collection done between September 2015 to July 2016 to cover the period before the bill on the capping of interest rates was passed, and the period between November 2016 to August 2017 to cover the period after the law on the capping of interest rates was passed. Since the bill was implemented in September 2016, a two months period on both end gap was allowed to cover for the effects of noise in the market, and thus data was collected up to July 2016 and from October 2016.

### **3.3 Population**

Donald, 2000 defines a populations as the whole collection of elements that may inform a researcher in making inferences. All the licenced commercial banks in Kenya formed the population of this research. Information available in the Central Banks of Kenya website details that Kenya had 40 commercial banks as at July 2017, down from 44 in early 2016. The banking Act, Cap 488, regulates all the commercial banks as well as mortgage finance companies that are operational in the Kenyan market.

### **3.4 Data Collection**

The study was facilitated by secondary data. Monthly data and bank supervision reports for commercial banks Kenya from the central bank was analysed to draw a comparison between results in the two interest rates regimes. Data from the CBK and the KBS was analysed to supplement the data contained in the financial reports of Commercial banks in Kenya.

### **3.5 Data Analysis**

Data collected was analysed using t -test statistic at 5% significant level with the help of statistical package for social sciences (SPSS) version 16. The t-test is a statistical tests that is used to compare means of two groups. This test is used to compare whether the movement in absolute means of the two periods is a matter of chance or not. This test was used to find out whether the differences between pre and post interest rates capping regimes is statistically significant.

**Null Hypothesis:**

H0: Personal loans advanced by commercial banks and levels of interest rates are independent

**Alternate Hypothesis:**

H1: Personal loans advanced by commercial banks and levels of interest rates are not independent

**Decision rule**

Reject H0 if the t-test value calculated is greater than the t-test tabulated value at 5% significance level.

## CHAPTER FOUR

### DATA ANALYSIS, RESULTS AND DISCUSSION

#### 4.1 Introduction

This chapter deals with the analysis of data collected and presents the findings of the study as set out in the research methodology. The results are shown in terms of a two-sample T-test that is used in comparing the means of two different samples. The main aim and objective of the study is to analyze the effect of interest rates capping on the levels of personal loans advanced by commercial banks in Kenya.

#### 4.2 Descriptive Statistics of the Population

This sought to study the characteristics of the data for personal loans advanced by commercial banks for the two periods under study. I.e. the period before and the period after the law on interest rates capping came into effect. The means, median, maximum, minimum, skewness and kurtosis statistics of the data were considered. The results of the findings for the two periods is shown in the tables below;

**Table 4.1 Descriptive statistics for the 10 month period (Oct-2015 to July-2016) before the law on interest capping was introduced;**

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
VAR00011 Valid N (listwise)	10	351.00	363.90	3.5761 E2	3.72035	13.841	-.111	.687	.054	1.334

Source: Researcher

The results from table 4.1 show the various means for the data on personal loans advanced by commercial banks in Kenya for a period of 10 months (Oct-2015 to July-2016) before the law on capping of interest rates came to effect. The results show that the minimum level of personal loans granted by commercial banks in Kenya for the period was KES 351.00 billion, while the maximum level of personal loans granted for the same period was KES 363.90 billion. The mean level of personal loans granted for the period was KES 357.6billion. The analysis of skewness and kurtosis show a normal distribution pattern for the data.

**Table 4.2 Descriptive statistics for the 10 month period (Oct-2016 to July-2017) after the law on interest capping was introduced;**

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
VAR00012	10	375.20	400.30	3.8798E2	8.11210	65.806	-.094	.687	-.893	1.334
Valid N (list wise)	10									

Source: Researcher

The results from table 4.2 show the various means for the data on personal loans advanced by commercial banks in Kenya for a period of 10 months (Oct-2016 to July-2017) after the law on capping of interest rates came to effect. The results show that the minimum level of personal loans granted by commercial banks in Kenya for the period was KES 375.20 billion, while the maximum level of personal loans granted for the same period was KES 400.30 billion. The mean level of personal loans granted

for the period was KES 389.9. The analysis of skewness and kurtosis show a normal distribution pattern for the data.

A comparison of the statistics for the two period show the following observations. First, the mean for the levels of personal loans advanced by commercial banks in Kenya after the capping of interest rates is higher than for the period before, i.e. KES 389.9 vs. KES 357.6 billion. The minimum level of personal loans for the period after is also higher compared to the period before that is KES 375.20 billion compared to KES 351.00 billion. Also, a look at the maximum levels of personal loans granted for the two periods show that for the period after the law the level is KES 400.30 billion, compared to KES 363.90 for the period before the law was passed.

