

FEDERAL UNIVERSITY OYE EKITI
DEPARTMENT OF ECONOMICS AND DEVELOPMENT STUDIES

**PROJECT ON THE NEXUS BETWEEN INTEREST RATE AND
EXCHANGE RATE THE IMPLICATION ON THE NIGERIA
ECONOMIC GROWTH (1970-2013).**

BY

OLWE IBUKUN PATRICIA
EDS/11/0189

**A PROJECT SUBMITTED TO THE DEPARTMENT OF
ECONOMICS AND DEVELOPMENT STUDIES IN PARTIAL
FULFILLMENT OF THE REQUIREMENT FOR THE AWARD
OF BACHELORS OF SCIENCE (B.SC) DEGREE IN
ECONOMICS AND DEVELOPMENT STUDIES**

SUPERVISOR: MR. EPHRAIM UGWU

AUGUST, 2015.

5
5
25
95
95
88
02
21
1
11
13
12
5
.78

APPROVAL PAGE

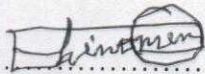
This is to certify that this research project titled the nexus between interest rate and exchange rate and the implication on Nigerian economic growth was carried out by Olowe Ibukun Patricia under the supervision of Mr. Ephraim Ugwu, has been fully supervised and found worthy of acceptance in partial fulfillment of the award of Bachelor of Science, (B.Sc) Degree in Economics and Development Studies at Federal University Oye Ekiti, Ekiti State.



Mr. Ephraim Ugwu
(Supervisor)

21/09/2015

Signature



Dr Christopher Ehinomen
(Head of Department)

28/09/2015

Signature

.....
External Examiner

.....
Signature

DEDICATION

This research project is dedicated to the Almighty God who has given me the grace and opportunity to complete this program. And to my parents, Mr.&Mrs. Olowe and my brothers, sisters, cousin and niece for their effort, love, kindness and caring during my educational pursuit at the Federal University Oye –Ekiti. May they live long to reap the fruit of their labor and I pray that God will be with them in all their undertaking. Amen

ACKNOWLEDGEMENT

Firstly I want to express my special thanks to God almighty for my life and for his safe and guidance during my stay in this school. I wish to express my profound gratitude to all the people who assisted me morally and financially in the fact –finding process and ultimately the final writing of this project work. My sincere gratitude and appreciation go to my parent especially my mother, who have nurture me and her financial support during my stay in this school she is indeed a caring mother and all other positive efforts right from my childhood I pray that she will eat the fruit of her labour and all her effort will not be in vain in Jesus name. I salute your effort dear mum.

My gratitude also go to my project supervisor Mr. Ephraim Ugwu for his co-operation high sense of direction, encouragement and guidance which led to the successful completion of this work you are one in a million sir. I also express my gratitude to my H O D Dr Christopher Ehinomen, and my lecturers, Prof. Adebayo A,A, Prof Ogunleye E, O, Dr D Amassoma, Dr R Akindola, Dr P, I, Nwosa, Dr Omolade Adeleke, Mrs. Y Adegoke Mrs. S Mbah, Mr. Agu Osmond, Mr. kachi, Mr. Imoh Ekpeyong, Mr. Mathew and Mr. Okoli

I also wish to express my profound gratitude to my uncles and their wives the Mr. Adeyemo J A and Mr. Adeyemo D J. Also my appreciation goes to Mr. Olu Adeleke for their advice during my course of study. My gratitude also goes to my father Mr. S. A. Olowe for his advice that gives to me since beginning of my life. I am using this medium to show my gratitude to my brothers Mr. Sola Omotosho, Mr Abiodun olowe Mr. Olukayode Olowe and Mr. Olaniyi Olowe also to my cousins especially Taiwo and Kehinde Adeyemo and Tomiwa, Timilehin, Bolu, Ayomide, Esther, Tosin, Nifemi, Adeyemos for their contribution to the success of this project and my

niece Ayodeji Omotosho and Ayowumi Omotosho for their moral support during the period of writing this project.

My warmest gratitude also goes to someone very important to me Mr. Olatoyosi Emmanuel for his support both physically and spiritually during my course of study I pray that my lord will grant you all your heart desire i love you so much. My appreciation also goes to my wonderful friends that God give me Olatuyi Anuoluwapo, Ifeoluwa, Opeyemi, Elizabeth, Nofisat, Khadijat and also to my colleagues Temitope, Ayobami, Adejoke, Motunrayo, Deborah, Oluwatosin, Gbemisola, Onyemaechi, Obviously, Ilesanmi, Ronke, pastor Segun, Godwin and others I pray that God in his mercies will bless you and protect you all.

