

# Bizecons Quarterly

Anu Keshiro Toriola, Rahmon Abiodun Folami,

Adewale Olakunle Afolabi, Felix Odunayo Ajayi

## The implications of exchange rate fluctuations on human welfare in Nigeria

### Abstract

In Nigeria, the sliding exchange rate has positioned the country amongst nations with the lowest standard of living. This study examined exchange rate fluctuations and human welfare changes in Nigeria. We specifically examined the trend of exchange rate and human welfare, investigated the effect of exchange rate fluctuations on human welfare indicators, and assessed the direction of causality between exchange rate and human welfare indicators in Nigeria. The study follows ex post facto research and data were sourced from Central Bank of Nigeria (CBN) Statistical Bulletin and World Bank Development Index (WDI) between 1981 and 2017. The Ordinary Least Squares (OLS) and Ganger causality test were used in the actual estimation. The result showed that, interest rate exerts a significant positive effect on human welfare in Nigeria while exchange rate fluctuations and inflation exert an insignificant effect on human welfare in Nigeria. The Granger causality test established a unidirectional causality effect of human welfare on exchange rate fluctuations in Nigeria. The study recommended that government should discourage the importation of all products that can be produce locally and which the country has abundant resources to produce to boost the exchange rate.

*Keywords:*  
Exchange rate  
Human welfare  
Interest rate  
Inflation

*JEL Classification:*  
C32  
D60  
N37  
F31

*Received:*  
4 November 2019

*Revised:*  
15 January 2020

*Accepted:*  
20 May 2020

**How to cite this article:** Toriola A. K., Folami R. A., Afolabi A. O., & Ajayi F. O. (2020). The implication of Exchange Rate Fluctuations on Human Welfare in Nigeria, *Bizecons Quarterly*, 7, 13–25.

*Toriola A. K.* Dept of Economics, Olabisi Onabanjo University, Ago-Iwoye, Nigeria.  
toriolaanu@gmail.com

*Folami R. A.* Dept of Banking and Finance, Olabisi Onabanjo University, Ago-Iwoye, Nigeria.

*Afolabi A. O.* Dept of Business Administration, Olabisi Onabanjo University, Ago-Iwoye, Nigeria.

*Ajayi F. O.* Dept of Economics, Olabisi Onabanjo University, Ago-Iwoye, Nigeria.

## 1 Introduction

Exchange rate is an important macroeconomic variable that determines the competitiveness of an economy in the international market and an indicator of how valuable is the currency of a nation in the international exchange system. As such the higher the exchange rate of a country, the better is her global purchasing power and access to good and services produced locally and in the international market. According to Musyoki, Pokhariyal and Pundo (2012), exchange rate determines how much the resident of a country pay for imported goods and services, and how much they receive as payment for exported goods and services. It reflects the valuable a country is in the committee of nations. However, in real world based on the dictates of certain macroeconomic variables such as oil price, inflation, domestic policy environment and institutional quality exchange rate for a considerable period of time may not be stable moving upward and downward. Meanwhile, the higher the depreciation in the exchange rate of a country, the lower the worth of goods and services that the country will command vis-à-vis her trading partners (Nyong, 2005).

Exchange rate fluctuations can have significant effects, especially in the context of financial markets in developing economies where firms and households have limited funds; it reduces the level of international trade, affects investment decision, and impedes economic growth. This effect will be more pronounced in the case of prolonged and sustained exchange rate fluctuation, which can badly distort resource allocation. With depreciation in exchange rate, the cost of imported capital goods will rise, which, in turn would lead to a decline in domestic investment but a real depreciation arising from increased profitability industries will raise investment in the sector but retard investment in the non-tradable. Where the main driver of the economy is foreign direct investment (FDI) flows with optimal capital stock, a real depreciation of the exchange rate will lead to a fall in investment domestic economy (Jongbo, 2014). With a decline in investment, income and employment will shrink and the welfare of the people will worsen.

