FEDERAL UNIVERSITY OYE-EKITI, EKITI STATE.
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A PROJECT ON THE IMPACT OF EXCHANGE RATE FLUCTUATION ON NIGERIAN ECONOMIC GROWTH

(1970-2013)

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BY

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CERTIFICATION

This is to certify that this research work titled the Impact of Exchange Rate Fluctuation on Nigerian Economic Growth (1970-2013) carried out by Odeniyi Deborah has been fully supervised by Dr. Amassoma and found worthy of acceptance in partial fulfillment for the award of Bachelor of Science In Economics and Development Studies.

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Date 09/10/2015
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(Head of department)

DEDICATION

This research work is dedicated to the Almighty God for his powerful manifestation in my life,

Alpha and omega-my life's cycle director,

Master Jesus-the pillar of my life,

God of joy-my source of joy,

Unsearchable God-the secret of my success,

Jesus Christ-my confidant,

Jehovah Shamah -my guardian,

Jehovah Nissi- my protector,

Holy Spirit-my comforter,

Adonai-my helper,

El-Morijah-my provider,

The most powerful God-my strength,

Trinity-my divine supervisor.

The giver of divine knowledge, wisdom and understanding for his everlasting glory.

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ABSTRACT

This research work is centered on the impact of exchange rate fluctuation on the Nigerian economic growth emphasizing the purchasing power of the average Nigerians and the level of international transaction. Exchange rate fluctuations have been of serious concern to the monetary authorities, policy makers and business tycoons of developing countries, Nigeria inclusive because of the relevance of exchange rate in international trade, investment and in determining the level of output growth of a country. Therefore it is vital to examine the degree at which exchange rate fluctuates which had called for a lot of attention in Nigeria. This study examined the Impact of Exchange Rate Fluctuation on the Nigerian Economic Growth using an annual data of forty-three (43) years covering the period (1970 – 2013). The standard deviation method was employed to capture and estimate the fluctuation inherent in the model as regards the research's objective. The study employed econometric techniques such as; Multiple Regression Model, Augmented Dickey Fuller (ADF) test, Johansen Co-integration test and the Error Correction Model (ECM). Evidence from this study exhibited that there exists a positive but insignificant impact of exchange rate fluctuation on Nigerian economic growth in both the long run and short run. This result is attributed to the ability of the Nigerian government to effectively regulate some other important macroeconomic variables which can infuriate exchange rate this regulation has thereby helped curtail the effects of exchange rate fluctuation during the study period. The monetary authorities might have initiated policies that helped absorb the effects of exchange rate fluctuation on economic growth in Nigeria. Therefore, the government should encourage domestic production of goods and services for Naira exchange rate appreciation and generally to promote economic growth in Nigeria. More so, to maintain and sustain exchange rate and economic stability, more attention need be paid to other more volatile macroeconomic variables like oil price and inflation rate in Nigeria.

Key words: exchange rate, exchange rate fluctuation, economic growth, purchasing power, and macroeconomic variables

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

The exchange rate of an economy has a crucial role to play as it directly affect all the macroeconomic variables such as: domestic price indicator, profitability of traded goods and services, allocation of resources and investment decisions, which explains why the monetary authorities and private sectors seek stability in these variables (Ajakaiye, 2001).

As a matter of fact, exchange rate fluctuations are now the bedrock for all economic activities globally, portraying exchange rate management as a major determinant of many countries economic policies (Todaro, 2004). The exchange rate is an essential macroeconomic variable for formulating economic policies in general and of economic reform programmes in particular in which these policies help accelerate the achievement of set macroeconomic goals. In Nigeria, these objectives include achieving and upholding price stability, balance of payment equilibrium, full employment, even distribution of income, economic growth and development.

Economic growth connotes a sustained increase in a country's national income (Jhingan, 1997). When the GNP rises eventually, it depicts a growth in the economy. Conversely, economic development refers to the structural and purposeful conversion of all the economic indicators from a low to a high level (Siyan, 2000)

Exchange rate is the price of one currency in terms of another currency Fagbemi (2006), this rate is an exceptional price which governments is interested in.

"In literatures, choosing the right exchange rate or maintaining relative stability is essential for both internal and external balance and economic growth in the long run. Inefficient management of the exchange rate causes distortions in the patterns of

consumption and production (Mordi, 2006). Similarly, excessive fluctuation in exchange rate creates uncertainty and risks for economic agents with destabilizing effects on the macro-economy. Private sector operators are concerned about the exchange rate fluctuations because of its impacts on their portfolios and may result in capital gains or losses"(Mordi, 2006) .

Moreover, Douglas and Jike (2005) noted that movements in the exchange rate are known to have ripple effect on other economic variables such as interest rate, inflation rate, unemployment rate, terms of trade, and so on. This claim was corroborated by Mordi (2006) where he pinpointed that exchange rate movements equally exerts effects on inflation, prices incentives, fiscal viability, exports competitiveness, efficiency in resource allocation, international confidence and balance of payments equilibrium.

All of these factors underscore the importance of exchange rate to the economic wellbeing of every country that deals in the international trade of goods and services.

The Nigerian economy is characterized by structural severity and bottlenecks Nigeria's exchange rate policy has undergone substantial transformation from the immediate post-independence period when the country maintained a fixed parity with the British pound, through the oil boom of the 1970s, to the floating of the currency in 1986, following the near collapse of the economy between 1982 and 1985. In each of these eras, the economic and political considerations underpinning the exchange rate policy had important repercussions for the structural evolution of the economy, inflation, the balance of payments and real income. However, a major policy reversal was effected in September 1986 when the flexible exchange rate regime was put in place following the adoption of the SAP. During SAP, there was absence of foreign exchange allocation and import licensing procedures and transactions in foreign exchange were market based. This exchange rate regime helped solve the overvaluation of naira but devalued the naira. Exchange rate depreciation had since increase the naira price of imports and this is expected to discourage importation (Oyejide and Ogun, 1995).

The very year SAP commenced, exchange rate stood at N2.02:U.S$1.00 but in 1987, 1990, 1991 it depreciated to an average of N4.02, N8.04 and N9.91 to US$1.00 respectively. Again, in 1992 and 1993 it depreciated to N17.30 and N22.05: US$1.00. In 1994, there was a need for the complete reversal of exchange rate policy due to the continuous depreciation of the exchange rate, thus with the re-introduction of a fixed exchange rate regime which made N21.8861 = US$1.00. The dismal performance of the economy as at the end of 1994 led to the re-introduction of the market-based approach under the autonomous foreign exchange market (AFEM) from January 1995 until October 1999. The exchange rate which depreciated further from the fixed rate of N21.8881: US$1.00 in 1994 to N81.00:US1.00 in 1995, and in less than a year after it was fixed to N84.38: US$1.00 and N92.65:$15$1.00 in 1998 and 1999 respectively. It further depreciated to N128.75 between 2002 and 2005. However, Nigerian exchange rate was relatively stable in 2003 and between 2005 and 2008 Naira appreciated. The Naira –dollar exchange rate as at 2011 was ₦162.30 but fell to ₦156.15 in 2012 and a further decline to ₦155.73 in 2013. The Naira-Dollar exchange value was highly volatile towards the end of 2014 and in 2015with ₦168 for 1USD, ₦204 for 1 USD in February 2015 but later reduced to ₦197 for 1USD as at August 2015 (Suraj et al, 2001).

1.2 STATEMENT OF THE RESEARCH PROBLEM

In particular, the issue of exchange rate management and macroeconomic performance in developing countries has been a major concern among other economic policies. The debate focuses on the degree of fluctuations in the exchange rate in the face of internal and external shocks. There appears a consensus view on the fact that devaluation or depreciation could boost domestic production through stimulating the net export component. This is evident through the increase in international competitiveness of domestic industries leading to the diversion of spending from foreign goods whose prices become high, to domestic goods. Guitan (1976) and Dornbusch (1988) pinpointed the success of currency depreciation in promoting trade balance largely depends on switching

demand in proper direction and amount as well as on the capacity of the home economy to meet the additional demand by supplying more goods. On the whole, exchange rate fluctuations are likely, in turn, to determine economic performance.

Exchange rate policies in developing countries are often sensitive and controversial, mainly because of the kind of structural transformation required, such as reducing imports or expanding non-oil exports, invariably imply a depreciation of the nominal exchange rate. Such domestic adjustments, due to their short-run impact on prices and demand, are perceived as damaging to the economy. Ironically, the distortions inherent in an overvalued exchange rate regime are hardly a subject of debate in developing economies that are dependent on imports for production and consumption (Obadan, 2006).

In Nigeria, the exchange rate policy has undergone substantial transformation from the immediate. However, in spite of these different methods of determining exchange rate, a realistic exchange rate has not been found for naira because the existing exchange rate systems had continued to widen the gap between the official and the parallel markets and had failed to prevent disequilibrium in the foreign exchange market. It has also failed to ensure stability of the exchange rate as well as maintaining a favorable external reserve positions and consequently ensure external balances. In addition, the various exchange rate systems in used in Nigeria had also failed to eliminate or reduce the incidence of capital flight and the power to correct the sky rocketing Naira exchange rate has been missing. Therefore, what an unfavorable movement in exchange rates meant is a movement in current exchange rates away from mint parities in the direction of specie-export points. This is a lower exchange value for Nigeria and this has been perceived by Nigerians to be the most dominating economic problem of the country.(Obadan, 1994)

Since there are conflicting (positive, neutral and negative) views on the impact exchange rate fluctuation has on economic growth, the questions raised from the above statements were:

What are the causes of fluctuations of Nigeria's currency values? What has been the trend and pattern of Nigeria's exchange rate? How can exchange rate fluctuations be captured, estimated and predicted? What is the impact of exchange rate fluctuations on Nigerian economic growth? , To what extent do exchange rate fluctuations affect Nigeria's economic growth?