Finally, I give thanks again and again to my never changing God for sparing my life and for giving me good health to complete the course of study I will always worship you and adore you because you always answer my prayer.

ABSTRACT

This study investigates the relationship between interest rate and exchange rate and the impact on Nigeria economic growths covering the period from 1970 to 2013, the paper examine the possible direct and indirect relationship between interest rate, exchange rate and economic growth. The study adopts ordinary least square, co- integration test and Granger causality procedure for estimation. From the estimation result, the descriptive statistics for the independent and dependent variables, RGDP, EXCHR, INT, GEXP, INVEST and FPI have a positive mean which range from 0.171941 to 504766. the highest standard deviation is recorded by RGDP while the least standard deviation is recorded by INVEST. The probabilities of Jarque-Bera test of normality for variables are not normally distributed. The OLS regression indicate that the co efficient of the variables EXCHR, INT, GEXP, and FPI exhibit positive signs to the RGDP while the co efficient of INVEST and CAB shows negative signs to the RGDP which means that there is a negative impact of federal expenditures on economic service and transfer payment on economic growth and that federal expenditures on administration as well as social and community service has positive impact on economic growth. Statistically the t-values of the variables under consideration indicate that four of the variables which include EXCHR, INT, GEXP and FPI are statistically significant at 5%. The f- statistics result indicate that 53.74742 for f-calculated are greater than f-tabulated of 3.70 while the R² result of 0.880384 shows that independent variables explain the dependent variables also the Durbin Watson result of 1.541877 is greater than the R² shows that the overall estimate of the regressions is significant statistically. The results of the unit root test indicate that all the variables under consideration are integrated in order one at 5% level of significant. The result of the Johansen co- integration test shows that at least three of the variables have long run relationship. The Granger causality test result obtained shows that there is a unidirectional causality existing from GDP to exchange rate. The result table equally indicate a unidirectional causality from GDP to LOG (INVEST). From the obtained result, there is no direction of causality between LOG (CAB) and LOG (GDP). Also, there exists unidirectional causality running from INT to LOG(GDP). From the obtained result, there is no directional causality between LOG(GEXP) and LOG(GDP) Also the result from the normality test indicate that the chi-square calculated of 2.944212 is less than chi-square tabulated of 5.9944 which shows that the error term is normally distributed. The multicollinearity test from this paper shows that five variables which include EXCGR, CAB, INT, GEXP, and FPI have positive relationship with the RGDP which means that the variables impacted on the economic growth positively. While the variables INVEST shows negative signs which implies that the overall investment in the economy contributed little to the nation's economic growth

Keywords: *interest rate, exchange rate and economic growth.*

TABLE OF CONTENTS

Title page.....	i
Approval page.....	ii
Dedication.....	iii
Acknowledgement.....	iv
Abstract.....	v
Table of content.....	iv

CHAPTER ONE

1.0 Introduction.....	1
1.1 Background of the study.....	1
1.2 Statement of the problem.....	3
1.3 Research objectives.....	5
1.4 Research hypothesis.....	5
1.5 Scope of the study.....	6
1.6 Significant of the study.....	6
1.7 Justification of the study.....	7
1.8 limitation of the study.....	7
1.9 Organization of the study.....	8
1.9.1 Definition of terms.....	8

CHAPTER TWO

2.0 Introductions.....	10
2.1 The conceptual issues.....	10
2.1.1 Definition of interest rate.....	11
2.1.2 Determinant of interest rate.....	11
2.1.3 Definition of exchange rate.....	13
2.1.4 Determinant of exchange rate.....	14
2.1.5 Definition of economic growth.....	15
2.1.6 Determinant of economic growth.....	16
2.1.7 The exchange rate system in Nigeria.....	17
2.1.8 The interest rate system in Nigeria	18
2.2 The theoretical framework.....	18
2.2.1 The purchasing power parity theory.....	19
2.2.2 Traditional flow model on exchange rate.....	20
2.2.3 Irving fishers model of interest rate.....	20
2.2.4 Analytical framework on interest rate.....	22
2.3 Empirical literature review.....	22-27

CHAPTER THREE

3.0 Research methodology.....	28
3.1 Research designed.....	28
3.2 Model specification.....	29
3.3 Estimation procedure.....	29
3.4 Method of evaluation.....	30
3.5 Data required and source.....	30

CHAPTER FOUR

4.0 Result analysis.....	31
4.1 Descriptive statistics.....	32
4.2 Regression result.....	33
4.3 Statistical criterion.....	35
4.4 Econometrics criterion.....	35
4.4.1 Unit root.....	36
4.5 Co-integration test.....	37
4.6 Causality test.....	38
4.7 Normality test.....	39
4.8 multicollinearity test.....	40
4.9 Heteroscedasticity test.....	42