In Nigeria and other developing countries, the price of foreign exchange plays a critical role in the ability of the economy to attain optimal level in production activities (Danmola, 2013). However, in most of these countries, high exchange rate fluctuation is prevalent which translates into high degree of uncertainty or volatility. Governments, in these countries has over the years adopted different exchange rate management policies with a view to achieve realistic and stable exchange rate (Hassan, Abubakar & Dantama, 2017). In Nigeria, Naira exchange rate has continuously fall in all the segments of the foreign exchange market. The implication of the continued slide in the value of Nigeria currency

compared to other internationally recognized currency is that Nigeria will require more resources to raise domestic output. When the exchange rate of a country depreciates and the country did not have alternative sources for input resources and her infrastructure is inadequate, the cost of production will increase which will make goods produced locally less competitive compared to goods from other countries, thus, reversing the expected benefit of cheaper exports from the depreciation in currency. Similarly, the implication of Nigeria over-reliance on capital goods from abroad is that depreciation in exchange rate would retard marginal investment due to high investment cost (Jongbo, 2014)

Exchange rate volatility in Nigeria started since the implementation of Structural Adjustment Programmes (SAP) in the middle of 1980 with the aim of achieving a realistic and stable exchange rate. Since then, the exchange rate between Naira and other currencies of the world especially US dollar has been very volatile. In spite of the strategies and policy that have been introduced to stabilize the exchange rate, a realistic and stable exchange rate has remained elusive. From the period of 1981 down up to 2017 covered in this study there has been persistence depreciation in Naira exchange rate from one US Dollar to 0.637 producing a rate of 0.637 in 1981 to 306 Naira a rate of 0.003 as at the third quarter of 2017. With the prevalence of unstable exchange rate in the country, large numbers of Nigerians are living below the international poverty benchmark set by the World Bank. Although since 2015 the economy has continued to grow in terms of her gross domestic product, the few are getting richer while the majority continued to wallow in abject poverty. This devastating condition is not unconnected with the lost in the value Naira coupled with the overreliance of the economy on imported products and the high level of macroeconomic uncertainty which retard investment due to the dependency on revenue from oil.

In the literature, there is sparse empirical study on exchange rate fluctuations and welfare (Lustig 2000). Though, series of effort has been made in the region to unravel the effects of exchange rate fluctuations on human welfare, studies that specifically focused on Nigerian economy are scanty. The few existing studies in the Nigeria context on exchange rate behaviour have focused on the determinants of exchange rate with emphasis on the role of macroeconomic variables such as monetary policy shocks on exchange rate without due consideration of the implication of exchange rate fluctuations on human welfare. Thus this study addresses this lacuna by investigating the effect of exchange rate fluctuation on welfare changes in Nigeria and the direction of causality between the two variables. The results will aid in providing a better understanding of the relationship between the two variables in order to assist in formulating

appropriate monetary and fiscal policies to address the issue of exchange rate instabilities prevailing in the country.

The broad objective of this study is to examine the link between exchange rate fluctuations and welfare changes in Nigeria. The specific objectives are to:

- i). examine the trend of exchange rate and human welfare in Nigeria;
- ii). investigate the effect of exchange rate fluctuations on human welfare indicators in Nigeria; and
- iii). assess the direction of causality between exchange rate and human welfare indicators in Nigeria

The focused of this study is on the Nigerian economy covering the period of 1991 to 2015 which is period of 26 years. The choice of this scope was because during this period efforts were made in the infrastructures, institutions and regulations that pertain to the Nigerian Capital market in an effort of the government to improve the welfare of the people. This study is not a comparison of the Nigeria industrial sector of Nigeria with those of other countries. This is based on the fact that focusing on a single country; it will be possible to keep substantial variability within the sample.

