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THE EFFECT OF EXCHANGE RATE FLUCTUATIONS ON ECONOMIC GROWTH IN NIGERIA (1970-2008).

BY

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BEING AN ORIGINAL ESSAY SUBMITTED TO THE DEPARTMENT OF ECONOMICS FACULTY OF SOCIAL SCIENCES, LAGOS STATE UNIVERSITY OJO.

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CERTIFICATION

This is to certify and acknowledge that this project work was written under my supervision ITALUME JOHN IKHIANOSIMEH with Matric No. 03/06-IS/01/119 in Economic Department, final year undergraduate student in partial fulfillment of the requirement for the Award of Degree of Bachelors of Science (B.Sc. Hons) in Economic by Faculty of Social Science, Lagos State University Ojo.

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This work is dedicated to the ALMIGHTY GOD

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Italume John Ikhianosimeh

ABSTRACT

This research work is based on the impact of exchange rate depreciation on the Nigerian Economic growth. Exchange rate depreciation is a reduction in a reduction in the value of a country's currency over other foreign currencies however, this is mostly implemented in order to expand the production capacity of an economy as well as encouraging local industries.

This research work is imported because depreciation in the exchange rate has been a common practice adopted by the Nigerian government and it has not actually yielded positive result but has only affected the standard of living of the Nigerian citizens due to inadequate provision of basic measures to encourage a robust production capacity. This research work also aims to determine other macro-economic variables that can affect the economic growth rate. The research methodology will involve data collected from the National Bureau of Statistics, Central Bank of Nigeria and other related sources. The models used were the ordinary least sequence (OLS), cointegration and the Error Correction Model. From the findings, it can be deduced that stability in the monetary supply and provision of infrastructures in essential alongside with a controlled depreciation in the exchange rate in order to ensure consistency in economic growth.

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CHAPTER ONE

1.1   INTRODUCTION

The fundamental of achieving economic growth in a nation rests upon its ability to control basic macro economic problems which may halt the stability of economic growth in the country. In recent times, one finds various social, economic and political problems even in the daily news (Newspapers, magazines, etc) such as unemployment, balance of payment problem, exchange rate depreciation, exchange rate management, inflation, fraud and corruption all over the places.

Whatever may be the nature of these problems, they demand quick solutions.

Among the goals of macro economic policy is the achievement of favourable balance of payment which demands an adequate management of the exchange rate system in order to also enhance economic growth.

Exchange rate is the price of one currency in terms of another currency (Jhingan, 2008, pg 757). Exchange rate is a vital macroeconomic tool which is used to regulate the prices of country's export and import thus, it measures the worth of a domestic economy in terms of another economy especially in relation to trading among countries. As a relative measure of the worth of a domestic economy, conceptually relates the purchasing power of a domestic currency in terms of the goods and services it can purchase in exchange with another country's currency over a given period of time.

The exchange rate is useful for macroeconomic management since it reflects the performance of both the domestic and external sectors of the economy (Obaseki, 2000). This reveals that the fact that the exchange rate trails economic development and also helps an economy to manage its

macroeconomic objectives, in terms of pivoting the realization and operations of other macroeconomic variables serve as a major aspect which solves macroeconomic problems. However, for proper attainment of these goals, the government has to design an appropriate exchange rate policy which will ensure adequate management and reduction of the effects of depreciation in the exchange rate.

Exchange rate depreciation is a reduction in the external value of a currency in terms of other countries currencies. Considering the fact that income generation is a major concern to every government, most economies in the world depend on the exchange rate system since it influences the volume and value of the inflow of their currency. However developing economics experience balance of payment problems along side with depths from developed nations and financial institutions therefore

they fake delight in devaling their currency as well as depreciating the rate of which currency is being exchanged with the rate at which currency is being exchanged with other currency in the foreign exchange market. It is often accepted that a medium by which the exchange rate can easily be depreciated is by adopting a flexible exchange rate system and also floating it in the foreign exchange market however, this system should allow market forces to determine the exchange rate but sometimes, most government in developing nations legislatively influences these rate by setting limits at which the rate should be encouraged although there are administrative controls but should not be made to disturb the operations of the market. Therefore, an efficient exchange management system has to be implemented.

However, in ensuring the efficiency of this policy measure appropriate financial discipline has to be implemented. In contrast to this, proponents of exchange rate flexibility opined that a continuous depreciation will cause financial crisis without appropriate exchange rate management.

Following the context of the Nigerian economy, experience has revealed that the main factors that influence exchange rate are; relative rates of inflation, rate of economic growth and the growth in money stock (financial times 2002). It is imperative to observe that growth in money stock both the broad money and the narrow money i.e ($M2$ and $M1$ respectively) increased due to the need for expansionary fiscal operations which has kept great pressure on the strength of the Nigerian currency hence, the devaluation of the naira therefore, it can be envisaged that the exchange rate has always been a very important instrument of economic management and taken to be an essential macroeconomic indicator used in assessing the overall performance of the economy.

Exchange rate fluctuations is described as the swing in the exchange rate of a country over different periods of time.

Exchange rate depreciation, through a medium of encouraging local industries as well as increasing the productive capacity of the economy and also solving

balance-of payment has sincerely affected economic growth in the country due to inefficiency and makes the exchange rate to fluctuate as well as inadequate measures to cushion the economic implications of fluctuations in the exchange rate. In the Nigerian economy, the deprecation of the exchange rate has since persisted since the floating of the naira and the adoption of the flexible exchange rate in September 1986 in order to enhance the successful implementation of the structural adjustment programme (SAP). In line with this development program, several foreign exchange markets were established in order to adequately bring the exchange rate system operations into control and efficient management.

The essential goal of the Nigeria government to adopt an exchange rate depreciation policy was to consolidate the objectives of SAP which was solely to embark on export diversification, less import dependence and achieving balance of payment equilibrium. However, these have proven difficult to accomplish due to the inability of the government to ensure a balance in other economic policy measures so as to ensure a successful exchange rate depreciation and management system inappropriate exchange rate management in the nation's economy has impacted negatively on overall macroeconomic management (Osaka, 2003).

Furthermore, the recent exchange rate depreciation policy adopted by the Nigerian monetary authority was aimed at solving the balance of payment deficit problem and also to guide against a deepen economic recession currently halting the economies of the Western World. In order to achieve these objectives, efficient management strategy of the exchange rate was initiated so as to facilitate the operations of the foreign exchange market. The Retail Dutch Auction System (RDAS) was re-introduced in February 2009.According Professor Charles Soludo "the RDAS was to enable the official exchange rate brokers in commercial banks to assists their customers in buying the foreign currency in order to meet their demand" this in reality is to ensure the stability of the exchange rate while making export cheaper.

Exchange rate depreciation in an economy helps in expanding the productive capacity of the country. The value of the naira has constantly been on the downward trend in the foreign exchange market as a result of depreciation in the exchange rate. This development is causing some problems in the financial circle due to the weakness of the national currency.

The continuous depreciation of the exchange rate should be a major source of concern to all Nigerians. It is factual that the state of the naira is a reflection of the state of affairs in the country. The exchange rate of a country's currency, is not just an economic indicator, it is also a status symbol of the nations economy and a measure of dignity.

However, one of the factors that counted as the problem militating against economic development was the instability in the exchange rate. The stability of the exchanger rate is important due to the fact that it provides a tool for measuring the status of the economy and the confidence of investors the opportunity make medium or long-term investment plan.

Furthermore, investors also take advantage of exchange rate depreciation in currency speculations rather than embarking on direct production activities. They may find currency speculation more profitable, lending to diversion of investible funds from productive sectors to non-productive sectors.

The exchange rate is under depreciation because, the Nigerian economy has a weak productive base. The manufacturing capacity has consistently been declining due to several economic factors however, according to Ajagu (2001) one of the failures of the sector was its in ability to show positive result for the foreign exchange access and import protection support given to the sector by various government before the structural adjustment program (SAP). This is because, export can only increase if the manufacturing sector is effective and expands its capacity in economy.

therefore, increased exports enables the economy to generate more revenue to finance other economic activities.

Furthermore, one of the major objective of the Nigerian government is to achieve increase in the Gross Domestic Product thereby increasing the rate of economic growth this can only be achieved by a stabilized exchange rate hence, the GDP depends on the level of exchange rate while a depreciation in the exchange rate affects the Gross Domestic Product negatively due to the reduced value of the national currency without adequate economic measures.

1.2 STATEMENT OF THE PROBLEM

Although the problems of developing countries are enormous. In this research work, our attention shall be focused on the Impact of Exchange Rate Depreciation on Economic Growth in Nigeria.

It is apparent that the Nigerian government has recently embarked on a policy to depreciate the exchange rate in order to encourage the local industries and investors as well as expanding the productive base of the economy. This certainly has not reflected the desire of the government but in contrast, exchange rate depreciation has led to declining growth rate due to inappropriate policy control measures along side with infrastructural facilities which will encourage the expansion of the productive capacity of the country.

Persistent depreciation in the exchange rate of the Nigerian economy has resulted to a decrease in the Gross domestic product due to a full in government revenue generated from exportation of crude oil.

The fall in oil prices has led to a decrease in the flow of foreign currency thereby the high demand of investors for foreign currency needed for importation. Depreciating the exchange rate has not been able to stimulate the economic growth hence; it has only paved a way for the setting-in of economic recession. Thereby affecting the standard of living among people in the country.

Therefore, exchange rate depreciation has been concerned as a serious issue in our economy which has affected the growth rate of the Nigerian economy.

1.3 OBJECTIVE OF THE STUDY

This research work is undertaken to investigate the impact of exchange rate depreciation on economic growth in the Nigerian economy. The other relevant objectives of this study include:

i.   Examine the various exchange rate regime in Nigeria
ii. To examine the impact of exchange rate on economic growth in Nigeria.

1.4 SCOPE OF THE STUDY

This research will attempt to examine the depreciation of exchange rate and its impact on the Nigerian economy. However, the transmission mechanism of this impact shall be envisaged by considering the various levels of exchange rate. The analysis relied on time series data insufficiency of data and funds.

1.5 RESEARCH HYPOTHESIS

The basis of this research work is to find out if there is any relationship between exchange rate depreciation and economic growth as well as other factors which influences the exchange rate.

H_o: Exchange rate fluctuations does not have significant impact on Gross domestic product growth rate.

H_1:   Exchange rate fluctuations has significant impact on Gross domestic product growth rate.

