RELATIONSHIP AMONG INTEREST RATES, MONEY SUPPLY, INFLATION AND FOREIGN EXCHANGE IN KENYA

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DECLARATION

This research project is my original work and has not been presented for award of a degree or for any similar purpose in any other institution.

Signature: _____ Date: 14/12/2020

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BUS-G-4-0295-17

SUPERVISOR: This research project has been submitted with my approval as university supervisor

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All above all, I thank the Almighty God who has seen me through up to this level, was my pillar of strength, life giver and greatest source of advice and ideas. Thank you all and God bless you all.

DEDICATION

This research project is dedicated to my mother kanze karisa, my brothers and sisters, without whom my academic potential would not have been realized. I say thank you to the support they gave me during my academic life.

ABBREVIATIONS

CBK -Central Bank of Kenya

CBK -Central Bank Rate

KSH -Kenya Shillings

KNBS -Kenya Bureau of Statistics

USD -United States Dollar

SPSS -Statistical Package for Social Sciences

ABSTRACT

The general objective of the study was to establish the relationship among interest rates, money supply, inflation and foreign exchange. The specific objectives of the study included the following; understanding how interest rate affects the foreign exchange rates in Kenya, determine how the level of money supply in an economy has an impact on the rates of foreign exchange and to examine the role inflation play in the foreign exchange rates in Kenya.

The study aimed at using descriptive research design using inferential statistics and the regression model to establish the relationship among interest rates, money supply, inflation rate and foreign exchange rate. Census sampling was applied and data was obtained from the N.S.E, Central Bank of Kenya websites for period of 10 years from 2008 to 2017. Exchange rate was calculated on annual average based on the monthly averages, monthly C.B.K lending rate was the measurement for interest. Money supply was measured in millions Kenya shilling, inflation was measured by the monthly inflation percentage. Since the measurement were in different dimensions data was turned in natural logarithm to make it possible to work with and make a comparison. The conclusion of the study was that interest rate significantly related to foreign exchange rate. This was indicated by both descriptive and regression analysis. Where interest rates impact foreign exchange fluctuations to a moderate extent. Interest rate also indicated a positive relationship with interest rate fluctuations.

Again the study concluded that inflation rate was not significant to foreign exchange fluctuations. There was a negative impact between inflation and exchange rates as shown by the descriptive statistics. Regression analysis indicated that inflation rate was significantly related to foreign exchange rate. Finally, the study concluded that money supply had a negative relationship with foreign exchange fluctuations. There was a negative impact between money supply and exchange rates as shown by the descriptive statistics. Regression analysis indicated that money supply was significantly related to foreign exchange rate.

CHAPTER ONE: INTRODUCTION

1.0 Introduction

This chapter focused on the background of the study, it covered the subject area under study and the current situation of the whole research subject. The statement of the research problem was also be looked under this chapter. The purpose of the study as well as conceptual frame work, objectives of the study, delimitation and limitations of the study.

1.1 Background of the study

The forex market is the largest and most liquid market in the world, with trillions of currencies changing hands every day. With this it has been made possible to change one country's currencies to another to that of another country for easy trading between nations. It is estimated that trading in foreign exchange market averaged 6.6 trillion dollars a day in April 2019. Foreign exchange has played a crucial role in facilitating international trade thus raising the volume of trading between countries.

Through foreign exchange markets, exports and imports have been made possible enabling countries to sell their excess goods and buy goods that are in deficit supply in the county, this way economic development of countries is greatly boosted through international trade. Kilicarslan (2018), observes that the profits in foreign exchange transactions is affected by the appreciation or depreciation in the foreign currency. This is why the fluctuations of foreign exchange rates are crucial and deem it important to look at some of the factors that affect to the fluctuations.

There have been factors that have had a close relationship to how foreign exchange behaves. They include interest rates, money supply and inflation rates. These are factors that largely determine the performance of any economy depending on how they are controlled. That is why they determine the power of any currency compared to another.

Interest rates is the amount lenders charge for borrowed money. Obura and Anyango (2016) define interest rare as the savings' price per demand and supply of loanable money. Different countries have different interest rates depending on their set policies. Venezuela is among the

countries with the highest interest rates at 39.78 % with Switzerland being among those with the lowest interest rates at –0.75%.

In Kenya several studies have been made to determine the relationship between interest rate and foreign exchange. Ouma (2017) observed that changes in interest rates would lead to a change in the foreign exchange rates of a given currency. This is evident as it has been observed when the corona virus effects lead to fluctuation of the Kenyan shilling against the dollar due to a change in the interest rates in the country. C.B.K (2019), notes that when the Kenyan shilling is strong it reduces the competition of Kenya's exports which could weaken the economy. Kenyan exports would become expensive in other countries and the imports would become cheaper this would discourage domestic competition with the local industries. According to a study by IMF (2020), Africa had a projected GDP growth of 3.25% before the pandemic was announced. However, the research notes that it is expected to recess to -0.8%. With these effect the various African currencies have witnessed a drop in comparison to the US dollar. Deloitte (2020), notes that Kenya shilling is under pressure due to reduced forex earning mainly in account of reduced exports and stood at KES 106.00: USD 1 as of May 2020, down from 100.9: USD 1 as of January 2020.