CHAPTER FIVE

5.0 summary, conclusion and recommendation.....	43
5.1 summary.....	43
5.2 conclusion.....	44

5.3 recommendation.....46

References

Appendix

CHAPTER ONE

1.0 INTRODUCTION

1.1 BACKGROUND TO THE STUDY

Exchange rate and interest rate remain important issues of discourse in the International finance as well as in developing nations, with more economies embracing trade liberalization as a requisite for economic growth (Obaansa and Okoroafor, 2013). According to the authors, theoretical and empirical literatures abound, devoted to identifying the most appropriate regime that boosts economic growth and exact significant impacts on macroeconomic and financial variables. Anthony, Uzomba and Olatunji(2013) stated that the real interest rate is an important determinant of the savings and investment behavior of households and enterprises and therefore of key importance in terms of cyclical development and long-term economic growth. This can be seen from an analysis of real interest rate movements over the past 40 years. Interest rate reform, a policy under financial sector liberalization was to achieve the efficiency in the financial sectors and engendering financial deepening in Nigeria, financial sectors reforms began with the deregulation of interest rate in 1987(Obamuyi,2009). Equally, Ikhide and Alawode (2001) in Obamuyi (2009) stated that the resulting low or negative interest rate discourage savings mobilization and enhancing of the mobilized savings through the financial system. This has a negative impact on the quantity and quality of investment and hence economic growth.

The relationship between interest rates and economic growth is derived from the use of interest rates as a means for achieving desired economic conditions. Central banks use monetary policies as a means of tinkering with interest rates and economic growth. They usually do this by either

increasing or decreasing the rate of the interest on the money that they remit to the other banks in the economy. Economies have cycles that are used as a means of gauging the health of such an economy and any gains that may have been made in the economy by the application of several monetary and fiscal policies. When the parties with vested interest, such as economists, businessman and businesswoman, the government and the various banks observe the macroeconomic and microeconomic trends after analyzing the periodic economic reports, they will come to various informed conclusions regarding the health of the economy. Where there are unfavorable micro economic indicator like rising unemployment and inflation, the central bank might decide to raise the interest rate on the money remitted to the banks. This establishes a link between interest rate and economic growth, because the purpose of increasing the interest rate is to address the unfavorable element in the economy that is detrimental to the economic growth.

Moreover an increase in the interest rates means that they will tighten their lending policies and also increase the rate of interest pay on savings deposits. When consumers discover that they cannot have the same easy access to difference types of finance for their consumption, they will decrease the rate of such consumption. Sangosanya and Akinwale (2012) stated that objectives of exchange rate policy are derived from overall objectives of macroeconomic management to achieve internal and external balances in the medium term. The exchange rate regime refers to the prevailing institutional framework through which the international value of a country's currency is determined. An increase number of exchange rate adjustment have been carried out in many developing countries especially in Nigeria as part of the structural adjustment programmed and as part of measures to address the several problems of the flow of foreign exchange these problem were either in the form of reduced inflow or distortion in allocation of foreign exchange (Sangosanya et al 2012)

The exchange rate and interest rate policies in Nigeria for example have changed within the time frame from regulated to deregulated regimes. However the impact of such policies on economic growth in Nigeria has remained controversial Anthony, Uzomba, and Olatunji (2013). Some authors argue that high cost of credit is created which rather hampers investment in the economy. In the early 1980s, the Nigerian economy began to witness crises with devastating consequences on the world commodity prices as a result of global economic recession. This subsequently created structural imbalances occasioned by the collapse of oil prices which adversely affect the nation's revenue. As a result, large fiscal deficit, huge external current account deficit, surging unemployment and inflation rate amidst declining domestic investment input were experienced (Anthony et al 2013). By mid 1986 the government in collaboration with the IMF/World Bank initiated structural adjustment programmed (SAP) aimed at sorting out the then crises with the ultimate intension of setting the economy on the path of growth. Other policy response applied within the last decade with similar purpose is the national economic empowerment and development strategy (NEED) introduced in 2004. The general purpose of this all encompassing policy is to stem the tide of unemployment especially amongst the youth and ever rising price level in the economy. At the moment, the economic development blue print slogan is the vision 20: 20. Though the macroeconomic environment seems to be relatively stable, the economic fundamentals like inflation, savings, investment, growth, unemployment and poverty are still knotty issues of great concern. (Anthony et al 2013).