1.6 SIGNIFICANCE OF THE STUDY

Much has been done to the nation's economy in the name of depreciation of the exchange rate and propounding adequate management system. Monetary authorities have advocate that the only solution to our balance of payment deficit crisis is only to adopt a devaluation of our currency however, the favourable balance of payment we aim has never been achieved.

The current economic dispensation in the country has been traced to exchange rate depreciation because the prices of domestic product have increased and importers of foreign goods and services have found it difficult in remaining in business s because imports have become expensive. The volatility nature of the exchange rate has increased the risk in making business decisions in the country due to the fear of going bankrupt.

Exchange rate is a fundamental tool in achieving economic growth despite the fact that its depreciation results to inflationary pressure which calls for adequate management of the exchange rate system.

The fear of not being engulf into the current global recession calls for a continuous devaluation of the naira in order to increase export so as to generate revenue but the inability of the government to provide adequate facilities to strengthen the manufacturing sector in order to cushion the elegative effect which has kept the monetary authorities in a dilemma.

Since the abolition of the fixed exchange rate system and adoption of a flexible exchange rate system there has been a fluctuating growth rate in the country severe instability in the exchange rate which has affected the per capital income of the citizens. In the country as a result of the above, the need to study the impact of exchange rate depreciation on economic growth is very imperative.

1.7   OUTLINE OF THE STUDY

This study is organized into Five Chapters.

Chapter One Contains the Introduction to the study, statement of the problem, objective of the study, research hypothesis, methodology, significant of the study, scope and limitation to the study.

The Second Chapter, contain the theoretical frame work and literature review on various studies carried out in relation to this research work. This shall enable us to evaluate the views of past researcher and see if they are operationally accepted as a solution to the problem considered in this study.

Chapter Three shall unveil the methodology which adopted in this research work in order to attain our objectives. It further explain the variables used in the model and the method of analysis.

Chapter Four shall contain statistical data analysis and also the interpretation of the results of findings.

Chapter Five covers the Summary, Conclusions and Recommendations of the Research work.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1   INTRODUCTION

The collapse of the Breton wood in 1945 which resulted to the mint parity system of the exchange rate has led to different form of exchange rate system in the world's economy. Countries in the world have adopted various exchange rate policies in order to achieve a self sustained economic growth.

Exchange rate policy in Nigeria has moved in a circle, starting from a fixed exchange rate system from 1960-1986, a flexible exchange rate system from 1986-

1993, a temporary halt to deregulation in 1994 when the official exchange rate was pegged and the reversal of the policy in 1995 with the deregulation of the foreign exchange market and the institution of a dual exchange rate mechanism which led to the introduction of the Autonomous Foreign Exchange Market (AFEM).

The adoption of the second-tier Foreign Exchange Market (SFEM) in 1986 was to ensure a proper deregulation of the economy however, this was merged with the first-tier market in 1987. The policy thrust of 1995 which led to the introduction of the autonomous foreign exchange market as a guided-deregulation exercise was maintained in order to ensure an adequate control of the depreciation of the exchange rate.

The dual exchange rate system which was introduced at the inception of the second-tier foreign exchange market Decree 23 of 1986 was enhanced to give legal backing to the market. The dual exchange rate system adopted two different rates operated side by side in the market which were the first and second-tier rates. This system was practiced and retained in 1997 and 1998 however, in order to discharge the disparity between these two markets, in January 1, 1999, the inter-bank Foreign Exchange Market (IFEM) was re-introduced which resulted to the merger of the dual exchange rate, following the abolition of the official exchange rate market.

The Inter Bank Foreign Exchange Market therefore determines the rate and allocation efficiency through mutual agreement among dealers. The Central Bank of Nigeria (CBN) is the main supplier of foreign exchange to the IFEM Market in which it is both a seller and a buyer adopting a two-way quote system in transactions.

In 2002, the Dutch Auction System (DAS) was re-introduced in the market in order to stabilize the naira exchange rate as well as control the rate of depreciation in the exchange rate. The DAS was used to reduce the high premium in the parallel market, conserve the nation's external reserve and also achieve a realistic exchange rate for the naira which will influence an increase in the rate of economic growth in

the country. This trading system has helped to ensure a relative stability in the foreign exchange market since 2002. However the retail Dutch auction system (R-DAS) was implemented at first instance which enabled the CBN to sell to end-users through the authorized users in-banks.

Furthermore, the aim of the monetary authority i.e. the CBN was to ensure liberalization of the foreign exchange market hence, in order to futher liberalize the market, stream-line the arbitrage premium between the official, inter-bank and burea de change segments of the market and achieve convergence, the CBN introduced the Wholesale Dutch Auction System (WDAS) on February 20, 2006. This was to consolidate the gains of the

RDAS and also deepen the foreign exchange market (FOREX) in order to ensure a realistic exchange rate for the naira.

Despite the series of exchange rate regimes practiced in the economy, the exchange rate moved at a depreciation rate which also resulted to a dwindling growth rate since 1985. The depreciation movement in the exchange market and the parallel foreign exchange market. This can be illustrated in the table below.

TABLE 1: FLUCTUATIONS IN THE EXCHANGE RATE MARKET

	Official FEM		Parallel FEM			GDP
Year	Rate (N:$)	Depreciation	Rate (N:$)	Depreciation	Premium	GDP % Rate
1985	0.89	14.6	3.79	14.20	325.8	9.3
1986	2.02	55.9	4.17	9.1	106.4	3.7
1987	4.02	49.8	5.55	24.9	38.1	0.5
1988	4.54	11.5	6.05	8.30	33.3	9.2

1989	7.39	38.6	10.55	42.7	43.8	7.3
1990	8.04	9.3	9.61	-9.8	19.5	8.3
1991	9.91	18.9	13.04	26.3	31.6	4.6
1992	17.30	42.7	20.03	34.9	15.8	3.0
1993	22.05	21.5	36.23	44.7	173.1	1.3
1994	21.89	-0.7	59.79	39.4	173.1	1.3
1995	81.20	73.0	59.79	39.4	3.1	2.2

Note: The positive figures represent the depreciation of the naira.

Source: Central Bank of Nigeria

The above table shows the movement in the exchange rate for the period of ten years. According to the table above, an increase in the rate of naira to a US dollar signifies a dividing decrease in the value of the naira hence, a depreciation movement of in the exchange rate. The depreciation of value of the exchange influences other microeconomic shocks which reduces the rate of the Gross Domestic Product (GDP). The implication of this is that the purchasing power of the poor eroded and eventually increases the poverty among the poor. Finally, the exchange rate management strategy unveiled under the structural adjustment program (SAP) was aimed at achieving certain macroeconomic objectives such as Balance of Payment ((BOP) equilibrium, export diversification, expansion in productive capacity and less import dependence. However, the exchange rate is a major price which influences the capacity of all sectors of the economy and all economic agents therefore, it is essential to monitor its depreciative movement in order to enhance competitiveness and improve the supply of exportable goods and services.

The present economic dispensation in the Nigerian economy has been subjected to the volatile nature of the exchange rate which has increased the level of risk in embarking in business decisions.

According to Soludo (2009) depreciating the exchange rate is to allow the naira to gain value without any control but regretfully enough the naira has constantly loss its value due to current global economic recession. However, despite the fact that the current global financial melt down has not deeply caused economic recession in the country the need to depreciate the exchange rate was necessary in order to encourage domestic production and increase the level of export in the country.

Elucidating the fundamental concept of the exchange rate, it is considered as a key macroeconomic variable in the context of general economic policy making and economic reform programmes. It is an important price which governments take very active interest. (Obadan 2006) However, the commonly distinguished concept of exchange rate are: norminal exchange rate and the real exchange rate, the nominal exchange rate (NER) has monetary phenomenon which measures the relative price of two currencies e.g. naira in relation to the United State (U.S) dollar but the real exchange rate (RER) measures the relative price of two goods-tradable goods (export and import) in relation to non-tradable goods (locally produced and consumable goods). Despite this distinguishable features, there is a link between the two concepts due to the fact that the NER can cause changes in the RER within the short-run, for instance norminal exchange rate depreciation will have the effect of depreciating the real exchange rate.

Exchange rate and depreciation applies to floating currencies which means that the market forces of demand and supply influences the reduction in the foreign exchange values of such currencies (Obadan 2006) therefore, domestic currency devalues whenever less units of the foreign currency is required to purchase a unit of the domestic currency thereby influencing most other prices.

Consequently, the level of exchange rate and movements have far-reaching implications for inflation, price incentives, fiscal viability, and competitiveness of exports, efficiency in the allocation of resources, gaining international confidence army other nations and achieving balance of payments equilibrium hence, due to their impacts on macroeconomic development, exchange rate system are considered as a matter of interest to

government agencies in initiating fiscal policies and monetary policies which will facilitate sustainable economic growth and development as well as a major concern to investors and the general public.

2.2   CONCEPTUAL ISSUES IN FOREIGN EXCHANGE RATE

According to Odusola (2006), foreign exchange is defined as foreign currency or any other financial instruments acceptable as a means of payment or exchange for international transactions. This can be made up of other external transaction among countries across internal boundaries.

The international Monetary Fund (IMF) as cited by (Odusola 2002) defines it as the claim of monetary treasury bills, short-term and long-term government securities and other claims usable in the events of balance of payments deficit, including non-marketable claims arising from inter central banks and inter-governmental arrangements without regards to whether the claim is denominated in the currency of the debtor or creditor.

The Central Bank of Nigeria (2004) defines it as any currency other that the Nigerian currency and includes coins or notes which are or have at any time been legal tender in any territory outside Nigeria such as poster orders, money orders, bills of exchange, promissory notes, drafts; letters f credit and travelers' cheque payable in a non-Nigerian currency.

Exchange rate policy is described as the total of the institutional framework and measures put in place to gravitate relative prices towards desired levels in order to stimulate the production sectors (Obaseki, 2002). This further aims at ensuring internal balance and increasing the level of exports in order to stimulate revenue generation in an economy.

Exchange rate management is the operationalization of the designed policy in collaboration with other complementary measures like fiscal and monetary policies, as well as the appraisal of the system continuously to determine developments that will ensure the attainment of the goals of exchange rate policy (Obaseki, 2000). In the attainment of these goals, monetary authorities in the country have to control the demand and supply of foreign exchange rate in order to reduce its pass-through (excessive movement) to inflation. The higher the demand for foreign currency, the more will its price rise and this will lead to a fall in the units of the domestic currency. The demand for foreign currency is represented by the import of goods and services however, a devaluation of the domestic currency (naira) will eventually bring about a higher prices of imported goods services which will result to inflation although, making exports cheaper. The receipt represents the supply of foreign currency from the export of goods and services which represents the demand by foreigners for Nigerian goods and services.