Money supply include all currency in circulation in the economy. The money used for transaction purposes and speculative motives form the basis of money supply. The central bank of any country has the task of controlling the amount of money in circulation using both monetary and fiscal tools to regulate the amount of money that circulates in the economy. Excess or a deficit in supply will have an impact on the economic situation of any country so will the foreign exchange. Morosan and Zubas (2015), observed that when money is oversupplied then it drives depreciation in the value of that currency. Muchiri (2017) found out that if money supplies of a country increases, its currency depreciates in vale. This then shows that there exists a relationship between the levels of money circulating in an economy and the strength of the currency in comparison to other currency. According to trading economics (2020), levels of money supply in Kenya increased in value from a figure of 3038.68 KES billion in April to 3081.33 KES billion in May 2020. According to CBK, (2020), the monetary policy committee reduced the central bank rates to 7.25%.

The above information therefore shows that interest rate, money supply, inflation rates and foreign exchange rates have a relationship amongst them. With interest rates, money supply and inflation fluctuations leading to a change in the rates of exchange.

1.2 STATEMENT OF RESEARCH PROBLEM

Foreign exchange rates have an adverse effect on the economic status of a country. Elfaki (2018), says that exchange rate is among the important tools used in assessing the wellbeing of an economy. It is therefore important for a country to understand and control the factors that affect foreign exchange.

Interest rates, money supply and inflation rates are among the factors that affect the performance of any economy so do they affect the rates of exchange as well. Ouma (2017), observes that fluctuations in interest rates causes a change in the exchange rates.

Morose and Zubas (2015), observe that oversupply of currency drives depreciation in value of a currency.

Guyen (2015), also concludes that there exists long and short run relationship between inflation rate and exchange rates. The three studies were based on different variables which this study seeks to combine them to see if they still affect foreign exchange rates.

Therefore, for the lack of a clear understanding and a common agreement among various stake holders in the business world on the relationship among interest rates, money supply, inflation rates and foreign exchange rate. This will be the driving factor why the study needs to be done in order to bring out clearly how these variables are related. This research aims at shedding more light on the relationship among interest rates, money supply, inflation rates and foreign exchange rates.

Many people and firms tend not to consider how foreign exchange rates are important especially firms involved in export and import of goods. With the development of E-commerce, people are increasingly purchasing goods from other countries. And even those who travel to various destinations in the world tend to overlook the foreign exchange rates. It is therefore important for this research to be carried out so that people and firms can get to know the roles of foreign

exchange and the factors that affect the exchange rates and how best to make the most out of the fluctuations of the exchange rates.

1.3 PURPOSE OF THE STUDY

The study sought to investigate the relationship that exists among interest rates, money supply, inflation rate and the foreign exchange rate at the Nairobi stock exchange in Kenya.

1.4 CONCEPTUAL FRAMEWORK

The study sought to use interest rates, money supply and inflation rate as the independent variable while the foreign exchange rate as the dependent variable. The research manipulated interest rates, money supply and inflation rates to see if they had an affect the foreign exchange rates. The study targeted bringing out the relationship among interest rates, money supply and foreign exchange rates.

Independent variable

```
┌─────────────────────────┐
│ Interest rate           │
│                         │
│   a)  C.B.K lending rate │
│                         │
└─────────────────────────┘
```

Dependent variable

```
┌─────────────────────────┐
│ Money supply            │
│                         │
│   a)  Reserve deposits  │
│   b)  Level of investment│
│                         │
└─────────────────────────┘
```

```
┌─────────────────────────────┐
│ Foreign exchange rates      │
│                             │
│   a)  yearly  exchange  rate│
│       fluctuation           │
│                             │
└─────────────────────────────┘
```

```
┌─────────────────────────┐
│ Inflation               │
│                         │
│   a)  Cost push         │
│   b)  Demand pull       │
│                         │
└─────────────────────────┘
```
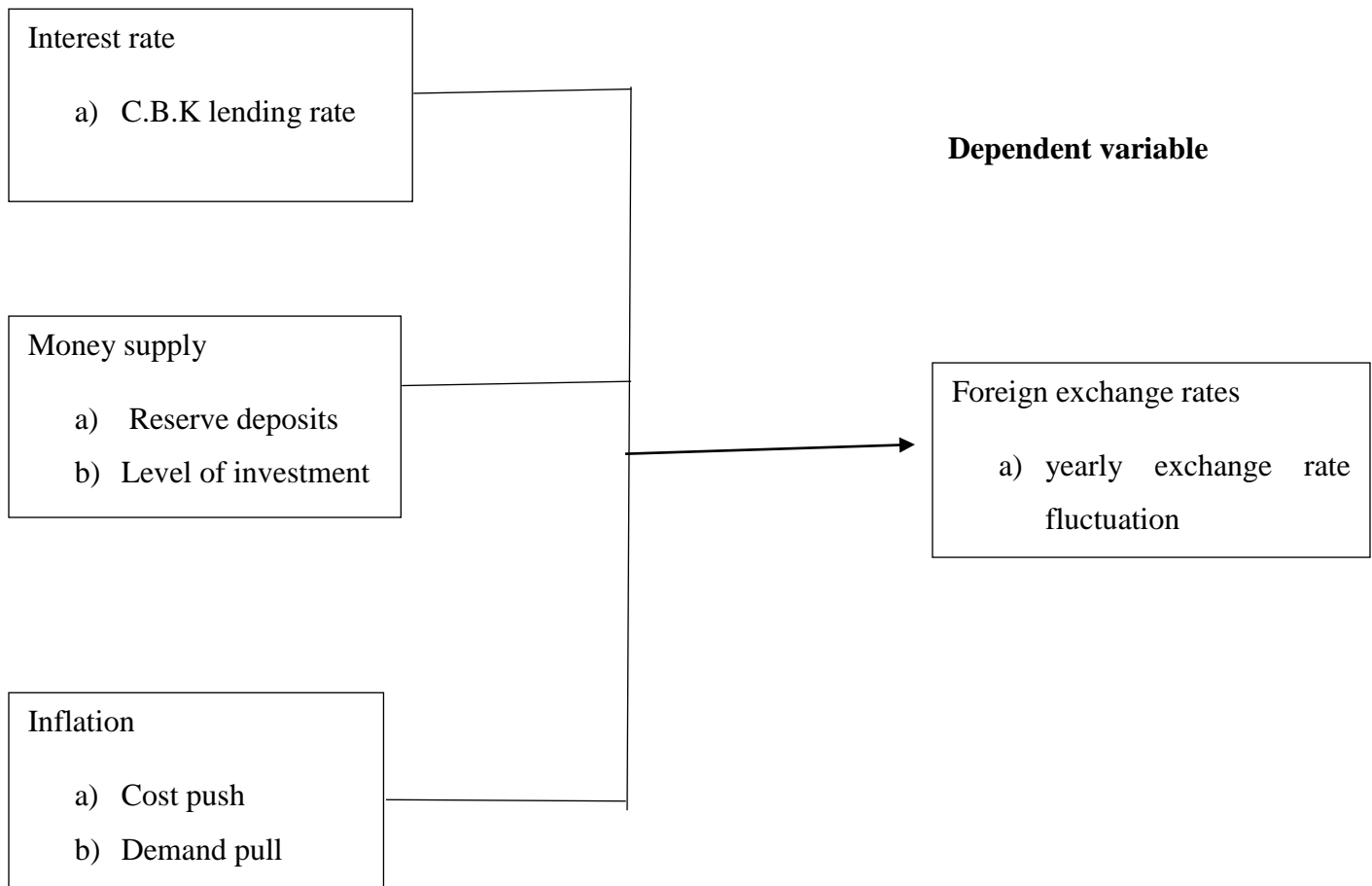
4