1.2 STATEMENT OF THE PROBLEM

According to Soyibo (2010), though the economic reforms of the 1980s witnessed some significant level of development especially in the financial system, there were still so many unresolved economic problems. The author noted that, interest rate has remained extremely high

with devastating impacts on the cost of borrowing and investment in Nigeria, which has been the bane of discouragement of foreign investment. The exchange rate, which was hitherto at par with US dollar prior to SAP is now exchanging for about N160 to a US dollar. The anticipated growth of the economy to absorb the unemployed has remained elusive. Of particular concern is the expected diversification of the Nigerian economy from the state of monoculture, which still remains a mirage as the proportion of manufactured exports to total imports is at low level (Soyibo, 2010). The oil sector is still maintaining its dominant posture as the major source of foreign exchange in the economy. The real sectors of the economy such as Agriculture and Industry are consistently declining (Okoroafor, 2010).

Furthermore, the economy is still and essentially bedeviled by large size and inefficient public sector, low rates of savings and investment, persistent large budget deficits, and inconsistent macroeconomic environment. All these have hampered the growth of the economy (Sanni, 2006), and Nigerians still remain expectant to brighter days ahead that improvements in the exchange rate and interest rate management could make a difference to the economic growth efforts. However, the observed facts of exchange rate and interest rate management on macroeconomic variables that would culminate into economic growth are sluggish and not impressive let alone being sustainable. In this regard, Oweoye and Onagowora (2007) observed that what Nigeria gains from International trade and domestic investment is not consistent with the reform put in place expected to attain robust result. Accessing of funds for investment is still a challenge with lending rate being very high compared to deposit rate in the economy. The end result is that almost four decades of policy summersault especially in exchange rate and interest

rate management, the Nigerian economy has not benefited immensely from the processes. From the foregoing, the question this study tends to answer is therefore stated as follows:

What impact does interest rate and exchange rates have on the Nigeria economy?

What is the direction of causality between interest rate, exchange rate and economic growth in Nigeria?

Are there other variables that affect economic growth in Nigeria?

What are the policy implications for the effect of interest rate and exchange rate on the overall growth of the Nigerian economy?

1.3 RESEARCH OBJECTIVES

The broad objective of the study is to evaluate the impact of interest rate and exchange rates on the Nigeria economy. The specific objectives are

- (1) To ascertain the direction of causality between interest rate, exchange rate and economic growth in Nigeria
- (2) To explore other variables that can affect economic growth in Nigeria
- (3) To proffer policy solutions that would enhance the growth of the Nigerian economy

1.4 RESEARCH HYPOTHESIS

Base on the research objectives above, the following research hypothesis would guide this study:

H₀: interest rate and exchange rate does not have impact on the Nigeria economy.

H₁: interest rate and exchange rate has impact on the Nigeria economy.

H0: there is no direction of causality between interest rate, exchange rate and economic growth in Nigeria.

H1: there is direction of causality between interest rate, exchange rate and economic growth.

H0: there are no other variable that affects economic growth in Nigeria.

H1: there are other variable that affects economic growth in Nigeria.

1.5 SCOPE OF THE STUDY

This study will rely on the secondary data for the study of which the source are the central bank of Nigeria (CBN) statistical bulletin 1970 to 2013 version. This project centers on the relationship between interest rate, exchange rate and their impact on economic growth in Nigeria from 1970 to 2013, it is expected in course of this study that the researcher will examine and appraise the nexus between interest rate, exchange rate and its impact with regards to growth in the Nigerian economy.

1.6 SIGNIFICANT OF THE STUDY

The significance of this research work lies in the fact that if the causes of the unstable exchange rate of the naira is identified and corrected, the economy will rapidly grow and develop into an advanced one. This is so because if the unstable exchange rate of the naira is proved to be affecting badly the macro-economic major variables, real interest rate, inflation rate, gross domestic product and trade openness of the country, attempts should be made to stabilize the exchange rate. This is because these variables are gauge for the importantly measurement of growth and development of any economy. Importantly if there is reduction in the level of interest rate, people will tend to borrow and invest by this there will be increase in the rate of growth in

an economy. this study would help the government and the central bank of Nigeria (CBN) to identify the strength and weakness of each foreign exchange system and hence adopts the policy that suits the economy best this will definitely enhance growth and development of the economy, the study will also serve as a guide to future researchers on this subject

1.7 JUSTIFICATION OF THE STUDY

many authors like Obansa and Okoroafor (2013),Anthony, Uzomba and Olatunji (2013) have research on the relationship between interest rate exchange rate and the impact on Nigeria economic growth covering the time period from 1970 to 2010 and from 1975 to 2008 devoted to identifying the most appropriate regime that boosts economic growth and exact significant impacts on macroeconomic and financial variables also that the real interest rate is an important determinant of the savings and investment behavior of households and enterprises and therefore of key importance in terms of cyclical development and long-term economic growth. This research work also investigate the relationship between interest rate and exchange rate and the impact on the Nigeria economic growth covering the time period from 1970 to 2013 which aim to fill the gap and to proffer policy solutions that would enhance the growth of the Nigerian economy and also to evaluate the impact of interest rate and exchange rates on the Nigeria economy.

