

Effects of Exchange Rate Fluctuation on Economic Growth in Nigeria 1981-2018

¹Jonathan M. Jacob & ²Ezekiel A. Rosemary

¹Department of Economics, Usmanu Danfodiyo University, Sokoto

²Department of Economics, University of Nigeria Nsukka

Corresponding Author's Email: jonathanmjacob15@gmail.com

Abstract

The fluctuations in the exchange rate between the domestic currency (naira) and other nations currency has actually caused a great destabilization in the economic growth of Nigeria this is because imports and exports constitute a large part of the economy. This study therefore examine the effects of exchange rate fluctuation on economic growth in Nigeria from 1981-2018 using non-experimental research design. Autoregressive Distributed Lag Model (ARDL) model was used for data analysis, dependent variable for the study is Real Gross Domestic Product (RGDP) which is used as a proxy for Economic Growth and the independent variables are Import (IMPO), Export (EXP), Exchange rate (EXR), government capital expenditure (GOCEXP) and Inflation rate (INFR). The findings of the study revealed that exchange rate, export, government capital expenditure have positive impact on RGDP both in the long-run and short-run however IMP has a negative impact on RGDP both in the short-run and long-run meanwhile INFR has a negative and statistically significant impact on RGDP in the short-run. Therefore, the study suggested the following recommendations for policy purposes: Government is advised to formulate and implement policies that would discourage importation but rather encourage exportation of goods and services into other nations of the world, Government should engage in capital intensive project for this will positively contribute to economic growth of the nation, Finally government should develop and implement exchange rate policies that are aimed at minimizing fluctuations in the country currency.

Keywords: Exchange rate, Fluctuation, Economic growth, Nigeria, Autoregressive Distributed Lag Model (ARDL).

1.0 Introduction

Fluctuation in exchange rate is a crucial factor that influences economic performance, this is because of its impact on macroeconomic variables such as inflation rate, export prices, imports, interest rate and outputs Adeniran, Yusuf and Adeyemi, (2014). The persistent depreciation in the exchange rate has led to a shortage of foreign exchange for the importation of the essential inputs for the industrial sector which has led to high costs of production in the country. A rise in real exchange rate is expected to increase production cost profile of the sector. Since a large percentage of inputs in this sector are imported, an increased exchange rate is likely to constitute more burdens to the running costs in this sector. Therefore, output is reduced in a situation where the cost of machineries and hiring of expatriates becomes too exorbitant to borne. This leak could be linked to the time lag between the time of input procurement and final production. The more the nation's currency losses its value, the more expensive it becomes

for firms and industries to import necessary factors of production that are not available locally the tendency is that an industry that majorly depends on foreign inputs may suffer loss, this is simply due to the fact that exports generally would become comparatively costlier and may not be fully able to increase sales to cover anticipated profit margins. The unimpressive performance of the industrial sector in Nigeria is mainly due to massive importation of finished goods with severe implication on exchange rate and inadequate financial support for industrial activities, which ultimately has contributed to the reduction in capacity utilization in the country. Several strategies such as border closure, barn on importation of some selected goods have been adopted by Nigeria government which is aimed at improving domestic industrial production and capacity utilization, despite that the sector is still experiencing a decline in output (Owoeye & Ogunmakin, 2013)

In Nigeria and indeed many developing countries, the price of foreign exchange plays a

vital role in the ability of the economy to attain optimal levels in its productive capacity. The introduction of structural adjustment programs (SAP) in July, 1986 led to the emergence of the flexible exchange rate as oppose to fixed exchange rate as a regime that was in place before the policy change. During the fixed exchange rate regime, the supply of foreign exchange was highly subsidized through the overvaluation of domestic currency. The essence of the policy was to maintain a relatively cheaper cost of importation of industrial raw-material and equipment, so as to sustain the policy of import substitution industrialization strategy.