Figure 1.1 a conceptual framework of the relationship among interest rates, money supply, inflation and foreign exchange in Kenya

1.5 Objectives of the study

1.5.1 General objective

The main objective of the study was to determine the relationship among interest rates, money supply, inflation rates and foreign exchange at the Nairobi security exchange.

1.5.2 Specific objectives of the study were to;

a) Understand how the interest rate affects the foreign exchange rates in Kenya.
b) Determine how the level of money supply has an impact rates of foreign exchange.
c) Examine the role inflation rates plays in the foreign exchange rate in Kenya.

1.6 Hypothesis of the study

H_{O1}; Interest rates does not affect the foreign exchange rates in Kenya.

H_{O2}; Money supply does not have any impact on the foreign exchange rates.

H_{O3}; Consumer inflation rates does not have any impact in the foreign exchange rate

1.7 Significance of the study.

The research findings will help investors in understanding the movement of interest rates and how they affect foreign exchange rates. This would help investors make informed decisions on where to invest according to the levels of interest rates especially for foreign investor

The study findings will be useful to adding to the knowledge of economics by establishing the connection between the research variables. The added knowledge will be beneficial not only to economic studies but to the general public as well.

Government agencies such as capital market authority and central bank of Kenya will also benefit from the findings of the study for decision making. Government agencies upon understand the role played by interest rate, money supply and consumer price index on the

fluctuate on they have on foreign exchange rate, therefore informed decisions on how to avoid fluctuations of the Kenyan shilling and make decisions that will help the Kenyan shilling appreciate in value against the dollar by controlling the factors that affect foreign exchange. This would ensure a fair exchange rate with a positive impact to the economy.

The findings of this research will also be helpful to Researchers and students carrying out researches related to the relationship among interest rates, money supply, interest rate and foreign exchange rates. The study findings will form base for further studies as well as point of reference for other researches that will be correlating to the study topic.

1.8 Scope of the study

This study evaluated the relationship among interest rates, money supply, and foreign exchange at the NSE from the year 2008 to 2017. The study looked at variables that affect the foreign exchange rate. The study will analyses the CBK interest rates, the amount of money that circulated, inflation for the said period of study and how exchange rate fluctuated.

The study also looked at how the CBK lending rate, money supply and inflation rated for the study period of 2018 to 2017 and try to evaluate how the fluctuation of these variables affected the valuation and performance of the Kenyan shilling against the dollar.

1.9 Limitation of the study

The research was limited to the relationship among interest rates, money supply, oil price and foreign exchange rate at the NSE. Since the research used secondary data, the data that was compiled sometimes back and it may not reflect the current situation of the economy since every study was carried out in different conditions of the economy. A good example was the current state of the economy due to the ongoing Covid 19 pandemic, economic factors are greatly affected so is the exchange rate.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter described the available literature from past studies and theories concerning the relationship among interest rate, money supply, inflation rates and their impact on the foreign exchange rate. Interest rates, money supply and inflation rate are some of the things that affect the performance of any economic of a given nation as well as the power of the country's currency against other nations. The following are factors believed to have an effect on foreign exchange rate.

2.2 Interest rate and foreign exchange

Ahmed (2018), in his research says that interest rate is the amount charged by the lender to the borrower expressed as a percentage of the total amount given. Interest rates have an effect on the country's currency power against other country's currency power. According to a research done by Ouma (2017), findings were that there exists a direct relationship between interest rates and foreign exchange rates. Further observations were that money is a normal good thus as the interest rates rises, the demand for money declines, consequently it lowers the value of money locally and even in the international market. Ouma (2017), fluctuations in the interest rates causes a change in the foreign exchange rate of any currency.

Khalid (2017), researched on the economic effects of interest rates and exchange rates on stock market capitalization.