1.8 LIMITATION OF THE STUDY

The study is structured to evaluate the Nigeria exchange rate and interest rate as the pilot of economic growth and development. The study is therefore limited to the core economic growth in Nigeria and not the socio- political factors of the foreign exchange rate and interest rate.

1.9 ORGANIZATION OF THE STUDY

This study will be divided into five chapters: chapter one will capture the introduction while chapter two will focus on the literature review; chapter three will be on the methodology utilized for the study while chapter four is focused on the data analysis and interpretation; chapter five gives the summary, conclusion and recommendation.

1.9.1 DEFINITION OF TERMS

Exchange Rate: an exchange rate between two currencies is the rate at which one currency will be exchanged for another. It is also regarded as the value of one country's currency in terms of another currency kuncoro (2012)

Interest rate: The amount charged, expressed as a percentage of principal, by a lender to a borrower for the use of assets. Interest rates are typically noted on an annual basis, known as the annual percentage rate (APR). The assets borrowed could include, cash, consumer goods, large assets, such as a vehicle or building. Interest is essentially a rental, or leasing charge to the borrower, for the asset's use. In the case of a large asset, like a vehicle or building, the interest rate is sometimes known as the "lease rate". When the borrower is a low-risk party, they will usually be charged a low interest rate; if the borrower is considered high risk, the interest rate that they are charged will be higher.

Economic growth: Economic growth is the increase in the market value of the goods and services produced by an economy over time. It is conventionally measured as the percent rate of increase in real Gross Domestic Product, (GDP). Of more importance it is the growth of the ratio of GDP to population, which is also called per capita income. Growth is usually calculated in real terms i.e., inflation-adjusted terms – to eliminate the distorting effect of inflation on the price

of goods produced. In economics, "economic growth" or "economic growth theory" typically refers to growth of potential output, i.e., production at "full employment."

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

This chapter focuses on explaining the topic of this research which is the relationship between interest rate, exchange rate and its implication on economic growth and this can be done in three aspects. The conceptual framework that explain the three major terms in this project work which are interest rate, exchange rate and economic growth. It also looks at the theories i.e. the theoretical framework and finally discusses the empirical review which gives us previous information gotten from the project work.

2.1.1 THE CONCEPTUAL ISSUES

2.1.2 Definition of interest rate

An interest rate is the rate at which interest is paid by borrowers' that is (debtors) for the use of money that they borrow from the lenders (creditors). Specifically the interest rate is the percentage of principal paid a certain numbers of times per period of all period during the total term of the loan or credit. Interest rate is normally expressed as a percentage of the principal for a period of one year sometimes they are express for different period such as a month or a day. Different interest rate exists parallely for the same or comparable time period (Anyanwoncha 1993). Interest rate can be described as a value that is gained in the effort of a value that has been saved or invested. These rates will reflect the interaction between exchanges of money (Patterson 1999). There are short term and long term rates according to Patterson (1999). Short term rates is influenced by the Central Bank, thus money is being monopolized accordingly. A long term rate

shows the condition of the current economy and the possibility of inflation. Both of the rates are linked and work with one another. The behavior of interest rates, to a large extent, determines the investment activities and hence economic growth of a country. Investment depends upon the rate of interest involved in getting funds from the market, while economic growth to a large extent depends on the level of investment. According to Jhingan (2003), if interest rate is high, investment is at low level and when interest rate falls, investment will rise. There is therefore a need to promote an interest rate regime that will ensure "inexpensive" spending for investment and consequently enhancing economic growth at low financial cost

According to Keynes, interest is the reward for not hoarding but for parting with liquidity for a specific period of time. Keynes' definition of interest rate focuses more on the Lending rate; Adebisi (2002) defines interest rate as the return or yield on equity or opportunity cost of deferring current consumption into the future. Some examples of interest rate include the saving rate, lending rate, and the discount rate.

2.1.3 Determinant of interest rate

An interest rate is the cost of borrowing money. Or, on the other side of the coin, it is the compensation for the service and risk of lending money. Without it, people would not be willing to lend or even save their cash, both of which require deferring the opportunity to spend in the present. But prevailing interest rates are always changing, and different types of loans offer various interest rates. If you are a lender, a borrower or both, it's important you understand the reasons for these changes and differences. Hansen (2013).