Aliyu et al (2013) opine that fluctuation in exchange rate most times tends to increase the risk and the uncertainty of transactions both locally and internationally and at the same time exposes a country to exchange rate related risks. In theory, exchange rate fluctuation affects output negatively or positively. It is believed that the negative impact of exchange rate fluctuation may come directly through uncertainty and adjustment costs, and indirectly through its effect on allocation of resources and government policies. According to Unugbro (2007) exchange rate played a very significant role in any economy as it directly affects profitability of traded goods, allocation of resources and investment decisions. Exchange rate movement and exchange rate uncertainty is an important factor which investors take into consideration in their decision to invest abroad. Foreign capital inflows are generally perceived as something desirable to the industrialized and developing countries to absorb shocks either internal such as harvest failures to external such as fluctuations in commodity prices or recessions in industrial economies.. Considering the major determinants of foreign investment, exchange rate risk is possibly seen as the most important determinant of foreign investment flows (Aranyarat, 2010) because it can eliminate foreign exchange shortages, improve standard of living, deepen and broaden the financial markets. Most of the studies conducted in this area to the best of my knowledge do not capture some key variables when dealing with the issue of exchange rate fluctuation, this study therefore seek to fill this knowledge gap by including these key variables (Gross Domestic Product, Exchange Rate, Inflation rate, Import, Export, Government

Capital Expenditure) in the model so as to provide economic justification to the topic under consideration. Furthermore most of the study conducted in this area have used time series data but the numbers of observations are not up to the minimum requirement of the central limit theorem of 30years observation for robust and reliable result (Gujarat & porter, 2009) e.g. Lawal & Esther (2016) 1986 -2014 (27yers), Adelowokan et al (2015) 1986-2014 (27years) and Abdallah (2016) 1986-2013 (27yers). This study tries to cover this gap by making use of 38years of observation by implication the larger the number of observation the greater the chances of minimizing the error term. This study is segmented into five sections which includes the following: section 1 comprises of introduction, objectives of the study, conceptual clarification and exchange rate regimes, section 2 deals with review of literature which includes theoretical reviews and empirical reviews while section 3 deals with methodology, method of data analysis, variables measurement, source of data and model specification. Section 4 deal with data analysis and discussion of results while section 5 concludes with summary, conclusion and recommendation.

1.1 Objectives of the study

1. To determine the effect of exchange rate on economic growth in Nigeria
2. To determine both the long run and short run relationship between exchange rate and economic growth in Nigeria under the period cover by the study.

1.2 Conceptual clarification

Central Bank of Nigeria (2016) define exchange rate as the current price market price for which one national currency can be exchange for another. It is normally expressed as the number of units of a domestic currency that will purchase one unit of a foreign currency or the number of units of a foreign currency that will purchase the unit of a domestic currency. According to Olamide (1999), economic growth is defined as long-term change in an economy's productive capacity. The productive capacity of the economy is the output that could be produced when all of the economy's resources were fully and efficiently employed

2.0 Review of Literatures

This section consists of several subsections that review related literature on effects of exchange rate fluctuation on economic growth in Nigeria. The first sub section contain a theory which serves as a theoretical underpin for the work. The Second sub section deals with exchange rate regimes as outline by Central Bank of Nigeria while the third section conclude with the empirical reviews.

2.1 Theoretical Review

Purchasing Power Parity Theory (PPP) is an economic theory that compares different countries' currencies through a basket of goods approach or the PPP simply states that a unit of any given currency should be able to buy the same quantity of goods in all countries. Purchasing power parity takes into consideration of differences in countries' rates of inflation relative to the purchasing power of their currencies. This means that, a persistent high inflation rate would make the prices of locally made goods more expensive relative to foreign substitutes. Because of this, the propensity of consumers towards foreign products will be high; hence, foreign currencies to purchase them. Consequently, the surge for foreign currencies would raise the value of the foreign currencies at the expense of the domestic currency; leading to reduction in value of the nation's currency. The lower the value of the nation's currency, the higher and more expensive would be the value of the foreign currencies; leading to increased costs of exchange. The more the costs of exchange increase, the less would the production lines consume foreign input. The tendency is that increased costs of production would lead to increase in prices of products, reduced outputs, labour retrenchments, loss of profits, or total closure of the production unit. Similarly increased in exchange rate will boost production, enhance employment, increase profit margin or creation of a new production line. Furthermore, the purchasing power of nations' currencies, upon which inflation weighs great influence, plays a key role in determining the side of the pendulum that foreign exchange rate swings. The PPP theory can be formulated in two forms: in absolute forms. The absolute form of PPP asserts that the equilibrium exchange rate equalizes the general purchasing power of a given income in terms of

relative price levels. It thus, relates the level of exchange rate to relative prices levels. The relative form argues that changes in exchange rate measured from a base period reflect changes in relative price levels. This study will therefore anchor on purchasing power parity theory because it has a wider applicability and its captures the key variables when dealing with exchange rate fluctuation.