Exchange rate is a key price variable in an economy and performs dual role of maintaining international competitiveness and serving as nominal anchor for domestic prices (Mordi, 2006) therefore defines it as the price of one currency vis-à-vis another and is the number of units of a currency. To this end, the exchange rate value helps in presenting the nominal value of a country's foreign reserve in terms international liquidity with other international financial organization. The nominal exchange rate is important in linking the price systems in different countries thereby allowing comparisms in prices.

Changes in exchange rates have a powerful effect on imports and exports of a country thus, exchange rate depreciation is a measure which the government adopts in order to increase foreign exchange receipts by

encouraging exports hence, promoting domestic production and allowing infant industries to grow. Exchange rate depreciation makes export prices cheaper in foreign currencies hence, making it affordable to foreign buyers. Furthermore, the objectives of the Nigerian government in depreciating the exchange rate are to promote Nigerian products in international market and increase revenue to the country. When our domestic products become attractive to foreign buyers, it will consistently make our currency to gain value in international markets. On the other hand, exchange rate depreciation discourages imports by making the price of imported products higher in local currency.

Developing economies had been considered as import dependable economies however, this call for a depreciation in their exchange rate system which enable them to be more productive by making use of their local raw materials. Constructing the two impacts of exchange rate depreciation it however certain that the Nigerian government will have to adopt an appropriate exchange rate level which will stimulate a balance between the effects on exports and imports because our economy has not achieved a satisfactory technological nature which will enhance our production capacity.

However, depreciation in the exchange rate is also to allow efficient allocation of foreign exchange receipts among competing import-users hence, encouraging the price mechanism to determine the exchange rate and discouraging the government from making the allocation therefore, the exchange rate performs the role of allocating real resources thereby affecting the decision of those who produce, invest and consumer. In other to ensure adequate control, on appropriate balance of payment is designed in order to ensure that exchange rate changes are reflected in the prices of domestic products thereby enabling the exchange rate to perform its

function of allocating resources between domestic and external sectors (Obadan 2006).

Calculation of Exchange Rate Depreciation

Determining the rate of exchange rate depreciation has been a major concern by many economist this is because the value of a country's currency is influenced by the exchange rate hence, the volatility nature in the exchange rate may lead to severe instability in the value of the country's currency therefore, monetary authorities always ensure that the country's currency does not loss 100percent of its value. In the words of Obadan (2006), "If a currency has lost 100 percent of its value, then it must be worthless".

However, this assertion may be criticized because a country like Zimbabwe has lost over 100 percent of its currency which had led to spurious increase in the rate of inflation and unemployment in the country.

Considering for example, that the official exchange rate (E) changed from N22 in July 1994 to N145 in July 2009 per dollar $1.00 then let:

$$D = \frac{E1-Eo}{Eo}$$

Where E1 = Current official exchange rate

Where E0 = Past official exchange rate

$$Eo = \frac{N22.0}{\$1.0} \quad \text{or} \quad \$0.0455$$

E1 = N145.0   or $0.00 69

The rate of depreciation can be calculated in two ways

1. where E is defined in terms of dollars i.e $/N

$$D1 = E1 - E0$$

Eo

$= \dfrac{0.0069 - 0.0455}{0.0455}$

$= -85\%$

2. where (E) is defined in term of naira i.e N15

$D2 = \dfrac{E1 - Eo}{E}$

$= \dfrac{N145 - N22.0}{N145}$

From the above, the exchange rate depreciation are the same (D1=D2). The mistake often made by some analyst. With the second approach is to use Eo as the denominator such that

$\dfrac{E1 - Eo}{Eo}$

$\dfrac{145 - 22}{22} = 559\%$

The first approach above (i.e D,) revealed a decreasing movement in dollars in terms of $/N (dollar per naira) while the second approach (i.e. D2) reveals an upward increase in amount of naira in terms of N/$ (Naira per dollar) hence, both unveils the decrease in the value of Naira in relation to United State Dollar. Therefore exchange rate depreciation influences the management of the exchange rate system as well as external trade with other countries.

This can be shown in the diagram below
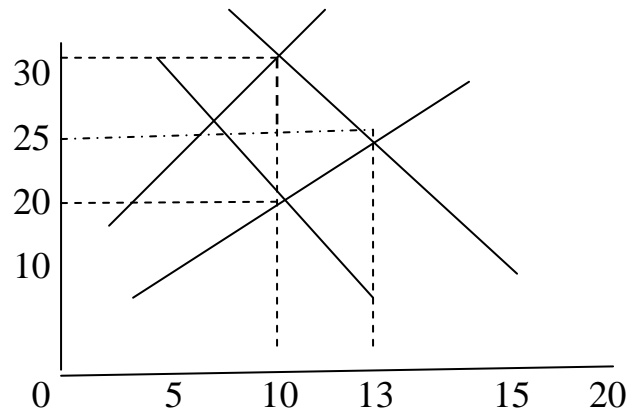
Dollar demanded per time unit (Million)

Determination of exchange rate

From the diagram above the demand for dollar by Nigerian Importers and Supply of dollars are equal at point p At this point, exchange rate is determined at $1 = N20, the demand for supply of dollar being equal at $10million. This exchange rate clears the foreign exchange market. In situations when the demand for dollar rise by Nigerian Importers given the exchange rate, her demand curve shifts upward from DD, to DD2. The exchange rate will then rise to $1 = N25. This implies depreciation of the naira and appreciation of the dollar.

However, exchange rate depreciation can also result from the supply of the dollar. An inward shift of the supply curve to S1, leads to a depreciation of the Nigerian exchange rate. This shortage in supply may result from certain government restriction or the withdrawal of licenses from some of the operators in the market. From the diagram, it is clear that the $1 that was equal to N20 now be exchanged for N30 due to an inward shift of the supply curve.

The impact of this depreciation reduces the capacity at which Nigerian importers import foreign goods since more amount of naira can now be exchange for a unit of dollar.

2.3 REASONS FOR EXCHANGE RATE DEPRECIATION

The fundamental reason why most developing economies depreciate their exchange rate is due to the fact that they aim to promote exportation of local goods and depreciating the exchange rate must also support an adequate management system of the exchange rate without a controlled operationlization of exchange rate policy, the aim of the monetary authority may not be achieved.

According to Obaseki (2001) Exchange rate policy is the sum total of the institutional framework and measures put in place to gravitate relative prices towards desired levels in order to stimulate the productive sector, curtail inflation, ensure internal balance, improve the level of exports, and attract direct foreign investment and other capital flows.

However, exchange rate policy can be concisely defined as the framework, rules and other measures for determining and influencing the level of the exchange rate at a given point in time. Therefore, an exchange rate policy driven towards exchange rate depreciation will have to ensure an effective operationalization of the designed policy in collaboration with other complementary measures like fiscal and monetary policies as well as the appraisal of the system continuously to determine development that should elicit mild policy responses such as fine-tuning, Obaseki (2001) in order to attain the goal of depreciation the exchange rate.

In the Nigerian economy, this kind of policy has recently been initiated by the monetary authority in order to increase government revenue and also

increase the export capacity of the country. This was the vision of the Structural Adjustment Program (SAP) of 1986. According to Soludo (2008) depreciating the exchange rate was to allow the naira to freely gain its value.

Despite the efforts of the monetary authority in ensuring that this policy was attained in terms of controlling the activities in the foreign exchange market, it can be observed that the goal of the government is yet to be achieved due to other environmental and political crises which have halted government revenue hence, naira loosing its value.

Furthermore, the disparity in the rates operated in the official and parallel market has further reduced the valued of the naira however, we can say that the withdrawal of license from certain brokers in the foreign exchange market has led to high premium in the parallel market hence, resulting to a faster depreciation of the exchange rate. The rate operated in the parallel market is mostly adopted by importers hence, it influences the prices of goods and services thereby fueling inflationary pressure.

It is fundamental to reveal that the depreciation in the exchange rate was propelled by the global economic crunch. This is because the recession experienced in most developed nations as a result of the financial melt-down led to a fall in oil prices which is the major source of foreign exchange flow in Nigeria hence, a fall in the inflow of foreign currency which is in adequate to satisfy the demand pressure in the foreign exchange market. The fall in the inflow of foreign currency alongside with lose of One million barrel in the production of crude oil which is the highest foreign exchange earner led to a fall in the supply of foreign currency hence, exchange rate depreciation. Therefore, some operators in the FOREX market took this as an avenue to control the FOREX market hence, creating high premium in the

market. This situation further insuliated a low performance in macroeconomic activities hence, leading to a week economic growth in the country

Kiguel et al (1994) in his studies envisaged that establishing internal and external economic balance when appropriate monetary and fiscal policies are adopted while large premiums in the exchanger ate market lead to macroeconomic distortions and rampart corruption/ the distortions are also influenced by the inability to separate the markets (Bhandari and Decaluwe 1987, Gross 1988) while large premiums encourages rent-seeking behaviour.

A unified exchange rate system helps to achieve better results from structural adjustment programs. Although unification of the exchange rate is preferred to

other exchange rate systems its implementation can only be successful when macroeconomic balances is achieved and sustained (Obaseki 2001).

Jhingan (2003) noted that relative changes in price level cause in the exchange rate due to changes in the value of the rate of exchange among the trading countries hence, the increase in the price of a country's commodity in relation to another country will reduce the supply of the commodity into the importing country thereby increasing the demand for the currency of the importing country in the exporting country thereby increasing the demand for the currency of the importing country in the exporting country thereby leading to a depreciation of the exchange rate on the exporting country.

Asogu (1991) undertook an empirical investigation based on ten different specifications that covered monetary, structural and open economy aspect of inflation. The result of his estimation suggested that real output, especially

industrial output, net exports, current money supply, domestic good prices and exchange rates were the major determinants of inflation in Nigeria.

Fakiyesi (1996) argues that inflation depends on exchange rate however; this study opines that the depreciation in exchange rate without adequate management results to high rate of inflation in the country.

In the view of Ikpefan (2007), the principal source of foreign exchange earnings of the Nigerian economy is from the export of crude oil however, depreciation in the exchange rate will increase the revenue earned form the export of crude oil. Foreign exchange as earlier examined refers to the revenue earned by a country in convertible currencies from export of goods and services hence; the totality of the foreign exchange earned and available at any given time for the settlement external obligations is referred to as foreign exchange reserve. Olukole (2002), Ajayi (1988) has argued that the economic crises confronting the Nigerian economy can be attributed to the misappropriation of money from the oil boom since 1970's.