Interest rate levels are a factor of the supply and demand of credit: an increase in the demand for credit will

raise interest rates, while a decrease in the demand for credit will decrease them. Conversely, an increase in the supply of credit will reduce interest rates while a decrease in the supply of credit will increase them.

The supply of credit is increased by an increase in the amount of money made available to borrowers. For example, when you open a bank account, you are actually lending money to the bank. Depending on the kind of account you open (a certificate of deposit will render a higher interest rate than a checking account, with which you have the ability to access the funds at any time), the bank can use that money for its business and investment activities. In other words, the bank can lend out that money to other customers. The more banks can lend, the more credit is available to the economy. And as the supply of credit increases, the price of borrowing (interest) decreases.

Credit available to the economy is decreased as lenders decide to defer the re-payment of their loans. For instance, when you decide to postpone paying this month's credit card bill until next month or even later, you are not only increasing the amount of interest you will have to pay, but also decreasing the amount of credit available in the market. This in turn will increase the interest rates in the economy. Desroches and Francis(2010)

Inflation

Inflation will also affect interest rate levels. The higher the inflation rate, the more interest rates are likely to rise. This occurs because lenders will demand higher interest rates as compensation for the decrease in purchasing power of the money they will be repaid in the future. Ford and Laxton (1999)

Government

The government has a say in how interest rates are affected. The Nigeria Federal Reserve (the Fed) often makes announcements about how monetary policy will affect interest rates. The federal funds rate, or the rate that

institutions charge each other for extremely short-term loans, affects the interest rate that banks set on the money they lend; the rate then eventually trickles down into other short-term lending rates. The Fed influences these rates with "open market transactions", which is basically the buying or selling of previously issued Nigeria securities. When the government buys more securities, banks are injected with more money than they can use for lending, and the interest rates decrease. When the government sells securities, money from the banks are drained for the transaction, rendering fewer funds at the banks' disposal for lending, forcing a rise in interest rates.

2.1.4 Definition of exchange rate

Exchange rate is a value that a currency has compared to another currency (Krugman, 2001). Exchange rate can be divided into two categories, fixed exchange rate and flexible exchange rate. In a fixed exchange rate, it is set by the government, whereas flexible exchange rate is set by the market with or without the influence of the government in the effort to stabilize the monetary (Kuncoro, 2001).

2.1.5 Determinant of exchange rate

The exchange rate is one of the most important determinants of a country's relative level of economic health. It plays a vital role in trade, which is critical to most free market economies. But exchange rates matter on a smaller scale too. They even impact the real return of an investor's portfolio. Akinola and Odusola (2001).

Here we'll look at the main factors influencing exchange rates.

1. **Differentials in Inflation.** As a general rule, a country with a consistently lower inflation rate exhibits a rising currency value, as its purchasing power increases relative to other currencies. Those countries with higher inflation typically see depreciation in their currency's value in relation to the currencies of their trading

partners. Oriavwote and Eshenake (2012)

2. Differentials in Interest Rates. By manipulating interest rates, central banks exert influence over both inflation and exchange rates. Higher interest rates offer lenders a higher return relative to other countries. Hakkio (1996). The impact of higher interest rates is mitigated, however, if a country's inflation is much higher than other countries', or if additional factors serve to drive their currency value down. The opposite relationship exists for decreasing interest rates.

3. Current-Account Deficits. The current account is the balance of trade between a country and its trading partners, reflecting all payments between countries for goods, services, interest and dividends. A deficit in the current account shows a country is importing goods and services more than it is exporting them. The country will then typically borrow capital from foreign sources to make up the deficit, causing its currency to depreciate relative to its trading partner. Khan (2010)

4. Public Debt. Countries will engage in large-scale deficit financing to pay for public sector projects using governmental funding. While such activity stimulates the domestic economy, nations with large public deficits and debts are less attractive to foreign investors. This is because a large debt encourages more inflation, and higher inflation translates into lower currency value. Madura (2008).

5. Terms of Trade. A country's terms of trade is a ratio comparing export prices to import prices? If the price of a country's exports rises by a greater rate than that of its imports, its terms of trade have favorably improved, which tends to show currency appreciation. However, if the price of a country's imports rises more than the rate of exports, their currency's value will decrease in relation to trading partners. Bleaney (1996)

6. Political Stability and Economic Performance. Foreign investors inevitably seek out stable countries with strong economic performance in which to invest their capital. Political turmoil, for example, can cause a loss of

confidence in a currency, and a movement of capital to the currencies of more stable countries. Stiglitz (1998)

The return of a portfolio that holds currency is affected by that currency's exchange rate. Moreover, the exchange rate is highly correlated to other income factors, such as interest rates, inflation and even capital gains from domestic securities. Madura (2008)

