THE IMPACT OF INTEREST RATE CAPPING ON THE STOCK RETURNS OF COMMERIAL BANKS LISTED AT THE NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the University of Nairobi for academic credit.

Signed: _____   Date: _____

Samuel Munguti   **D63/ 79142/2015**

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

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Special acknowledgement goes to my mother, for giving me invaluable support, motivation and for a great word of wisdom during my studies. May God continue to bless her abundantly. Finally to my family, friends, lecturers and fellow students, thank you for your input and support during the entire course and while undertaking the research project.

DEDICATION

I dedicate this work to my loving parents for their support both financially and spiritually throughout the course of my studies. To my brothers and sisters for believing in me and encouraging me, thank you. You truly remain inspirational figures in life. God bless you all.

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LIST OF ABBREVIATIONS

AR   Abnormal Returns

CAAR   Cumulative Average Abnormal Returns

CAPM   Capital Asset Pricing Model

CAR   Cumulative Abnormal Returns

CBK   Central Bank of Kenya

CBR   Central Bank Rate

ER   Expected Return

KBRR   Kenya Bankers Reference Rate

MPC   Monetary Policy Committee

NASI   Nairobi All Share Index

NSE   Nairobi Securities Exchange

RM   Return on Market

ABSTRACT

Investors expect stock prices to react to some special event. They are however uncertain about the timing and magnitude of that reaction. If financial markets pick up information about an impending event, that event can change stock prices days or weeks before it occurs and continue to influence stock prices for some time thereafter. Enactment of laws by the legislature can cause things like interest rate capping which in turn influences the share prices in the stock market. The study adopted event study methodology. The objective of the study was to determine the impact of interest rate capping on the stock returns of commercial banks listed in the Nairobi Securities Exchange. The target population for this study was commercial banks listed at the Nairobi Securities Exchange. Data was obtained from the NSE during the year 2016 when interest capping came into effect. The study entailed collecting data on share price and price movement in the banking sector. The event period was 15 days prior the event and 15days after the event making an event window of 31days. The study sought to compare sector returns and market returns prior to and subsequent to the budget to assess how abnormal returns vary with the event. The study found interest rate capping had an impact on the cross-sectional average sector returns. The impact was observed over the event period within the banking sector reacting uniquely to the budget on different days within the event period. It was observed that opportunities to make abnormal gains existed just before, on and during the event period in some banks due to the interest capping. Significant positive cumulative abnormal returns were noted in the banks during the event window. However, statistical tests did not indicate significant differences between pre event and post event periods studied. This indicates that investors had on average, anticipated the effects of the event days before the interest rate capping.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The stock market is a highly volatile area of business that requires investors to have relevant information in order to make informed decisions. Available information may have positive or adverse effect on the stock prices if not well interpreted. According to Kurihara and Nezu (2006) there are various factors at the macroeconomic level that affect the securities market such as exchange rates, current account, gross domestic product, money supply and interest rates. Share prices and interest rates are factors that are very important in an economy (Akella and Chen, 1990). In Kenya, interest rates are influenced by the Central Bank of Kenya through the CBR. It is argued that when banks are offering high interest rates for deposits, investors may choose to place money with banks causing a reduction in share prices due to reduced demand for the same. On the contrary, lower interest rates would cause the opposite effect of higher demand for stocks causing an increase in the share prices. The relationship between rate of interest and share returns has been key to economists due to their role in economic growth (Aydemir and Demirhan, 2009).

Developing an ideal interest rate is a key decision policy that should be considered often (Pallegedara, 2012). According to the classical theory of interest, interest rates are determined by the intersection of demand and supply of savings. Further advancement to the theory led to development of the neo classical theory which states that interest rates are predicted using the demand and supply of the loanable funds. In the year 2015, members of parliament made a proposal to cap bank interest rates. The parliamentary bill was latter

assented by the Kenyan president on 24th August, 2016. The Bill sought to amend part of the Banking Act by introducing a new section which provides for interest ceilings, informing borrowers to be aware of the interest they receive on their deposits and repercussions to all financial institutions that carry out the function of lending on providing interest rates higher than those set by the law (Banking Act, 2016).

In Kenya interest rate capping was introduced to safeguard consumers interest from exploitive high rates of interest charged by the commercial banks. In most countries these ceilings are government's response for countries encountering political and economical pressure from its citizens. Ceilings on the interest rate limit the behavior of commercial banks to unnecessarily increase the yields in interest especially in markets where there is minimal financial literacy, low requirements disclosure and limited transparency (Maimbo and Henriquez, 2014).

The amendment set the minimum interest rate that a bank should pay for a savings deposit at 70% of the base rate set by the Central Bank of Kenya. This meant that with a CBR of 10%, the minimum amount of interest payable for a savings account is 7% and the maximum interest charged on loans is 14%. The legislations main aim is to restrict banking institutions from set lower rates of interest on deposits and setting very high rates of interest on loans. When seeking a loan in Kenyan banks, it is now possible to predict the maximum interest on a loan to be provided using the base rate as would be declared by the Central Bank of Kenya. A shrinking interest rate spread makes the traditional intermediary role of

banks less lucrative, thus one can also expect it to induce credit institutions to engage in other activities besides lending in order to reap the benefits of economies of scope.

1.1.1 Interest Rate Capping

Interest rate is regarded as a price the borrower bears in utilizing money borrowed from a money lender (Crowley, 2007). Interest can further be explained of as rent of money borrowed. Interest rates are very important in the financial markets and are basically expressed as a percentage rate in a one year period. Interest rate can also be explained as the price of money reflecting market information of the anticipated money purchasing power change (Ngugi, 2001).

The Central Bank of Kenya (CBK) came about under the Central Bank Act (CAP 481of the laws of Kenya) in 1966. The Act stipulates to CBK the statutory objectives to help in the development and management of a sound monetary and credit, and banking system in Kenya that ensures conducive balanced economic development for the country. In Kenya, the Banking amendment Act (2016) brought in the capping of interest rate effected from September 14, 2016 after the bill was assented on 24th August. The shift from the liberalized interest rate to the capped interest rate attracted different reactions from different stakeholders. As per the Central Bank of Kenya, Kenyan banks are to charge a premium of 4% above the Central Bank Rate while the minimum interest chargeable on deposits should be 7% (CBK, 2016).

A bank's interest rate spread is the difference between rate used to lend and the rate that deposits attracts. The banks in Kenya have been in the spotlight for charging high rates of interest to their customers where they charge their customer different interest rates as a way to diversify the credit risk. The systematic risk as reflected in the stock markets has had an uphill trend as reflected by the stock prices. Empirical studies have underpinned the prevalence of such imperfect loan markets, where banks are lending rate setters (Kilongosi, 2005). When facing competition in the loan market, banks are confronted by a trade-off between securing their market share in the short-run and safeguarding their long-run survival.

According to (Kilonzo, 2003) an intensifying competition drives current profits down, leading to more relaxed lending conditions and higher risk exposure. Thus, tough competition can also undermine prudent banking and necessitates regulation. When it comes to the effect of a change in interest rate spread on banking performance, it is logical to expect a positive influence of a shrinking spread and a negative effect of a growing spread. As banks reduce their spread in face of growing competition or a changing discount rate, borrowing becomes less expensive while return on deposits rise, and hence lending and output will rise. Moreover, when interest rate spread decreases due to competition, banks shift funds from the central bank (non-interest bearing deposits) to the loan market in order to increase banker's mark-up (Ramakrishnan, and Thakor,1984). A shrinking interest rate spread makes the traditional intermediary role of banks less lucrative, thus one can also expect it to induce credit institutions to engage in other activities besides lending in order to reap the benefits of economies of scope.