2.3 Money supply and foreign exchange

According to Muchiri (2017), money supply are the demand deposits in the banking systems and the currency outside the bank that is in circulation in the economy. Money supply include all currency in circulation in the economy. An increase in money supply in the economy, it would cause a depreciation in value of the country's currency. According to a research by Morosan and Zubas (2015) oversupply of currency drives depreciation in its value. When a country's currency depreciates in value its exchange rate fluctuates as well.

Muchiri (2017), found out that if money supplies of a country increases, its currency depreciates and vice versa.

2.4 inflation and foreign exchange

Suppose that the supply of Kenyan shilling increases due to its demand. This excess growth in the money supply will result to inflation. This means that Kenyan prices will rise. The rise in prices will be as a result of weakened value of the Kenyan currency. With weakened currency, the exchange rate between the Kenyan currency and that of another, say the USD, will go up. Meaning one will need more Kenyan shilling to exchange for I Dollar.

2.5 Theoretical framework

2.5.1 Keynesian monetary theory

Keynes monetary theory explains the effect of variation in money supply on the level of interest rates on aggregate demand provide a mechanism through which changes in money supply affect the level of economic activity which will also have an affect the foreign exchange rate.

If the rate of interest is increased as a result of increase in money supply, the rate of investment will go up which will eventually lead to an economic growth and the value of the country's currency appreciates in value. Consequently, when the rate of interest is reduced due to a decrease in money supply, investments will still increase and the value of the currency appreciate in value.

2.5.2 Quantity theory of money

According to the quantity theory of money, if the amount of money in an economy doubles, price of commodities will also double. This would then mean that consumers will pay twice as much for the same amount of goods and services. The quantity theory of money assumes that quantity of money in an economy has a very vital effect on the level of economic activity. A change in money supply results in a change in the supply of goods.

Therefore, the value of money is as well as affected by the amount of money in circulation within the economy. An increase in money supply results in currency depreciation in value, since excess money supply may trigger inflation.

2.5.3 Purchasing power parity theory

Purchasing power parity theory which is also known as inflation theory of exchange rate, state that exchange rates between currencies are in equilibrium wen their purchasing power is the

same in each of the two countries. According to this theory, two currencies are in equilibrium when a (basket of goods) is priced the same in both countries, taking into consideration the exchange rates of the two countries.

With the purchasing power parity valuation of currencies of different countries is possible by simply comparing the cost of basket of goods that are similar. With different countries having different levels of interest rates, money supply and inflation rate, all these factors bring about different levels of fluctuations in the countries' currency thus affecting the exchange rate.

2.6 Summary of identified gaps

In this chapter, several past studies that were done and tried to show the existing relationship among interest rates, money supply, inflation rate and foreign exchange were analyzed in this chapter. The analyzed studies had different variables investigated to bring out their effects on foreign exchange

Various theoretical frameworks have attempted to show the relationship among interest rates, money supply, consumer price index and foreign exchange rates. Three theories have been looked in the theoretical framework. They include: Keynesian monetary theory, quantity theory of money and purchase power parity theory. These theories attempted to show the relationship that exist among the study variables.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter focused on the research methodology used in the research. Research method that was used to bring out the existing relationship between the variables. This section focused on the research design, study area, the targeted population, and measurement of variables, research instruments, data analysis and ethical consideration.

3.2 The research design

Saundres, lewis and Thornhill, (2016) they explained research design as the overall scheme of how to get answers that will answer the question of the research. The research used descriptive with inferential statistics since sought to describe the relationship among the independent variable that is interest rates, money supply, inflation rates and the dependent variable which is foreign exchange rates. The study was an inferential one since secondary data was be used. Data was obtained from NSE,CBK and KNBS websites. This design was effective for secondary data that the study used.

3.3 Study area

The study was a case study at the NSE. This will be a good source of information that will be used in the study. NSE has all the information on the movement of foreign exchange rates, the annual interest rates and even the inflation rates. NSE was the ideal for its reliability of information on the variables. Information will be drawn from the firm's website.

3.4 Target population

The study used analyzed data in respect to C.B.K lending rates, money supply levels, inflation rate and foreign exchange rates from the NSE for a period of the past 10 years, from 2008 to 2017. This population was used because a lot changes have been witnessed on these variables for the time period chosen. The 10-year period provided adequate time to successfully establish the relationship among the variable.

3.5 Sampling technique.

The research used census sampling to select data of the variables to be used in the study. Annual interest rates, money supply, inflation rate and annual foreign exchange data was used.

Description	unit's	source
Interest rates	annual percentage	C.B.K
Money supply	millions in KSH	C.B.K
Inflation rate	millions in KSH	K.B.N.S
Foreign exchange	annual percentage	N.S.E

Source (Author 2020)

Sample size

Hancock and Algozzine (2017) defined a sample size as a smaller set of the total population and they still note that larger samples will give more defined results than a small sample. This research therefore used the entire population as sample size covering the period of 2008 to 2017. However, this period of 10 years was considered since it was broad enough to find the influence of the variables.

3.6 Measurement of variables

The measurement of interest rate was the C.B.K lending rate its indication will be the annual interest rate fluctuation it will be measured in percentage. Measurement of money supply was the amount of money circulating in the Kenyan economy as set by the C.B.K. The measurement of inflation was the monthly average inflation rates, while foreign exchange was measured by the annual average exchange rate in Kenya shilling per US dollar.