2.2 Exchange rate regimes

An exchange rate regime refers to the method or system adopted by a country's monetary authority to determine the value of its currency in relation to other currencies. Central Bank of Nigeria (2016) outline three regimes of exchange rate which include the following:

1.Fixed exchange rate regimes (hard exchange rate peg 1959-1986) this is an exchange regimes that takes away the power of independent domestic monetary policy from the central banks of the particular countries since its interest rates and exchange rate policies is tied to the country of the anchor-currency. International Monetary Fund (2008), observed that fixed exchange rate regimes usually go hand in hand with sound fiscal and structural policies and low inflation.

2. Soft exchange rate peg this is a hybrid between the fixed and floating exchange rate regimes. the soft peg allows the central bank limited flexibility over its domestics monetary policy In this system, currencies are maintained at a stable value relative to an anchor currency or a basket of currencies. This is achieved by allowing the exchange rate to oscillate around a central rate (nominal anchor) within a narrow band of less than ± 1 per cent or a wide band of up to ± 30 per cent or adjusted up or down periodically in line with some quantitative economic indicators including inflation differentials across anchor countries.

3.Flexible (floating) exchange rate regime (1986 June to date) this is an exchange rate regime where the international value of a currency, at any point in time is determined by the interaction of the market force of demand and supply of foreign exchange. This system allows the market to manage the exchange rate by making provision for a continuous adjustment of exchange rate to the changes in the demand and supply of foreign exchange. It therefore, eliminates the difficulties associated with having to determine exchange rate as the

case of fixed exchange rate regime flexible exchange rate regime thus, offer countries the advantage of maintaining an independent monetary policy.

2.3 Empirical Review

The exchange rate fluctuation is a key factor that influences the magnitude of economic growth of a nations exports. Researchers have examined the effect of exchange rates fluctuation on economic growth for example Asher (2012) examined the impact of exchange rate fluctuations on the Nigeria economic growth for period of 1980 – 2010. The result showed that real exchange rate has a positive effect on economic growth. He also opined that exchange rate is used to determine the level of output of the country.

Jongbo (2014) examines the impact of real exchange rate fluctuation on industrial output by investigating the effect of misalignment of real exchange rate on the output of the Nigeria industrial sector. The result shows that real exchange rate play a significant role in determining the industrial output. The study further reveals that the capacity utilization ratio is low, the case of which may not be too far away from, partly epileptic power supply, lack of adequate and appropriate technology and so on.

Jonathan and Kenneth (2016) analyze the link between exchange rate fluctuations and private domestic investment in Nigeria. The descriptive statistics of the variables included in the model show the existence of wide variations in the variables as depicted by the standard deviation of the exchange rate variable that was unusually high. The findings suggest that, the depreciation of the currency and interest rate does not stimulate private domestic investment activities in Nigeria meanwhile Dada and Oyeranti (2012) analyzed the impact of exchange rate on macroeconomic aggregates in Nigeria using annual time series data spanning from 1970 to 2009, the study examines the possible direct and indirect relationship between the real exchange rates and GDP growth. The relationship is derived in two ways using a simultaneous equations model within a fully specified Macroeconomic Model, and a vector-autoregressive model. The estimation results showed that there was no evidence of a strong direct relationship between changes in the exchange rate and GDP growth. Rather,

Nigeria's economic growth had been directly affected by fiscal and monetary policies and other economic variables particularly the growth of oil exports. These factors have tended to sustain a pattern of real exchange rate over-valuation, which has been unfavourable for growth.