The answers to the aforementioned questions will be the focal point of this study.

1.3OBJECTIVES OF THE STUDY

Since the exchange rate of a country plays a key role in international economic transactions because no nation can remain in autarky due to varying factor endowment. the broad objective of this study is to analyze the impact of exchange rate policies on gross domestic product and hence on the macroeconomic performance and development of the Nigerian economy with regards to the unstable nature of naira's exchange rate, the impacts on these macroeconomic variables depends solely on the prevailing economic conditions of a country at a point in time.

These specific objectives are:

1. To investigate the trends in exchange rates and economic growth between the years 1970 and 2013.
2. To capture and measure the fluctuations of Nigeria's exchange rate.
3. To Measure empirically the effects of fluctuations in the exchange rate on economic growth between the years 1970 and 2013 in Nigeria.
4 To ascertain if exchange rate fluctuation has a positive or negative effect on Nigerian economic growth.

5. To determine if exchange rate fluctuation of naira have either a short ,long term or both long and short term dynamics on Nigerian economic growth.

1.4 HYPOTHESIS OF THE STUDY

Based on the objectives of the study, the following hypotheses were formulated.

a) Ho: Exchange rate fluctuation has no significant impact on Nigeria economic growth.

   Hi: Exchange rate fluctuation has significant impact on Nigerians economic growth.

b) Ho: Exchange rate fluctuation has a positive impact on the Nigerian economic growth.

   Hi: Exchange rate fluctuation has a negative impact on the Nigerian economic growth.

1.5 SIGNIFICANCE AND JUSTIFICATION OF THE STUDY

This research work is important in identifying and correcting the cause of naira's exchange rate instability which when corrected will improve the country's economic performance and therefore its development in terms of increased standard of living of the citizens. This is so because if the unstable exchange rate of naira is proved to be affecting the macroeconomic major variables like Real exchange rate, Inflation Rate, Gross Domestic Product and Trade Openness of the country, all attempts should be made to stabilize the exchange rate, because these variables are essential for the measurement of growth and development of any economy.

This study would further provide an empirical analysis of the impact of exchange rate fluctuations on Economic growth in Nigeria with the view of ascertaining its exposure to exchange rate risk. This would go a long way in helping to design policies and measures to combat the negative effects of exchange rate persistence in the country.

Importantly, this study would definitely aid the government and the regulatory body of Nigeria's exchange rate- Central Bank of Nigeria (CBN) to evaluate foreign exchange system in order to adopt the policy that best suits the economy.

1.6 THE SCOPE OF THE STUDY

This research work is designed to cover the period 1970-2013 a period of forty-three years. The scope was chosen to reflect the fixed exchange rate and the floating exchange rate period. More so, it analyses the Nigeria's experience of exchange rate fluctuation in the PRE-SAP period, during SAP and POST –SAP and the concomitant effect on economic growth and development in Nigeria for the period of thirty four years.

The general overview of the profile of Nigeria's exchange rate over the years shall also be discussed. Furthermore, the study shall seek to identify the macroeconomic factors that are responsible for exchange rate fluctuations in Nigeria.

1.7 DEFINITION OF CONCEPTS

- Exchange rate: exchange rate refers to the rate at which one currency exchanges for another (Jhingan, 2003)
- Exchange rate fluctuation/volatility: Exchange rate volatility refers to the swings or fluctuations in the exchange rates over a period of time or the deviations from a benchmark or equilibrium exchange rate. Also, it is seen as the risk associated with unexpected movements in the exchange rate. (Mordi, 2006).
- Economic growth : this is described as an increase in the productive capacity of a country which is usually measured within a year (Jhingan,2003)
- Autarky : this is a situation where a national economy is self sufficient and independent (obadan ,2006)
- Fixed/pegged exchange rate: The fixed exchange arte is a phenomenon which occurs when the rate of a currency against other currencies is fixed. Under the pegged exchanged rates, all exchange transactions take place at an exchange rate that is determined by the monetary authorities (Adetifa, 2005).
- Inflation: Inflation is defined as the sustained and significant rise in the general level of prices of goods and services (Jhingan, 2005).

1.8 ORGANISATION OF WORK

This research work is structured into five chapters for proper organization of the research work.

Chapter one which is the introductory part of the research work includes all what has been done in this chapter; like the background to the study, statement of the problem and the objectives of the study and so on.

The second part (chapter two) deals with the review of literatures and related issues on exchange rate, history and the recent developments in Nigerian exchange rate movement and the institutional framework and management strategies shall also be discussed in the chapter.

Chapter three shall be on the research methodology and shall entail the specification of the models.

The fourth chapter of the study presents the analysis of data and the discussion of empirical results of the estimations.

Chapter five which is the last chapter research is the conclusion part of the research work, where the findings and recommendations will be clearly stated.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

This chapter is divided into two parts. The first part involves definitions and theoretical reviews on the effects of exchange rate volatility on international trade and investment (the transmission channels) and eventually on economic growth. In the second part of this chapter there is the review of empirical works relating to the effects of volatility in the exchange rate on economic growth and an overview of exchange rate regimes practiced by Nigeria over the years.

Exchange rate in Nigeria is an important macroeconomic variable in the economy today because of its significance in international trade, economic stability, external balance and competitiveness, which is done via the mechanism of the relative prices of foreign and local commodities, services and assets (Seyi, 2012).Exchange rate is an important economic measurement because it reflects the economic strength and competitiveness with other economies (Asinya and Takon, 2014; Akonji, 2013).

Most importantly, a country's economic objectives are the strong factors in determining the exchange rate of such country. The strength of a country's currency depends on a number of factors. These include the state of the economy in terms of its competitiveness and volume of its exports, the level of domestic production, and the quantum of foreign reserves (CBN, 1999). Where the importation of essential goods and services becomes costly, as a result of increase in prices of domestic goods, the purchasing power of the domestic currency reduces– a depreciation of the domestic currency.

There exists a numerous body of theoretical and empirical research that suggested a more suitable exchange rate for developed and developing market economies (like Nigeria) and how exchange rate fluctuation affects Nigerian economic growth.

Exchange rate changes have pervasive impacts, with consequences for prices, wages, interest rates, level of production, and employment opportunities. After the Bretton Woods System collapsed, many countries have continued to witness incessant and ever increasing fluctuations in their exchange rates, particularly short term volatility has been on a crescendo sequel to the shift from fixed to flexible exchange rate in early 1970's and thereafter. High volatility and sudden changes in exchange rate is one of the obstacles for the success of macroeconomic policy. Forecasting nominal exchange rates is a difficult task especially in a flexible exchange rate arrangement (Rogoff, 2009).

Factors affecting exchange rate can be economic, political, and psychological and can also be a short run or long run phenomenon. Behavior of exchange rate can be captured through macro variables and/or micro variables. Policy makers and monetary authorities are always looking for feasibly solutions to reduce the fluctuation in currencies values.

2.1 CONCEPTUAL ISSUES /THEORETICAL FRAMEWORK

This section addresses key concepts that facilitate the appreciation of the economics of exchange rate management and fluctuation. It serves as the frameworks for contextualizing the focus of this research work.

2.1.1 Foreign exchange; IMF defines foreign exchange as the monetary authorities claims on foreigners in the form of bank deposits, treasury bills short and long term government securities and other claims usable in the events of balance of payments deficits including non-marketable claims arising from inert central banks and inter-governmental arrangements, without regards to whether the claim is in the debtors or creditors currency denomination (odusola, 2002).

Central Bank of Nigeria defined foreign exchange as any currency other than the Nigerian currency including coins and notes which are legal tender outside Nigeria. For example, promissory notes, bills of exchange and travelers cheque payable or expressed in a non-Nigerian currency.

2.1.1.2 Foreign exchange market: This is a framework in which one country currency is traded for another country's. An efficient foreign exchange market implies a situation where the actual exchange rate equals the equilibrium exchange rate.

2.1.1.3 Foreign exchange rates; exchange rates are the prices at which currencies trade for each other; spot and forward rates (odusola, 2006). It is the amount of one country's currency traded for one unit of another.

There are distinguished concepts of exchange rate; the two distinguished concepts of exchange rate are the nominal exchange rate and the real exchange rate.

2.1.2.1 Nominal exchange rate

This is a monetary phenomenon which measures the relative price of two currencies for example, naira in relation to the U.S dollar (Obadan, 2006); the price of one currency in terms of another .it can be the price of a foreign currency in terms of a local currency or a local currency in terms of a foreign currency. For example, Nigerian naira can be compared to the U.S dollar which depicts the proportion of rise/fall in the price level of foreign goods as compared to domestic prices that is the nominal exchange rate takes cognizance of changes in price level. This definition has since been used since the introduction of the second tier Second tier Foreign Exchange Market (SFEM) under SAP in 1986 .This definition means that the unit of naira per dollar tells us by how much the price level of international goods has risen or fallen relative to domestic prices as a result of changes in the exchange rate. The nominal rate is set on the open market and is based on how much of one currency another currency can buy.

The NER can be expressed in bilateral or multilateral term. A bilateral exchange rate refers to the exchange rate of one currency in terms of another (Copeland, 1989). On the other hand, a multilateral exchange rate also referred to as the Nominal Effective Exchange Rate (NEER).It is the rate of one currency against a weighted composite basket of that country trading partner currencies. The movements in the multilateral exchanges rates represented by NEERs rather than those of the bilateral exchange rates are the focus of this study.