Table 3.6 measurement of variables

Variables	Measurement/indicators	Measurement scale
Interest rate	C.B.K rate Annual interest rates	Percentage
Money supply	Yearly money supply	billions
Inflation	Monthly average inflation	percentage
exchange rates	Annual exchange rate fluctuations	USD PER KSH

3.7 Research instruments

The study used desk review to collect research data. This method involved collecting data from existing resources since the data that was used in the research is secondary data. This method was cheap and affordable. This method of data collection enabled an extensive search and analysis of all relevant data that is available from different sources. Information was obtained from published materials as well as company websites of various organizations.

3.8 Validity of measurements

Validity of measurements refers to how valid and meaningful the research measurements was. The research established the validity of the measurements the content will be obtained from reliable and precise sources.

3.9 Reliability of measurements

Moraa (2015), reliability refers to the extent to which an experiment test, or any measuring procedures yields the same results on repeated trials. The research measurements were accessed from the various firms' websites but the research will borrow heavily from the NSE available published and online information concerning the research measurements the research was assessed the suitability of the data in meeting the research objectives.

3.10 Data collection techniques

Data that was collected was secondary data. Monthly data for the study period of ten years will be collected that was collected for ten years and was analyzed. Data on interest rate and money

supply levels and was collected in monthly figures from the CBK web site, data on inflation rate was obtained from Kenya national bureau of statistics. Data on the foreign exchange rates was be sourced from the NSE web site.

3.11 Data analysis

The study sorted, tabulated and coded the data that will be collected for easy analysis. The data was analyzed using inferential statistics. The SPSS computer software was used to analyse data. Data was put in the SPSS and examined using descriptive and regression analysis in order to determine the relationship among the variables of the study. Descriptive statistics line graphs showing trends in interest rates, money supply, inflation rate and foreign exchange was used. The study used multivariate regression analysis to determine the association among the dependent variables which is foreign exchange rates and the independent variables which include; interest rates, money supply and inflation rate. The following model will be used

$Y = a+b_1x_1+b_2 x_2+b_3x_3$

Where y represented the dependent variable, foreign exchange

X_1 will represent interest rate

X_2 money supply

X_3 inflation rate

a will represent constants to be estimated by the model

b1, b2 and b3 will represent coefficients of the independent variable.

3.12 Logistical and ethical consideration

Throughout the research code of conduct was observed. The research was keen not to touch issues that may be of harm to people in one way or the other. Information about companies that may be involved in the course of the research was strictly treated with the utmost care and respect and not disclose it to people organizations that can take advantage of the information the findings of this study will again to presented in an ethical and true manner. The study avoided misrepresentation of the research results as much as possible.

CHAPTER FOUR: FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presented analysis and findings of the study on the relationship among interest rate, money supply, inflation and foreign exchange in Kenya. The data used in this research was collected from secondary sources. Data was collected and findings represented in line graphs to show the trends of the study variables.

4.2 Descriptive statistics

4.2.1 Exchange rate

The study established the trend of exchange rates in Kenya for a period of ten years from 2007 to 2017 the currency used was the United States dollar against the Kenyan shilling. The findings are as shown below

Table 4.1
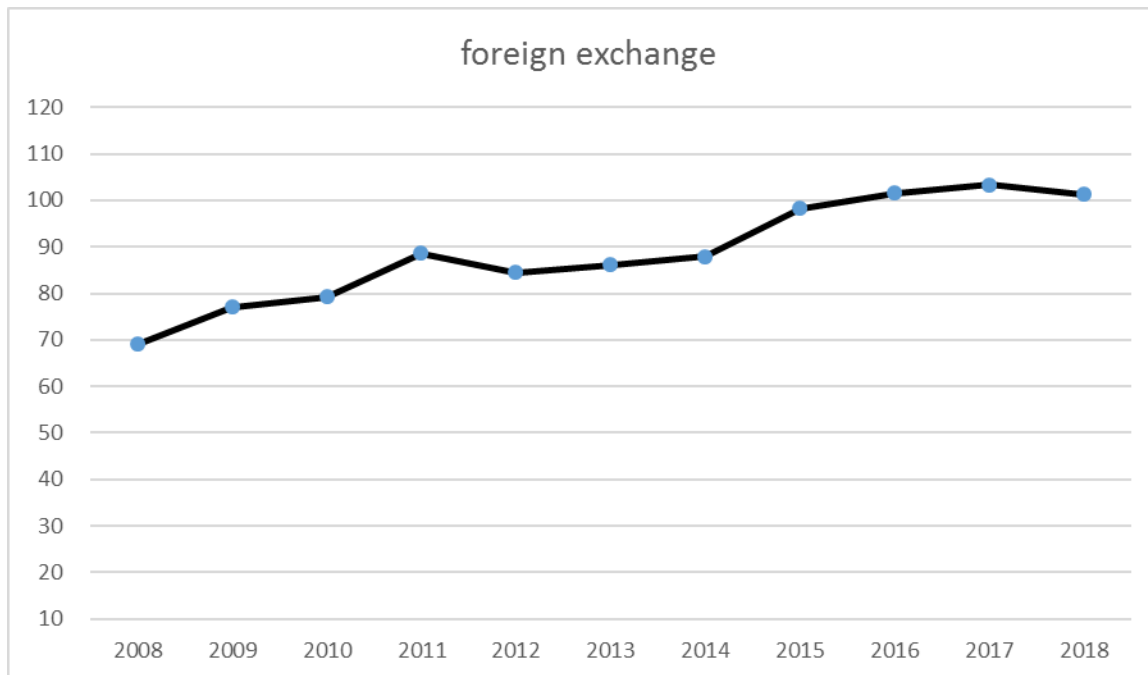
From the above findings, the study established that in the year 2008, the US Dollar was exchange to Kenyan shilling at an average rate of 69.63, the exchange rate between the US Dollar and the