#### **4.3 T-test analysis**

A t-test is a statistical analysis of two population's means through the use of statistical examination and usually tests the difference between the samples when the variances of two normal distributions are not known. The table below, table 4.3 shows the t-test results for the data for both periods;



**Table 4.3 T-test statistical results for the two periods**

**T-Test**

**Group Statistics**

	VAR00017	N	Mean	Std. Deviation	Std. Error Mean
VAR00016	b	10	3.5761E2	3.72035	1.17648
	a	10	3.8798E2	8.11210	2.56527

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
VAR00016	Equal variances assumed	5.704	.028	10.761	18	.000	30.37000	2.82218	36.29919	24.44081
	Equal variances not assumed			10.761	12.626	.000	30.37000	2.82218	36.48539	24.25461

Source: Researcher

From the above table we observe that the Levene's test for equality of variances, and the  $F$ -value is .028, we assume that the variance of the two groups are the same. The  $p$ -value for the 2-tailed  $t$ -test for equality of means is 0.0001. The  $p$ -value is significant if it is less than 0.05 (5%), since the confidence level used is 95%. From the table, then the effect of the capping of interest rates was significant, since  $p$ -value is 0.0001, which is less than 0.05.

#### **4.4 Summary and interpretation of findings**

In the analysis of descriptive statistics for both periods, before the interest rates capping and after the interest rates capping, it is noted that the minimum level of personal loans advanced by commercial banks went up from KES 351.00 billion to KES 375.20 billion after the capping of interest rates. This represents an increase of KES 24.2 billion, or a 7% increase in personal loans advanced. In comparing the maximum levels of personal loans advanced for the two periods, this went up from KES 363.90 billion from the period before the interest rates capping to KES 400.30 billion for the period after the interest rates capping. This represents an increase of KES 36.4 billion, or a 10% increase in personal loans advanced between the two periods. The means for the two periods are also analysed, with the results showing that for the period before the law on interest rates capping the mean level of personal loans advanced on a monthly basis was KES 372.035 billion, while for the period after the mean levels of personal loans advanced on a monthly basis was KES 387.98 billion. This represents a KES 15.95 billion increase, or a 4.3% increase in the mean levels of personal loans advanced.

This analysis of descriptive statistics clearly shows that the passing of the law on interest rates capping had an effect on the monthly levels of personal loans granted by commercial banks in Kenya. There was a 4.3% increase in the mean level of personal loans advanced by commercial banks in Kenya on a monthly basis. Also noted was that both the analysis of the minimum and the maximum levels of personal loans advanced for the two periods show a 7% increase for the minimum levels, and a 10% increase on the maximum levels. The t-test statistical test was done after the descriptive statistics to establish whether the changes noted for the two levels were

significant at 95% confidence levels, leading to the conclusion of whether the law had any effect or not.

The test results show p values of  $< 0.0001$ . Since then the p is  $< 0.05$ , this can be said to be significant. The null hypothesis,  $H_0$  that Personal loans advanced by commercial banks and levels of interest rates are independent is therefore rejected at 95% confidence levels. It can therefore be concluded that interest rates and levels of personal loans advanced by commercial banks are dependent. This findings thus show that at lower levels of interest rates, commercial banks in Kenya issue out higher levels of personal loans as compared to periods whereby interest rates are at much higher levels. Thus, contrary to the arguments that the capping of interest rates would lock out many households from accessing credit, the findings of this study clearly indicate that the inverse is true.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATION**

#### **5.1 Introduction**

This chapter explains the summary of the study, the conclusions of the study, recommendations for policy purposes and practice purposes, as well as pointing out on the limitations of the study and the suggestions for further studies.

#### **5.2 Summary**

This study was established to carry out research on what impact the passing of the law on interest rates capping, effective on the 14<sup>th</sup> of September 2016, had on the levels of personal loans advanced by commercial banks in Kenya. Commercial banks in Kenya had opposed this bill, arguing that the law would lead to adverse effects, whereby most of the households, especially those with higher default risk levels, would be locked out in accessing credit. The study was done comprising the 40 commercial banks active in Kenya in July 2017, as mergers and banks put under receive hip had driven the number down from the previous 44 banks in the country.

Monthly data was collected and analysed for a period of 20 months, with 10 months period prior (Oct-2015 to July-2016) and 10 months after (Oct-2016 to July-2017). Data was obtained from the Central bank of Kenya, were a monthly outlook report of the banking sector in Kenya is usually carried out. Both descriptive statistics and t-test statistical analysis was done on the data obtained for the two period in order to establish statistical conclusions of the effects of interest rates capping on the levels of personal loans granted by commercial banks in Kenya.

Descriptive statistical analysis showed that the mean, maximum and minimum levels of personal loans granted by commercial banks in Kenya rose for the period after the law on the capping of interest rates was passed and came into effects, implying more personal loans were advanced to households by commercial banks in Kenya after the law came into effect. The t-test analysis showed that p values of  $< 0.001$ , thus p being  $< 0.05$  leading to a conclusion that the difference is significant, and that interest rates and levels of personal loans advanced by commercial banks are dependent.