2.1.2.2 Real exchange rate

An exchange rate as stated earlier is the rate at which one currency may be converted into another. Among other things, the exchange rate determines how much the residents of a country pay for imported goods, and services, and how much they receive as payment for exported goods, and services. RER can be expressed in nominal or real terms. It is referred to as the nominal exchange rate (NER) when inflation effects are embodied in the rate, and as the real exchange rate (RER) when inflation influences have been excluded (Copeland, 1989; Lothian and Taylor, 1997).

Real exchange rate measures the relative price of two goods unlike nominal exchange rate which measures the relative price of two moneys (odusola, 2006).

Although there is a link between the two concepts in that change in the nominal exchange tare can cause short run changes in the real exchange rate. For instance, a devaluation or depreciation of the nominal exchange rate will lead to real exchange rate depreciation. More so, real exchange rate can be viewed internally and externally; it is viewed externally as the nominal exchange rate adjusted for price level differences while the internal exchange rate measures the relative price of tradable and non-tradable goods in order to capture the internal relative price incentive in particular country for producing or consuming tradable as opposed to non-tradable goods. (odusola, 2006).

The bilateral real exchange rate and the effective real exchange rate and the multilateral real exchange rate are the types of real exchange rate.

The bilateral real exchange rate comprise the price of a representative consumption or production basket in the home country with a similar representative price in the foreign country measured in the same currency.

The effective real exchange rate is used to describe weighted aver ages of exchange rate which makes it is quite similar to the multilateral RER and it implies the accumulation of all forms of taxes imposed on imports and exports.

The multilateral RER is the weighted average of the eternal real exchange rate index with respect to using multiple trading partners.

2.1.3 Real exchange rate volatility

RER volatility connotes the short-term fluctuations of the Real Exchange Rate about their longer-term trends (Frenkel and Goldstein, 1987). It also entails short-term (monthly, weekly, or even hourly) fluctuations in the exchange rate measured by changes in their absolute percentage. Volatility is the measure of the amount of randomness in an asset return at any particular time. There are different types of volatility measures ranging from actual, historical/realized, and implied to forward volatility. There is volatility when the values of a given series change rapidly from period to period in an unpredictable manner (Greene, 2003 and Engle, 2003).

2.1.4 Fundamental equilibrium exchange rate

The equilibrium exchange rate is defined in terms of the relative prices of traceable and non-traceable (Davaranja et al, 1993). It is the real effective exchange rate suitable and achievable with simultaneous achievement of internal and external balances in the medium term.

Internal balance means the highest level of economic activity that is consistent with a desirably controlled level of inflation based on the existing factor endowments.

External balance connotes the determination of the level of current account deficit that is in line with the development objectives ensuring sustainable medium term target for the current account.

The two distinguished types of equilibrium exchange rate regime are the fixed exchange rate and the flexible exchange rate

2.1.4.1 Fixed exchange rate regime

This regime involve the pegging of the exchange rate of domestic currency to a unit of gold, a reference currency or a basket of currencies with the primary objectives of ensuring a low rate of inflation. This induced an overvaluation of Naira and was supported by exchange control regulations that engendered significant distortions in the

economy. The major drawback of the fixed regimes, however is that it implies the loss of monetary policy independence.

2.1.4.2 Floating exchange rate regime, on the other hand implies that the forces of demand and supply will determine the exchange rate. This regime assumes the presence of an invisible hand in the foreign exchange market and that the exchange rate adjusts automatically to clear any deficit or surplus in the market. When a floating exchange rate changes, one country's currency will appreciate and the other country's will depreciate. Over the past four decades, Nigeria has utilized different forms of exchange rate regimes. In the 1960s , fixed regime was employed before shifting to pegged arrangement in the 1970s up to the time of introducing the structural adjustment programme in June 1986 in order to ensure a low rate of inflation in the economy , reduce transaction costs of international trade and reduce the domestic economy's exposure to external shocks by stabilizing exchange rate. However, since this time, several forms of floating regimes like the free, stinking and dirty) have been used

2.1.5 THE RELEVANCE OF EXCHANGE RATE TO THE NIGERIA ECONOMY

The relevance of exchange rate to economic growth of developing nations as explained by Roderick (1993), Ajakaiye (2002) and Afolabi (2006) are as follows;

Exchange rate helps to increase a country's foreign exchange earnings because the foreign exchange reserve of a country is exchange rate responsive thereby multiplying the effect on the growth of a country's economy. When there is more export due to increase in the exchange value of a country's currency, this would increase the foreign exchange reserve of the country-this is not the case in Nigeria.

Second, it has been empirically confirmed that advanced countries have high external reserves because of the high level of technology in their possession. When Nigeria has high external reserves there will be an increased rate of foreign investment.

Third, an increase in foreign exchange will strengthen the Naira and make it more competitive in relation to foreign currencies, when this happens, investors confident in the Naira would be high, and this has not been achievable in Nigeria because of the Naira's exchange rate fluctuation, persistence of corruption and capital flight in the country. (Afolabi, 2006)

In addition, Exchange rate helps enhance the standard of living of the citizens of a country-When there are high foreign external reserves, it will help improve citizen's standard of living but Nigeria's case has been different.

However, a weak naira would require a high cost of maintenance to balance other countries currencies for successful business transactions.

2.1.6 THE HISTORICAL DEVELOPMENT OF EXCHANGE RATE IN NIGERIA

Ever since post-independence era when the country was operating a fixed exchange rate till 1970s and a market based exchange rate system which was known as SAP in 1986. In short, there has been a tremendous change in Nigerian exchange rate policy.

Before 1973, Nigerian exchange rate policy was in line with the IMF par value or fixed exchange system, Nigerian exchange rate was weak as it was dictated by the British pound sterling or the U.S dollar which was largely subjected to administrative management. This continued till 1967 when the pound became devalued and thereafter to the dollar, the IMF par value system failed in December 1971, thus naira was adjusted to the U.S dollar.

In 1978, the naira was pegged to a basket of currencies of Nigerian major trading partners. This policy was abandoned in 1985 in favour of quoting the naira against the

dollar. The exchange rate policies formulated during this period was equilibrating the balance of payments; preservation of external reserve values and for the maintenance of a stable exchange rate.

Since the macro economic objectives of a country like Nigeria in this case formed the major determinant of exchange rate. There was an appreciation in the nominal exchange rate from the 1970s to 1986 excluding 1976 and 1977 probably due to the encouragement of imports especially to implement development projects which resulted in overreliance of Nigerian industries on imported inputs, thus a twin problem of unfavourable balance of payments and depletion of external reserves was created.

From 1981, a policy of gradual depreciation of naira against the U.S dollars / pound sterling was implemented due to the collapse of oil prices in the world market.

Nevertheless, up to the time of SAP, exchange rate policy encouraged the overvaluation of the naira as reflected in real exchange rate. In an attempt to achieve the goal of the new exchange rate policy, a transitory dual exchange rate system (First and Second –Tier – SFEM) was adopted in September, 1986, but metamorphosed into the Foreign Exchange Market (FEM) in 1987. Bureau de change was introduced in 1989 with a view to enlarging the scope of FEM. In 1994, there was a policy reversal, occasioned by the non-relenting pressure on the foreign exchange market.

In addition, reforms such as the formal pegging of the Naira exchange rate, the centralization of foreign exchange in the CBN, the restriction of Bureau de change to buy foreign exchange as an agent of CBN were all introduced in the foreign exchange market in 1994 as a result of the volatility in exchange rates.

Yet, there was another policy reversal in 1995 to that of "guided deregulation". This necessitated the institution of the Autonomous Foreign Exchange Market (AFEM) which later metamorphosed into a daily; two ways quote Inter-Bank Foreign Exchange Market (IFEM) in 1999. The Dutch Auction System was reintroduced in 2002 as a result of the intensification of the demand pressure in the foreign exchange market and the persistence in the depletion of the country's external reserves.

Finally, the wholesales Dutch Auction System (W-DAS) was introduced in February 20, 2006. The introduction of the WDAS was also to deepen the foreign exchange market in order to evolve a realistic exchange rate of the Naira.

To summarize it all, the numerous methods of exchange regimes practiced in Nigeria hitherto include the extreme case of fixed exchange rate system, freely floating regime, adjustable peg, crawling peg, target zones, managed float and so on.

2.1.7 Fluctuations in Nigerian exchange rate and its implications on her economy

Exchange rate instability is a manifestation of economic volatility (Friedman, 1953). The determinants of exchange rate are: economic fundamentals (like the GDP growth rates, inflation, balance of payments position, external reserves, interest rate movements, external debt position, productivity), market psychology and expectations: socio-political factors ;macroeconomic shocks and speculative contagion.

These drivers influence exchange rates dynamics through the demand and supply of foreign exchange whose influence can either create or suppress pressure on the market which then cause depreciation or an appreciation of the exchange rate.

For instance, the Boko Haram insurgencies, the kidnap of the Chibok school girls with a lot criminal activities and social unrest present in Nigeria had sent warning signals of a nation under siege and thereby driving away foreign investments, resulting into more pressure on the foreign exchange market, induction of capital flight and presence of distortions in the economy (Mordi, 2003).

Causes of exchange rate volatility include: Liquidity surfeit, Macroeconomic stability, High import dependency, Huge debt service payments, High arbitrage premium.