Abdallah (2016) examined the effect of exchange rate variability on manufacturing sector performance in Ghana from 1986-2013 and employing the autoregressive distributed lag (ARDL) approach, the empirical results show that there exists both a short as well as long run relationship between exchange rate and manufacturing sector performance. Thus, in Ghana as the exchange rate appreciates, the manufacturing sector performance improves and as it depreciates, the sector is adversely affected, import has a negative and significant relationship with manufacturing sector meaning that as importation of goods and services increase, performance of manufacturing sector is negatively affected. In view of this, it is recommended that policy should be put in place to regulate the importation of goods that could be locally produced so as to improve the performance of the manufacturing sector. furthermore, the government should ensure that there is regular electricity supply, good roads, water and a reliable telecommunication system so that the manufacturing sector can perform effectively and efficiently in order to achieve a considerable rate of economic growth moreover Ubok-Udom (1999) examined the relationship between exchange rate changes and the growth of domestic output in the Nigerian economy from 1971 to 1995 and found that exchange changes have a negative sign in the estimated equations. He asserted that the rate of growth of total GDP and non-oil GDP tends to fall or rise with nominal Naira/US dollar exchange rate. This implies that the Nigerian economy apparently requires exchange rate appreciation for it to achieve high growth rate furthermore Michael, Davidson and Henry (2013) determining how employment growth in the Ghanaian manufacturing sector is affected by the fluctuating exchange rate. The study employed Ordinary Least Squares (OLS) regression technique to examine the effect of exchange rate volatility on employment growth. The finding of the study revealed that depreciation of the Ghanaian currency against US Dollar significantly slows the rate of

employment at the manufacturing sector in Ghana. Similarly, interest rate has a negative relationship with employment growth in the Ghanaian manufacturing sector. However, Gross Domestic Product (GDP) exhibits a positive relationship with employment growth. Through the prudent management of exchange rate, employment in the manufacturing sector can see a significant growth. Based on the findings of the study it is therefore recommended that policy makers should liaise with Monetary Policy Committee of the Bank of Ghana which set base rate and bankers to use the interest rate as a tool to facilitate employment growth in the manufacturing sector.

Ikechukwu (2016) investigates the effects of volatility clustering in exchange rate on firm's performance in Nigeria from 2004-2013 using cross sectional data for the most active 20 companies listed on the Nigerian Stock Exchange. The results show that exchange rate fluctuation has significant negative impacts on the rate of return on assets, asset turnover ratio and the portfolio activity and resilience, thus, showing the significant negative impact of exchange rate fluctuation on firm performance in Nigeria between however Omorokunwa and Ikponmwoosa (2014) examine the dynamic relationship between exchange rate volatility and foreign private investment in Nigeria from 1980 - 2011. The finding shows that; exchange rate volatility has a very weak effect on the inflow of Foreign Direct Investment (FDI) to Nigeria, both in the long run and in the short run and that exchange rate volatility has a weak effect on foreign portfolio investment in the short run but a strong positive effect in the long run similarly Osinubi and Amaghionyeodiwe (2009) looked at the effect of exchange rate volatility on Foreign Direct Investment (FDI) in Nigeria from 1970 -2004. The study utilized the error correction model as well as OLS method of estimation. The findings of the study revealed that exchange rate volatility need not be a source of worry by foreign investors. Also, the study further reveals a significant positive relationship between real inward FDI and exchange rate.

Adelowokan, Adesoye and Osisanwo (2015) examine the effect of exchange rate volatility on investment and growth in Nigeria over the period of 1986 – 2014. The results confirm the existence of long run relationship between

exchange rate, investment, interest rate, inflation and growth. Finally the results show that exchange rate volatility has a negative effect with investment and growth while exchange rate volatility has a positive relationship with inflation and interest rate in Nigeria.

Lawal and Esther (2016) examined the effect of exchange rate fluctuations on manufacturing sector output in Nigeria from 1986 -2014, a period of 28 years. The variables used include manufacturing output, Consumer Price Index (CPI), Government Capital Expenditure (GCE) and Real Effective Exchange Rate (EXC) were analyzed using multiple regression analysis with the aid of Autoregressive Distribution Lag (ARDL) to examine the effect of exchange rate fluctuations on manufacturing sector. The findings of the study revealed that exchange rate fluctuations have long run and short run relationship on manufacturing sector output. The result showed that exchange rate has a positive relationship on manufacturing sector output but not significant. However, from the empirical analysis it was discovered that exchange rate is positively related to manufacturing sector output. Therefore, the paper recommended that government should implement the policies on export strategies to encourage exports and discourage imports in order to achieve a favourable balance of payment; government should encourage the use of domestic materials in production in order to encourage international competitiveness and also increase expenditures on economic services such as manufacturing so as to increase their output

3.0 Methodology

This study adopts a non-experimental research design approach.