1.1.2 Stock Returns

Stock return is the gain or loss of the value of a share in a particular period usually quoted as a percentage of the change in the stock price over the initial price of the share. This will include capital gains as well as any income received for example dividend by the investor from the stock (Mugambi & Okech, 2016). Stock return is the yield an investor receives by investing in the companies trading in the capital markets. In a strong market hypothesis new information is reflected on the stock prices and hence making the firm's value to be accurately measured (Mwangi & Mwiti, 2015). Stock market returns have predictive power on investment performance since they are a forward-looking variable that incorporates expectations and speculations about future cash flows and discount rates. Stock market returns serve as an index to investors or governments in making their investment decisions. Investors of different financial capacity are able to invest in the stock market as long as they are able to get a return that is higher than their cost of capital (Wang, 2012).

Stock returns are determined by how effectively and efficiently the stock market allocates resources for equities based consumers preference and how available market information is. A change in market price brings in uncertainty to the investors and hence affecting the demand and supply of shares (Ibrahim and Omosola, 2013).Information released to the general public is often reflected on the stock markets and the market payers react to such information leading to speculation on future trends and market capitalization (Širucek, 2013). Higher stock returns imply higher profitability to the firms and shareholders leading to overall prosperity of the economy (Aliyu, 2011). Therefore, uncertainty of stock returns

in capital markets is a key aspect in an economy since unpredictable growth trend in an economy brings in uncertainty in investing and consumption (Erdugan, 2012).

Stock market index is commonly in measuring stock performance. Market capitalization measures stock market size and stock market liquidity that focuses on investors trade securities easily. All Share Index reflects performance and the stock market condition, while the turnover ratio; is comparison index for the market liquidity rating compared to the transaction costs (Daferighe & Sunday, 2012). The stock price in the secondary market is either overpriced or underpriced which later determines the shares return. Investors buy undervalued stock with the expectation that in future the stock prices will usually rise up leading to the realization of capital gains. The investors will sell overvalued stock if there is a speculation that the market prices will fall in the future in order to avoid future losses. Using the efficient market hypothesis, the share prices reflects all available information concerning the stock and provides an unbiased estimate of the share return (Robert and Mizik, 2009). The stock value can be estimated by the investors using fundamental, technical or psychological analysis. Focusing on the fundamental analysis, Gottwald (2012) defines this share value as the justified market price which expresses the real worth of a stock. The study will use the NASI as the market rate and the daily stock prices movements to measure the stock returns.

1.13 Interest Rate Capping and Stock Returns

An interest rate can be defined as the cost at which money borrowed is paid back at by the borrower to the lender (Bleaney et al, 2001). The interest rates and stock price changes are

important variables in the macro-economy and are effectively monitored by economists, MPC, CBK and other policy makers. Interest rate and stock returns relationship has attracted a lot of interest by researchers. Majority of the researches focuses on the effect of prices on the interest rate (Wilcox, 1983). Of the many studies few have focused on the changes in interest rate effect on the share returns (Barsky and DeLong 1991). There is lack of clarity on the theoretical aspects that explains impact of the interest rate on prices (Kandil and Mirzaie, 2005).

Interest capping is effected as a way to reduce the cost of credit in a country which is attributed to high rate of inflation. The basic reason for adopting interest rate capping as a monetary mechanism is to ensure a stabilized and non-inflationary environment in allocation of resources and to lower the cost of credit. Interest rate capping is a necessary part of an effective anti-poverty strategy. The impact of interest rate on national inflation is explained using various aspects, by using the user cost of capital. High interest rate increases the borrower cost of capital that causes increase in production costs (Branson et al. 1979).

Real and nominal rates of interest interactions show a relationship that is positive between and nominal rate of interest and inflation. In addition, the fluctuating rate of interest affects inflation by affecting the volume of money in circulation. In old money models, money supply is a function of interest rate where the interest rate goes up when the money supply is increased (Bleaney et al. 2001).

1.1.4 Commercial Banks Listed at the Nairobi Securities Exchange

The Nairobi Securities Exchange (NSE) established in 1954 under the Societies Act (1954) as a stock brokers voluntary association mandated in developing the then stock market and to regulate trading activities. NSE has eleven listed commercial banks as at 30th June 2016 which includes: National Bank of Kenya, Barclays Bank of Kenya Limited, I&M Holding, Kenya Commercial Bank, Housing Finance Company, NIC Bank, CFC Stanbic Holding Limited, Equity Bank, Diamond Trust Bank Kenya and the Co-operative Bank of Kenya.

The NSE has been known to react to changes in the interest rates regime. When the Central Bank of Kenya (CBK) increases the benchmark Central Bank Rate (CBR), the effect is not immediate in the stock market. Increase in CBR leads to increased costs when bank borrows money from the CBK. Increases in the CBR further causes a ripple affecting the economy both at an individual and business level (Olweny and Kimani, 2011). Economic growth is achieved by improving mobilization of the savings since capital is often allocated to investments that bring great value to the economy growth (Kibuthu, 2005).

With the introduction of the interest rate capping the market capitalization went down by 243billion. This was one week after the introduction of the interest caps which also affected other shares trading in the bourse market. The market hit its lowest at Sh 1.867trillion market capitalization. Listed banks stocks were very lucrative before the capping of interest but after the bank amendment law many investors disposed their stocks. Equity bank was the worst hit with a 26.4% loss on its stock price, followed by KCB at 19.1% and I&M which shed off 16.4%. Others banks were not spared of the adverse effects some

experiencing a double digit price fall. National bank and Cooperative bank shares also fell drastically (CMA, 2017).

1.2 Research Problem

Mala and Mala and Reddy (2007) in their study found out that the volatility of shares returns in the stock markets can hinder small developing economies from investment growth. Thorbecke, (1997) found that there is an inverse relationship between stock return and interest rates. Smal and de Jager (2001) observe that capping of interest rates in an economy can induces an injection of liquidity. Consequently additional liquidity is brought into the stock market, leading to increase in demand and prices of stocks. Capping of interest rates is expected to have a negative significant relationship on the market returns.

When interest rate capping came into effect in Kenya, there were different reactions from different stakeholders. The Commercial banks listed at the NSE felt that this was likely to affect their profitability because the banks were already used to charging high interest rates in order to cover them from the risk of default. Listed commercial banks in Kenya have been operating by developing various loan and deposit products that were customized for different clients allowing them charge exorbitant rate of interest. The consumers on the other hand were delighted because of the opportunity to obtain loan credits at a lower rate and having a minimum interest rate on their deposits. However minimal consideration was given to the shareholders who were holding the stocks of the listed stocks when the bill came into effect. The stock markets NSE included are volatile and reacts to all information released in the market (Fama, 1978).

Moya and Lapena (2013) who studied the relationship between fluctuating interest rate and returns of shares in Spain found that the Spanish industries showed, a significant sensitivity to interest rate, in as much as the level of interest rate exposure depend on the industries and the time horizon during that particular moment. Alam (2009) who investigated the relationship between rate of interest and share prices an empirical evidence in developing and developed jurisdiction found out that individual country results were mixed e.g. in Malaysia he found out that there was a negative relationship between changes of interest rates and change of share prices while in countries such as Italy and South Africa found that changes of interest rates and changes of share price were positively related.

Counter-arguments exist that shows that interest rate changes by themselves might not cause stock-price movements. Bernanke and Gertler (2001) observed that the asset prices volatility makes it difficult to predict hence monetary policies need to adjust rates of interest due to stock-price movements, if such movement is expected to influence inflation. A high interest rate as a result of contractionary monetary mechanism negatively affects stock market return as investors tend to borrow less, limiting their ability to invest in the securities market. There is a gap in studying effect of interest rates capping on Stock returns in Kenya which this research seeks to fill. Hence the study seeks to answer the question, what is the effect of interest rates capping on the stock returns at the NSE?

1.3 Research Objective

To determine the effect of interest rate capping on the stock returns of the commercial banks listed at the NSE.