2.1.7.1 Oil price changes and its effects on the Nigerian economy

The transmission mechanics, through which oil prices affect real economic activity, include both supply and demand channels. The supply side effects are related to the fact that crude oil is a basic input to production and an increase in oil price leads to rise in production costs that induces firms lower output, the demand side effect is derived from

the fact that oil price changes affect both consumptions and investment decisions. Consumption is adversely affected because such increase in oil price also affects firms input prices and thereby increasing their costs. Nigerian `foreign exchange earnings are more than 90 per cent dependent on crude oil Export receipts. The result is that the volatility of the world oil market prices has a direct impact on the supply of foreign exchange.

The most significant effect of the oil boom was the changes in the structure of the Nigerian economy. Nigeria transformed from a diversified economy to a monotonous economy of oil which is subject to the risks of an unpredictable market. The economy heavily relied on oil exportation which was about 80% of total government revenue and some 90% of the total export earnings.

The agricultural sector which was the most lucrative sector before the discovery of oil was ignored and its contribution to the GDP declined to about 40% in the 70s and to about 20% in the 80s.whereas oil dominated the economy between 1970 with its contribution to the GDP of about 10%, government revenue of about 81% and export earnings of about 96%.

The Nigerian economy witnessed a rapid expansion as a result of the robust revenue from oil and dominance of the public sector.

The availability of foreign exchange and an overvalued naira discouraged exportation of goods and domestic consumption. People imported gas because importation was relatively cheap; Nigeria then developed a fondness for imported goods and foods. Industries became over dependent on imported inputs for their operations and production activities.

In 1977/1978, Nigeria experienced a short economic crisis triggered by a fall in oil [prices in the global market. And in June 1981, a more serious economic crisis surfaced and its effects linger till today. The fall in oil prices was caused by the global recession, the influence of OPEC members, the implementation of a less oil consuming policies

(conservative policies) of the oil consuming countries and disagreement among OPEC members. This fall in oil prices affected Nigerian budget since the actual revenue generated differ from the expected, Nigeria then resorted into borrowing using about 44% of its foreign exchange earnings to service this debts, since Nigeria could not get more loans from the international bodies , there seemed to be no way to salvage the dwindling state of the economy. Certain measures were taken to salvage its economic situation include; Imports were restricted, workers were laid off because of the liquidation of the industries which were forced to close. This formed the bedrock for SAP and SFEM. Notably, the fall in oil price had awakened the Nigerian economy from slumber (Udoji, 1999).

After the fall in oil price, the overvaluation of naira was the greatest factor inhibiting Nigerian economic growth, since successive Nigerian government refused to devalue it because of the political and social consequences of making such a decision and the difficulty of determining the correct value of naira.

The rejection of IMF suggestion of a 60% devaluation of naira in 1983 by Nigerian government led to the introduction of the Second-Tier Foreign Exchange Market whose determination of naira is market based. This, thereafter led to the introduction of the Dutch Auction System (DAS), Modified Dutch Auction System (MDAS), Weighted Dutch Auction System (WDAS), punctuated by fixed exchange rate (1994-1998), the monetary authorities found it necessary to revert to fixed rate policy in 2008. It soon abandoned that later for currency redenomination that was rejected. The return to DAS, even with some modifications, and the continuous price inelasticity of demand for foreign exchange serve as a proof that the Nigerian monetary authorities have not got the foreign exchange policies right.

Nigeria is regarded as the largest oil producing nation in Africa and the tenth Largest oil producing nation in the world interim of oil reserves with a production level of close to 2 million barrels per day, though this level has been seriously affected due to crises in the oil production region Nigeria benefited handsomely from hikes in the oil. Since the

beginning of second guild war, the balance of payment portion of the country remains highly favourable with over 20 months of imports, which translates to over 55 billion of reserves. Exchange rate was moderately stable between 2000 and 2008, while real GDP growth average 5.01 percent within the same period.

However, oil consumption in the country heavily relies on the import of refined petroleum and products since the collapse of Local refineries in the late 1980's thus over 90% of the country domestic requirements of oil are sourced from imports. The near collapse of the power generation and distribution industry in the country further accentuates the acute shortage of energy. The burden on the government to provide energy resource at subsidy rate became very unwisely and between 1999 and 2008, the federal government of Nigeria has reduced its subsiding approximately 9 times. This seriously affects production, consumption and instruments in the country between 1986 and 2007.

2.1.7.2 Foreign trade, exchange rate and economic growth in Nigeria

The conclusive evidence that most developing countries have constrained growth rate because of their balance of payment (or financed by capital inflows) while resources lie idle domestically in these circumstances, export growth will raise output growth by relating balance of payments constraints on demand irrespective of any supply-side effects of capital flows (mc combine and thirwall, 1994, and 1977).

In an open economy context the major component of autonomous demand is export growth and faster export growth allows for other components of demand to grow faster. It is possible, as mc combine does, to then disaggregate the contribution to growth exports and other components of demand within this demand-oriented framework.

the structure of the export trade of developing countries has however, undergone a substantial transformation. Since 19890's with rapid growth in the export of manufacturer, this by the early 1990's and had come to be the dominant flow of merchandise from developing to developed countries continued to manufacture exports to

developed countries represented three times the values of non-oil commodities had exceeded the value of manufactured exports. (Onah 2002)

It is appalling that despite the huge amount of foreign exchange which the CBN supplied to the foreign exchange market had no impact on the performance of the real sector of the economy. Arising from Nigerian overdependence on imported finished consumer goods, the foreign exchange earnings from oil continued to generate output and employment growth in other countries from which Nigerian imports originated. This development necessitated a change in policy on 22nd July 2002, when the demand pressure in the foreign exchange market intensified and the depletion in external reserves level persisted. Nigerian high propensity to import caused by an over-valued currency makes import cheaper and promotes balance of payments deficits. Nigeria experienced an unsustainable demand for foreign exchange in the early 1980s. Nigerian government therefore resorted to foreign exchange rationing through import licensing which complicated the Nigeria economic situation with all sort of corrupt practices and total distortion of the economic activities.

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2.2 THEORETICAL FRAMEWORK

Economists and financial experts are yet to agree on a single theory that defines the exchange rate. Hitherto, there are at least five competing theories of the exchange rate concept, which may either be classified as traditional or modern. The traditional theories are based on trade and financial flows, and purchasing power parity, and are important in explaining exchange rate movements in the long run.

These theories are: the elasticity approach to exchange rate determination, the monetary approach to exchange rate determination, the portfolio balance approach to exchange rate determination, and the purchasing power theory of exchange rate determination. The modern theory, however, focuses on the importance of capital and international capital flows, and hence, explains the short run volatility of the exchange rates and their tendency to overshoot in the long run.

Various studies, particularly, in the developed and middle-income countries, have also explored the impact of exchange rate volatility and associated uncertainty on trade, investment, and economic growth. Majority of these studies have found that exchange rate volatility can affect trade directly, through uncertainty and adjustment costs, and indirectly through its effect on the structure of output and investment (Cote, 1994)

Aluko (1988), in his own view on the appreciation and depreciation of the naira since 1970 with regards to its effect on balance of payments and external reserves of the Nigeria, concluded that depreciation of the naira which he said was overvalued was necessary for the implementation of SAP. He did not however, consider the developing nature of the Nigerian economy. And as a developing economy, Nigeria mainly produces primary product and imports machinery and some (majors) raw materials for its industries. He did not consider the attendant high cost of imports which depreciation and devaluation would impose on such imports which would in turn, lead to high inflation rate. Kanyo (1988), in his work, blames competitive price floating exchange market. This he said is necessary due to the developing nature of the Nigerian economy.

Adamu (2005) researched on the impact of exchange–rate volatility on private investment and found a negative relationship between exchange rate volatility and private investment.

Eze (1988), in his appraisal of foreign exchange rate fluctuation on the Nigeria economy recommended that the central bank Nigeria should stabilize the value of Naira exchange at efficiently approved rate to the public. He however suggested what the government should influence in the foreign exchange rate, positive economy reforms that will reduce the adverse effects on unstable foreign exchange rate on the Nigeria economy.

2.2.1 The purchasing power parity

The origin of purchasing power concept has been traced to the 16th century Salamanca School of Spain. During the nineteenth century, classical economists, like Ricardo, Mill, Goshen and Marshall endorsed and developed more or less qualified PPP views. The

theory, in its modern form, is credited to Gustav Cassel, a Swedish economist, who developed and popularized its empirical version in the 1920s (Rogoff (1996). The nominal exchange rate should reflect the purchasing power of one currency against another and that a purchasing power exchange rate existed between any two countries which are measured by the reciprocal of one country's price level against another (Cassel (1916).

The central tenet of the PPP is that the equilibrium exchange rate is proportional to the relevant purchasing power parity of national currencies involved that is exchange rate fluctuations will destabilize the purchasing power of a country and hence impact significantly on investment and trade (Aghevli (1991).

The condition for free trade is that the nominal exchange rate between two countries should be equal to the ratio of the price levels in the two countries (Taylor (1988),

This approach assumes that equilibrium real exchange rates remain constant over time and therefore, the nominal exchange rate movement tends to offset relative price movements.

The purchasing power theory parity theory defines two equilibrium rate systems. The first is the short run equilibrium exchange rate which is defined, in this context, as the rate that would exist under a purely freely floating exchange rate balance. Second is the long-run equilibrium that would yield balance of payment equilibrium over a time period in cooperating and cyclical fluctuations in the balance of payments (including those of prevailing exchange rate from the relative purchasing power in a currency are generally attributed to problem of arbitrage and expectations in the goods market. Some of the assumptions of PPP theory however are quite unrealistic and ambiguous, for instance the level of efficiency are different in countries as such there are deferring cost functions.