2.1.6 Definition of economic growth. Economic growth is the process by which national income or output is increased. An economy is said to be growing if there is a sustained increase in the actual output of Goods and services per head. The rate of economic growth therefore measures the percentage increase in real national output, during a given period of time, usually a year, over the preceding year's level Anyanwoncha (1993). Economic growth is a process whereby the real per capital income of a country increases over a long period of time. economic growth is measured by the increase in the amount of goods and services produced in a country. Economic growth occurs when an economy's productive capacity increases which, in turn, is used to produce more goods and services. A nation's economic growth can be measured in terms of its national income and the real per capital income. Economic growth is a very important goal of macroeconomic policy because of the role it plays in economic development. Jhingan (2003)

According to Herrick and Kindleberger (1983) economic growth involves the provisions of inputs that lead to greater outputs and improvements in the quality of life of a people. Jhingan (1985) refers to it as a quantitative and sustained increase in a country's per capita output or income accompanied by expansion in its labour force, consumption, capital and volume of trade and welfare. According to Todaro (1977) and the World Bank (1997) to determine the growth of any country's economy certain indicators are usually taken into consideration.

These indicators include: (i) the nation's Gross Domestic Product (GDP); (ii) the nation's per capital income (iii) the welfare of the citizens; and (iv) the availability of social services and accessibility of the people to these services. Gross Domestic Product refers to the total output of final goods and services produced in a country during any given period of time by residence of a country irrespective of their nationality.

2.1.7 Determinant of economic growth

- Increased investment in physical capital such as factories, machinery and roads will lower the cost of economic activity.
- An increase in the labour force this means larger population and manpower, however, this could lead to high unemployment.
- An increase in investment in human capital can improve the quality of the labor force. A skilled labour force has a significant effect on growth.
- Improvement of technology. This could increase productivity with the same levels of labour, thus accelerating growth and development.

2.1.8 Exchange rate system in Nigeria

Nigeria practiced fixed exchange rate regime from Independence up to 1986 when it was abolished and replaced with flexible exchange rate regime. The flexible exchange rate regime as it were is the follow-up to the structural Adjustment Programmed (SAP), designed to devalue the naira in order to encourage exports in Nigeria. But Nigeria is noted as an import dependent economy, particularly for her capital goods. And the manufacturing sector to which exchange rate devaluation was targeted to encourage for increased export is dominated by multinational corporations and incapacitated by low capacity utilization.

Obansa, Okoroafor, Aluko and Eze (2013).

Accordingly, Olisadebe (1991) showed a worrisome development in the naira exchange rate especially from the period of SAP as it continued to depreciate. As a result people have continually called for the fixing of the exchange rate even at par with the United State dollar. On the equilibrium of exchange rate, the author further maintained that such rate ensures the simultaneous attainment of internal and external balance. Moreover the choice of exchange rate regime is indeed significant for economic growth efforts, but depends on the level of development of the economy in question (David 2010). As for the industrialized economies with complete markets and deeper financial markets, real and financial shocks are better managed that economic growth rate does not depend much on their choice of exchange rate regimes. Although a more flexible exchange rate regime can permit an economy to make necessary adjustment more rapidly; but on the margin, more flexible regime is weakly associated with slightly higher growth rates. In developing and emerging economies such as those in Asia and Africa with less depth in the financial markets, and more incomplete markets, they are less able to deal with real and financial shocks, and hence the choice of exchange rate regime is more important (Oyejide and Udun, 2010)

2.1.9 Interest rate system in Nigeria

McKinnon (1973) and Shaw (1973) postulates that financial liberalization in financially repressed developing countries would induce higher savings, especially financial savings, increase credit supply, stimulate investment and hence help to boost economic growth. The authors stated that interest rate regulations usually lead to low and sometimes negative real interest rates, which is the cause of unsatisfactory growth performance of developing countries. They were of the view that financial repression through interest rates ceiling keeps real

interest rates low and thus discourages savings and consequently, stifles investment. Thus investment is constrained as a result of low savings resulting from financial repression. The quality of investment will also be low because the projects that would be undertaken under a regime of repression would have a low rate of yield. With interest rate deregulation, real interest rates would rise thereby increasing both savings and investment. The increased investment results in the rationing out of low-yielding projects and subsequent undertaking of high-yielding projects. This would therefore boost economic growth. Both McKinnon and Shaw advocated that interest rates deregulation was needed to remedy the problems caused by financial repressive policy of developing countries.