1.4 Value of the Study

The study will be of benefit to the regulator and legislators in knowing how the capping of interest affects the returns of the stocks that are publicly traded at the NSE. Commercial banks will use the information in knowing how the customers and shareholders perceive the release of such information. This will help banks in coming up with better products that meet the customer needs and bring in customer satisfaction. This helps the bank in coming up with strategies to increase value and profitability.

The study will also be of the great value in the prediction of the shareholders' value and hence the shareholders will be able to know how their returns have been affected by interest rate capping. Finally, the study will form part of empirical studies for future researchers interested in taking the study further by identifying any gap that need to be filled.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter will discuss the theoretical and empirical literature behind the effect of interest rates capping on the stock returns of the commercial banks listed at the NSE. The section will focus on interest rates theories, determinants of stock returns and review of empirical studies.

2.2 Theoretical Framework

Dawson, (2009) defined a theory as a systematic explanation for the relationship between phenomena which further provides an explanation for certain occurrences. Theoretical review is the foundation of a study variables, providing a review of existing theories and hypotheses that underpin the study. In this study, the theoretical framework will cover existing theories on interest rates capping and stock returns.

2.2.1 Fishers Theory

This theory was developed by Irving Fisher an economist in 1930. The theory of interest rate by Fisher assumes that the rate of interest is based on the available funds and the expectations on price which is a crucial determinant for investment. In countries with interest rates capping legislation, interest rates depend on the objectives of that particular country. However, some countries use the flexible model which depends on the forces of demand and supply. When the government wants to achieve a particular goal, they intervene in the market through monetary policies to maintain the interest rate or the market

equilibrium at a given level, resulting in a reduction of the impact from external forces according to Patterson et al, (1999).

Bank stocks react to interest rate capping but are more reactive to long-term government yields and returns changes. Forster et al, (2003) indicate that when long-term interest rates capping occurs, there exists a negative relationship with returns of other interest rates sensitive assets, exerting pressure on asset prices. Interest rates capping affect the cost incurred by borrowers that also has an effect on investor's cost of funds. Many investors are attracted by the low cost of borrowing. Various results have shown that, when interest rates increase, the share price falls and when the prices are rising, the interest rates are falling. The theory will be very useful in this study to determine the extent at which interest rate capping enhances liquidity of the investors by encouraging them to invest more in the stock markets. It is expected that due to low cost of capital many investors will have access to credit. This will encourage the purchase of more shares in the securities market. Increase in the demand and volume of shares purchased can be explained by this theory

2.2.2 Keynes Liquidity Preference Theory of Interest Rate

This theory was developed by Keynes (1937). The theory states that most of the micro economic level actions taken collectively by majority of firms and individuals will cause aggregate macroeconomic inefficiency outcomes, causing the economy to operate way below its growth rate and expected growth output. The theory advocates for an active corrective mechanism to minimize the amplitude in the business cycle, which is ranked a very adverse economic problems. Keynes advocated the solution to the economic distress

is to stimulate the economy by encouraging investments. Through interest rate capping the government comes up with interest rates ceilings which protect the consumers from high interest rates.

Monetary policy mechanisms using the interest rate capping was based on the old Keynesian explanation on money role in movement of real interest rate. Changes in interest rates impact consumer spending and investment spending of the firm. A further adverse observation shown by and Bernanke and Gertler (1995) was that interest rates are not the most quantitatively significant variable of cost of capital during spending. Imperfections of financial markets and the view of credit transmission mechanism explains the disadvantage of using the old interest rate channel. The theory will be very useful in the research to explain the extent to which the banking industry supply and demand of money is affected by the capping. This will be manifested by the reaction of the market following the event which is the enactment of the interest capping law. If the prices of the shares falls the demand for money has increased while if the share prices rise there is high liquidity among the investors.

2.2.3 Signaling Theory

The CBR is an indicative rate that is used by the central bank to signaling measure to the market the depict direction in which the cost of money should go. Signaling theory is very important while explaining behavior in a scenario where two parties are accessing varied information. Basically, the sender should know how to communicate the information to the receiver, and the receiver should know how to interpret the signal information (Connelly, Ireland, and Reutzel, 2011). Due to random valuations of firms by public capital markets,

managers provide the information known by them alone to the capital markets to correct the wrong valuations since stocks value is dependent on information (Bagherpour and Mehdi, 2008).

Ross (1932) was the first to use signaling theory in finance, argued how the perceived returns of a firm are more important to the market than the actual returns of a firm. The signaling theory illustrates that the market is always looking for signals to determine the price of various securities. These signals may take the form of changes in monetary policies, legislative changes, and dividend announcements among others. The theory will very important to evaluate the market returns following the effecting of interest rates capping. Such information signals the investors due to the information contained in capping. It is assumed no insider trading exists and hence the market will react following the enactment of the interest capping law. The investors behavior is clearly seen in the direction the market price goes depending on whether the news released have a negative effect or a positive effect.

2.3 Determinants of Stock Returns

Stock returns of stocks traded in securities market are determined by various factors. The factors are categorized into macro variables and micro variables. This section will focus on exchange rate, inflation and money supply.

2.3.1 Exchange Rate

Exchange rate is a rate at which a particular currency is converted into a foreign currency (Mohan & Chitradevi, 2014). Exchange rate changes can affect relative prices when there

is a huge appreciation of the domestic currency. The domestic products prices are high relative to products from foreign countries making the demand to shift away from the domestic to foreign products. Accordingly, when the currency of the domestic country depreciate against currencies from foreign countries, export prices decreases causing the country's export volume to increase, when there is demand elasticity for the product. Looking at the macro perspective, foreign exchange rate affects the country's economy while from a micro perspective it will affect the firm's productivity (Obura & Anyango, 2016).

Currency exchange rate is a major factor affecting stock returns. In times of high fluctuations on the exchange rates there are high movements of market return volatility (Barasa, 2014). Exchange rate fluctuations affects translation, transaction and economic exchange risk exposure leading to operating cash flows and firm value changes (Choi & Prasad, 1995). The currency exchange rate fluctuates from the time when the investor makes the initial investment in the shares to the period he sells the shares. The investor's main goal is to make a gain from the trading.

Given the long-term view of an investor the share returns will be affected due to the fluctuations of the exchange rate. Exchange rate fluctuations affects translation, transaction and economic exchange risk exposure leading to operating cash flows and firm value changes (Choi & Prasad, 1995). The stock market is very volatile and what happens in the macro-economic environment is evidently experienced in the share movements. A weak currency can make investor incur huge losses after the translation to the desired currency. A depreciation in the currency leads to a depressed security market.

2.3.2 Inflation

Inflation is the sudden increase in the prices of products both goods and services in an economy which leads to fall in purchasing power or value of money (Kumar, 2014). From an economic view, inflation reduces money supply and hence adversely affects the stocks returns. Limpanithiwat (2010) found out that high inflation rate resulted into higher required rate of return and the stock market volatility increased. There is a negative stock returns and inflation relationship (Fama 1981). Brandt and Wang (2003) found that inflation affect the investor's risk averseness and reflects on expected high required return on capital and increased discount rate.

High rates of inflation can have very adverse effects to the securities market. Many market participants will lack the purchasing power to invest in the securities market leading to low market capitalization. The lower the number of investors in the stock markets the lower the demand of the shares leading to low prices. The low prices discourage the shareholder from participated due to fear to incur losses. Brandt and Wang (2003) found that inflation affect the investor's risk averseness and reflect on expected high required return on capital and increased discount rate. High inflation also makes the investment expensive leading to low volumes of shares trading in the market.

2.3.3 Money Supply

Money supply is defined as the monetary assets total amount used in an economy at a particular time. Money supply changes are a superior indicator and an important source of information about the future of stock market returns or variability (Barnor, 2014). Increase in the supply of money leads to growth in the economy hence stock prices increases with introduction of expansionary monetary policy. (Rehman, Sidek & Fauziah, 2009).