(Argy and Frenkel, 1978)

2.2.2 The traditional flow model

The traditional flow model is also known as the balance of payment model. In this model, the exchange rate is in equilibrium when supply equals demand for foreign exchange,

(Olisadebe, 1991:56). The exchange rates adjust to balance the demand for foreign exchange depends on the demand domestic residents have for domestic goods and assets. On the assumption that the foreign demands for domestic goods is determined essentially by domestic income, relative income plays a role in determined exchange rate under the flow model. Since assets demand can be said to demand on difference between domestic and foreign interest rates differential is other major determinants of the exchange rate in this frame work.

This theory stipulates that under free exchange rates, the exchange rate of the currency of a country depends upon its balance of payment. a favourable balance of payments raises the exchange rate, while an unfavourable balance of payments reduces the exchange rate (Jhingan (2004). Thus the theory implies that the exchange rate is determined by the demand for and supply of foreign exchange.

The major limitation of the traditional model or the portfolio balance model is the over-shooting of the exchange rate target and the fact that substitutability between money and financial asset may not be automatic; this limitation triggered the emergence of the monetary approach.

This study employed the purchasing power parity and the traditional flow model because of the aforementioned assumption and justification.

2.2.3 Theoretical Review

The early researches of Mundell's (1961) and McKinnon (1963) argue that economic size and openness are the fundamental determinants affecting a countries exchange regime of choice. He noted that small and open economies are more likely to adopt fixed exchange rates regime than large and relatively closed economies. Mohanty and Klau (2005) postulated that exchange rate is likely to assume special importance for monetary policy when the pass through of the exchange rate is high because it will affect real and financial

sector directly and indirectly More so, some more recent studies confirm that the determinants of the choice of the exchange rate regime in transition economies should have into consideration the economic size and geographical concentration of trade (Markiewicz, A. 2006; Hagen J.& Zhou, J.).Some researches extended the fundamental determinants and causes of exchange rate to be: integration into the international financial market, macroeconomic performance, the development of the financial sector, and political economy.

The Hooper-Morton's (1982) equilibrium real exchange-rate model is another approach to exchange rate determination. Frenkel (1976), based on the assumption of PPP, specified a model of the mark-dollar exchange rate during the German hyperinflation while Humphrey and Lawler (1977), using the standard monetary model investigated the behaviour of the US-UK and US-Italy exchange rates, respectively.

Edwards (1983) worked on the Peruvian experience with floating exchange rates by using a short-run version of the simple monetary model of exchange rate determination and found the results supportive, on the other hand, McNown & Wallace (1989) and Baillie & Selover (1987) using co integration found little or no back up for the monetary approach of exchange rate determination evidence for the monetary approach to exchange rate determination.

In the Nigeria view, Osagie (1985) and Ajayi (1988) using the structuralist approach in their study of external trade flow, contrasts the adoption of a more flexible exchange rate policy in Nigeria. Ezirim and Muoghalu (2004) investigated the theoretical and empirical aspects of crisis and volatility in Nigeria.

Aydin (2010) observed different dynamics in the effect of macroeconomics fundamentals on the equilibrium real exchange rate of Sub-Saharan countries in his investigation on the impact of exchange rate volatility in 182 countries covering the period of 1973 to 2008

2.2.4 Empirical evidences

The empirical evidence of the impact of exchange rate fluctuation on economic growth has been pictured through the medium of trade in which the nature of the effect can either be positive or negative, the postulation of IMF (1984) and European commission (1990) empirical evidence in favour of a systematic positive (or negative) effect of exchange rate stability on trade (and thereby growth) in small open economies has remained mixes.

Bachetta and van wincoop (2000) found based on a general equilibrium framework that exchange rate stability on trade. Gravity models have been used as frame work to quantify the impact of exchange rate stability on trade and growth, in particular in the context of monetary union.

Using panel estimations for more than 180 countries Edwards and Levy Yeyati (2003) found evidence that countries with more flexible exchange rate grow faster.

Eichengreen and Lablang (2003) found evidence of a significant negative relationship between the stability of and the growth of 12 countries over a period of 120 years. Based on their results, they concluded that such outcomes were influenced by the time period and the sample on the other hand; the study of Schnabel (2003) revealed that exchange rate stability is strongly associated with more growth in the EMU periphery. He further concluded that the evidence was strong for EMERGING Europe during the study period.

In Nigeria, in 1987 the budget and the rate of inflation have been encouraging. In her own view, the rate of inflation has been reasonably controlled though not reduced thoroughly. Notwithstanding attempts aimed at reducing prices, inadequate demand for the products of local industries is hampering their growth.

Chen (2004) analyzed the speed of convergence towards PPP in his research work on exchange rate volatility. He found a positive significant coefficient for exchange rate volatility, that is the higher the fluctuations in exchange rate, the stickier the prices are.

An empirical research conducted to investigate the links between exchange rates and macro-economic variables was based on the analytical framework developed by Kamin (1997) which showed evidence of an empirical relationship existing between exchange rate and the rate of in some selected Latin, Asian and advance industrialized countries.

Following the analytical framework provided by Kamin (1991), Morely (1992) had examined the impact of real exchange on the output for twenty-eight developing nations which were experiencing exchange rate devaluation, using a regression framework.

The study thus concluded that devaluation of exchange rate is a major factor for the upsurge inflation (Kamin 1996, Odedoolkun, 1996, Lane and Green (1991).

Kamin (1996) showed that the level of rate of inflation in Mexico during the 1980's and 1990s.

Canetic and Greene (1991), Falokun (1994) reached similar conclusions for some African countries including Nigeria.

However, using static applied general equilibrium (first generation), Boadiary and Trendenick (1978), found that removing tariff in Canada would bring about a fall in welfare to decline by inducing unfavourable trade, resulting from an import tariff reduction, this made Broom (1987) conclude that unilateral trade liberalization is essential.

Dell' Arricia (1999) examined the effect of exchange rate fluctuation on the bilateral trade of European Union members plus Switzerland over the period 1975 – 1994 using several definitions of volatility. In basic OLS regression, exchange rate fluctuation had a small but significant negative impact on trade; reducing volatility to zero in 1994 would have increased trade by an amount ranging from the ten to 13 percent, depending on the

measures of fluctuation used using both fixed and random effects, the impact of fluctuation was still negative and significant but smaller in magnitude. The author found that elimination of exchange rate fluctuation would have increased trade by about 3 percent in 1994.

Moving to the studies of exchange rate volatility on trade in LDC'S Countries (1981) who used a log-level model specification to examine Brazilian exports, used annual data for 1965-1974 to arrive at the conclusion that a significant reduction in exchange rate uncertainty in Brazilian's economy during the crawling – peg era was adopted in 1968.
Phillips (1986), Granger and Newbold (1974) found that export and exchange rate risks are related, however, they criticize the use of a log-level model when the data is non-stationary.

Osuntogun et al (1993) in their analysis of strategic issues in promoting Nigerian non-oil exports determined the effects of exchange uncertainty on Nigerian non-oil export performance as a side analysis. This is the pioneering effort in Nigeria to determine the effect of exchange rate risk on exports.
However, their model did not take into consideration the cross price effects. Exchange rate acts as shock absorber if rigidly fixed, the shocks of inflation and deflation and deflation from aboard are transmitted to internal economy systems. But variations in the exchange can wand off the invasion of the inflationary and deflationary forces. The real exchange rate had a positive influence (1.2%) on the performance of the Nigeria economy. Thus, an appreciation of the exchange rate will have a negative effect on the performance of the economy while its depreciation will have a positive influence on the economic performance.
Mauna and Reza (2001) studies the effect of trade liberalization, real exchange rate and trade diversification on selected North Africa countries Morocco, Algeria and Tunisia. By decomposing in real exchange rate into fundamental and monetary determinants, and by using both standard statistical measures of exchange rate fluctuation and the measures

of exchange rate risk developed by Puree and Steiner (1989), they concluded that exchange rate depreciation has a positive effect on the quantity or manufactured exports while exchange rate misalignment, volatility or fluctuation has a negative effect.

Tharakan, (1999) and Vieira et al (2013) all ascertained that highly fluctuated exchange rate has negative impacts on economic growth but moderately volatile exchange rate has positive impacts on growth as revealed in (Tarawalie, 2010), overvalued exchange on the other hand rate reduces growth (Elbadawi and Kaltani, 2012).

However, Iuhia and Bogdan (2012) are of the view that the stability of exchange rate does not encourage economic growth especially if obtained by enormous government official interventions to sustain the exchange rate regime, similar to Harms and Kertschnman (2009). Razmi et al (2012) also discovered positive relationship between investment growth and real exchange rate undervaluation.
They further recommended that given the model employed in their research, if the presence of underemployment and over reliance on imported capital goods establishes important networks through which the economy is being affected by the real exchange rate affects, targeting the latter may be more operational in promoting capital accumulation and unemployment reduction in low income countries compared to developed countries.

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that elimination of exchange rate fluctuation would have increased trade by about 3 percent in 1994.

Accam (1997), while examining the exchange rate volatility and FDI flows in some selected 20 least developed countries, using OLS estimation, and employing standard deviation as a proxy for instability in exchange rate volatility, the result shows a significant negative relationship between exchange rate uncertainty and FDI flows for the period.