## **2 Literature Review**

### **2.1 Conceptual Review**

As a matter of conceptual clarifications, exchange rate is defined as the rate of conversion of a country currency to the currency of her trading partner(s) or any international reserve currency. It is the unit of the currency of a country that is required to exchange for one unit of the reserve currency under which an economy operate. In the view of Elumelu (2002), exchange rate is the link between domestic and foreign prices of goods and services. It is the price of one currency in terms of another (Nzotta, 2004). Fluctuation in exchange rate is instability upward and downward in the movement of exchange rate for considerable time period which could be day on day, month on month, year on year or any other time dimension commonly measured through standard deviation of the trend. On the other end, human welfare according to Sen and MahbulHaq (1998), is the level of freedom of the people of a society covering political, social and economic facets. It is an expansion in the options and alternatives available to the people with long and healthy life, education, enjoyment of a good standard of living, political freedom, guaranteed human rights and dignity breath being its core. It combines

human capabilities with their capabilities to explore the opportunities for their benefits (Gustav, 2004).

## 2.2 Theoretical Review

The purchasing power parity model and the monetary models are explored to provide theoretical foundation for our analysis. The purchasing power parity theory credited to Gustav Cassel which can be traced to Wheatley and Ricardo came to be after the breakdown of the gold standard in 1916. The main submission of the theory is that the price level prevailing in an economy with that of her trading partners determines the exchange rate of their currencies. In other words, based on the PPP absolute version, the rate of exchange is the ratio of the unit of the local currency needed to buy a set of goods at home compared with the units it would buy same abroad. Thus, when the local currency commands more goods locally, it will certainly command more goods abroad which will better the welfare of the citizens. The relative version of the model believe that the relative movement in the price level in the two countries between base and current period have a serious effect on exchange rate of currencies in the two periods.

Among the several shortcomings of the model is its assumption of free trade and laissez faire and neglect of aggregate income and expenditure, direct relationship between purchasing power and exchange rates and the presumptions of equilibrium balance of trade. Despite all these limitations, the model is central to many other models. On the other end, the monetary approach emphasize that rate of exchange is determined by the relative demand and supply of the currencies of the two countries. By inference, the relative money supplies, real income and the nominal interest of two trading countries determines the exchange rate. It supposes that when the money supply increase, there will be a proportionate increase in the price level in the home country in the long run with a depreciation in the domestic currency. In such scenario, the welfare of the people will decline.

## 2.3 Empirical Review

Against the empirical background, studies abound in developed country on the nexus between exchange rate fluctuations and human welfare. Among other studies, Maier (2007) examine the effects of exchange rate regimes on poverty using system GMM estimation based on sample from 76 countries across regions. It was found that exchange rate regimes affect very differently the poor in developing and industrial countries. In the same vein, Serve'n (2003) examined the link between real exchange- rate uncertainty and private investment in developing countries. Building on a GARCH-based measure of real-exchange-rate volatility, a strong negative effect on investment, was established after controlling for other standard

investment determinants and taking into account their potential endogeneity. The effect of uncertainty is not uniform, however, there is some evidence of threshold effects, so that uncertainty only matters when it exceeds some critical level. In addition, the negative effect of real exchange-rate uncertainty on investment is significantly larger in economies that are highly open and in those with less developed financial systems. In another study, Olga, Davide, Reiner and Aleksandra (2011) also gave credence to the negative effect of exchange rate volatility by analysing the relation between nominal exchange rate volatility and macroeconomic variables in the Central and Eastern European EU member states. Based on panel estimations for the period between 1995 and 2008, the study find that lower exchange rate fluctuation is associated with higher growth, higher stocks of FDI, higher current account deficits, and higher excess credit.