In the structuralist approach used by Osagie (1985) in the study of external trade flow, the adoption of a more flexible exchange rate policy was opposed. His opinion was based on the fact that exchange rate depreciation will create inflation that will have no significant effect on external trade balance in less developed countries.

After the oil boom in the 1970's, the naira had an increase in value and the Nigerian foreign exchange reserve experienced growth when the figure stood at US $ 10billion. The official exchange rate was between 0.65k to 0.55k hence, the naira appreciated more than the dollar. However, the collapse of the world oil market in 1981 led to the depreciation of the exchange rate hence, the beginning of economic crises in Nigeria.

It can be observed that the exchange rate is a major macroeconomic variable which the government is always concerned about in formulating its policies however, its volatile nature has been a major concern due to the fact that it influences risk in doing business. Exchange rate depreciation influences external trade although it devalues naira however; the aim of this is increase the level of export by making exports cheaper to foreigners hence, making importation of foreign goods expensive.

Furthermore, exchange rate depreciation influences external trade by increasing external reserves. This has been a major area which the Central Bank of Nigeria (CBN) have had more interest. Depreciation of the exchange rate further devalues the naira hence; this also helps an economy to correct its deficit balance of payment problem in order to maintain her external trade transaction. However, this also helps in limiting external vulnerability through the maintenance of foreign currency liquidity to resolve economic crisis (Acharya 2002).

According to Soludo (2007), the main source of the increasing foreign exchange reserve in Nigeria includes inflows of oil revenue complained by tax remittances of

Nigerians in the Diaspora, growing foreign Direct Investment, capital inflows etc. hence, depreciation the exchange rate will facilitate growth in money supply and also enable economic activities in the country to dictate the rate of foreign exchange.

Mordi, (2006) opined that failure to properly manager the exchange rate induces distortions in consumption and production patterns. This results to severe implications in the consumer price index thereby creating destabilizations in the standard of living among people.

Prior to the adoption of a flexible exchange rate regime in Nigeria, an administrative system had always been administered however, since the collapse of the Britton wood system of fixed exchange rate, both the real and norminal exchange rate has often been detrimental. Exchange rate will actually decrease the volume of international trade by increasing the risk of trading among nations.

Depreciation in the exchange rate influences high level of vulnerability in making business decision especially among importers because of the fear of making excessive loses.

Furthermore, it is essential that a government embark on adequate foreign exchange management system in order to reduce the effect of exchange rate depreciation and also ensure an affordable stability rate of the exchange rate in order to correct certain economic imbalances.

According to Obaseki (2002) "Exchange rate management is the operationalization of the designed exchanged rate policy in collaboration with other complementary measures like fiscal and monetary policies as well as the appraisal of the system continuously to determine developments that should elicit mild policy responses such as five-sunning discontinuation or movement towards a new policy direction".

The principal objectives of exchange rate policies during the early years of the 1980's was to check inflationary pressure which was achieved by maintaining an

over valued exchange rate in order to encourage importation (financial times. August 2002 page 200 however, the exchange rate constantly increased above the equilibrium level hence, creating value to the naira between 1980-1985). Depreciation of the exchange rate policy during this period was to equilibrate the balance of payments, preserve the values of

external reserves and maintain a stable exchange rate however, up to the time of the structural adjustment programme (SAP) exchange rate policy encouraged the overvaluation of the naira as reflected in real exchange rate appreciation especially in the 1970's (Obadan, 1995).

The result of this appreciation was the speedy increase in oil prices which generated a high inflow of foreign exchange. However, exchange rate appreciation encouraged importation of foreign commodities and inputs for the manufacturing sector. It also discouraged non-oil exports and affected the growth of the agricultural sector hence, a reduction in the annual production of major cash crops (Osaka, Masha, 2003: 329)

In 1984, a reform on exchange rate was established when the federal government decided to decentralize foreign allocation through the Central Bank of Nigeria (CBN). Only licensed banks were permitted to approve applications and allocate foreign exchange to their customers subjected to the among of foreign currency allocated to them by the CBN which was done weekly to these licensed banks however, this was abused by banks and was then abolished in 1985 but taken over by the CBN who made direct allocation of foreign exchange to their customers subject to the amount of foreign currency allocated to them by the amount of foreign currency allocated to them by the CBN which was done weekly to these lincensed banks however, this was abused by banks and was then abolished in 1985 taken over by the CBN who made direct allocation of foreign exchange to the needers.

During this period, the exchange rate was administratively determined through, the government aimed at reducing external sector imbalances. However, the major management was trade, exchange and export promotion. These were applied depending on the economic situation at a particular period of time.

Exchange rate controls were tightened during economic crisis but liberated whenever the pressure of crisis licensed. The liberation was progressively experienced from 1981 till September 1986 when the foreign exchange situation worsen and the pressure on the balance of payment persisted. However, increased on the balance of payment persisted. However, increased attention was diverted to export promotion as a means of reducing the pressure on the external sector.

The adoption of the exchange control system was however, limited to certain shortcomings. It only influences balance in the external sector but was unable to achieve internal balance within the short-run. Reduction of external reserves, reduction in capital inflow e.t.c. this also compounded the external dept problem. Therefore, exchange control system was abolished on September 26, 1986.

2.4. THE ERA OF FLEXIBLE RATES

As result of the shortcomings afore mentioned, in order to determine a realistic value of the naira, a major policy reversal was effected in September 1986 when the fixed exchanged rate mechanism for determine the naira was abolished and replaced with a flexible exchange rate system. The naira was adhered to find its way through market forces according to the demand and supply of foreign exchange hence; this led to the beginning of exchange rate depreciation in Nigeria. However, the monetary authority still retained its discretion in influencing the aim of the policy. In line with this, various methods have been adopted in order to determine a realistic

exchange rate and also derive an efficient exchange rate management system with the framework of the foreign exchange rate market system.

In achieving a realistic exchange rate which stands as a fundamental of macroeconomic objective was introduced at the inception of the second-tier foreign exchange market under Decree 23 of 1986 (Financial Times 2002) which laid a legal banking to the market. However, the dual exchange rate system allowed two different rates to be operated side by side in the market; these were the first and second-tier rates.

The first and second-tier rates. Administratively determined and used for official transactions which include debt services payments, expenditures on public sector, expenses of Nigerian Embassies abroad and contribution to international organizations.

The second-tier foreign exchange market was used for the settlement of all other transactions using various methods to fine-tune the system. These methods include; the average pricing methods i.e. the average successful bids, marginal rates and the Dutch Auction System (DAS).

2.4.1 PRICING METHOD

This method adopts the use of successful bids in the market. At the bidding session, bids were arranged from the highest to the lowest along side with the foreign exchange applied for by each licensed operator in the market. Those whose bids were below the point where the amount offered for sale was exhausted were regarded as unsuccessful. Therefore, an average rate of the successful bids was calculated and that became the ruling exchange rate. The short-coming of this methods was that very high bids by the operators tends to push the rate upward.

2.4.2 MARGINAL RATE

This method was adopted as a result of the problem associated with the average successful bid method however, the rate was composed in the same manner but the ruling rate was what the last dollar offered for sale was exhausted and sold. This

further led to the depreciation of the naira hence, a fluctuating nature of the exchange rate. The naira devalued further because dealers in the market will always want to quote at higher prices in order to be successful in their bids instead of quoting realistic exchange rates. This system further insulates negative impact on the economy in terms of a poor purchasing power of the citizens. This further stimulated the power of the citizens. This method further stimulated the dealers to quote rates that will satisfy them in order to make excess profit hence, leading to a pass-through to inflation.

The method was abandoned at it never encouraged fair-play in the market but only enriched successful bidders hence, it was replaced with the Dutch Auction System (DAS).

2.4.3 DUTCH AUCTION SYSTEM (DAS)

The system was first practiced in Netherland. It enables dealers to come and bid at their respective prices through, computation was the same with the marginal rate but a ruling rate which allows the highest bider a constant opportunity was abolished. Foreign exchange was brought at the respective bid rate the dealers quoted. However the problem of rate multiplicity continued and it resulted in further depreciation of the naira. The DAS was basically introduced against the background of widening gaps between the parallel and official exchange rates and high demand for foreign exchange (Obadan 2006) the systems allows the payment by authorized dealers of the

exchange rate that bids for foreign currency at their respective bids unlike the situation where all dealers are constrained to accept a centrally determined rate by the Central Bank of Nigeria (CBN) and also discourage round-tripping among dealers.

The Dutch Auction System was introduced to encourage a form of professionalism and discourage outrageously high bids rates characterized with the marginal rate

method which persistently weakens the purchasing power of the naira. However, DAS was unable to achieve the goal of the monetary authority due to faster depreciation of the naira which also resulted to multiplicity of rates in the foreign exchange market.

Furthermore, this system influenced other macroeconomic variables such s inflation and interestinal. A faster depreciation of the exchange rate in Nigeria resulted to a higher interest rate as well as increase in the general price level however, along side this economic problem, several dealers in the foreign exchange market mostly in the parallel took advantage of artibitraging by making excess profit due o multiplicity and different exchange rate in different market. The rate of round-triping increased and a loss of illegal transactions were practiced hence, people enriched themselves through exchange rate depreciation in the economy. This became a major concern to the monetary authorities in the country as it was argued by exchange rate analyst that multiplicity of the exchange rate in different market. The rate of round-tripping increased and a lot of illegal transactions were practiced hence, people enriched themselves through exchange rate depreciation in the economy. This became a major concern to the monetary authorities in the country as it was argued by exchange rate analyst that multiplicity of the exchange rate result to misallocation of resources hence, a

unified exchanged rate system was introduced in order to reduce the disparity between the official and parallel market theory merging the first and second-time rages in July 1987. This was adopted in order to eliminate he disadvantages of a floating exchange rate regime such as persistent exchange rate volatility, higher inflation and high transaction cost.

2.4.4 UNIFIED EXCHANGE RATE SYSTEM

In the words of Obaseki (2001:285) a unified exchange rate system should be able to lead an economy towards the achievement of exchange rate stability and

ultimately, balance payment stability. The first and second-tier markets were also merged into an enlarged foreign exchange market thereby subjecting all foreign transactions to the rates determined by the market hence; there was a high demand pressure in the market which resulted to persistent exchange rate depreciation.

However, the convergence of the exchange rate is expected to improve the welfare of people through a more efficient allocation of resources vis-à-vis the misallocation associated with the multiple exchange rate system although, the application of the uniform model for determine the effect of exchange rate convergence has not been conclusively established. However, there are some measures which aids the determination of the effect of exchange rate convergence such as market hypothesis which assures that exchange rate is expected to follow a random walk or a near random walk as current levels relate to preceding levels and expectations are based on the information available.