In their study, Broda and Romails (2003) found that real exchange rate volatility depresses trade in differentiated goods. The study used bilateral trade model, where the oils (ordinary least square) and GMM (Generalized method of moment) methods were used. After taking into account the direction of causality, they ascertained that a 10 percent increase in volatility depresses differentiated product trade by 0.7 percent, while a 10 percent increase in trade reduces exchange rate volatility by 0.3 percent.
Their OLS estimated results showed that the effect or volatility on trade is reduced by 70percent. They justified the result by arguing that much of the correlation between trade and change to the effect that trade has in depressing fluctuation. Their study further revealed that a 10 percent increase in the intensity of bilateral trading relationship reduces the volatility if the associated exchange rate by 0.3 percent.

Moving to the studies of exchange rate volatility on trade in LDC'S Countries (1981) who used a log-level model specification to examine Brazilian exports, used annual data for 1965-1974 to arrive at the conclusion that a significant reduction in exchange rate uncertainty in Brazilian's economy during the crawling – peg era was adopted in 1968.
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Osuntogun et al (1993) in their analysis of strategic issues in promoting Nigerian non-oil exports determined the effects of exchange uncertainty on Nigerian non-oil export performance as a side analysis. This is the pioneering effort in Nigeria to determine the effect of exchange rate risk on exports.

However, their model did not take into consideration the cross price effects. Exchange rate acts as shock absorber if rigidly fixed, the shocks of inflation and deflation and deflation from aboard are transmitted to internal economy systems. But variations in the exchange can wand off the invasion of the inflationary and deflationary forces. If demand and supply could work excellently in economic sense, it would be better to allow exchange rate to be freely determined by both demand and supply.

Mordi (2006) adopted GARCH model and posited that failure to properly manage exchange rates can induce distortions in consumption and production patterns and that excessive currency volatility creates risks with destabilizing effects on the economy.

Danmola(2013) analysed the impact of exchange rate volatility on Macroeconomic variables using Correlation Matrix, Ordinary Least Square (OLS) and Granger Causality test, the findings of the study showed that exchange rate volatility has a positive impact on Gross Domestic Product, Foreign Direct Investment and Trade Openness, but with negative impact on the inflationary rate in the country. Danmola then suggested that there is the need for the country to improve their revenue base.

Conclusively, a lot of supportive studies have examined the impact of exchange rate fluctuations on trade and investment but a few has considered the impact of exchange rate fluctuation on Nigerian economic growth spanning from the Pre SAP, SAP, Post-SAP period using the historical model.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction/Theoretical framework

The exchange rate of a country especially a developing country like Nigeria needs not fluctuate, but if it does, the causes of the fluctuations and the degree of fluctuations needs to be identified and rectified, in order to eliminate the concomitant effect on the macroeconomic objectives of the economy like real exchange rate stability, economic growth, trade pattern & openness, price stability, oil price stability, favourable balance of payment, international capital budget, good government policies in which when properly coordinated gives an economy a healthy status since these macroeconomic variables are gauge for determining a country's growth (Mordi,2006). Hence, the modeling and forecasting of exchange rates and their fluctuation is important to capture its implications for many issues in economics and finance.

This section focuses on the models specified to explain exchange rate volatility in accordance to apriori, statistical and econometrics expectation; in the subsections we have model specifications, definition of variables, criteria, data sources and analysis and the estimating procedures.

3.2 Model Specification

For the objectives of the study to be captured, a model with theoretical and empirical validity needs to be developed. The traditional method of standard deviation was adopted in line with Zubair and Jega (2008) and Gudjarati (2004) since there are few researchers that have used this approach to model exchange rate fluctuation in Nigeria for the estimation of the first objective which is the relationship between exchange rate fluctuation and economic growth in Nigeria.

First, we need to calculate the real Naira-Dollar exchange rate, we will take the price differential of Nigeria to the USA so as to get a single measure of the exchange rate index.

Kyereboah-Coleman et al. (2008) method of using the Purchasing Power Parity approach to estimate the real exchange rate was adopted.

While calculating the real exchange rate, the Nominal Exchange Rate is adjusted for the price differential by keeping the US prices.

In order to capture the volatility series the standard deviation method will be used.

The standard deviation measure will equal zero when the exchange rate follows a constant trend. If the exchange rate follows a constant trend it could be a source of exchange risk. This measure is as a benchmark proxy for exchange rate volatility.

According to Gudjarati (2004), the model is therefore derived as follows:

$$SD_{t+m} = \left[\frac{1}{m}\sum_{i=1}^{m}\left((lnEX_{t+i-1} - lnEX_{t+i-2})\right)^2\right]^{\frac{1}{2}}$$

Where m is the order of moving average

To check for the impact of exchange rate fluctuation on Nigeria's economic growth which is the second objective which is to examine the effect of exchange rate fluctuation on the growth process of Nigerian economy, the model assumes an underlying relationship between some macroeconomic variables that can influence the economic growth of a nation measured as Gross Domestic Product (GDP).With regards to the merits of the Ordinary Least Square (OLS) modeling method, the multiple linear regression analysis was used with the dependent variable as Real Gross Domestic Product while the explanatory variables were real interest rate, real exchange rate , oil prices,

trade openness, and Inflation Rate. We therefore present a model below relating GDP to some other macroeconomic variables..

$RGDP=\gamma_0+\gamma_1 EXRVOL+\gamma_2 EXR+\gamma_3 INF+\gamma_4 TOP+\gamma_5 OLP+\delta_t$

Where:

RGDP= Real Gross Domestic Product

EXRVOL=Exchange Rate Volatility

EXR= Real Exchange Rate

TOP =Trade Openness $(\frac{x+m}{GDP})$

OLP=Oil Price

INF= Inflation Rate

δ_t= Error term

γ_0=Intercept of relationship in the model/Constant term

$\gamma_1, \gamma_2, \gamma_3, \gamma_4$ and γ_5 are regression coefficients.

The parameter $\gamma_1, \gamma_2, \gamma_3, \gamma_4$ and γ_5 which are coefficient of the variables which denote the degree of change of the dependent variables (YG) as a result of a unit change of other independent variables the error term

(μi) which is used to capture the impact of other variables that are not included in the model.

To test the existence of a significant relationship among the variables expressed in equation 2, the null and alternative hypotheses are stated as follows:

$H_1: \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0$

(Exchange rate fluctuation does not have a significant effect on Nigeria's economic growth).

$H_1: \beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \beta_5 = 0$

(Exchange rate fluctuation has a significant effect on Nigeria's economic growth)

Assumptions and justification of the Standard Deviation Method

The three main purposes of forecasting volatility are for risk management, for asset allocation, and for taking bets on future volatility. A large part of risk management is measuring the potential future losses of a portfolio of assets, and in order to measure these potential losses, estimates must be made of future volatilities and correlations.

Several methods like SD, MASD, variants of ARCH and GARCH and many more have been adopted by many researchers to proxy and estimate exchange rate volatility, but there is not still an appropriate method because they all have their shortcomings.

The simplest and most widely used approach to estimating volatility is to use historical standard deviation (Reider, 2009).

This method uses the Standard deviation of the first difference of the logarithm of the real exchange rate (EXRVOL) will be used as a proxy measure of exchange rate volatility or risk because of its simplicity, easy computation, level of understanding and time frame. A key characteristic of standard deviation as a measure is that it gives large weight to extreme volatility. The standard deviation is calculated over a one-year period, as an indicator of short-run volatility, as well as over a five-year period to capture long-run variability.

3.3 Method of evaluation

Time series econometric shall be employed, the multiple regression model that will use the ordinary least square (OLS) method because it is most popular-widely used among

the variance time series econometric techniques, the best estimator ,unbiased, linear and sufficient estimator.

3.4.1 Apriori expectation

a) Exchange rate fluctuation: economic theory posits that exchange rate volatility will positively influence both the GDP and trade openness. Volatility in the exchange rate is expected to increase GDP because both the exporters and importers will try to take advantage of this and hence, the demand for goods will rise. Exchange rate volatility will also impact positively on trade openness, because of the tendency to encourage exports and make it more competitive in international market and at the same time reducing the volume of imports.

b) Real Gross Domestic Product

Real exchange rate is expected to be positive because depreciation of the currency which is increase in exchange rate will boost export and this will bring about economic growth.

c) Inflation rate: this is defined as the sustained increase in the general price level of goods and services at a particular period of time. Inflation rate is expected to depict a negative sign because inflationary pressures can increase cost of production and hence reduce an economy's level of productivity thus depressing economic growth

d) Trade openness: The trade-to-GDP ratio is frequently used to measure the importance of international transactions relative to domestic transactions. This indicator is calculated for each country as the simple average (i.e. the mean) of total trade (i.e. the sum of exports and imports of goods and services) relative to GDP. Countries with high trade potential will attract inflow of capital into the country. So there exists a positive relationship between trade openness and economic growth.

3.4.2 Statistical test (first-order)

Under the statistical test (first-order) test we will test for the goodness of fit, the individual significance of each regress or using the t-test and finally significance of the regression model using the t-test.

(a) Goodness of fit-test: we shall make use of the coefficient of multiple determinations R2 to find how well the sample regression line fits the data. R2 measures how the variations in the explanatory variable affect the dependent variable.

(b) Student's t-test: It is used for testing the significance. We shall make use of 5% level of significance with n – k degree of freedom and where necessary, using the probability value as a rule thumbs.

Defining:

a = 0.05 (n – k), n = sample size, k = total number of parameter estimates.

(c) The f-test: This will be employed to test the overall significance of the regression model, explaining the joint impact of the independent variables on the dependent variables.