Humpe and Macmillan (2007) concluded that share prices are affected in a positive way by the production and while the money supply affects in a negative way. Sirucek (2013) explains that the highly key factor determining the share prices development in the long run is the volume of money in the economy since money supply affects share prices in a direct way. When there is a lot of money in the economy than can be utilized the excess is directed to investments. Additionally, Shiblee (2009) points that money supply causes changes in stock prices hence an increase in money supply strengthens stock prices increase. On the other hand, a fall in money slows down the growth of share prices.

2.4 Empirical Review

2.4.1 Global Studies

Ime (2014) conducted a research on Outcome of Interest Rates on Stock Prices; an Examination of the All Share Index. This paper examined the effect of rate of interest changes on the Nigerian securities market. He studied the performance of the All Share Index in Nigerian securities market to the changes in the Central Bank of Nigeria's (CBN)

interest rate over a period of 25 years (1986-2011). Data obtained from the central bank and stock market was analyzed based on a six-month and twelve-month percentage change basis with their respective averages taken. The study made use of the bivariate and multivariate regression examination simulations for periods of interest rate cuts and hikes. The study discovered that the impact of interest rate is not significant when other variables influencing the prices of the stock are controlled.

Tumurkhuu, and Wang (2010) conducted a research on the EU market to investigate the relationship between interest rates and the share returns. The objective was to explain how the value of a firm is affected where researcher used a population of 358 firms and sampled 87 companies for the period 2008-2010. The model used was the event study model incorporating CAPM. The study looked the prevailing interest rate for the advances and loans and government stock rate development rate for the discounted treasury bills and bonds.

2.4.2 Local Studies

Mbua (2017) did a research on effect of interest rate capping by the central bank of Kenya on the banks listed at the NSE. The objective of the study was to investigate the effect of interest rate capping on the shares of banks listed at the NSE. The population involved eleven commercial banks listed at the NSE in the year 2016. Correlational analysis of stock prices and interest rates and stock volumes and interest rates was done and the analysis entailed computer-aided, statistical manipulation. This study concludes that government

regulations on the financial sector do have an effect on the value that investors place on listed companies as evidenced by the market reactions on the capping of interest rates.

Mugambi and Okech (2016) investigated the impact of various macroeconomic variables on securities returns of banks listed at the Nairobi Securities Exchange. The study employed secondary data from the CBK for a period from 2000 to 2015. The study used correlation analysis, Unit Root test and the linear regression model to establish the relationship. The study findings revealed that interest rate, exchange rate and inflation for the period 2000-2015 have significant impact on bank stock return, while GDP had an insignificant impact on bank stock returns. The study recommended that the government should ensure a stable macroeconomic environment and moderate its monetary policy interventions.

Bwihili (2013) examined the effect of stock splits at the NSE. He focused on eight firms that had stock splits during the time between 2000 to 2010. The research used daily market prices of the sampled shares for an event window of 60 days, comprising of thirty days before the stock split and 30 days after the event. The researcher used event study methodology to determine the effects of the split. A cross-sectional regression analysis was carried out using SPSS analysis program to determine the coefficients of the model. The study concluded that the Kenyan securities market reacts to stock splits in a positive way, as indicated by increase in returns around the stock split date.

Chirchir (2012) did a study on existing relationship on share prices and the rates of interest in Kenya. The rate of interest used was arrived at using the lending rate weighted average of the banks operating in Kenya while the share prices incorporating NSE 20 share index. The researcher found that the variables interacted with each other over the period 2002 to 2012.The research used Vector Auto Regression (VAR). The results found no significant causal relationship between share price and interest rate. Whereas when evaluating causality the researcher found out that there exists a negative causality in both directions.

2.5 Conceptual Framework

The conceptual framework shows the interaction between interest rate capping (independent variable) and stock returns (dependable variable). It is expected that with the interest capping, the stock returns of the listed banks is supposed change. This been information released in the stock market, the efficient market hypothesis shows that investors will react to the news leading to abnormal returns been realized. Hence the study seeks to determine the extent of abnormal returns realized.

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│  │                          │           │
│  │  **Independent Variable** │           │                    ┌───────────────────────────┐
│  │                          │           │                    │                           │
│  │  Interest rate capping   │           │                    │   **Dependable Variable** │
│  │                          │           │───────────────────▶│                           │
│  │                          │           │                    │     Stock Returns         │
│  │                          │           │                    │   • Abnormal Returns      │
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│  │  **Control Variables**    │           │
│  │                          │           │
│  │     • Inflation          │           │
│  │                          │           │
│  │     • Exchange rate      │           │
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│  │     • Money supply       │           │
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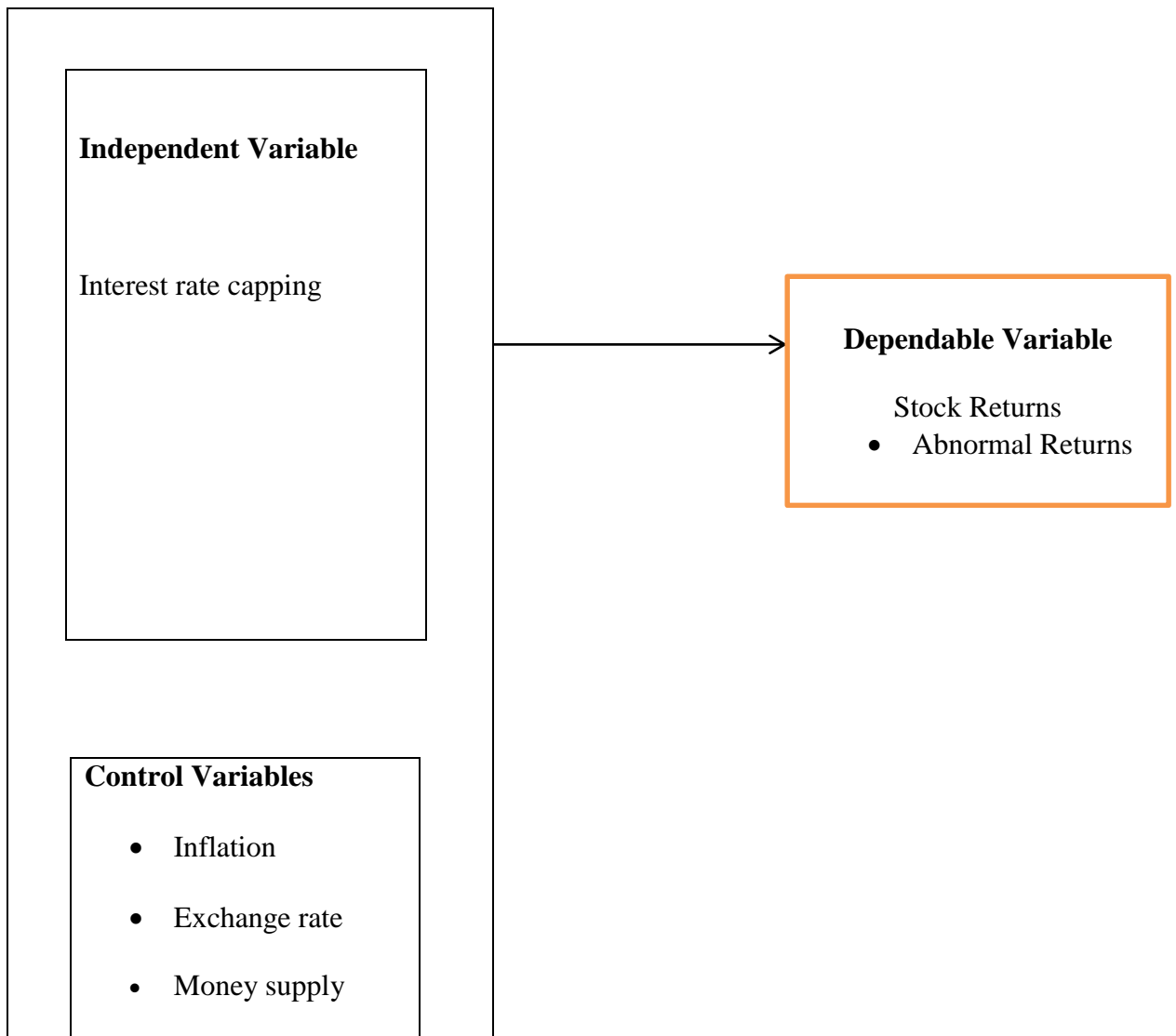
Figure 1: Conceptual Framework