According to Pinto (1990: 320) unification of the exchange rate would eliminate the subsidy on foreign exchange to the private sector and improve fiscal deficits for a net seller. This empirically unveils the rate at which the exchange rate will persistently depreciated thereby leading to a reduction in revenue and increase in the rate of inflation.

Furthermore, it is observed that countries with favourable terms of trade are characterized with appreciating exchange rate while countries with deficit terms of trade such as developing nations are faced with exchange rate depreciation. The depreciation in real exchange rate is expected to improve the trade balance and impact positively on the Gross domestic product (GDP). This conventional assumption does not appear valid in the Nigerian economy due to disincentive o exports in terms of low capacity to produce and high rate of dependence of imported goods and services.

It also established in literature that the more liberalized an economy is, the more unified its exchange rate system (Obaseki 2001) thereby leading to increase in

economic growth. The desire for increase in economic growth has made the Nigerian government to embark on economic liberalization. The financial liberalization in the banking sector further strengthened the operations of commercial banks and made them active operator in the foreign exchange market hence, this resulted to stability in the exchange rate in 2006. Ekpo (1995) applied an augmented production function approach in determining the effect of liberalization following the implementation of Nigeria's SAP. The more an economy is liberated, the less efficious the operation of a multiple or a dual exchange rate system.

Kamin, (1992:215) held the view that exchange market unification and the best means of achieving unification are some what academic, and that macroeconomic policies are far more important than exchange rate policies in ensuring stable prices, out put stable financial system.

Thus assertion can be elucidated on the fact that Pinto (1990) argued that inflation rises because the devaluation involved in unification eliminates revenue from purchasing export earnings at the overvalued official exchange rate which requires increased monetization to finance a set level of government expenditure.

Obasiki (1996) opined that the direction of adjustment would be the depreciation of the official exchange rate which effectively amounts to devaluation of the naira. However, this is also expected to lead to economic improvement which will gradually result to exchange rate appreciation as well as a decline in the rate of inflation.

According to Pinto, he opined that exchange rate unification would lead to reduced revenue, widening of fiscal deficit and rising inflation. However, Obaseki (1996) further opposed that unification would rather result to increased revenue; reduced fiscal deficit through the elimination of subsides and price stability in the medium

to long-term. Furthermore, the depreciation of the real exchange rate would improve the trade balance and impact positively on the Gross Domestic Product (GDP).

The effect of exchange rate depreciation is aimed at improving macroeconomic activities however, it has seldom been observed that this has created distortions in the economy. According to Mordi (2006) "getting the   exchange rate right" is critical for both internal and external balance and hence, growth in the economy.

It can be established that continuous depreciation in the exchange encourages volatility in exchange rate. Mordi (2006) opined that excessive volatility in exchange rate creates uncertainty and risk for economy. Therefore, government and business considers critically the rate and impact

of the exchange rate before making economic and business decisions. When the exchange rate depreciates with a view of increasing revenue inflow to the economy. it may have an impact on private sector operators. The cost of foreign currency rises and importer may find it difficult to make profit and continue in business.

Sahminan (2004) undertook an empirical investigation on the balance-sheet effect of exchange rate depreciation on Banks in Indonesia. In his study, he observed that exchange rate depreciation affects the value of the foreign assets of banks and also on the profit they earn from foreign currency which may lead to bank failure.

However, the view of this study examines the macroeconomic effects of exchange rate depreciation but it relevant to consider the financial institutions as they are considered as the pillar of an economy (Soludo 2005).

Sanusi (2009) in his report during the monetary policy committee meeting on the 6th of July 2009 propounded that in order to reduce the negative impact of depreciation in our exchange rate as well as reducing the rate of arbitrage in the foreign exchange market, revealed licenses of some market operators by the former

Central Bank Governor shall be released in order to give the naira a realistic value and ensure stability in exchange rate.

Nzekwu (2006) was of a view that persistent depreciation of the exchange rate has led to consideration capital flights in resent years. It has also resulted in round-tripping activities by some of the financial houses hence, paving the way for corruption.

2.5   THEORETICAL FRAMEWORK

2.5.1 THEORIES OF EXCHANGE RATE

The theoretical framework of exchange rate is designed to ensure proper management and stability in the exchange rate system. The purchasing power parity theory ensures that the variations in the exchange rate are stabilized in the long-run thereby ensuring that depreciation in the exchange rate are controlled in order to ensure the naira gains value.

These theoretical foundations are derived from the different approach in exchange rate theory. This is important in discussing exchange policy since it elucidates the issue of importance in exchange rate analysis. The classical, Keynesian, neo-classical and monetarist observations are central to the various views expressed by various proponents of exchange rate model. The models of exchange rate determination are the various frameworks built on competing school of thought and are based on body economic theories on the relationship between exchange rate of a domestic currency vis-à-vis that of its trading partners as well as the factors responsible for variation in their equilibrium values.

The main models of exchange rate determination are the traditional flow model, the portfolio model and the monetary model (Obaseki 2001). This study shall adopt the monetary model in elucidating the theoretical underpinnings of exchange rate depreciation on the Nigerian economy.

2.5.2 THE MONETARY APPROACH

This approach has been regarded as the most complete of all the models of exchange rate because it does not only recognizes the primary role of money but also emphasis the role of the real sector as a contributing factor in determining the exchange rate this is because depreciation in the exchange rate influences the activities in the real sector of the economy thereby

Influencing government revenue.

However, the approach also elucidates the effect of market forces i.e. demand and supply on money stock mostly foreign currency. It also explains that the equilibrium exchange rate depends on the stock equilibrium conditions in each country's money market.

Therefore, an increase in the money stock in a country has the capacity of insulating inflationary pressure hence, inducing the depreciation of the domestic exchange rate vis-à-vis the trading partners' currencies while a decrease will lead to the opposite response (Obaseki 1991).

Furthermore, the monetary approach in exchange rate is adopted in order to control the volume of foreign currency in circulation. Monetary authorities may decide to reduce the supply of foreign currency thereby depreciating the exchange rate. This is done in order to reduce the volume of imported goods and services into the country and encourage the exportation of Nigerian products. This is to ensure an improvement in the country's national income.

Increase in the growth rate of domestic income has also been indicated as a factor which influences the exchange rate according to the monetarist theory. An increase in the growth of domestic income in relation to those of the trading partners would influence the exchange rate of appreciate. This is because the excess demand for money over that of the trading partner would result to a fall in the domestic price of the commodity traded.

The other aspect of the monetary approach which causes the exchange rate to depreciate is the interest parity. This holds that if interest rate rises in the domestic economy, the demand for money would fall; thereby leading to a

rise in prices hence depreciation in the exchange rate. Thus, the exchange rate of a domestic currency in influenced by relative shifts in money stock, real incomes and interest rates.

2.5.3 THE PURCHASING POWER PARITY THEORY

According to Gustar Cassel (1920) the equilibrium exchange rate between two inconvertible paper currencies is determined by the equality of the relative change in relative prices in the two countries. However, the purchasing power partly theory of exchange rate tends to ensure stability in the exchange rate tends to ensure stability in the exchange rate among countries within the long-run thereby reducing the rate of depreciation in the exchange rate.

The purchasing power parity concept of exchange rate determination is a component of the monetary approach. It is based on a variant that prices of the same commodity would equalize across national boarders with differences in cost thereby reducing the effect of exchange rate depreciation among the countries.

The purchasing power parity measures the purchasing power of a unit of domestic currency in relation to that of a unit of a domestic currency in relation to that of a foreign currency. The theory further assumes that deviations in the exchange rate are self correcting in the long-run. Therefore, depreciation in the exchange rate of a country has the capacity of appreciating in the long run.

According to Soludo (2008) the exchange rate has been depreciated in the Nigerian economy in order to allow the naira to gain its value in the long-

run. However, mismanagement of government policy has contributed to the continuous devaluation of the naira.

The purchasing power parity theory has two versions which are the absolute and the relative purchasing power parity. The absolute purchasing power parity between two countries is the ratio of the domestic price level to the foreign or trading partner's price level. ($^{pd}/_{pf}$). The domestic price level is measured in terms of the consumer price index hence; a decrease in the value of the naira due to depreciation in the exchange rate will eventually result to a power consumer price index.

2.6   ECONOMIC GROWTH

One of the key macro economic objectives of a nation is to achieve stability in her exchange rate alongside with sustainable growth. The exchange rate system adopted by a nation stands as a critical driver to achieving increase in real output as well as an affordable standard of living of the citizens in the country. Most developing countries in the world always encounter unfavourable balance of payment in terms of trade in their economy however, in averting this; they embark on currency devaluation in order to achieve a non deficit in their balance of payment. Depreciating the exchange rate has been considered as a yardstick of stimulating increase in local production alongside encouraging local manufacturers to conveniently export their products to other countries in order to take advantage of international markets. Therefore, when an economy depreciates her exchange rate, it paves way for achieving stability and valuation of her currency in the international markets in the long-run because, such medium enables the economy to expand its export capacity hence, increasing economic growth.

It is factual that economic growth in Nigeria has not been supported by the consistent depreciation in the exchange rate due to under utilization of ecomic resources, low level of infrastructural facilities alongside with bad administrative system. Governmental policies have not been able to sustain economic growth since there are no legislative support to ensure these policies and economic plans. Exchange rate depreciation had rather led to a dividing rate of growth in the

Nigeria economy thereby not been able to achieve the objectives of the Structural Adjustment Program (SAP) however, depreciating the exchange rate in relation to major currencies in the world alongside with our economic resources should be able to make our economy rank among developed nations like Japan whose exchange rate is also depreciated against the United States dollar. It is therefore necessary that adequate economic measures are adopted in order to ensure that exchange rate of depreciation influences economic growth.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1   INTRODUCTION

This chapter provides the method to be used for the analysis of this work.

The research paper employs co-integration technique and Granger causality test suggested by Granger (1969, 1986). To estimate the model, error correction techniques will be appropriate due to the time service nature of the data. However, in order to avoid spurious regression results, stationarity of the variables and co-integration among them should be investigated prior to estimation of error correction model and Granger causality regression. Paper by Granger (1969) and Engle and Granger (1987) show that for non-stationary and co-integrated variables, a comprehensive test of causality between two variables should allow for additional channel through which causality could emerge. The economic justification surrounding the empirical study of the relationship between exchange rate depreciation and economic growth suggest that all results should be interpreted with caution. However we may have to use the information from the co-integration regression between two or more variables through the error correction model.