The study shall utilize 5% level of significance with (k – 1) (n – k) degree of freedom

3.4.3 ECONOMIC (SECOND ORDER) TEST

Economic test will be used for empirical verification of the model. This will range from test including autocorrelation, normality, co-integration and unit root.

1. Autocorrelation: The classical linear regression model assumes that autocorrelation does not exist among the disturbance terms, in order to find out where the error terms are correlated in the regression. The Durbin-Watson procedure will be used to test for a particular form of serial correlation.

2. Normality Test: This test will be conducted to find out if the error terms are normally distributed with zero mean and constant variance i.e. if μ N(0, 52). This is one of the assumptions of the classical linear regression model.

The Jargue Bera test will be used to test for the normality in the time series variables used. This test will be conducted by augmenting the equation by adding legged values of the dependent variables. The Jarque-Bera (JB) test statistic is needed to ascertain if trade openness, real exchange rate, oil price, real interest rate, inflation rate and the gross domestic product follow the normal probability distribution. The Jarque Bera test of normality is a large-sample or asymptotic test that computes kurtosis and the skewness measures using some test statistics as stated below:

$$JB = n\left[\frac{s}{3} + \left(\frac{k-3}{12}\right)\right]$$

Where n = sample size,

S = skewness coefficient,

K = kurtosis coefficient

a normally distributed variable, will have its S = 0 and K = 3.

3. Co-integration tests are conducted by using the trace and maximum eigen-value statistics. This method should produce asymptotically optimal estimates since it incorporates a parametric correction for serial correlation. The nature of the estimator means that the estimates are robust to simultaneity bias, and it is robust to departure from normality (Johansen, 1995). Trace and maximum eigen-value statistics method detects a number of co-integrating vectors in non-stationary time series. It allows for hypothesis testing regarding the elements of co-integrating vectors and loading matrix.

4. Unit root test:

Unit root test needs to be conducted since it is normal for macroeconomics variables to increase or decrease over time as a result of exchange rate policy change, advancement in technology which can affect output positively or negatively (warsal, 2004).

More specialised unit root tests can help to distinguish between different time-series processes. That can be particularly helpful in distinguishing between alternatives that matter for forecasting. For example, a temporary exogenous adjustment would lead to a change in the long-run forecast for world GDP if it were a difference stationary process, whereas if it were a trend-stationary process its long-run forecast would be unaffected. Forecasts may be more helpfully thought of as a sequence of probability distributions rather than of numbers.

In addition to the central projection the conditional uncertainty can also vary depending on how non-stationary is modeled (Clements and Hendry (1998)).

Neither does a variable having a unit root necessarily mean that the regression is spurious–it could be that the variables are difference-stationary but related in the long run and hence co-integrated. As our ultimate goal is to build correctly specified structural models, this means that we need to understand how variables interact by employing multivariate techniques.

Many economic theories posits a causal relationship between economic series that increase overtime (mahadeva, robinson, 2004)

To test for stationarity or the absence of unit roots, this test is done using the Augmented Dickey Fuller test (ADF) and the Philip Perron test. The stationarity test is relevant because: the stationarity or otherwise of a series can strongly influence its behaviour and properties-e.g. persistence of shocks will be infinite for nonstationary series, If two

variables are trending over time, a regression of one on the other could have a high R2 even if the two are totally unrelated (Spurious regressions).

If the variables in the regression model are not stationary, then it can be proved that the standard assumptions for asymptotic analysis will not be valid. In other words, the usual "t-ratios" will not follow a t-distribution, so we cannot validly undertake hypothesis tests about the regression parameters with the hypothesis which states as follows: If the absolute value of the Augmented Dickey Fuller (ADF) test is greater than the critical value either at the 1%, 5% , or 10% level of significance , then the variables are stationary either at order zero, one ,or two. The Augumented Dickey Fuller test equation is specified below:

$$\Delta\hat{u}_t = \beta\hat{u}_{t-1} + \sum_{i=1}^{k}\Delta\hat{u}_{t-1} + \varepsilon_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(1)$$

3.5 Source of Data collection

Secondary data was extracted such as the Central Bank of Nigeria statistical bulletin. The study employs quarterly Nigeria data for the period 1970– 2013. The annual data was selected due to difficulty in data collection.

CHAPTER FOUR

EMPIRICAL ANALYSIS OF DATA AND INTERPRETATION

4.0 INTRODUCTION

This sectionconsists of empirical analysis of data used for the study, data interpretation and discussion of findings.

The descriptive statistics of the variables is provided in table 1 below. From the table, the averages of the variables are 12.07, 0.1, 2.07, 33.65, 19.40 and 2.280 for real gross domestic product(RGDP), exchange rate volatility (EXRVOL), trade openness (OPNX), oil price (OILP), inflation rate (INF) and exchange rate (LEXR)respectively. The maximum values of the variables are 13.76, 0.11, 9.22, 112.56, 72.80 and 5.059 for real gross domestic product(RGDP), exchange rate volatility (EXRVOL), trade openness (OPNX), oil price (OILP), inflation rate (INF) and exchange rate (LEXR)respectively while the minimum values of the variables are 8.46, 0.00, 0.03, 3.56, 1.60 and -0.604 for real gross domestic product(RGDP), exchange rate volatility (EXRVOL), trade openness (OPNX), oil price (OILP), inflation rate (INF) and exchange rate (LEXR)respectively. The standard deviation showed that oil price (28.07) was the most volatile variable in the time series. This is followed by inflation rate (17.8), trade openness (2.63), exchange rate (2.278) and real gross domestic product (1.45) while exchange rate volatility (0.02) was the least volatile of the time series.

The skewness statistic from table below revealed that real gross domestic product (RGDP), exchange rate volatility (EXRVOL)and exchange rate (EXR)were negatively skewed while trade openness (OPNX), oil price (OILP) and inflation rate (INF) were positively skewed. The kurtosis statistics showed that exchange rate was platykurtic, suggesting that the distribution is flat relative to normal distribution while real gross domestic product, exchange rate volatility, trade openness, oil price and inflation rate were leptokurtic, suggesting that the distribution were peaked relative to normal

distribution. The Jarque-Bera statistic rejected the null hypothesis of normal distribution for all the variables (real gross domestic product (RGDP), exchange rate volatility (EXRVOL), trade openness (OPNX), oil price (OILP) and inflation rate (INF)) at five per cent critical value with exception to exchange rate. For exchange rate, the Jarque-Bera statistic could not reject the null hypothesis of normal distribution for the variable at five per cent critical value.

Table 1: Descriptive Statistics

Variables	LRGDP	EXRVOL	OPNX	OILP	INF	LEXR
Mean	12.07	0.10	2.07	33.65	19.40	2.280
Median	12.51	0.11	0.46	25.43	12.70	2.851
Maximum	13.76	0.11	9.22	112.56	72.80	5.059
Minimum	8.46	0.00	0.03	3.56	1.60	-0.604
Std. Dev.	1.45	0.02	2.63	28.07	17.23	2.278
Skewness	-1.19	-2.96	1.26	1.49	1.57	-0.0745
Kurtosis	3.44	13.02	3.44	4.17	4.44	1.3518
Jarque-Bera	10.46	242.53	11.70	18.37	21.30	4.907
Probability	0.01	0.00	0.00	0.00	0.00	0.086
Observations	43	43	43	43	43	43

Author's computation E-views 7 (2015)

2. Unit Root Test

Following the descriptive statistics of the variables, this time series properties of the variables was conducted by the Augmented Dickey-Fuller (ADF) and the result presented in table 2. The Augmented Dickey Fuller (ADF) test showed that all the variables were integrated of order one; that is, the variables became stationary after first difference.

Table 2: Unit Root Test Result

Augmented Dickey-Fuller (ADF) Test			
Variables	Level	1st Diff	Status
LRGDP	-2.4016	-6.0447*	I(1)
EXRVOL	-1.8993	-7.4973*	I(1)
OPNX	0.6605	-7.9072*	I(1)
OILP	0.9592	-9.6224*	I(1)
INF	-3.4616	-6.5747*	I(1)
EXR	-0.2166	-5.2530*	I(1)

Note: * denotes one percent significance level.

Author's computation E-views 7 (2015)

3. Co-integration Estimate

The result of the co-integration estimate is presented in table 3 below. From table 3, it is observed that the null hypothesis of no co-integration, for r=0 and r≤1were rejected by both the trace and the maximum Eigen-value statistic. The statistical values of these tests were greater than their critical values. However, the null hypothesis of no co-integration for r≤2 could not be rejected by the trace and maximum Eigen-value statistics because their statistical values were less than their critical values. The implication of the co-integration estimate is that there are two co-integrating equations in the estimating model at five per centsignificant level.

Table 3: Summary of the Co-integration Estimate

Trace Test				Maximum Eigen value Test			
Null	Alternative	Statistics	95% critical values	Null	Alternative	Statistics	95% critical values
r=0	r≥1	73.357	69.819	r=0	r=1	40.916	33.877
r≤1	r≥2	48.441	47.856	r≤1	r=2	29.799	27.584
r≤2	r≥3	18.642	29.797	r≤2	r=3	11.157	21.132
r≤3	r≥4	7.486	15.495	r≤3	r=4	7.485	14.265

Author's computation E-views 7 (2015)

4. Long Run Regression Estimate on the impact of Exchange Rate Volatility on Economic Growth in Nigeria

The long run regression estimate of the impact of exchange rate volatility on economic growth in Nigeria from 1970 to 2014 is presented on table 4 below. The coefficient of determination (that is R^2) showed that the explanatory variables jointly explained about 78 per cent of variations in unemployment rate in Nigeria during the study period. The F-statistics (26.95; $p<0.05$) showed that the model estimated is appropriate while the Durbin Watson statistics is 1.80, indicating the absence of serial auto-correlation in the long run estimate.