2.6 Summary of Literature Review

The Fishers theory, Keynesian liquidity preference theory of interest and signaling theory have played a key role in explaining how interest rates affect performance of stocks traded in the stock markets. The theories have critically looked at the interest rate capping impact to the economy and to stock returns. The determinants of the stock returns were identified as macro-economic variables and micro-economic variables. The macro economic factors identified include interest rates, exchange rates and the money supply. The conceptual framework shows the linkage between interest rate capping and the stock returns. The empirical literature studies done in Kenya and in other countries showed some conflicting relationships. Interest capping is a new law that was introduced in Kenya banking sector against the existing accustomed industry liberalized interest rates. From the empirical review, most studies done focused on interest rate and stock prices where no caps exists. No event study on the impact of interest rate capping on stock returns hence has been done necessitating this research to be carried out. The study will seek to evaluate the effects of interest rate capping using the most recent data in the NSE to identify the effect of interest capping laws.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The chapter concentrates on the methodology of research that was used to meet the objectives of the study. The chapter outlines the research design, data collection method, population, data analysis technique, research procedure and that was used during the research.

3.2 Research Design

The study used the descriptive design research to determine how interest rate capping affects the stock returns at the NSE. The study made use of the event study methodology since the interest capping is considered a special event in the capital market. According to Mackinley (1997), financial markets can use the market data and information to predict the effect of a particular event. Since the study will be seeking to answer how the share returns are affected, event study was a value adding methodology.

3.3 Population

The target population was the eleven (11) commercial banks listed at the NSE as at 31st December 2016. The study adopted the census approach as the number of banks listed on the NSE is small and all the banks listed at the NSE were affected by interest rate capping.

3.4 Data Collection

The study used secondary data that was obtained from the NSE market reports, NSE handbook, CBK reports and the individual banks annual reports. The movement in the stock market prices was evaluated to determine the extent of impact due to interest capping.

The market prices before and after interest rate capping was very important in the study to evaluate the abnormal returns realized. The market returns were determined using NASI.

3.5 Validity and Reliability

The Granger causality test was helpful in determining the existing relationship between the two variables by determining the causality direction. The Granger causality tested the causal relationship between interest rate capping and stock market returns of the commercial banks listed at the NSE. Given the nature of the NSE that deals with real time data the data collected was actual and timely for the study. The data used is unlikely to change for a long period of time.

3.6 Data Analysis

The data analysis will be quantitative in nature. Using event methodology, the event was interest rate capping. The event day represents the day interest rate capping was effected and is denoted as t=0. The event window was 31days. The estimation period for the model was 30 days before the event while the post event period to observe the abnormal returns will be 30days after the event. Stock returns were determined using the market model.
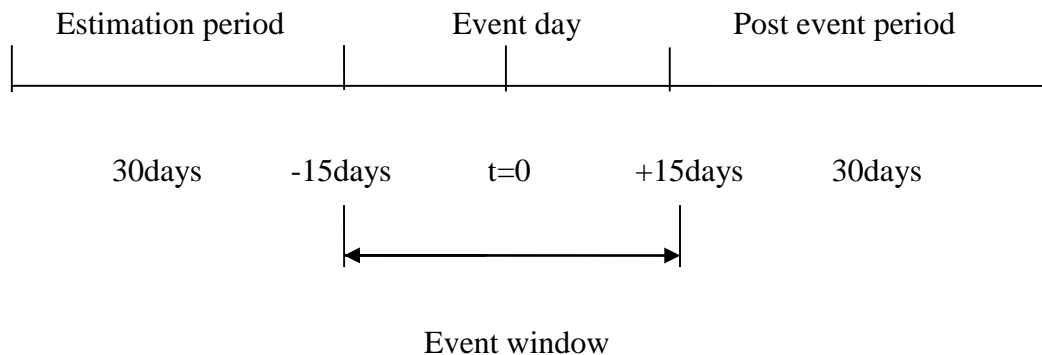
Estimation period		Event day		Post event period
30days	-15days	t=0	+15days	30days

Event window

Figure 2: Event Period

The Abnormal Returns (AR) were determined to measure the effect of interest rate capping on the stock markets. According to Mackinely (1997) a normal return is defined as the expected return without taking into account stock movement caused by an event. To calculate the normal returns the following model was used;

$$R_{xt} = \alpha_x + \beta_x Rm_t$$

Where

R_{xt} is the actual returns on stock x at time period t.

Rm_t is the returns in the market at time t.

ER_{tis} the is the expected market returns at time t.

β *(beta)* is the security's price volatility relative to the overall market.

The coefficients α and β or the market model was calculated through ordinary least squares (OLS) regression based on historical price data of a stock and the market index.

The information important for the event is then measured by determining the Abnormal Returns (AR) which is the difference between the actual and normal rate of return. Abnormal returns (AR) was estimated using the following model;

$$AR_{xt} = R_{xt} - ER_t$$

The cumulative abnormal returns (CAR) will be computed as;

$$CAR_{xT} = \sum_{t=1}^{T} AR_{xt}$$

Where:

CAR_{xT} – cumulative abnormal return on x share obtained in the event window T,

T – The event window

Standardized cumulative abnormal returns will be computed as;

$$SCARxT = \frac{CARxT}{S(CARxT)}$$

Where

S(CARxT) is the standard deviation of CARs.

Abnormal returns for individual securities (ARit) were totaled for each period for the three events. AARs and the CAARs for the securities estimated by aggregating abnormal returns over observation of events and event windows. Statistical significance of the AARs was measured using the test statistics and the CAARS estimated during the event window at a level of confidence of 95%. The study was tested at 95% level of confidence or 5% level of significance. When t-statistic value is less than the tabulated t value at 95% confidence level, then conclusion was that the model is significant.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the analysis, findings and discussions on the effect of interest rate capping on the stock returns of commercial banks listed at the NSE. The data of the study was obtained from the stock returns of the eleven commercial banks listed at the NSE that were affected by interest rate capping during the period 2016 to 2017. The study was focusing on the banking industry where the movement of the share prices after the commencement of the interest rate capping. The study used data by incorporating the NASI as the market return because it is deemed to be a better representation of the companies listed at the NSE. The study intended to find the effect of interest rate capping on the stock returns. The independent variable for the study was the interest rate capping and the dependent variable was stock returns.

The regression method used during the study was the ordinary least square method (OLS) which is best linear unbiased estimator of the coefficients when using the market model. This method assumes linearity between the dependent variable and the independent variable and thus was used to determine the line of best fit for the model through minimizing the sum of squares of the distances from the points to the line of best fit. This model ensures consistency, low level of biasness and efficiency during estimation.

The regression equation during the event window to get the expected returns is presented below.

$$R_{xt} = \alpha_x + \beta_x Rm_t$$

4.2 Response Rate

All the companies listed in the NSE banking sector were evaluated and hence the response
rate was deemed to be 100%.