Kenyan shilling appreciated to 77.32 in the year 2009, in the year 2010, the rates further escalated to 79.22. in the year 2011 Kenyan shilling further lost value against the US dollar and the rate was 88.67 this was a by a margin of 9.45 compared to the previous year. The USD was later exchanged to the KSH at the rate of 84.49 after the Kenyan shilling appreciated in value in 2012. In 2013, the rates appreciated to 86.11 by 2014, the rates were at 87.94 and the study observed the steady increase in the rates from 2013 to the end of the study period. In 2014, the USD currency was exchanged to the KSH at the rate of 87.94 by 2015 the value of USD further appreciated or depreciated to a rate of 98.23 this was followed by another increase in the rate of exchange to 101.50 in 2016. Towards the end of the study period, the rates appreciated to 103.38 in 2017

4.2.2 Interest rates

The research investigated the movement of interest rates from the CBK lending rates over the period of study and the trend of the lending rate is as shown below.
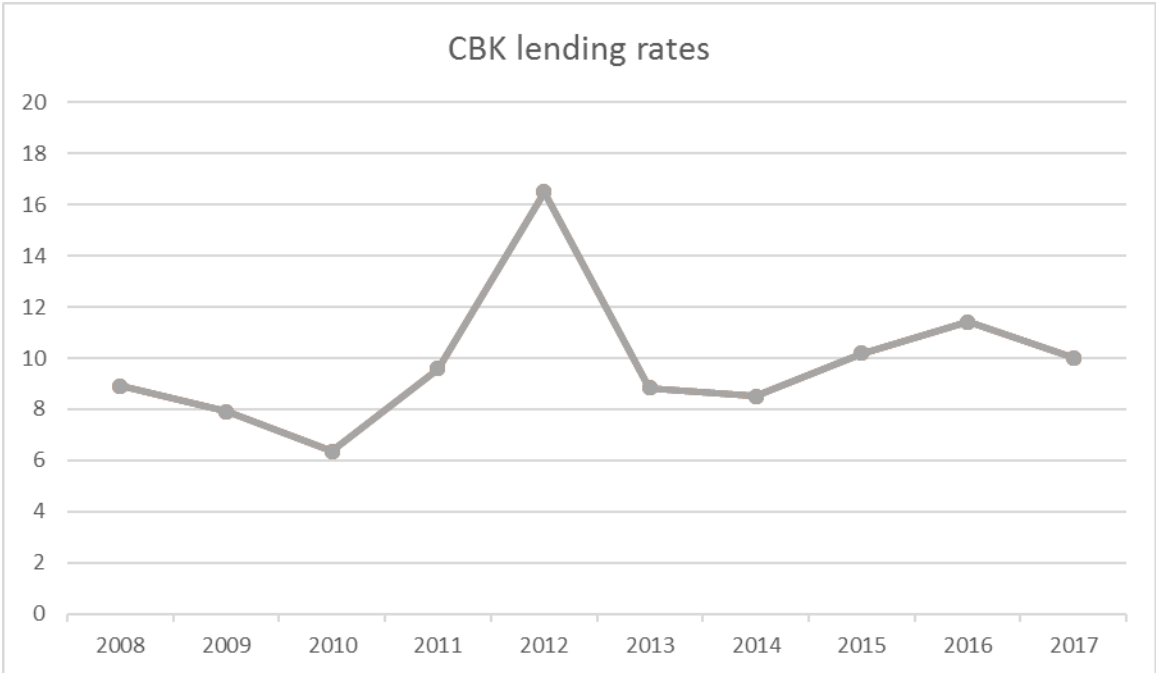

At the beginning of the study period the interest rate was 9.33 percent. In 2009, the rate decreased to 7.9 and in 2010, the CBK lending rate further reduced to 6.35, this was the lowest recorded annual average interest rate during the study period. In the year 2011, the average

interest rate increased to 9.59 which was again followed by another increase to 16.5 in 2012. This was the highest rate recorded during the study period. In 2013, the annually average rate was 8.85, this was almost half of the previous year rate. It further went down to 8.50 in 2014 before rising to 10.18 in the year 2015. In 2016, the interest rate increased to 11.42 before declining to 10.02 at the end of the study period, 2017