3.1 Method of Data analysis

To empirically analyze the effect of exchange rate fluctuation on economic growth in Nigeria from 1981-2018 the choice of the period is informed by the availability of data for the analysis. Non descriptive statistic was used with the aid of Auto regressive Distributed Lag (ARDL) bound test to show the long run and short run relationships and dynamic interactions between exchange rate fluctuations and economic growth in Nigeria. This method was adopted for this study for the following reasons;

firstly, it works even when the underlying variables are integrated of order zero I(0) only, integrated of order one I(1) only or a mixture of I(0) I(1) (Pesaran & Shin, 2001), Secondly ARDL model is advantageous because it corrects for residual serial correlation and the problem of endogenous regressors by using the lags as instruments, Thirdly, the long run and short run parameters of the models can be estimated simultaneously, Compared to other multivariate cointegration methods (i.e. Johansen and Juselius 1990), the bound test is a simple technique because it allows the co-integration relationship to be estimated by OLS once the lag order of the model was identified.

3.2 Variable measurement

Exchange Rate (ER) Exchange rate is the rate at which one country's currency can be traded for another country's currency (Colander, 1994). A market-based exchange rate changes whenever the values of either of the two component currencies change

Inflation Rate (INF) Inflation refers to a persistent and appreciable increase in general prices of goods and services in an economy. (Wood, Zeffane, Champan, Fromholtz & Morrison 2004).

Real Gross Domestic Product (GDP) Real Gross Domestic Product is the central measure of national accounts, which summarizes the economic position of a country (or region). It can be calculated using different approaches: the output approach; the expenditure approach; and the income approach. RGDP data in national currencies can be converted into Purchasing Power Standards (PPS) using Purchasing Power Parities (PPPs) that reflect the purchasing power of each currency, rather than using market exchange rates

Government capital expenditures (GOCEXP) refers to the total amount of money that government used in executing capital projects such as building of school, constructions of road and bridges etc. Lawal & Esther (2016)

3.3 Sources of Data

Domestic Product (GDP), Exchange rate (EXR), Inflation rate (INFR), Import (IMP), Export (EXP) and government capital

expenditure (GOCEXP) were collated from Central Bank of Nigeria statistical bulletin and World Bank data base.

3.4 Model Specification

The following ARDL model was specified to test the co-integration relationship between Gross Domestic Product (GDP), Exchange rate (EXR), Inflation rate (INFR), Import (IMP), Export (EXP) and government capital expenditure (GOEXP). The model is specified below:

It can be expressed in its functional form as
 $GDP = F (EXR, INFR, IMP, EXP, GOCEXP)$
 (1)

In its log form it can be expressed as
 $\Delta \ln Y_t = c_0 + \delta_1 \ln Y_{t-1} + \delta_2 \ln X_{1t-1} + \delta_3 \ln X_{2t-1} + \delta_4 \ln X_{3t-1} + \delta_5 \ln Y_{t-i} +$
 et.....(2)

The functional form is,
 $\Delta \ln GDP_t = c_0 + \delta_1 \ln EXR_{t-1} - \delta_2 \ln INFR_{t-1} + \delta_3 \ln IMP_{t-1} + \delta_4 \ln EXP_{t-1} + \delta_5 \ln GOEXP_{t-i} +$
 et..... (3)

Where,
 GDP = Gross Domestic Product, EXR = Exchange Rate, INFR= Inflation rate, IMP= Import
 EXP= Export, GOCEXP= Government Capital Expenditure, C0 = Constant Variable or Intercept
 Φ = Short Run Dynamic Coefficients of the Model's Convergence to Equilibrium,
 $\Delta_1, \Delta_2, \Delta_3, \Delta_4$ & Δ_5 = Long Run Dynamic Coefficients, ϵ = Error Term.