Studies also abound in emerging economies and developing countries linking exchange rate fluctuations with welfare. For instance, Polodoo, Seetanah and Padachi (2011) examined the impact of exchange rate volatility on the macroeconomic performance of 15 Small Island Developing States (SIDS). Based on the OLS it was found that exchange rate volatility impacts negatively on current account balance but positively on the growth rate of the economies studied. In a dynamic setting, however, exchange rate volatility does not influence the macroeconomic variables. In a similar vein, Mensah and Awunyo-Vitor (2013) examine the effect of exchange rate fluctuation on employment growth in Ghanaian manufacturing sector. The Ordinary Least Squares (OLS) regressions show that exchange rate volatility has effect on employment growth in manufacturing sector firms in Ghana while interest rate has a negative relationship with employment growth. However, Gross Domestic Product (GDP) exhibits a positive relationship with employment growth. Similarly, Sani, Hassan and Azam (2016) investigated the effect of exchange rate volatility on the output of ECOWAS countries over the period 1991 to 2014. The estimates of co-integration shows that exchange rate volatility has a significant impact on outputs at least for all the countries considered in the study, with all except Liberia having negative impact.

In the Nigeria context, several studies have also link exchange rate fluctuation with macroeconomic variables. For instance Ditimi and Odeniyi (2016) examined the impact of exchange rate fluctuation on the Nigerian economic growth from 1970 to 2013. The study found a positive but insignificant impact of exchange rate fluctuation on Nigerian economic growth in both the long run and short run. In a similar direction, Ebiringa and Anyaogu, (2014) model a long run relationship between exchange rate, interest rate and inflation using autoregressive distributed lag (ARDL) co-integration analysis over the period of 1971 to 2010, the study established

a significant short-run and long run positive relationship between inflation and exchange rate. On the other hand, interest rate exhibited a negative relationship, though insignificant. In another study, Odili (2015) investigated the effect of exchange rate fluctuation on Nigeria's imports from 1971 to 2011. The findings revealed that exchange rate trends had positive and significant effect on imports only in the long run and that exchange rate volatility depressed imports. It further revealed that a unidirectional causality runs from exchange rate volatility to imports. The policy implication is that trends in exchange rate if not checked will lead to wide exchange rate volatility and poor performance of the import sector. Similarly, Jonathan and Kenneth (2016) analysed the link between exchange rate fluctuations and private domestic investment in Nigeria. The findings suggest that, the depreciation of the currency and interest rate does not stimulate private domestic investment activities in Nigeria. On the other hand, infrastructures, government size and inflation rate had a positive effect on private domestic investment in Nigeria. Similarly, David, Umeh and Ameh (2010) examine the impact of exchange rate fluctuations on the Nigerian manufacturing sector from 1986 to 2005. The result of the regression analysis shows that exchange rate fluctuations have a significant negative effect on manufacturing sector in Nigeria.

Based on the past literature reviewed it is clear that Nigeria-specific studies on exchange rate behaviour concentrated on the determinants of exchange rate without due emphasis on the implication of exchange rate fluctuations on human welfare a lacuna that is addressed in this study.

### 3 Methodology

We followed ex post facto research design in order to capture the effect of exchange rate fluctuations over some past periods on welfare changes. The theoretical framework for the study emanates from Meese and Rogoff (1988) based on the flexible exchange rate theory. In line with the flexible exchange rate experience, the real exchange rate,  $q_t$  (in log), can be defined as:

$$q_t = e_t - p_t + p_t^* \quad (1)$$

where  $e_t$  is logarithm of nominal exchange rate (domestic currency per foreign currency unit) and  $p_t$  and  $p_t^*$  are the logarithms of domestic and foreign prices. Three assumptions are made: first, that when a shock occurs, the real exchange rate returns to its equilibrium value at a constant rate; second, that the long-run real exchange rate,  $\hat{q}_t$  is a non-stationary variable; finally, that uncovered real interest rate parity (UIP) is fulfilled:

$$E_t(q_{t+k} - q_t) = R_t - R_t^* \quad (2)$$

Where  $R_t^*$  and  $R_t$  are respectively, the real foreign and domestic interest rates for an asset of maturity  $k$ . Combining the three assumptions above, the real exchange rate can be expressed in the following form:

$$q_t = -\delta(R_t - R_t^*) + \hat{q}_t \quad (3)$$

Where  $\delta$  is a positive parameter larger than unity. The variables identified in this framework are real exchange rate  $p_t$ , domestic and foreign prices  $p_t^*$ , real foreign  $R_t^*$  and domestic interest rates  $R_t$