4.2.3 Money supply

The study investigated the trend of money supply over the study period of study and the findings are as presented below.
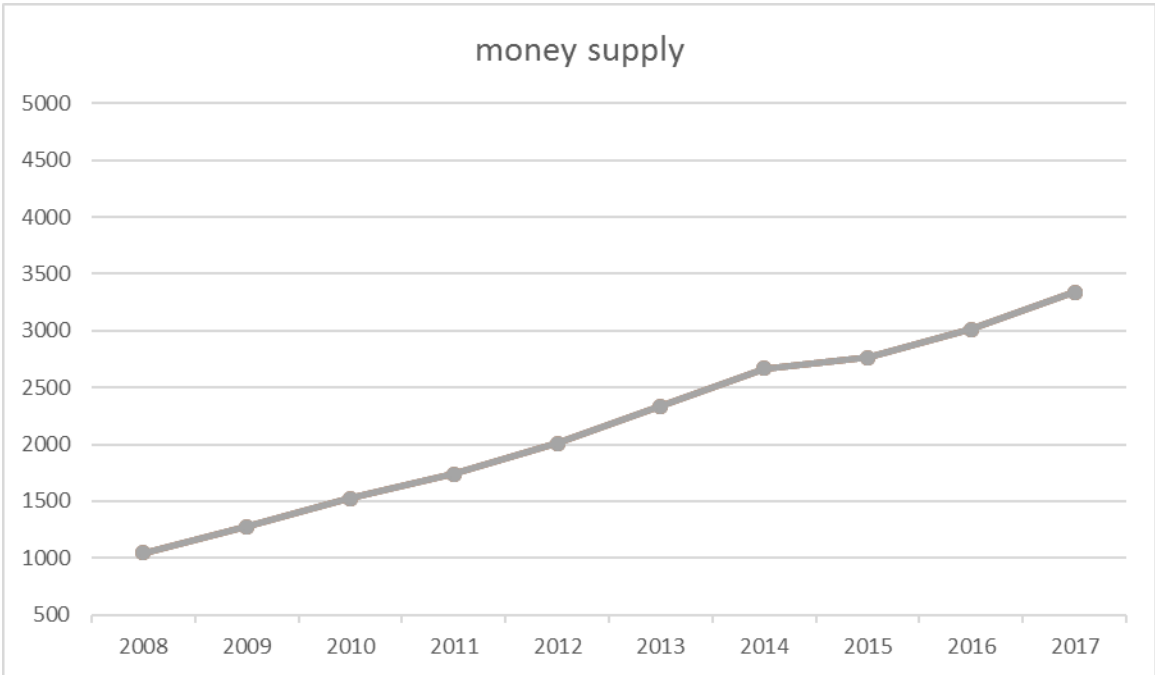
The study findings on the trends in money supply over the study period of ten years observed that the level of money supply increased steadily from 2008 to 2017 with just a small drop in

4.2.4 Inflation

Inflation rates in Kenya have been fluctuating up and down as shown below
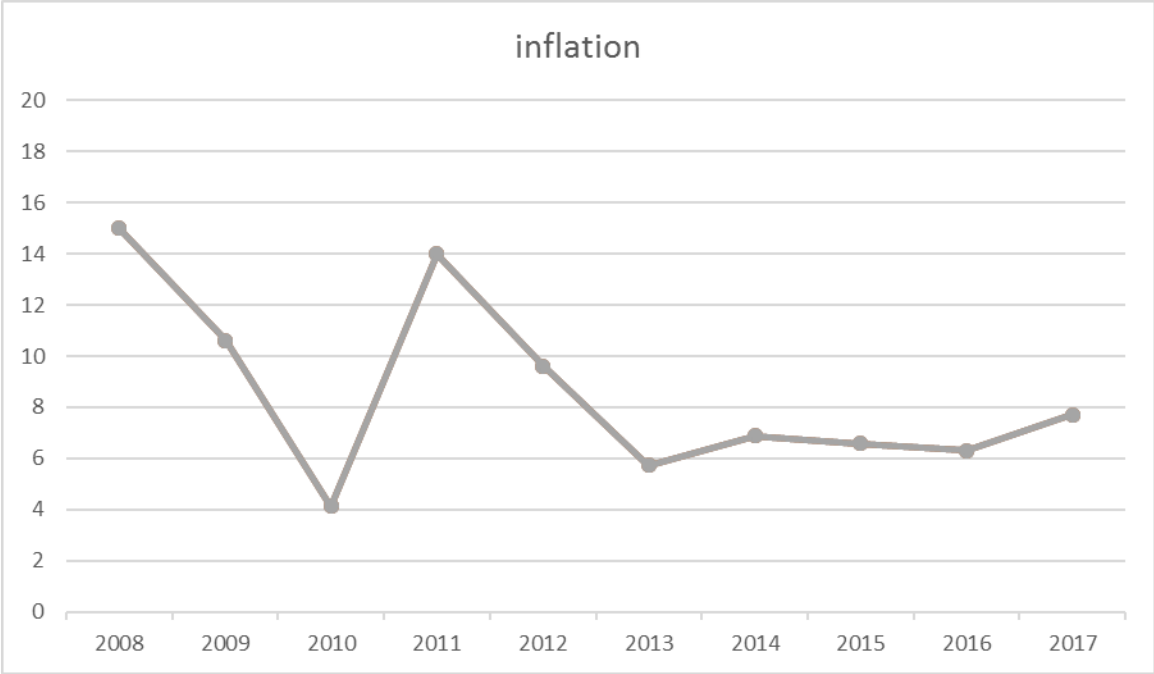
The study used the 12month Inflation rate which is normally consider as the percentage change in the monthly consumer price index. The study findings on the trend on the level of inflation rate in Kenya for the period of study was that the rate was 15.01 percent at 2008, it went down to 10.62 in 2009 and dipped further in 2010 when the Kenyan economy was doing well and the inflation rate was at 4.13, this was the lowest rate that the study recorded during the ten-year period of study. The inflation rates however shot to 14.0 in 2011 when the Kenyan economy performed poorly. The rate however dropped to 9.6 in 2012 and further dropped the following year, 2013 to 5.72 when the economy picked up and the consumer index dropped to favorable levels. The inflation rate increased to 6.88 in 2014 and slightly dropped to 6.58 in 2015 and 6.30 in 2016 before increasing to 7.70 in the last year of the study period, 2017.