4. 3 Descriptive Statistics

Table 4.1: Abnormal Returns Descriptive Statistics – Event Window period

	Abnormal Returns	MEAN	MINIMUM	MAXIMUM	STANDARD DEVIATION	VARIANCE	KURTOSIS	SKEWNESS
15	-0.97%	-0.09%	-2.77%	2.31%	1.43%	0.02%	0.032	-0.476
14	4.56%	0.41%	-4.16%	4.90%	2.16%	0.05%	1.955	0.014
13	20.89%	1.90%	-3.57%	6.22%	2.86%	0.08%	-0.628	-0.179
12	19.38%	1.76%	-1.27%	5.68%	2.01%	0.04%	-0.318	0.172
11	16.08%	1.46%	-3.34%	5.53%	2.45%	0.06%	-0.240	-0.169
10	7.62%	0.69%	-2.76%	5.90%	2.52%	0.06%	-0.032	0.769
9	-0.44%	-0.04%	-3.46%	2.93%	2.05%	0.04%	-1.139	-0.473
8	1.72%	0.16%	-1.98%	3.09%	1.51%	0.02%	0.078	0.745
7	-1.92%	-0.17%	-3.36%	1.94%	1.57%	0.02%	0.301	-0.933
6	4.38%	0.40%	-3.61%	2.62%	1.66%	0.03%	1.903	-1.164
5	-5.34%	-0.49%	-7.90%	1.62%	2.44%	0.06%	8.923	-2.867
4	-8.45%	-0.77%	-3.29%	1.21%	1.26%	0.02%	-0.169	-0.224
3	4.20%	0.38%	-3.33%	3.78%	1.91%	0.04%	0.620	-0.440
2	-4.27%	-0.39%	-2.21%	3.30%	1.54%	0.02%	1.560	1.142
1	-0.79%	-0.07%	-3.63%	1.79%	1.51%	0.02%	1.821	-1.378
0	5.41%	0.49%	-2.16%	3.98%	1.67%	0.03%	0.293	0.348
-1	2.81%	0.26%	-5.80%	7.61%	3.41%	0.12%	0.996	0.532
-2	4.02%	0.37%	-5.93%	4.50%	2.57%	0.07%	2.506	-1.124
-3	9.33%	0.85%	-1.29%	5.78%	1.82%	0.03%	4.396	1.889
-4	-4.29%	-0.39%	-3.77%	3.20%	2.22%	0.05%	-1.304	-0.197
-5	-2.07%	-0.19%	-4.04%	2.40%	1.64%	0.03%	1.789	-1.027
-6	4.93%	0.45%	-7.76%	5.31%	3.33%	0.11%	2.397	-1.292
-7	-4.64%	-0.42%	-8.07%	8.77%	3.78%	0.14%	3.687	0.603

|								
-8	28.05%	2.55%	-4.18%	9.36%	4.34%	0.19%	-0.975	0.427
-9	62.82%	5.71%	-0.60%	9.92%	4.01%	0.16%	-1.593	-0.509
-10	14.71%	1.34%	-4.32%	8.12%	3.74%	0.14%	-0.563	0.121
-11	-43.61%	-3.96%	-9.32%	1.65%	4.07%	0.17%	-1.986	-0.061
-12	-64.61%	-5.87%	-10.58%	2.65%	4.34%	0.19%	-0.517	1.008
-13	-52.63%	-4.78%	-8.45%	0.25%	2.61%	0.07%	-0.118	0.753
-14	-4.06%	-0.37%	-6.49%	2.94%	2.29%	0.05%	4.384	-1.693
-15	-7.34%	-0.67%	-2.85%	2.85%	1.61%	0.03%	0.440	0.576

Source: Researcher (2017)

From the table above one can observe that there are negative abnormal returns after the interest rate capping ccomes into effect. Looking at day one (-0.79%) and day two (-4.27%) after the commencement of interest rate capping there is a decrease in level of abnormal returns compared with the returns of 2.81% at t=-1 before the interest rate capping came into effect meaning that there is a negative market reaction after the change in laws. The mean also shows a decreased level of abnormal returns after the event compared with 0.26% before the event day at t=-1. Closer look at the mean reveals a mean of 0.49% during the event day whereas there is a decline in the central tendency after the event in day one and day two, -0.07% and -0.39% respectively confirming that indeed interest rate capping has a very negative effect on the shares returns.

There is a reduced deviation of stock returns during the event day and after the event as depicted by the standard deviation of 1.67% at t=0, 1.51% at t=1 and 1.54% at t=2 compared to 3.41% before the event day. The variation during the event day is at 0.03 and then drops to 0.02 at t=1 describing the spread that shows the amount of variability relative to the mean. The measure of asymmetry shows that stock returns of the firms listed at the NSE during the event window are mostly left skewed to the their means because they have a skewness statistic less than a zero except on day t =2, when the returns were skewed to

the right. The measure of peakness shows that stock returns have less steep distributions more than a normal distribution during the event day because the returns are 0.293at t=0.

4.3.1 Abnormal Returns

The abnormal returns during the interest capping event window the returns were ranging from a low of -62.82% and a high of 64.61%. During the event day the stock returns stood at 5.41% whereas after the event the returns still remains positive. This is demonstrated graphically below:
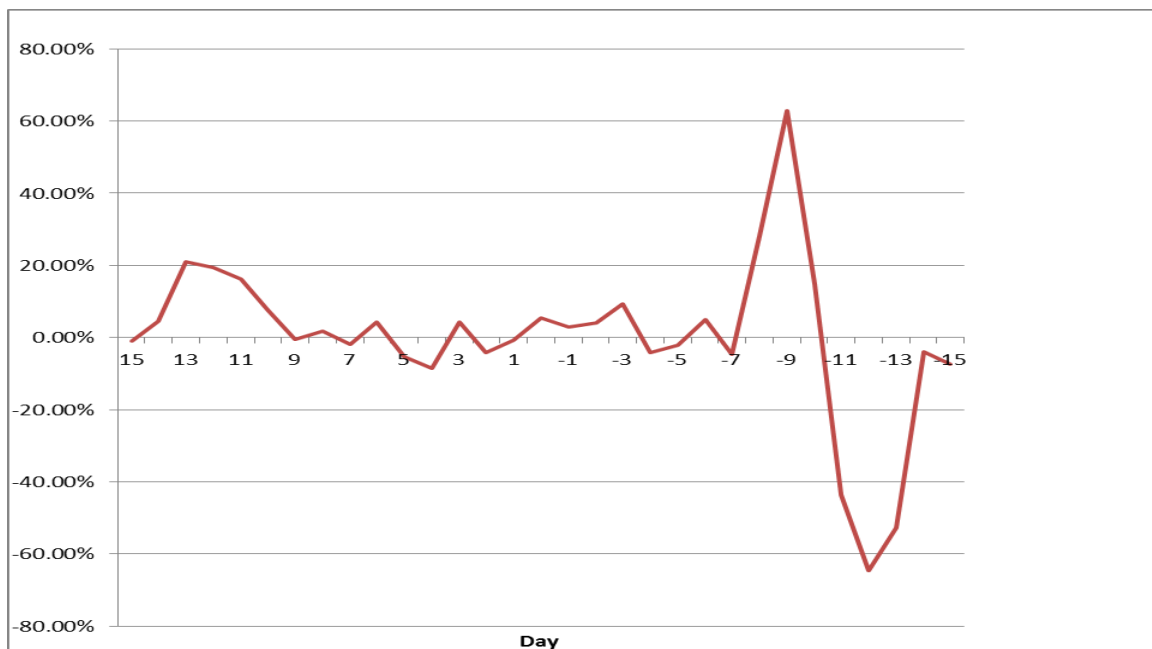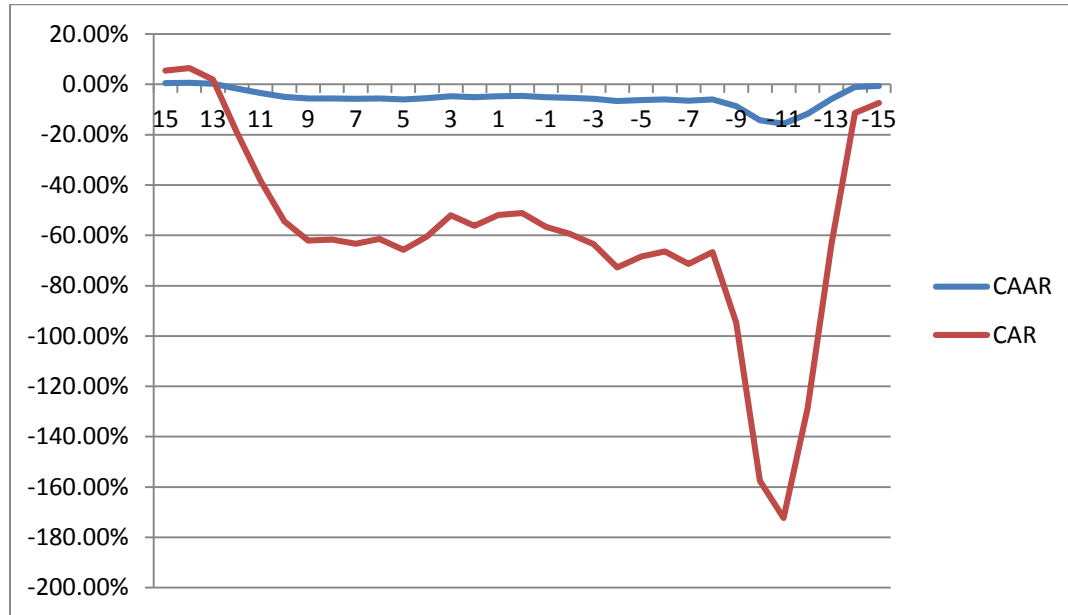