The chapter is divided into four section. The first section shall specify the model; the second section shall explain the time series properties of the variables while the

third section shall treat the estimation technique to be used as well as various economic test shall be examined.

3.2 MODEL SPECIFICATION

Gross domestic product growth rate in percentage (%) is taken as the dependent variables in this study because depreciation or changes in the exchange rate arising from the fluctuations in the economy can easily be observed on this variable. The independent variables included in the model are rate of money supply i.e. Broad money (M_2) inflation rate, interest rate and exchange rate. The ordinary form of the model is this:

$$GDPGRT = \alpha_0 + \alpha_1 \, EXT + \alpha_2 \, INF + \alpha_3 \, INT + \alpha_4 \, MS + U_t$$

The linear relationship between Y and the explanatory variables (X'S) may be given in appropriate for many economic relationships given the complenity of thee real world. The appropriate transformation for the estimated estimation of the constraint elasticity form is to work with the logarithms of the variables. Koutsoyiannies (1977).

Loy $Y - b_0 + b_1 + b2 \log X_2 + b_3 \log X_3 + b_4 \log X_4 + U_t$

Where……………………(1a)

Y = Gross Domestic Product Growth with Rate (GDPGRT) measured by the

X_1 = Exchange rate (EXT)

X_2 = Inflation Rate (INF)

X_3 = Interest rate (INT)

X_4 = Money supply rate (MS)

U_t = Stochastic Variables (error term) in time t $b_1, b_2, b_3, b_4 > 0$

3.3   TIME SERIES PROPERTIES OF THE VARIABLES

Some of the indicators that would be used in the course of this analysis are as follows

Coefficient of determination in the dependent variables that is explained by the independent variable. It ranges between 0 and 1 and its value must be above 0.5(50%) for the model to be considered as a good fit.

Adjusted R^2: This indicates that even if all the missing variables are included in the model certain proportion (i.e. which should be 0.5 and above for the model to be a good fit) of the variation in the dependent variable would still be explained by independent variables.

Durbin Watson (D.W): This indicator shows if there is a serial autocorrection in the variables. If the D.W is between 0 and 2, it shows that there is a positive autocorrelation in the model in that case, we confirm the presence of serial auto correlation in the variables which means that the error term in the model would reduce. However, when D.W is between 2 and 4 it signers that there is a negative autocorrelation in the model in that instance, we confirm the absence of serial auto correlation in the variables which means that the error term in the model did not correlate when this occurs the power of forecasting of the model statistics is greater than any of the critical values, it reveals that the variables is stationary hence, the absence of unit root.

Johanson co-integration test compares the likely ratio with the critical values would increase therefore, we expect D.W to be Z and above. F-statistics: This test the joint influence of all the independent variables on the dependent variables. The significance of this indicator is determined by the probability of significance which should not be more than 0.05 (5%).

The E-views Package shall be used and the importance of this package is that it shows the exact significance level by considering the probability of significance (P-

Value). The P-Value should not be more than 0.05 or 5% as the standard of economic analysis. Therefore, there is no need to compare and contrast our computed result with the tabulated statistics in the table. If the P-value is greater than 0.05 (5%), then the co-efficient is not significant hence, we shall accept the null-hypothesis and concluded that the variables is not different from zero. So if the P-value is less than ($<$) 0.01 (1%) we conclude that it is significant at 1% and if $0.01 < P = value < 0.05$ we conclude that it is significant at 5% and anything above 5% is no longer significant.

3.4   ESTIMATION TECHNIQUES

The estimation technique is drawn from developments in the co-integration theory. This has been developed to overcome the problems of spurious regression which are associated with non-stationary time series data, in such instances econometric results may not be ideal for policy making therefore, unit not test was conducted in order to ensure a good profit.

The theory of co-integration also arises out of the need to integrate short run dynamics with long-run equilibrium. In cases where the data series exhibit the presence of unit root, short-run dynamics properties of the model can only be captures in an error correction model when the existence of co-integration has been established. Therefore, if variables are co-integrated, it shows that such variables possess the capacity to reach equilibrium in the long-run.

The error correction variables also reveal how the variables concerned can be adjusted in the short run (i.e. short run equilibrium among the variables).

The estimated Error Correction Model can be written mathematically below:

$$\Delta \text{in GDPGRT} = \sum \beta_{1,} \Delta \lambda n \text{GDP}_{t-1} + \sum \beta_3 \Delta \lambda n \text{ EXT} + \sum \beta_4 \Delta \lambda n \text{ INF}_{t-1}$$

$$\sum \beta_5 \Delta \lambda n \text{ INT}_{t-1} + \sum_{1=0} \beta_6 \Delta \lambda n \text{ MS}_{t-1} + \delta \text{ECV}_{t-1} + \sum_{1} \ldots \ldots (1b)$$

ECV = Error Correction Variables

$B_1, B_2, B_3, B_4,$ = Model Parameters

δ = Speed of Adjustment

Δ = Dynamics analysis

The analysis will first test for stationery in the data as most economic series exhibited unit roots properties; the test for stationarity will be carried out using augmented Dickey Fuller (ADF) unit root test. Also the variables will be examined for causality patterns using the Granger causality test, the idea is to examine the functional dependence and if the variables in the model influences each other. Lastly, we shall apply error correction techniques to explain the short run analysis and how the deviation of the long run error can be corrected in the short run.

3.5   METHOD OF DATA COLLECTION

In the process of collecting data for this study, the research presented data from published work. Time series data on growth rate, exchange rate, money supply rate, interest rate and inflation rate beginning from 1970-2008 were obtained from the Central Bank of Nigeria (CBN) statistical bulletin

December 2007, Zenith Bank Economic Quarterly April 2009, other Central Bank of Nigeria's publications (e.g. Bullion, Occasional papers, Economic and Financial Review, Annual Report and Statistics). Major Economic and Financial Indicators, published related text-books, seminar papers, IMF publications among others were also vital sources of data.

CHAPTER FOUR

4.1 INTRODUCTION

This chapter examines the empirical investigation of exchange rate on the Nigerian Economy Growth. Co integration and error correction techniques are used to determine these relationships while the unit root test is conducted to evaluate the stationary of the variables using Augmented Dickey Fuller (ADF) test statistic. As noted earlier in the methodology, the test of significance shall be made use of to arrive at our logical conclusion. Finally, we need to carry out the estimation using the E-views package.

4.1 INTERPRETATION OF REGRESSION RESULTS

DEPENDENT VARIABLE LGDPGRT

SAMPLE: 1970 – 2008

VARIABLES	COEFFICIENT	STD ERROR	T-STATISTIC	PRO.
L EXT	0.034946	0.0955226	2.365830	0.0408
LINF	-0.057702	0.181199	2.318444	0.0551
LINT	-0.0514139	0.379926	-1.353261	0.1849
LMS	0.450429	0.186676	2.412891	0.0214
C	1.392476	0.964241	1.444116	0.1579
R-Squared	0.227956	Mean Dependent Variance		1.536242
Adjusted R-	0.137127	S.D. Dependent Variance		0.840028
Squared Sum	0.780310	Akaike Info Criterion		2.460957
Squared resid	20.70203	Schwarz Criterion		2.674234
Log Likelihood	-42.98867	F-Statistic		2.509734
Durbin-Watson Stat.	2.092959	Prob. (F-Statistic)		0.059967

Source: Author's Computation

The summary of the estimated model above revealed the nature of the relationship between the dependent and independent variables. In the model, four explanatory variables i.e. (Exchange rate, Influence rate, Interest rate, and Rate of Money supply) were regressed on Gross Domestic Product Growth rate.

Considering the R^2 (Co-efficient of multiple determination), we can conclude that 22.7% of the variations in Gross Domestic Product Growth rate of the economy is explained by the independent variables. This is not a good fit. R-2 (Adjusted co-efficient of multiple determination) this shows that even if all the missing variables are included 13.7% of the variations in growth rate of the economy is explained by the independent variables i.e. (exchange rate, inflation rate, interest rate and money supply). The D.W. statistics which gives a value of 2.09 indicates a negative serial auto correction. The implication of this is that the error term series are not correlated therefore, the forecasting power of the model increases however, the R2 which gives a value of 0.22 is less than 0.5 hence, it indicates that there is a contradiction with the D.W. statistic on this rate the model is spurriase hence, a unit root test will be conducted on each variables in the model in order to make them non-stationary variables. In addition, the joint influence of exchange of exchange rate, inflation rate, interest rate and money supply rate is showed by the F-statistic which has a value of 2.509 and significant at 5% (0.05) on economic growth, the Akaike and Schwarz criteria indicates the position of the model, the lower these criteria the better the model.

For the model, it now becomes appropriate to talk about the magnitude (size) and direction (sign) of the variables so as to establish if there is any divergence from the aprori expectation.

The value of 0.034946 for the exchange rate has an economic implication. The positive sign indicates a depreciation in the exchange rate. This our major concern

in this research. It is significant in analyzing the Gross Domestic Product Growth in Nigeria. In this view, 100% depreciation of the norminal exchange rate would increase the growth rate by 3.4%.

The value of -0.0577 for the inflation rate shows a negative sign which indicates an inverse relationship between inflation rate and economic growth rate. An increase of 100% in inflation rate will reduce the economic growth rate of Nigeria by 5.7%. the impact of money supply i.e Broad money (M_2) is also statistically significant at 5%. The value of 45.0429 which is positive indicates that an increase in M2 money supply rate by 45%. Considering the statistical position of exchange rate, inflation rate and money supply, we shall reject the null hypothesis and concluded that exchange rate inflation rate, and money supply rate are statistically different from zero.

4.3 UNIT ROOT TEST

The procedure involved in testing for unit root demands the establishment of the status of the variables employed in the analysis whether they are stationary or not. This is to eradicate the problem of spurrosity in the model and to make it a dynamic model. In order to determine the presence of unit root in each of the variables for the variables the stationary, the absolute value of the ADF statistic must be greater than any of the critical values.

TABLE 4.2   UNIT ROOT TABLE

Variables	ADF Statistics	CRITICAL VALUES			R2	D.W	Pob. (F Statistics	Remarks
		1%	5%	10%				
GDPGRT	-4.39117	-4.224	-3.534	-3.198	0.54	2.01	0.000009	Stationary
EXT	-3.9014	-4.232	-3.538	3.200	0.45	1.99	0.000176	Non-stationary

INF	-4.0778	-4.2242	-3.4348	-3.198	0.34	1.78	0.002772	Stationary
INT	-5.63354	-4.232	-3.538	-3.200	0.63	1.933	0.0000	Non stationary
MS	-3.9386	-4.224	-3.198	-3.198	0.38	1.89	0.001045	stationary

Source: Author's Computation

From the variables analyzed above, we can observe that the F-statistic is highly significant at 1% and the R^2 and D.W. do not contract each other hence eliminating spuriosity.