4.0 DATA ANALYSIS AND DISCUSSION.

The unit root and cointegration tests were carried out before estimating the model, this is to ensure that the data is stationary because regressions with non-stationary data have a high potential of leading to spurious relationship. The ADF and PP tests were therefore conducted in order to establish stationarity in the series. The results are presented in Table 4.1. As it can be seen, LRGDP, EXR, IMP, EXP and GOCEXP are all stationary after taking the first difference only INFR that is stationary at level this gives us empirical justification for the usage of ARDL Model because it accommodate variables that have different order of integration

Table 4.1 UNIT ROOT TEST

Variable	ADF			PP		
	Trend	Trend & intercept	Oder of integration	Trend	Trend & intercept	Oder of integration
LRGDP	-0.027817	-1.503995		0.684591	-2.570894	
EXR	1.736109	-1.949136		1.530905	-1.124725	
INFR	-2.884731**	-3.962475**	1(0)	-2.756360**	-2.824730	1(0)
IMP	1.474231	0.974770		1.474231	0.974770	
EXP	1.730837	-1.257668		1.420159	-1.031739	
GOCEP	0.448549	-1.679264		2.340628	-1.321193	
ΔLRGDP	-3.395063**	-3.319512**	1(1)	-3.242643**	-3.205980**	1(1)
Δ EXR	-4.212040***	-4.544781***	1(1)	-4.167637***	-4.374092***	1(1)
Δ INFR	-5.593821***	-5.522980***	1(0)	9.447165***	-10.33993***	1(0)
Δ IMP	-2.167712	-6.039996***	1(1)	-4.621838***	-5.324707***	1(1)
ΔEXP	-5.047608***	-5.999181***	1(1)	-2.753992*	-2.635141*	1(1)
ΔGOCEXP	-5.702308***	-5.742786***	1(1)	-5.669464***	-6.324352***	1(1)

Source: Author's Computation using Eviews version 9

Note: ***, ** and * asterisk denotes rejection of the null hypothesis at 1%, 5% and 10% respectively based on critical value. For the augmented Dickey –Fuller (ADF) test, the automatic maximum lag length based on Schwarz information criterion is applied. The automatic maximum lag length based on Newey-West Bandwidth is applied for Philips-Perron (PP) test

4.1 Bound Test Estimation

Table 4.2 shows that the Asymptotic critical bounds value of F-statistics is higher than both the lower and upper bound critical value at 1%,

5% and 10% level of significance, therefore the null hypothesis of no cointegration is rejected implying the long run cointegration relationship amongst the variables

Table 4.2 Bound Test

Test statistic	Value	K
F. Statistic	8.528623	5
Critical Value Bounds		
Significance	10 Bound	11 Bound
10%	2.08	3
5%	2.39	3.38
1%	3.06	4.15

SOURCE: Author's Computation using Eviews version 9

Table 4.3 shows the result of short run dynamics of the variables. The result shows that exchange rate (EXR) has positive impact on Real Gross Domestic product at 1% level of significance, this entails that a 1% increase in exchange rate will lead to 15% increase in Real Gross Domestic Product of the nation. Inflation rate has a negative impact on real gross domestic product at 10% level of significance this implies that a 1% increase in inflation rate will lead 70% decrease in Real Gross Domestic product in Nigeria under the period cover by the study while the coefficient of import has a negative coefficient and statistical significance impact on economic growth at 10% level this

means 1% increase in import will lead to 35% decrease in Real Gross Domestic product Nigeria within the period cover by the study. Furthermore export has a positive coefficient and statistically significant at 10% level of significance this by implication means that 1% increase in export will lead to 51% increase in real gross domestic product of the nation under the period cover by the study. Finally government capital expenditure has 0.000378 as its coefficient which is significant at 1% level of significance the implication is that 1% increase in capital expenditure by the government will lead to 37% increase in GDP of Nigeria under the period cover by the study.

Table 4.3 Short-Run Result

VARIABLE	COEFFICIENT	T.STATISTIC	PROBABILITY
EXR	0.001524	4.873624	0.0005
INFR	-0.000705	-2.827797	0.0948
IMP	-3.52E-06	-3.294851	0.07736
EXP	5.15E-06	0.399961	0.06968
GOCEXP	0.000378	3.995743	0.0021
CointEq(-1)	-0.356136	-9.605425	0.0000

Source: Author's Computation using Eviews version 9

The findings of the study also shows that the equilibrium error correction coefficient (ECM) estimate of -0.356136 is highly statistically significant. This implies a high speed of adjustment to equilibrium after a shock. Approximately 35% of disequilibrium from the previous year's corrected back to the long run equilibrium in the current year.