### **5.3 Conclusions**

The results of this study revealed that interest rates and levels of personal loans advanced by commercial banks are related. The results indicated that there was a significant change and movement in the levels of personal loans for the two periods, and that after the interest rates capping at 14%, the levels of personal loans advanced by commercial banks increased significantly. This leads to the conclusion that at low interest rates, demand for personal loans increases, and that at higher rates of interest, demand for personal loans goes down.

The results of this study shows that if the law on capping of interest rates remain in place, the levels of personal loans advanced by commercial banks in Kenya may keep on increasing as more and more households are able to afford credit. High interest rates contribute in locking out a majority of the population who are not able to afford credit due to the high rates in place. Thus, this study found out that contrary to the arguments by commercial banks in Kenya and other economic players in the country that the law maybe detrimental, the opposite has actually proved true, and that more

households have been able to afford credit, driving up the levels of personal loans granted by commercial banks in Kenya.

#### **5.4 Recommendations of the study**

This study recommends that the law on interest rates capping should remain in place, since this has opened up access to credit for many household in the country who could not afford the same before. This study also recommends that the commercial banks in Kenya and the government through the central bank of Kenya should further explore options of lowering further the interest rates, as this will open up the access to credit to most of the population, and this may spur economic growth and push up the profitability of commercial banks in the country. This study recommends that commercial banks in Kenya should strive to keep and hold on operational expenses and reduce the same, embrace technology for efficiency, as this will allow for a growth in income even at lower levels of interest rates, as low rates will enable them attract more clients.

#### **5.5 Limitations of the Study**

In this study the main limitation was the timeframe or period over which the study was carried out. Since this study has been carried out a year into the new interest rates regime, maybe more time may be needed to enable studies be conducted over a number of years in order to establish what effect the capping of interest rates will have on the performance of commercial banks in Kenya, especially on profitability, as well as on the effect that this has on the economy as a whole.

## **5.6 Areas for Further Research**

Since the findings of this study are that the law on interest rates capping has not led to a drop in the levels of personal loans granted by commercial banks in Kenya, this study recommends that further research studies can be carried out to identify the main determinants of the performance of commercial banks in Kenya.

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## APPENDICES

### Appendix i

#### Commercial Banks licenced to operate in Kenya as at 31<sup>st</sup> August 2017

1	African Banking Corporation Ltd.
2	Bank of Africa Kenya Ltd.
3	Bank of Baroda (K) Ltd
4	Bank of India
5	Barclays Bank of Kenya Ltd
6	CFC Stanbic Bank Ltd
7	Charterhouse Bank Ltd
8	Citibank N.A Kenya
9	Commercial Bank of Africa Ltd
10	Consolidated Bank of Kenya Ltd
11	Co-operative Bank of Kenya Ltd
12	Credit Bank Ltd
13	Development Bank of Kenya Ltd
14	Diamond Trust Bank Kenya Ltd
15	Dubai Bank Kenya Ltd
16	Ecobank Kenya Ltd
17	Spire Bank Ltd
18	Equity Bank Ltd
19	Family Bank Limited
20	Fidelity Commercial Bank Ltd

21	Guaranty Trust Bank (K) Ltd
22	First community Bank Limited
23	Guardian Bank Ltd
24	Gulf African Bank Limited
25	Habib Bank A.G Zurich
26	Habib Bank Ltd
27	I &M Bank Ltd
28	Jamii Bora Bank Limited
29	Kenya Commercial Bank Ltd
30	Middle East Bank (K) Ltd
31	National Bank of Kenya Ltd
32	NIC Bank Ltd
33	Oriental Commercial Bank Ltd
34	Paramount Universal Bank Ltd
35	Prime Bank
36	Standard Chartered Bank Kenya Ltd
37	Sidian Bank Ltd
38	National Bank Ltd
39	UBA Kenya Bank Limited
40	Victoria Commercial Bank Ltd

Source: Central Bank of Kenya

## Appendix ii

**Data collected from CBK in regards to monthly levels of credit granted to house hold for the period between Oct-2015 and July 2016, and from Oct-2016 and July-2017.**

<b>NET DOMESTIC CREDIT TO PRIVATE HOUSEHOLDS IN KENYA</b>					
<b>OCT 2015-JULY 2016</b>			<b>OCT 2016-JULY 2017</b>		
	<b>KSH. BILLIONS</b>				<b>KSH. BILLIONS</b>
Oct-15	361.20			Oct-16	375.20
Nov-15	351.00			Nov-16	377.90
Dec-15	363.90			Dec-16	393.10
Jan-16	355.10			Jan-17	396.30
Feb-16	355.80			Feb-17	400.30
Mar-16	357.90			Mar-17	394.80
Apr-16	359.90			Apr-17	386.80
May-16	358.80			May-17	382.90
Jun-16	358.30			Jun-17	386.70
Jul-16	354.20			Jul-17	385.80
<b>TOTAL</b>	<b>3,576.10</b>				<b>3,879.80</b>

Source: Central Bank of Kenya