Source: Researcher (2017)
Figure 1: Abnormal Return Trend

During the entire event period (-15,15) the CAR amounts to -7.24% depicting there is a negative market return leading to low stock returns during the event window. Figure 3 graphically displays how the market reaction evolves as shown by the abnormal returns

and CAR curves during the event window and the negative impact as shown by the downward trend.

Source: Researcher (2017)

Figure 4: Cumulative abnormal Return Trend

4.3.2 Abnormal Returns for the individual banks

From the results it was observed that during the event window most banks had a positive CAR except Equity bank and DTB that had total abnormal returns been negative. During the event day most banks had positive returns. The total cumulative returns at t=1 and t=2 were negative at -0.79% and -4.27% respectively meaning the interest rate capping had a negative effect on the stocks returns days after the law came into effect.

Table 4.2: Abnormal Returns for the banks

	COOP	I&M	STAN CHART	NIC	NBK	KCB	HFCK	EQUITY	DTB	CFC	BBK	TOTAL
15	1.03%	0.76%	0.00%	2.31%	1.27%	-0.74%	-2.77%	-0.55%	0.16%	-0.07%	-2.37%	-0.97%
14	0.12%	0.84%	0.12%	-1.34%	1.08%	-0.55%	4.90%	-4.16%	0.11%	0.71%	2.73%	4.56%
13	2.02%	-0.62%	-0.33%	6.22%	4.88%	4.04%	-3.57%	5.36%	0.84%	0.02%	2.03%	20.89%
12	2.38%	1.05%	-1.27%	0.77%	2.38%	3.54%	1.07%	3.32%	-0.04%	5.68%	2.62%	19.38%
11	0.87%	3.48%	3.71%	1.61%	3.34%	5.53%	0.81%	4.15%	0.32%	-0.17%	-0.88%	16.08%
10	-0.10%	0.38%	-2.76%	-0.24%	5.90%	1.14%	0.37%	3.94%	3.09%	-2.13%	-1.21%	7.62%
9	1.29%	1.30%	-2.77%	0.47%	1.46%	-0.01%	1.99%	2.93%	-2.77%	3.46%	-0.87%	-0.44%
8	-0.34%	1.60%	-0.64%	0.55%	0.72%	-1.98%	0.10%	0.09%	3.09%	2.68%	-0.94%	1.72%
7	1.94%	1.06%	0.38%	1.55%	0.05%	-0.14%	0.44%	0.92%	-2.76%	3.36%	0.12%	-1.92%
6	0.76%	0.09%	2.07%	2.62%	-3.61%	-0.11%	1.07%	1.93%	0.14%	-1.36%	0.80%	4.38%
5	0.40%	0.10%	-0.12%	1.62%	0.76%	-1.04%	-0.20%	1.02%	0.08%	-0.05%	-7.90%	-5.34%
4	0.61%	-1.51%	-1.11%	-3.29%	-1.58%	-1.80%	0.70%	1.21%	-0.61%	0.01%	-1.08%	-8.45%
3	0.33%	2.37%	-3.33%	0.50%	3.78%	0.81%	0.75%	-0.02%	1.54%	2.60%	-0.07%	4.20%
2	0.69%	-2.03%	0.02%	1.28%	1.65%	0.79%	0.68%	0.30%	-1.30%	3.30%	-2.21%	-4.27%
1	0.11%	0.14%	1.55%	-2.31%	-0.06%	-3.63%	0.72%	0.15%	0.11%	0.64%	1.79%	-0.79%
0	1.70%	0.23%	3.98%	-2.16%	1.90%	0.23%	1.29%	-1.54%	0.83%	-1.24%	0.18%	5.41%
-1	3.22%	3.65%	-5.80%	0.43%	7.61%	2.56%	-2.35%	-0.72%	-0.61%	0.01%	-0.07%	2.81%
-2	2.48%	1.84%	-0.67%	1.41%	0.81%	4.50%	0.45%	0.00%	-5.93%	1.25%	-2.12%	4.02%
-3	2.45%	0.17%	-0.02%	-0.29%	0.59%	1.01%	0.40%	1.18%	5.78%	-1.29%	-0.65%	9.33%
-4	0.93%	1.32%	-3.12%	0.51%	-3.08%	1.89%	3.20%	0.13%	0.12%	-3.77%	-2.42%	-4.29%

-5	0.26%	0.05%	-1.20%	0.55%	2.40%	0.19%	0.77%	-1.96%	0.10%	1.18%	-4.04%	-2.07%
-6	-1.01%	2.78%	5.31%	0.65%	-7.76%	0.98%	-3.06%	2.21%	0.13%	1.94%	2.77%	4.93%
-7	-2.09%	-8.07%	0.64%	-3.08%	0.37%	0.29%	8.77%	-1.40%	-0.58%	0.73%	0.22%	-4.64%
-8	8.10%	9.36%	-0.39%	2.19%	1.06%	-4.18%	9.09%	-1.34%	3.78%	1.40%	-1.02%	28.05%
-9	9.92%	9.91%	0.13%	9.12%	0.52%	8.29%	9.66%	7.40%	-0.60%	3.17%	5.30%	62.82%
-10	3.34%	-4.24%	0.05%	8.12%	-0.24%	4.28%	1.05%	-4.32%	-1.32%	2.12%	5.88%	14.71%
-11	-8.39%	-9.32%	0.38%	0.44%	0.78%	-8.54%	-6.27%	-8.40%	-1.29%	3.09%	1.65%	-43.61%
-12	-6.97%	-8.95%	-5.84%	-9.26%	0.26%	-8.24%	-9.43%	-7.88%	10.58%	-2.65%	-0.39%	-64.61%
-13	-5.76%	-8.45%	0.25%	-7.39%	-5.09%	-5.55%	-3.43%	-5.81%	-0.53%	-7.13%	-3.75%	-52.63%
-14	0.58%	1.10%	0.46%	-1.81%	-6.49%	0.83%	2.94%	-0.49%	0.26%	0.00%	-1.45%	-4.06%
-15	-2.63%	2.85%	-0.36%	2.85%	-0.52%	0.32%	-1.66%	-2.40%	0.14%	-0.19%	1.09%	-7.34%
CAR	18.22%	-4.94%	10.69%	6.34%	4.63%	-2.36%	18.50%	-4.76%	-8.30%	2.41%	-8.73%	

Source: Researcher (2017)

4.5 Correlation Analysis

The following table shows the correlation between the market return, actual returns, expected return and the abnormal during the event window.