Table 4.4 shows estimated long run positive relationship between exchange rate and real gross domestic product. The result implies that 1% increase in the value of Nigeria Naira over other countries currency will lead to 42% increase in the real gross domestic product under the period cover by the study this is absolutely sure because increase in exchange rate will motivate other sectors of the economy to contribute more to the Real Gross Domestic product. Inflation has a positive coefficient but statistically not significant. Import has a

negative significant impact on real gross domestic product. This implies that increase in importation of goods and services in Nigeria under the period cover by the study will lead to decrease in real gross domestic product the implication of this result is that Nigerian economy depend heavily on importation of goods and services so as import increases the impact of the contribution of other sector to Real Gross Domestic Product will not be felt because the money gotten from those sectors will be used for importation of goods and services into the country. Furthermore the findings of the study revealed a positive and significant relationship between export and real gross domestic product. The implication is that increase in exportation of goods and services will lead to increase in the threshold of Nigerian Real Gross Domestic Product.

Table 4.4 long- Run Result

VARIABLE	COEFFICIENT	T.STATISTIC	PROBABILITY
EXR	0.004278	5.9177773	0.0001
INFR	0.001797	1.935899	0.790
IMP	-0.000046	-2.103849	0.02932
EXP	0.000014	0.402524	0.06950
GOCEXP	0.001060	3.625971	0.0000

Source: Author's Computation using Eviews version 9

The findings of the study finally reveals a long run positive significant relationship between government capital expenditure and real gross domestic product. This implies that increase in government capital expenditure will lead to increase in Real Gross Domestic Product in Nigeria under the period cover by the study

4.2 Diagnostic Test

The estimated results in table 4.5 suggest that the model has a reasonable good fit with robust diagnostic tests for error processes such as absence of serial correlation problem with coefficient value of (17.29778) with probability value of (0.0017) with Jargue-Bera coefficient of (0.437084) with an insignificant probability value of (0.803690).

Table 4.5

Test	Coefficient	Probability
Jargue-Bera	0.437084	0.803690
Breusch-Gogfrey Serial Correlation LM Test	17.29778	0.0017
Heteroscedasticity Test	26.95287	0.1724

Source: Author's Computation using Eviews version 9

Heteroscedasticity test shows (26.95287) as its coefficient with an insignificant probability value of (0.1724) which shows the presence of homoscedasticity.

4.3 Discussion of Major Findings

The results from Table 4.3 and 4.4 show that the effect of exchange rate fluctuation on Real Gross Domestic Product performance is positive and statistically significant at 1%. The estimates indicate that ceteris paribus, in the long run, a 1% increase in exchange rate will lead to 42% and 15% increase in economic growth respectively. This is so because as the exchange rate increases, the Real Gross Domestic Product sector is motivated to contribute more to the GDP. This result is consistent with Adelowokan et al (2015), Asher (2012).

A coefficient of approximately $-3.52E-06$ for imports means that all other things being equal, in the long run a 1% increase in imports will lead to a decrease in Real Gross Domestic Product sector performance by about 35% and this is statistically significant at 5%. The implication of this result is that a greater portion of goods and services consumed in Nigeria are imported and so as imports increase GDP reduces drastically.

Again, a coefficient of $5.15E-06$ for export implies that ceteris paribus, a 1 percent increase in export will lead to a 15% increase in Real Gross Domestic Product. Finally, both in the long run and short run, an increase in Government capital expenditure by 1% will lead to an increase in Real Gross Domestic Product performance by about 37% under the period cover by the study holding other factors Constant this result is also significant at 1% level.

5.0 Summary, Conclusion and Recommendation

The study examine the effects of exchange rate fluctuation on economic growth in Nigeria from 1981 -2018. The finding of the study revealed

that exchange rate has positive and statistically significant impact on Real Gross Domestic Product both in the long-run and short –run furthermore export and government capital expenditure also has positive and significant impact on Real Gross Domestic Product both in the long-run and short-run. Finally the findings of the study further revealed a negative and significant relationship between import and Real Gross Domestic Product. Based on the findings of the study the following recommendation where made for policy purpose:

Government should formulate policies that would discourage importation but rather encourage exportation of goods and services into other nations of the world, Government should engage in capital intensive project for this will positively contribute to economic growth of the nation. Finally, the government should develop and implement exchange rate policies that are aimed at minimizing currency fluctuations in the country