#### 4 Model Specification, Sources of Data and Measurement

In line with the above framework, this study adapted the model used in the study conducted by Yunana and Mato (2016) on economic implications of exchange rate volatility on macroeconomic variables in Nigeria where gross domestic product was the dependent variable while exchange rate, inflation rate and interest rate were the independent variables. Their model was modified in line with this study by replacing gross domestic product the dependent variable with human welfare proxy by per capita gross domestic product. The functional form of the model is stated as follows:

$$\text{HWFR}_t = (\text{EXRF}_t, \text{INFR}_t, \text{INTR}_t) \quad (4)$$

The transformation of the functional relationship into an econometric model is presented in four endogenous variables:

$$\text{HWFR}_t = \beta_0 + \beta_1 \text{EXRF}_t + \beta_2 \text{INFR}_t + \beta_3 \text{INTR}_t + \varepsilon_t \quad (5)$$

In each equation,  $\beta_0, \dots, \beta_4$  are the coefficients, while the error terms is  $\varepsilon_t$ . Where  $\text{HWFR}_t$  is human welfare as proxy by Gross domestic Per Capita,  $\text{EXRF}_t$  is exchange rate fluctuations measured as the standard deviation of the first difference of official exchange rate,  $\text{INFR}_t$  is inflation rate proxy by consumer price index and  $\text{INTR}_t$  is Interest rate measure by the weighted average lending and deposit rate of the commercial bank

The study utilised annual time series data covering thirty six (36) years period from 1981 to 2017. The choice of the base year (1981) and end of period (2017) is premised on the capture the periods of major policy reforms episodes that led to significant changes in exchange rate. Among these are the oil shocks of the 1970s and recession of the early 1980's, the Structural Adjustment Program (SAP) of 1986-1994 and the years of economic reforms 1999-2005. The data used for analysis are compiled from the Central bank of Nigeria Statistical Bulletin and National Bureau of Statistics.

### 5 Estimation Technique

In order to ensure the statistical accuracy the study performs several diagnostic tests to check the time series properties. The tests used include the line graph, Jarque-Bera test for normality of the residuals. The unit root test is the augmented Dickey-Fuller (ADF). In the estimation, the Ordinary Least Squares (OLS) regression and the Granger causality was employed. The choice of OLS is because the technique probably always has all the computing power required and its desirable characteristics as being a best linear unbiased estimator. The *A priori* expectation of the estimates require exchange rate fluctuation to exert a negative effect on human welfare i.e.

$$\frac{\partial HWFR}{\partial EXRV} < 0, \text{ inflation rate to have a negative effect on human welfare t i.e.}$$

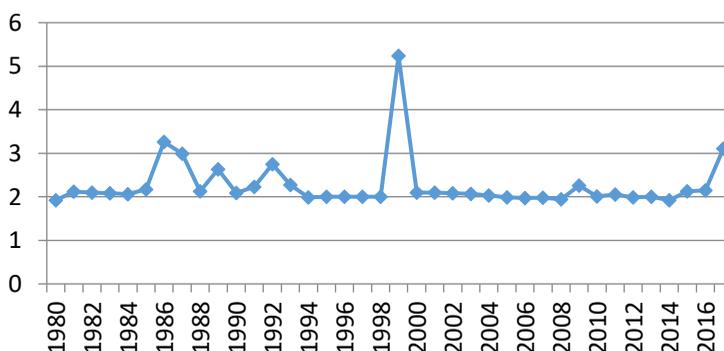
$$\frac{\partial HWFR}{\partial INFR} > 0 \text{ and interest rate to have a negative effect on human welfare i.e.}$$