	Market Return	*Expected Returns*	*Actual Returns*	*Abnormal Returns*
Market Return	1			
Expected Returns	0.988391	1		
Actual Returns	0.737616	0.713413	1	
Abnormal Returns	0.66005	0.633016	0.993913	1

Source: Researcher (2017)

Table 4.4: Correlation Analysis

There is a strong positive correlation of 0.74 between the actual returns realized and the abnormal returns during the event window amongst the eleven banks. There is a positive relationship of 0.66 between the market return and the abnormal returns realized during the event period interest rate capping had a positive effect. The correlation between the expected return and the actual return is 0.71 while there is a strong positive relationship between the expected return and the market return of 0.99. There is a positive relationship between the abnormal returns and the expected return of 0.63 clearly depicting that interest rate aping did not have a negative information in the market

4.6 Discussion of Research Findings

The objective of the study was to establish the effects of interest rate capping on the stocks returns for commercial banks listed at the Nairobi Securities Exchange. The cumulative abnormal returns were then calculated by summing up the average abnormal returns during the event window (-15,+15). The output of AR and the CAR were later graphed to show the trend during the event window period during the year 2016. The test of significance found out that, interest rate capping have no significant effect on the shares returns of a firm.

Research findings shows that on average, the abnormal returns and CAR trend could not be directly attributed to interest rate capping coming into law. The CAR curve slopes downwards significantly two days after the commencement date but stabilizes on the third day. This shows that shares returns for the selected firms reacts negatively to interest rate capping. This shows that interest rate capping is not statistically significant in affected the abnormal returns.

CHAPTER FIVE: SUMMARY AND CONCLUSIONS

5.1 Introduction

This chapter provides a summary of findings, recommendations and conclusions into the study on the effect of interest rate capping on stock returns of commercial banks listed at Nairobi Securities exchange (NSE). Finally, suggestions for future research are also listed.

5.2 Summary of Findings

This study sough to establish the effects of interest rate capping on stock returns at the Nairobi Securities Exchange. The study generally establishes that the actual returns, abnormal returns, market returns, expected returns, cumulative returns and cumulative abnormal returns generally have the same trend on interest rate capping except for certain instances where cumulative actual return deviates as a result of the information content of the event. The standardized cumulative abnormal returns swing around the trend in all cases with sharp declines on the interest rate capping effective day and an increase thereafter. The reactions of the returns are also influenced by the information content of the interest rate capping.

On the event window of thirty one days, the expected returns and the actual returns seldom have the same movement pattern. In most instances, they move in the opposite direction and then they converge after the event. This finding shows that actual returns follow a random walk which is distinct from the expectations. The study establishes that the standard errors of the abnormal returns, cumulative abnormal and standardized cumulative abnormal returns due to interest rate capping are all minimal suggesting that they are

representative of the respective population. From the abnormal returns, the returns of companies issuing profit warnings deviate from the mean thereby suggesting that though there is information content in interest rate capping, the effect is not on all the issuing companies. With the Cumulative abnormal returns and standardized cumulative abnormal returns, returns of some banks deviate from the mean thereby confirming that though there is information content on interest capping events, the effect is not universal on all the companies.

5.3 Conclusion

The objective of this research was to find out how the shares returns behave to interest rate capping at the NSE by the commercial banks.. The research found that the market reaction is negative after the event whereas there were positive abnormal returns days before the announcement. The sample consists of eleven listed commercial banks in Kenya listed at the NSE when the interest rate capping became law.

This study concludes that the signing into law of the bill that capped interest rates at 400 basis points above the CBR qualifies to be an event study. During the event window, which was between August 2016 and October 2016, there were significant changes in the share prices and share volumes traded compared to other months. However, the effect of other informational events during the same period should be considered to understand the full impact of interest rates on the performance of banks.

The findings were consistent with the existing literature which results show that interest rate capping is highly relevant information that led to abnormal returns after the

announcement. In a thirty one-day event window the average CAR is 5.49% showing that there are positive returns associated with interest rate capping. The results clearly manifest that abnormal returns continue to drift downward following interest rate capping, which is attributed to negative market reaction when the investors react to the negative information. In consistent with the efficient market hypothesis all the share prices reflect all the relevant information.

The result of research study indicates that interest rate capping has a less significant effect on the share returns for the period of pre-warning and post-warning and on the day of actual announcement. The most significant impact is observed during the event period from some days before to some days after the profit warning. It may indicate the information leakage prior to interest rate capping and the market observes the information quickly thus reacts significantly during these days. The huge positive abnormal returns realized before the event day indicate that the market anticipated the law to have impact on the stock returns. The study concludes that consistent with the existing literature the results show that interest rate capping are highly relevant information events that are followed by large negative abnormal returns in the short term.

5.4 Recommendations

From the study, interest rates have a big impact on the return of bank stocks and as such, banks should look into diversification of their cash flow streams. With a majority of SMEs and retail investors locked out of access to loans due to their high risk nature, the study recommends that banks can look more into lending to the government and capitalize on non-funded income streams like foreign exchange spreads.

Since the capping of interest rates effectively reduces the spread between the deposit and lending rates, investors are now concerned with the future cash flows of the banks they invest in especially for the banks that are local and the government is not a shareholder. The study recommends that investors should look into other investment areas like Treasury bills and bonds as well as other sectors like real estate. This study concentrated on the banking sector of the Nairobi Securities Exchange.

It is highly important that the government should consider the significant impact of the interest rate capping on the shares returns because the investors react immediately to the information released. Moreover, the timing and content of the interest rate capping law can have different impact thus government should be keen when making such a law.

5.5 Limitations of the Study

Some firm's shares did not trade during the event window period hence making data analysis difficult. Since stocks were dormant it was difficult to capture the share price movements during the event window. This led to the sampled firms abnormal returns data to have a diluting the effect of the active stocks because of their nil returns.

It was also difficult to isolate on the abnormal returns realized due to interest rate capping since there could be other empirical factors that were affecting the stock which could have had confounding effects on the results. Other factors like earnings announcements had an overlapping effect on abnormal returns hence making observation of abnormal returns difficult to be observed.

The sample size used during the research was eleven commercials banks listed at the NSE. The required sample size while doing a regression should be equal to or more than thirty in order to increase the accuracy and reliability of data. This had a limitation while doing the regression analysis through the ANOVA tables.

5.6 Suggestions for Further Research

There is therefore need for research in the other sectors so as to see the full impact on the NSE of the capping of interest rates. The study also focused on the lending rates and not deposit rates. Finally the study recommends further studies on other factors that influence movements in stock prices.

Based on the findings, the study recommends that other studies should be done based on the NSE 20 share index which is an index that comprises the main top 20 companies listed at the NSE. The study incorporated NASI and the results will be key to do a comparative study based on the 20 share index.

The study further recommends a study to be done using a different event window for a longer period in order to keenly observe the abnormal returns movement. Further study in evaluating the effect of interest capping on interest aping is also highly recommended.

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APPENDIX
COMMERCIAL BANKS LISTED IN THE NSE

1. Barclays Bank Ltd

2. Cfc Stanbic Holdings Ltd

3. I&M Holdings Ltd

4. Diamond Trust Bank Kenya Ltd

5. HF Group Ltd

6. KCB Group Ltd

7. National Bank of Kenya

8. NIC Bank Ltd

9. Standard Chartered Bank Ltd

10. Equity Group Holdings

11. The Cooperative Bank of Kenya Ltd