Reference

- Abdallah, A. (2016). Exchange Rate Variability and Manufacturing Sector Performance in Ghana: Evidence from Co-integration Analysis, *International Economics and Business*, 2(1)
- Adelowokan, O. A., Adesoye. A. B. & Balogun, O. D. (2015). Exchange Rate Fluctuation on Investment and Growth in Nigeria, an Empirical Analysis, *Global Journal of Management and Business Research: B Economics and Commerce*, 15 (10)
- Adeniran, J. O., Yusuf, S. A. & Adeyemi, O. A. (2014). The impact of Exchange Rate Fluctuation on the Nigerian economic growth: An empirical Investigation. [Online]. *International journal of Academic Research in Business and Social sciences*, 4 (8), 224-233. <http://econpapers.repec.org>

- Aliyu, S., Yakub, M., Sanni, G. & Duke, O. (2013). Exchange Rate Pass-through in Nigeria: Evidence from a Vector Error Correction Model. *Econ Paper*, 1071–1084.
- Aranyarat, C. (2010). The Effect of Exchange Rate Volatility on Foreign Direct Investment and Portfolio Flows to Thailand
- Asher, O. J. (2012). “The impact of exchange rate fluctuation on the Nigeria economic growth (1980- 2010)” Department of Economics, Caritas University Emene Enugu, Enugu state.
- Central Bank of Nigeria (2016). Foreign Exchange Rate, Research Department
- Colander, D. C. (1994). *Economics*. New York: Middlebury College
- Dada, E. A. & Oyeranti, O. A. (2012). “Exchange Rate and Macroeconomic Aggregates in Nigeria”. *Journal of Economics and Sustainable Development*, Vol.3, No 2, pp.93.
- E. Ubok-Udom. (1999). Currency depreciation and domestic output growth in Nigeria, the *Nigeria Journal of economics and social studies*. Economics, Caritas University Emene Enugu, Enugu state.
- Gujarati D. N, porter DC (2009), *Basic econometrics 5th edition*. Mc Grawhill International.
- Ikechukwu, K. (2016). Exchange Rate Fluctuation and Firm Performance in Nigeria: A Dynamic Panel Regression Approach, Proceedings of the Australia-Middle East Conference on Business and Social Sciences 2016, Dubai (in partnership with *The Journal of Developing Areas*, Tennessee State University
- International Monetary Fund. (2008). “Back to the Basics: Exchange Rate Regimes: Fix or Float?” *Finance and Development*. Vol 45 (1).
- Johansen, J. & Juselius, K. (1990). “Maximum Likelihood estimation and Inferences on Cointegration - With Application to the Demand for Money”, *Oxford Bulletin of Economics and Statistics*, vol. 52 (1990), pp. 169-210.
- Jonathan, O. E & Kenneth. U. (2016). The Impact of Exchange Rate Fluctuations on Private Domestic Investment Performance in Nigeria, *Journal of Economics and Finance*, 7(3), PP 07-15
- Jonathan, .O. E, Kenneth. U. O & Gyang, N. (2013). The Impact of Exchange Rate Fluctuations on Private Domestic Investment Performance in Nigeria, *Journal of Economics and Finance* 7, Issue(3), 07-15
- Jongbo, .O. C. (2014). The Impact of Real Exchange Rate Fluctuations on Industrial Output in Nigeria. *Journal of Policy and Development Studies* 9(1), pp 268-278
- Lawal, E. O. (2016). Effect of Exchange Rate Fluctuations on Manufacturing Sector Output in Nigeria, *Journal of Research in Business and Management*, 4(10): 32-39
- Michael, M. Dadson. A. V. & Henry, A. M. (2013). Exchange rate and employment growth in Ghana’s manufacturing sector *international journal of business and social science vol 4.no 4*.
- Omorokunwa, O.G & N. Ikponmwosa. (2014). Exchange Rate Volatility and Foreign Private Investment in Nigeria. *Asian Journal of Business Management*, 146-154.
- Osinubi, .T. S. Amaghionyeodiwe, L. A (2009). Foreign Direct Investment and Exchange Rate Volatility in Nigeria. *International Journal of Applied Econometrics and Quantitative Studies* 6(2) (2009)
- Wood, J., Wallace J., Zeffane R., Champan J., Fromholtz M. & Morrison. V. (2004). *Organisational Behaviour: A global perspective*, 3rd edition, John Wiley and Sons. QLD, Australia. P. 355-357.