$$\frac{\partial HWFR}{\partial INTR} > 0.$$

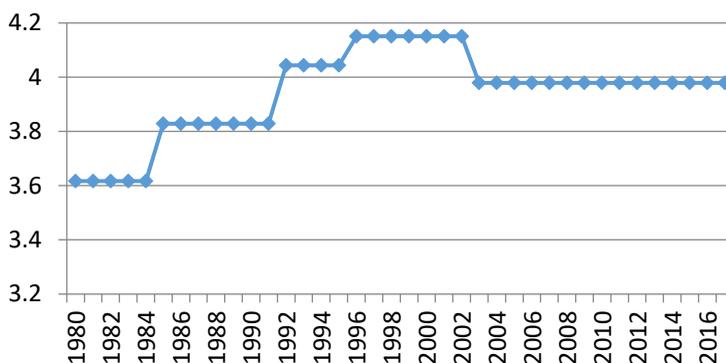
### 6 Trend Analysis

The trend analysis presented in Figure 1 showed that over the entire period, exchange rate has been volatile moving upward and downward. In 1986 when the Structural Adjustment programme (SAP) characterised by free market determination of the naira exchange rate through an auction system was implemented prevailing till the end of April 1993 was the beginning of the unstable exchange rate. In 1995 when there was a policy reversal which prevail up till 1999 characterised by guided deregulation policy introduced, there was upsurge rapid increase in exchange rate afterwards in the post deregulated era from 2000 till date characterised by the introduction of the Dutch Auction System (DAS), the rapid growth and fluctuation in exchange rate reduced compare to the period of the guided deregulation policy.

**Figure 1.** Trend of Exchange Rate fluctuations in Nigeria 1981-2017



Source: Author, 2019

**Figure 2.** Trend of Human Welfare in Nigeria 1981-2017

Source: Author, 2019

The trend analysis presented in Figure 2 showed that human welfare in Nigeria has been increasing in a stepwise fashion over the entire period.

## 7 Empirical Results

The study analyse the effect of exchange rate fluctuations on human welfare in Nigeria. The result of the Ordinary Least Squares (OLS) is presented in Table 1.

**Table 1.** Ordinary Least Squares (OLS) Regression

| Variable           | Coefficient | Std. Error | t-Statistic | Prob.  |
|--------------------|-------------|------------|-------------|--------|
| EXRF               | 1.974327    | 1.629995   | 1.211247    | 0.2350 |
| INFL               | 0.052979    | 0.056611   | 0.935846    | 0.3566 |
| INTR               | 0.367021    | 0.181354   | 2.023785    | 0.0417 |
| C                  | 23.99942    | 5.329144   | 4.503428    | 0.0001 |
| R-squared          | 0.598747    |            |             |        |
| Adjusted R-squared | 0.546972    |            |             |        |
| F-statistic        | 11.56448    |            |             |        |

Source: Author, 2019

The result of the analysis shows that interest rate ( $\beta = 0.367021$ ,  $t = 2.023785$ ,  $p < 0.05$ ) exert a significant positive effect on human welfare level in Nigeria while exchange rate fluctuations ( $\beta = 1.974327$ ,  $t = 1.211247$ ,  $p < 0.05$ ) and inflation ( $\beta = 0.052979$ ,  $t = 0.935846$ ,  $p < 0.05$ ) exert an insignificant positive effect on human welfare in Nigeria at 5% level of significance. Against a priori expectation, the effect of interest rate on human welfare was positive, that is a unit increase in interest rate on the average brings about 37% increase in human welfare in Nigeria. The effect of exchange rate fluctuations on human welfare which is also positive against a priori expectation, that is a unit increase in exchange rate fluctuations on the average brings about 197% increase in human welfare in Nigeria. The effect of inflation on human welfare was positive against a priori expectation, that is a unit increase in inflation on the average brings about 5% increases in human welfare in Nigeria.

The Granger causality test result is presented in Table 2 as follows.