The result of the ADF unit root test is also shown in Table 4.3. the unit root test of the time series properties of the data show that the variables have unit root. Therefore, the order of integration of nominal exchange rate, and interest rate is 1 (1) i.e. both variables are at one lag and at one difference non-stationary while growth rate, inflation rate and money supply are at 1(0) i.e the do not have unit root they are already stationary at levels. As far as the variables are not stationary despite the difference of non stationarity, they are considered to be non-stationary. This is done to assess the possibility of co-integration in the data and to ensure consistency in subsequent stationary modeling.

TABLE 4.3

UNIT ROOT ON ANNUAL TIME SERIES DATA ON VARIABLES (ADF) (1970-200).

VARIABLES	AT LEVELS	1ST DIFFERENCE	ORDER OF INTEGRATION
GDPGRT	-4.39	-	1(0)
EXT	-2.33	-3.90	1(0)

INF	4.077	-	1(0)
INT	-0.6	-5.63	1(0)
MS	-3.93	-	1(0)

Source: Author's Computation

All the variables have trend and intercept.

4.4 COINTEGRATION TEST

This is the linear combination of non-stationary variables. It tries to explain that the variables reach equlibruim in the long run. Two models of contegration were used in the context of this study, first we make a residual series from the static OLS as valid error correction variables to confirm whether the variables are co-integrated value at levels, it confirms that the variables are co-integrated. Lastly, Johansen co-integrated test was also considered to confirm the non stationary status of the variables as indicated table 4.3 co-integration in order words establishes the stability among the variables in the long-run. Hence, co-integration shows the long run equilibrium among the variables.

TABLE 4.4A
RESIDUAL CO-INTEGRATION TEST
NULL HYPOTHESIS: RESIDOL has a unit root
EXOGENOUS: Constant
Lag length: 1 (fixed)

Augmented Dickey- Fuller Test		
Statistic		-4.194760
Test Critical Values	1%	- 3.6171
	5%	- 2.6171
	10%	- 2.6092

Mackinnon (1996)

Source: Own Computations

From the table above it shows that the variables in focus are co integrated since the absolute value of the ADF is greater than the critical values at levels (1%) that is - 4.194 > -3.61, in absolute value. This confirms the co-integration position of the variables.

TABLE 4.4B
JOHANSEN CO-INTEGRATION TEST
Lags Internal: 1 to 1

Unrestricted Co-integration Rank Task

			5%	1%
Hypothesized No. of CELS)	Eigen value	Likelihood ratio	Critical value	Critical Value
None **	0.678295	93.74498	68.52	76.07
At most 1*	0.531836	51.78257	47.21	54.46
At most 2	0.312541	23.70188	29.68	35.65
At most 3	0.173531	9.836022	15.41	20.04
At most 4	0.072484	2.784087	3.76	6.65

*(**) denotes rejection of the hypothesis at 5% (1%) significance level L.R. test indicates 2 cointegrating equation(s) at 5% significance level.

Source: Author's Computation.

We could capture co-integration position of the variables at 1% significant level from table 4.4B above. The likelihood ratio is greater than 5% up to at most 1 thus the variables are co-integrated. We shall therefore conclude that the variables explain each other in the long-run. Hence, the regression is not spurious.

4.5   PAIRWISE GRANGER CASUALITY TEST.

This test tells us the functional dependence of the model. This means it indicates the extent at which each of the variables affects each other. The importance of this is to show whether the Grows Domestic Product Growth Rate depends on exchange rate, inflation rate, interest rate and money supply or whether there is a feedback mechanism.

In table 4.5, we can deduce that at 5% level, Growth rate depends on exchange rate; interest rate depends on inflation rate while 1% money supply depends on inflation rate. However, Table 4.5 also confirms that there is no feed back mechanism among the variables.

TABLE 4.5

PAIRWISE GRAGER CAUSALTY TEST

SAMPLE: 1970-2008

LAG 1

Null Hypothesis	F-Statistics	Probability	Decision
Ext does not granger cause GDPGRT	5.01953	0023966	reject
GDPGRT does not granger cause Ext	4.99209**	0.03607	reject
INF does not granger cause GDPGRT	4.16759**	0.0447	reject
INT does not granger cause GDPGRT	2.41474**	0.05919	reject
GDPGRT does not granger cause MS	2.01973**	0.02412	reject
Ext does not granger cause INF	1.94088**	0.01094	reject
INT does not granger cause Ext	5.30135**	0.02737	reject
MS does not granger cause INF	10.3840*	0.00275	reject
INT does not granger cause MS	1.4756***	0.09208	reject

Source: Author's Computation.

*1% Significant ** 5% Significant *** 10% Significant.

4.6   ERROR CORRECTION MODEL

The crucial aspect of this study is the analysis of the short run model of equation (1b) which represents the dynamic error correction and representation of the series. The purpose of this is to indicate how disequilibrium in Gross domestic product growth rate can be adjusted in the short-run. The over parameterized equation

which comprises of the series of independent variables as related to stationarity with an inclusion of one-lag error correction variables (ECV) are shown in table 4.6A.

The parsimonious model is obtained from a stepwise climation of insignificant dynamic variables until parsimony is obtained; the result of this model is given table 4.6B.

The main focus of interest is the co-efficient of the Error Correction referred to as the speed of adjustment. The speed of adjustments shows us the number of times the error can be corrected infact it is the basis of the ECM. In our parsimonious model, the ECV is significant at 1%. The significance of the ECV is an evidence of disequilibrium among the variables.

TABLE 4.6A

OVERPARAMETERIZE MODEL

OVERPARAMETERISED MODEL
Dependent Variable: D(LGDPGRT)
Method: Least Squares
Date: 01/16/10   Time: 15:09
Sample(adjusted): 1976 2008
Included observations: 33 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LGDPGRT(-1))	-0.100248	0.209203	-0.479191	0.6392
D(LEXT,2)	-0.108584	0.391209	-0.277559	0.7854
D(LEXT(-1),2)	0.015021	0.592005	0.025374	0.9801
D(LEXT(-2),2)	0.173911	0.609768	0.285209	0.7797
D(LEXT(-3),2)	0.004351	0.415456	0.010472	0.9918
D(LINF)	0.003501	0.287019	0.012197	0.9904
D(LINF(-1))	0.256340	0.254980	1.005336	0.3318
D(LINF(-2))	0.797573	0.386453	2.063828	0.0581
D(LINF(-3))	0.151637	0.287531	0.527376	0.6062
D(LINT)	0.931791	0.936120	0.995376	0.3364
D(LINT(-1)	-1.308069	0.884187	-1.479403	0.1612
D(LINT(-2))	0.425849	0.853239	0.499097	0.6255
D(LINT(-3))	0.090155	0.800812	0.112580	0.9120
D(LMS)	0.953167	0.277118	3.439575	0.0040
D(LMS(-1))	0.086613	0.317943	0.272415	0.7893
D(LMS(-2))	-0.087374	0.258947	-0.337422	0.7408
D(LMS(-3))	-0.547923	0.241660	-2.267335	0.0397
ECV(-1)	-0.874760	0.307843	-2.841576	0.0131
C	-0.017775	0.145539	-0.122133	0.9045
R-squared	0.831242	Mean dependent var		-0.014983

Adjusted R-squared	0.614268	S.D. dependent var	1.233224
S.E. of regression	0.765923	Akaike info criterion	2.598594
Sum squared resid	8.212925	Schwarz criterion	3.460219
Log likelihood	-23.87680	Durbin-Watson stat	1.678208

TABLE 4.6B

Parsimonious model

Dependent variables D (LGDGRT)

Method: Least Sequence

Sample (Adjusted) 1970-2008

VARIABLES	COEFFICIENT	STD ERROR	T.STATISTIC	PRO.
D(LEXT (-2), 2)	0.259912	0.24991	2.351929	0.0390
D (LINF(-2))	0.896753	0.209078	4.289075	0.0002
D(LINT, 2)	1.250250	0.430126	2.906708	0.0069
D (LMS)	0.955806	0.153514	6.2261634	0.0000
D (LMS(-3))	0.51445	0.155850	-3.300892	0.0026
EVC (-1)	0.639715	0.144600	-7.190298	0.0000

R-Squared	0.787429	Mean dependent Var	-0.015631
Adjusted R-Squared	0.750778	S.O dependent Var	1.239423
S.E of regression	0.618746	Akaike Infor Criteria	2.032561
Sum squared resid	11.10255	Schwarz Criterion	2.299192
Log Likelihood	-29.56982	Durbin-Watson Stat	1.736531

Source: Author's Computation

From the table 4.6b, there is an evidence of the short run impact of past period money supply. It was discovered that at 1% significant level, an increase in past periods money supply would result to fluctuations (due to

the different signs at different time periods). The major attention was drawn to the impact of exchange rate depreciation on economic growth. An increase in exchange rate which refers to depreciation of the exchange rate, it was discovered that at 5% significant level, a depreciation in the exchange rate as indicated with a positive sign will increase the economic growth rate..