There has been widespread belief that the original theory of financial liberalization which the Breton Woods Institution upheld was sold to many developing countries. In particular, the pre-conditions for their implementation and the consequences of the theory were not taken as part of the bargain for their effectiveness by these countries. From the early 1970s, the relationship between interest rate liberalization and economic growth has been an issue of great debate both theoretically and empirically. It is believed that low interest rate would promote investment spending and economic growth in both developed and developing economies in line with the Keynesians and Neoclassical theories (Odhiambo, 2008).

2.2 THE THEORETICAL FRAMEWORK

2.2.1 The purchasing power parity theory

The purchasing power parity (PPP) is one of the earliest and perhaps most theory of exchange rate between two currencies would be equal to the relative national price levels, it assumes the absence of the trade barriers and transactions cost and existence of the purchasing power parity (PPP). In its version the purchasing power parity (PPP) doctrine equates the equilibrium exchange rate of the ratio of domestic to foreign price level (Lyon, 1992). The PPP relationship becomes a theory of exchange rate determination by introducing assumptions about the behavior of importers and exporters in response to changes in the relative costs of national market baskets. Recall, in the story of the law of one price, when the price of a good differed between two country's markets, there was an incentive for profit-seeking individuals to buy the good in the low price market and resell it in the high price market. Similarly, if a market basket, containing many different goods and services, costs more in one market than another, we should likewise expect profit-seeking individuals to buy the relatively cheaper goods in the low cost market and resell them in the higher priced market. If the law of one price leads to the equalization of the prices of a good between two markets, then it seems reasonable to conclude that PPP, describing the equality of market baskets across countries, should also hold (Argh 1994).

To consider the case in which the exchange rate is too low to be in equilibrium. This means that,

$$E_{p/\$} < \frac{CB_p}{CB_\$} \Rightarrow CB_p E_{p/\$} < CB_\$$$

where $E_{p/\$}$ is the exchange rate that prevails on the spot market and, since it is less than the ratio of the market basket costs in Nigeria is also less than the PPP exchange rate. The right-hand side of the expression is rewritten to show that the cost of a market basket in the Nigeria evaluated in pesos, $CB_p E_{p/\$}$, is less than the cost of the market basket in another country also evaluated in pesos. Thus, it is cheaper to buy the basket in the Nigeria or, more profitable to sell items in the market basket in another country. (international finance and policy 1999).

2.2.2 The traditional flow model on exchange rate

The traditional flow model, views exchange rate as the product of the interaction between the demand for and supply of foreign exchange (Augustus, 2003). In this model, the exchange rate is in equilibrium when supply equals demand for foreign exchange, (Olisadebe, 1991). The exchange rate adjusts to balance the demand for foreign exchange depends on the demand domestic resident's have for domestic goods and assets. On the assumption that the foreign demands for domestic goods is determined essentially by domestic income, relative income plays a role in determined (Joyce 2012).

2.2.3 Irving fishers model of interest rate

Irving Fisher's theory of interest rates relates the nominal interest rate i to the rate of inflation π and the "real" interest rate r . The real interest rate r is the interest rate after adjustment for inflation. It is the interest rate that lenders have to have to be willing to loan out their funds (Watkins 1997). The relation Fisher postulated between these three rates is:

$$(1+i) = (1+r) (1+\pi) = 1 + r + \pi + r \pi$$

This is equivalent to:

$$i = r + \pi (1 + r)$$

Thus, according to this equation, if π increases by 1 percent the nominal interest rate increases by more than 1 percent.

This means that if r and π are known then i can be determined. On the other hand, if i and π are known then r can be determined and the relationship is

$$1+r = (1+i)/(1+\pi)$$

or

$$r = (i - \pi)/(1+\pi)$$

When π is small then r is approximately equal to $i-\pi$, but in situation involving a high rate of inflation the more accurate relationship must be taken into account.

2.2.4 Analytical framework on interest rate

The simple analytics of the relationship between interest rates and economic growth can be illustrated with a constant-returns-to-scale production function in which capital (K), labor (L), and labor-augmenting technical change (E) are combined to produce aggregate output (Y):

$$(1) \alpha\alpha=1)(LEKY.$$

Assume further that growth of the labor force (n) and labor-augmenting technical change (g) are both determined exogenously, capital depreciates at δ , and the share of gross income that is saved is given by s . In addition, in a closed-economy all of the saving is devoted to increasing the capital stock. This is the essence of the neoclassical model developed by Solow (1956) and Swan (1956). In steady-state, both output and the capital stock will grow at the rate of $n+g$, and the rate of return is given by:

$$r = \alpha(n+g+\delta)s.$$

In the long run, the rate of return will vary positively with the growth of the economy and the rate of capital depreciation, and negatively with the rate of saving.

However, the above formulation is influenced both by the specification of a fixed saving rate and the assumption of a closed economy. Cutler (1990) in the author exploration of the effects of declining population