4.3 Regression analysis

To show the relationship between the independent and dependent variable, regression analysis was carried out. Multiple linear regression analysis was carried out to determine the relationship between interest rate, inflation, money supply and foreign exchange rate. The results of the analysis are as shown below.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2
1	.774[a]	.598	.577	.37771	.598	27.824	3	

a. Predictors: (Constant), MS, INTR, INFL

The determinant R^2, was 0.598 showing the variation in the influence of interest rate, inflation rate, money supply and foreign exchange rate. This shows that the independent variable contributes 59.8 % to the fluctuations of the foreign exchange rate.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.909	3	3.970	27.824	.000[b]
	Residual	7.989	56	.143		
	Total	19.898	59			

a. Dependent Variable: FE

b. Predictors: (Constant), MS, INTR, INFL

ANOVA results showed that the regression model had a level of significance of 0.000, which means that the model is was significant. The F value at 5 % level of significance was 27.824. this indicated that the model was significant.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for	
		B	Std. Error	Beta			Lower Bound	Upper B...
1	(Constant)	-.114	.184		-.618	.539	-.483	
	INTR	1.281	3.841	.861	.333	.030	-6.415	
	INFL	-.272	8.387	.183	.032	.047	-16.529	
	MS	-.404	9.360	-.270	-.043	.036	-19.154	

a. Dependent Variable: FE

The results of this study indicated that interest rate at 95 % level of confidence, had a positive relationship with the levels of foreign exchange rates. However, money supply and inflation rate at 95 % level of confidence had a negative relationship with foreign exchange and the independent coefficients were,1.281, -0.272, -0.404.

4.3.1 Interest rate and foreign exchange rate

According to the first objective, how interest rate contributes to foreign exchange fluctuation, the model indicated that interest rate had a positive relationship with foreign exchange with a beta value of 1.281, p value of 0.030 the p value was significant since it was more than 0.05 (p less than 0.05).

4.3.2 Inflation and foreign exchange rate

The second objective of the study was to find out how inflation affects the rates of exchange. The model indicated that inflation rate had a negative relationship with foreign exchange. With a beta value of -0.272 and, p value of 0.047. The p value of 0.047 at significant level of 0.05%, was significant indicating that there is a significant between inflation rate and foreign exchange rate. An increase in inflation results to a decrease in rates of exchange and vice versa, this meant a negative relationship.

4.3.3 Money supply and foreign exchange rate

The third study objective was to find out how money supply contributes to fluctuation of foreign exchange rate. The model indicated that money supply was not significantly to foreign exchange rate. With a beta value of -0.404 and a p value of 0.035 the p value was significant at a level of significance of 5%. There was a however, a negative relationship between money supply and foreign exchange. An increase in money supply resulted to a decrease in exchange rate and vice versa.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS.

5.1 Introduction

This chapter gave a summary of the study findings, the conclusion of the research and recommendations the researcher gives concerning the relationship among the study variables. The general objective of the study was to assess the relationship among interest rate, inflation rate, and money supply and foreign exchange rates in Kenya. While specific objectives of the study were to establish if interest rate has any influence on the fluctuations of the foreign exchange rate in the country, to find out the relationship between inflation and foreign exchange rates and lastly to establish the relationship between money supply and foreign exchange rate in the country. Data was collected from the CBK and KNBS website for analysis through desk research.

5.2 Summary of findings

5.2.1 Interest rate and foreign exchange rate

On determining the relationship between interest rate and foreign exchange rate, the findings of the study were that when the CBK lending rates increase the foreign exchange between the USD and Kenyan shilling appreciates too. This is because when the CBK lends to commercial banks at a higher rate, lenders lend at a higher rate and higher interest attract foreign capital and this will cause exchange rate to rise. The findings also indicated a positive relationship between interest rates and foreign exchange rates with a beta value of 1.281, p 0.030 value of the p value was significant since it was less than 0.05 (p less than 0.05).

5.2.2 Inflation and foreign exchange rates

On assessing the influence of inflation on foreign exchange fluctuations, the study findings indicated that cost push and demand pull inflation results to the Kenyan shilling loosing value against the USD, this then results to the increase in the exchange rate between the USD and KSH. The findings also indicated a negative relationship between inflation and foreign exchange rate with a beta value of -0.272 and a p value of 0.047 the p value was significant since it was less than 0.05 (p less than 0.05)

5.2.3 Money supply and foreign exchange rates

On assessing the influence of money supply on foreign exchange, the study findings indicated that reserve deposits levels of commercial banks affects the money supply levels in a country which later affects the foreign exchange rate. When the reserve levels are high, the levels of money circulating in the economy drops. When the level of money supply drops, the exchange rate between the USD and KSH rises. This means that when the level of money supply is high, the value of Kenyan shilling drops leading to exchange rates increasing, thus the negative relationship.

The findings also indicated a negative relationship between money supply and foreign exchange rate with a beta value of -0.404, and a p value of 0.035 the p value was significant since it was less than 0.05 (p less than 0.05).

5.3 Conclusion

The conclusion of the study was that interest rate significantly related to foreign exchange rate. This was indicated by both descriptive and regression analysis. Where interest rates impact foreign exchange fluctuations to a moderate extent. Interest rate also indicated a positive relationship with interest rate fluctuations.

Again the study concluded that inflation rate was not significant to foreign exchange fluctuations. There was a negative impact between inflation and exchange rates as shown by the descriptive statistics. Regression analysis indicated that inflation rate was significantly related to foreign exchange rate. Finally, the study concluded that money supply had a negative relationship with foreign exchange fluctuations. There was a negative impact between money supply and exchange rates as shown by the descriptive statistics. Regression analysis indicated that money supply was significantly related to foreign exchange rate.

5.4 Suggestion on further studies

The study focused on the relationship among interest rate, inflation, money supply and foreign exchange rates. The findings have shown that these factors contribute 59 % to fluctuations of foreign exchange rate. This study therefore suggests other research to be carried out to determine the other factors that affect the fluctuations of foreign exchange rate. The currency

used in this research was the USD against Kenyan shilling, other currencies should be considered in future and their influence to fluctuations of the foreign exchange rates.

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