The error correction variable or term is also highly significant at 1% level. The speed of adjustment is the co-efficient of the error correction variable (ECV), this indicates how the departure from the long-run equilibrium is corrected. The speed of adjustment is given as -0.639 on this note 63.9% of the disequilibrium in national income last year is corrected this year. However, it takes two (2) years of Nigeria's economic growth to be fully adjusted by maintaining both exchange rate stability and ensuring appropriate monetary policy alongside with increased investment and adequate infrastructural facilities that will facilitates effective stabilization of economic growth in the short-run.
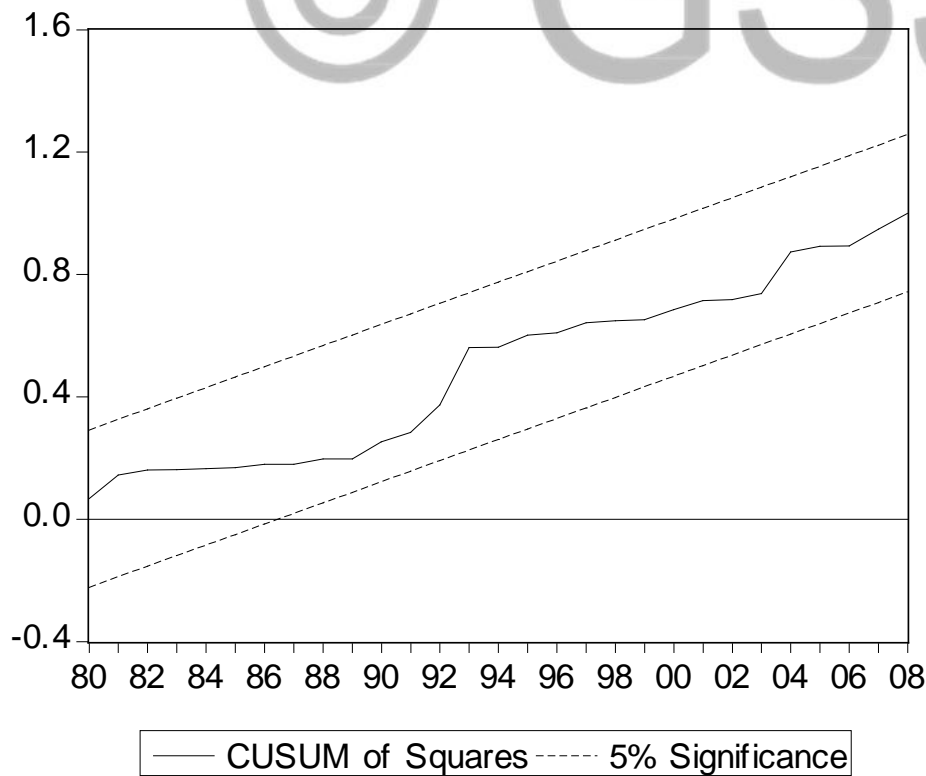
4.7   STABILITY TEST

To ensure confidence in the model was subjected to empirical test using the CUSTUM Test and CUSUM OF SQUARE TEST both at 5% significance level.

FIGURE 4.7A
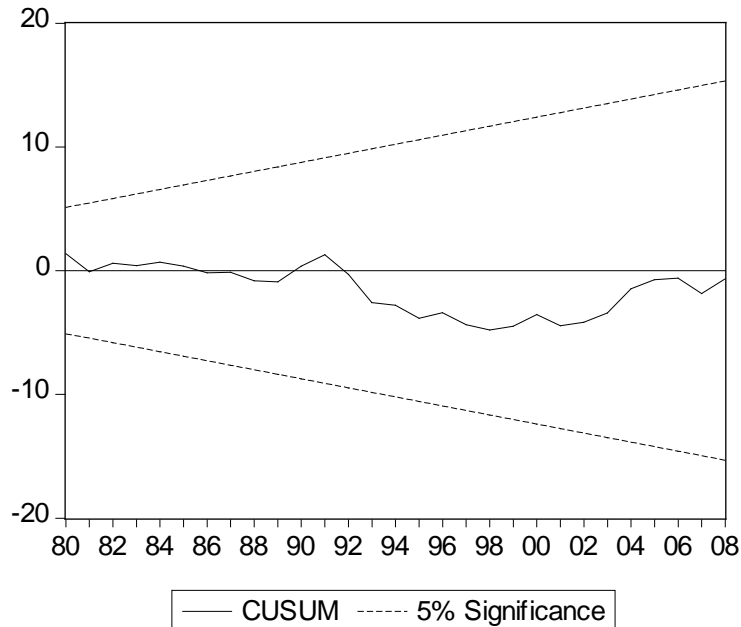
CUSUM STABILITY TEST

FIGURE 4.7B

CUSUM OF SQUARE STABILITY TEST

From figure 4.7A and 4.B above, we discover that the recursive estimates line in-between the two dotted lines (error band), we therefore conclude that the model specification is stable and can be used for forecast purposes.

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CHAPTER FIVE

SUMMARY, CONCLUSION AND POLICY RECOMMENDATIONS

5.1   SUMMARY AND CONCLUSION OF FINDINGS

This research work examined the impact of exchange rate depreciation in the Nigerian Economic growth between 1970-2008. Our chief objective in this study has been to examine the extent at which exchange rate depreciation affects the economic growth rate in the Nigerian Economy. The result of the empirical investigation carried out showed that in the long run, the contribution of exchange rate, money supply rate, inflation and interest rate explains the source and scope of economic growth rate in Nigeria. Exchange rate has indicated depreciation and has

established an adjustment mechanism for economic growth in the long-run. The long-run approach was determined by the interpretation of the OLS.

The result from the error correction model carried out showed that in the short run, the contribution of the exchange rate, interest rate, money supply explains the direction of economic growth rate in the economy in Nigeria.

The negative(-) sign of the speck of adjustment (coefficient of the correction variables) indicates that Growth rate as at the time of reference was above equilibrium therefore, there is need for dynamic adjustment (correction) to reduce it by manipulating exchange rate, inflation rate, money supply rate and interest rate variables. The significance of the speed of adjustment reveals the state of disequilibrium in Gross Domestic Product Growth rate a compared with other macroeconomic indicators specified in our model. It was revealed that exchanger rate affects economic growth rate positively with time dimension or lag. The time exchanger rate has tie duration in affecting the economy. Therefore, a depreciation/devaluation in last year exchange rate will increase the current year Gross Domestic Product Growth rate and vice versa.

From the Error correction parsimonious, most importantly is the speed of adjustment (the co-efficient of the error correction variable) which is about 63%. This shows that the extent and the number of times the government can use every available instrument to boost the national output growth rate in Nigeria. We therefore established that within two years, the federal government could correct the disequilibrium or distortion in GDP GRT arising from exchange rate.

The result of the unit root test shows that all the variables are considered to be non stationary despite the difference at which they resulted. Moreover, the co-integration tests both the residual and the Johanson test support the long run relationship of the variables that was established from the OLS. The results from

granger causality test established the fact that Gross Domestic Product rate can be explained by exchange rate, money supply rate, interest rate and inflation rate variables therefore, our model is correctly and CUSUM TEST confirmed that our model is stable and can be used for forecast purpose. On this rate, this research has revealed that the casual relationship between exchange rate, money supply inflation rate and interest rate and how the same can be used to correct economic growth problems in Nigeria.

5.2   POLICY IMPLICATION

There are several policy implications of these results, first, the significance of the nominal exchange rate reveals depreciation while it positive co-efficient signifies depreciation devaluation of the naira. However, it depreciation of the exchange rate in relation to other foreign currencies is set to discourage excessive importation of foreign goods into the economy and encourage local production so as to boost the national output in the economy. Therefore, the short-run depreciation expensive and encourage the government sector, furthermore, stability in money supply and interest rate will also enhance economic planning as well as controlling inflationary pressure in the economy although basic infrastructural facilities are also required in order to ensure positive impact of exchange rate depreciation in economic growth.

Lastly, the high response of the nominal exchange rate, interest rate, inflation rate and money supply on economic growth reveals that any policy option that focuses on these policy variables in boosting the economy in the short run would have a negative impact on the citizens of the country hence, the poor will be made to suffer hardship.

5.3   POLICY RECOMMENDATION

The recent deprecation in the exchange rate in Nigeria yields an adverse of the policy of the Nigerian government due to the wing mechanisms used in managing these policies. It is crucial that in achieving economic growth, exchange rate plays a vital role however, macro economic stability also constitute a key component of a growth-promoting environment and is indirectly a foundation for any successful poverty reduction strategy. Due to the task of ensuring adequate poverty reduction in the economy, the Nigerian government has adopted several policy options both monetary and fiscal policies to cushion the effect of poverty on the economy, however, admirable success have not been achieved due to consistent exchange rate depreciation without adequate measure to stabilize the effect.

First, I recommend that the Federal Government should accept the naira re-domination policy which aims at ensuring equal rate of exchange with the foreign currencies. This is because revaluation of the naira by making one US dollar (($1) equal one naira (₦1) will help in expanding the productive sector of the economy as well as reducing the cost of production. This policy has the ability that will encourage numerous investments in the country because our country has a lot of natural resources which can be used to produced goods and services.

Secondly, the Wholesale Dutch Auction (WDAS) system that has been introduced since February 2006, should also be maintained for a substantial reduction of the premium in the exchange rate that exists between the parallel and official market in order to sustain a value for our national currency.

Thirdly, the Federal government should embark on massive infrastructural development policies majorly in the rural areas in order to attract industries and investments in those areas so as to utilize the national resources available in those areas alongside increasing the growth rate of the economy.

I also recommend that the Federal Government reduces excuse duties to the bearest minimum as well as initiate legislative support to economic plans in order to achieve increase economic growth in the country.

Exchange rate depreciation can be inflationary however; a consistent monetary policy alongside with exchange rate policy should be implemented in order to control inflationary pressures. This establishes support with some caution for inflation targeting by the central Bank of Nigeria.

Furthermore, monetary authority should be transparent in exchange rate management in terms of biding prices in the foreign exchange market. This should be done by ensuring that quoted prices are adopted by every operator in the market and foreign currencies must be made available in order to satisfy the demand for it so as to discourage the fraudulent activities of some individuals or operators who take delight in hoarding foreign currencies to their own benefits.

Lastly, Nigeria economic policies should also be made transparent as this usually dismisses the derogatory comments of the external economics experts about the risks of investing in Nigeria. Economic policies based on transparency will boost the confidence of Nigeria's economic growth and development thereby disapproving the perception of the international communities and organizations about Nigeria's economy. A country's image is vital to its economic growth and development and it is only sound economic policies based on transparency that can achieve this goal.

5.4   SUGGESTED FURTHER STUDIES

The study was based on the empirical investigation of the impact of exchange rate depreciation on the Nigerian Economic Growth using the Error Correction Model (ECM) estimation technique. Despite the fact that moderate relationship exist between exchange rate, money supply, interest rate, inflation rate and economic

growth this therefore creates room for further studies about other likely factors that may contribute to the growth rate of the Nigerian Economy such as exchange rate volatility. The extent of the contribution of other factors can be realized by aiming to investigate impulse response and variance Decomposition by using vector Auto regression Analysis (VAR). The variance Decomposition indicates how each variation of each variables, will analyze the growth rate movement by that we would be know the extent by which each variables should be corrected quickly to adjust the fluctuations in the national output.

The impulse response on the other hand, indicates how each variables response to shock from other variables by this attention would be on the extent to which the economy can respond to shock from any of the variables. Furthermore, the Generalized autoregressive conditional Heteroskedastiary model (GARCH) can also be used in order to confirm the high volatility of the Naira over a defined period.

Moreover, further studies could also be conducted on the impact of monetary and fiscal policies on economic growth rate as it also affects the exchange rate system, money supply and government expenditure which influences, economic growth.

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