The long run estimate presented on table 4 below showed that exchange rate volatility (EXRVOL)had a positive (11.90) and insignificant impact on economic growth in Nigeria, suggesting that fluctuations in exchange rate had no significant influence on economic growth in Nigeria. Trade openness (OPNX) had a negative (-0.37) and significant effect on economic growth, suggesting that a one percent decrease in trade openness will enhance economic growth by about 37.1 per cent. Also, international oil

price (OILP) was observed to having a positive (0.029) and significant impact on economic growth, suggesting that a one percent increase in oil price will enhance economic growth by about 2.9 percent. In contrast to the positive and significant impact of international oil price on economic growth in Nigeria, it was observed that inflation rate (INF) had a positive (0.008) and insignificant impact on economic growth in Nigeria, suggesting that inflation rate had no significant influence on economic growth in Nigeria during the study period. In contrast to the insignificant impact of exchange rate volatility on economic growth in Nigeria, it was observed that exchange rate (EXR) had a positive (0.65) and significant impact on economic growth in Nigeria, suggesting that a one per cent increase in exchange rate will promote economic growth by about 65.2 per cent.

With respect to the focus of study on the impact of exchange rate volatility on economic growth in Nigeria, the regression estimate showed volatility in exchange rate had no influence on economic growth while it is actual exchange rate that had positive effect on economic growth in Nigeria in the long run.

Table 4: Long Run Regression Estimate

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.066631	0.595325	15.22971	0.0000
EXRVOL	11.89671	6.127694	1.941466	0.0598
OPNX	-0.371380	0.121484	-3.057023	0.0041
OILP	0.028813	0.008785	3.279620	0.0023
INF	0.007939	0.007081	1.121182	0.2694
LEXR	0.652061	0.092198	7.072423	0.0000
R-squared	0.784580	Mean dependent var		12.06574
Adjusted R-squared	0.755470	S.D. dependent var		1.445947

S.E. of regression	0.715021	Akaike info criterion	2.295778
Sum squared resid	18.91644	Schwarz criterion	2.541527
Log likelihood	-43.35922	Hannan-Quinn criter.	2.386402
F-statistic	26.95156	Durbin-Watson stat	1.805369
Prob(F-statistic)	0.000000		

Author's computation E-views 7 (2015)

5. Short Run Regression Estimate on the impact of Exchange Rate Volatility on Economic growth in Nigeria

The short run relationship between exchange rate volatility and economic growth is examined below. Prior to the short run regression estimate, the stationarity property of the residual from the long run estimate is examined and the result is presented on table 5 below. Using the Augmented Dickey Fuller (ADF) test, the stationarity test showed that the residual is integrated of order one at five per cent significant level.

Table 5: Residual Stationarity Test

Variable	ADF Test	Order of Integration
Resid	-3.4879*	I(0)

Note: * implies 1% significance level. Author's computation E-views 7 (2015)

With respect to the parsimonious regression estimate capturing the short run analysis, it is observed from table 6 that the coefficient of determination (that is R^2) from the short estimate showed that the explanatory variables jointly explained about 60 per cent of variations in economic growth in Nigeria. The F-statistics (15.01; $p<0.000$) showed that the model estimated is appropriate while the Durbin Watson statistics is 1.98, indicating the absence of serial auto-correlation in the long run estimate. The short run regression

estimate also showed that the coefficient of the error-term for the ECM model is both statistically significant at five per cent and negative. The coefficient estimate of the error correction term of -0.24 implied that the model corrects its short run disequilibrium by about 24.1 per cent speed of adjustment in order to return to the long run equilibrium. Also, the negative sign of the error correction term indicates a move back towards equilibrium.

In addition to the above, it was observed that only the coefficients of the currents values of trade openness (DOPNX) and inflation rate (DINF) have significant effect on economic growth in the short run. Specifically, current trade openness had a negative (-0.17) and significant effect on economic growth, suggesting that a one percent decrease in trade openness will enhance economic growth by about 17 per cent in the long run. For inflation rate, it was observed that the variables had positive (0.008) and significant impact on economic growth in Nigeria, suggesting that a one percent increase in inflation rate will promote economic growth by 0.8 percent in the short run. The remaining variables in the short run estimate presented in table 6, had insignificant effect on economic growth in the short run.

With respect to the objective of this study, it was observed from the discussion on the short run analysis that exchange rate volatility had no significant effect on economic growth in the short run.

Table 6: Parsimonious Short Run Regression Estimate

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECM1(-1)	-0.240539	0.108108	-2.224992	0.0343
DLRGDP(-2)	-0.204337	0.174832	-1.168760	0.2524
DERVOL	0.002473	0.001789	1.382529	0.1777
DOPNX	-0.168356	0.085825	-1.961618	0.0498
DOPNX(-2)	-0.141164	0.100666	-1.402301	0.1718
DINF	0.008415	0.004068	2.068613	0.0479
DINF(-2)	0.006296	0.004090	1.539342	0.1349
DLEXR	0.137827	0.209196	0.658839	0.5154
DLEXR(-2)	-0.561677	0.326446	-1.720583	0.0964
C	0.294680	0.091144	3.233121	0.0031

R-squared	0.603080	Mean dependent var	0.129675
Adjusted R-squared	0.526790	S.D. dependent var	0.339526
S.E. of regression	0.317272	Akaike info criterion	0.785213
Sum squared resid	2.818531	Schwarz criterion	1.291877
Log likelihood	-3.704266	Hannan-Quinn criter.	0.968407
F-statistic	15.014802	Durbin-Watson stat	1.979483
Prob(F-statistic)	0.001425		

Author's computation E-views 7 (2015)

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.0 Introduction

This chapter contains the summary of our findings in chapter four, conclusion and policy recommendation based on the research findings.

5.1 Summary of findings

With respect to the objective of this study, it was observed from the discussion on the short run analysis that exchange rate volatility had no significant effect on economic growth in the short run.

The Augmented Dickey Fuller (ADF) test showed that all the variables were integrated of order one; that is, the variables became stationary after first difference.

The implication of the co-integration estimate is that there are two co-integrating equations in the estimating model at five per cent significant level.

The coefficient of determination (that is R^2) showed that the explanatory variables jointly explained about 78 per cent of variations in exchange rate of Nigeria during the study period.

The long run estimate showed that exchange rate volatility (EXRVOL) had a positive (11.90) and insignificant impact on economic growth in Nigeria, suggesting that there was no significant influence of exchange rate fluctuation on economic growth in Nigeria.

Inflation rate had no significant influence on economic growth in Nigeria during the study period.

It was observed that exchange rate (EXR) had a positive (0.65) and significant impact on economic growth in Nigeria, suggesting that a one per cent increase in exchange rate will promote economic growth by about 65.2 per cent.

International oil price (OILP) was observed to have a positive (0.029) and significant impact on economic growth, suggesting that a one percent increase in oil price will enhance economic growth by about 2.9 percent.

5.3 Conclusion

In conclusion, this research work assessed the impact exchange rate fluctuation on Nigerian economic growth using the traditional approach of standard deviation which helped estimate the Volatility persistence and asymmetric properties for the Nigerian foreign exchange market. The impact of exchange rate fluctuation on Nigerian economic growth was investigated by incorporating the calculated volatility of exchange rates for the study period in the regression model.

The objective of the study was to measure the impact of exchange rate fluctuation on economic growth in Nigeria both in the long and short run. It was established that there is a link between exchange rate fluctuation and economic growth in Nigeria in both the long and short run. The regression estimate showed that volatility in exchange rate had no influence on economic growth while its actual exchange rate had positive effect on economic growth in Nigeria in the long run.

This study established that there is a positive but insignificant relationship between economic growth and exchange rate fluctuation in the short run, this result was consistent empirically to the earlier work of Danmola (2013).

Empirically, the insignificant positive relationship between exchange rate fluctuation and economic growth was attributed to the influence of the monetary authorities in mitigating exchange rate fluctuation in Nigeria.

The high volatility persistence and its significant impact on the Nigerian economy of oil prices could have been due to OPEC's regulations, global recession or change in the

structure of the Nigerian economy since Nigeria's foreign exchange earnings are more than 90 per cent dependent on receipts from crude oil Export.

Further research work can be done on the impact of Central Bank regulation on exchange rate volatility in Nigeria.

5.4 Recommendations

This study's findings from the policy perspective are helpful to policy makers, government and monetary authorities since the exchange rate as an economic indicator is significant to achieving economic growth and development. Based on the findings of this study, it was therefore recommended that:

There should be an increase in the exchange rate of Naira in order to enhance economic growth.

The Nigerian government should endeavour to stabilize the exchange rate of Naira in order to achieve economic growth because of the current high fluctuation of naira exchange value.

Investors should consider fluctuations in other macroeconomic variables rather than fluctuation in the exchange rate market to guide their decisions in order to ascertain where to direct investments for profit maximization.

The Nigerian economy need be diversified to enhance economic growth.

The government should encourage domestic production and consumption of goods and services in order to curtail the effects of exchange rate fluctuation on other macroeconomic variables.

Oil price should be stabilized since it was the most volatile variable during the years of study in order to ensure economic growth in Nigeria.

Lastly, to maintain and sustain exchange rate and economic stability, more attention need be paid by the government to other more volatile macroeconomic variables like oil price and inflation rate in Nigeria.

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