**Table 2.** Granger Causality Test

| Hypothesis   | F-Statistics | Prob   |
|--|--------------|--------|
| Panel A: Causality from explanatory variables to POV     |              |        |
| ERV → HWFR   | 0.34423      | 0.5615 |
| INFL → HWFR  | 35.9019      | 1.0606 |
| INTR → HWFR  | 0.02274      | 0.8811 |
| Panel B: Causality from POV to the explanatory variables |              |        |
| HWFR → ERV   | 4.52414      | 0.0412 |
| HWFR → INFL  | 0.24993      | 0.6205 |
| HWFR → INTR  | 0.24862      | 0.6215 |

Source: Author, 2019

The Granger causality test results as shown in panel A of Table 2 shows that other variables in the system (exchange rate fluctuations, inflation and interest rate) do not granger cause human welfare in Nigeria since the probability value is not statically significant at the 5%. In panel B, human welfare granger cause exchange rate fluctuations in Nigeria. Therefore, the Granger causality test established a unidirectional causality effect of human welfare on exchange rate fluctuations in Nigeria.

## 8 Discussion of Results, Conclusion and Recommendations

The result of the analysis established that interest rate ( $\beta = 0.367021$ ,  $t = 2.023785$ ,  $p < 0.05$ ) exert a significant positive effect on human welfare in Nigeria while exchange rate fluctuations ( $\beta = 1.974327$ ,  $t = 1.211247$ ,  $p < 0.05$ ) and inflation ( $\beta = 0.052979$ ,  $t = 0.935846$ ,  $p < 0.05$ ) exert an insignificant positive effect on human welfare in Nigeria at 5% level of significance. The Granger causality test established a unidirectional causality effect of human welfare on exchange rate fluctuations in Nigeria.

By and large, our result established that exchange rate fluctuations does not have a significant effect on human welfare in Nigeria while interest rate showed a significant positive effect on human welfare in Nigeria. This result implies that, despite the unstable nature of naira exchange rate over the period, it has not affected welfare changes in the country. This result pointed to the effectiveness of monetary management in the country that has been able to curtail the expected adverse effect of exchange rate fluctuations on the welfare of the people. This result corroborated the findings in the study conducted by Imoisi, Chika and Olatunji (2014) on the impact of interest and exchange rates on the Nigerian economy. From the findings it was discovered that an increase in interest rate retards investment and subsequently economic growth; and the lag one of exchange rate shows the expected positive sign, implying that depreciation in exchange rate retarded growth from 1975 to 2008. The result also gave credence to the findings of Ditimi and Odeniyi (2016) on the impact of exchange rate fluctuation on Nigerian economic growth. 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. However, the result was in contrast to the findings of Javed and Farooq (2009) on the relationship of economic growth and exchange rate volatility in Pakistan. The conclusion suggests that domestic economic performance is very sensitive to the exchange rate volatility in the long-run period.

Following the empirical findings, the following recommendations are made for effective policy formulations. Government should strengthen her policies to reduce import by discouraging importation of all products that can be produce locally and for which the country have abundant resources to produce to boost her exchange rate. The government also needs to raise the taxes on the importation of luxury and harmful goods heavily taxed as a way of reducing import while also raising the country capacity to produce through human capacity building and empowerment.

## References

- Adeniran, J.O, Yusuf, S.A & Adeyemi, O.A (2014) The Impact of Exchange Rate Fluctuation on the Nigerian Economic Growth: An Empirical Investigation, *International Journal of Academic Research in Business and Social Sciences*, 4(8), 11-15.
- Aku, P.S; Ibrahim, M.T & Bulus, Y.D. (1997). *Perspective on poverty Alleviation Strategies in Nigeria*, Proceedings of the Nigeria Economic Society, Ibadan.
- Danmola, R. A & Wakili, A.M (2013) The Impact Of Net Migrant Remittance On Economic Growth: Evidence From Nigeria, *International Journal Of Humanities And Social Science*, 3(8), 303
- Dewtt, K. K., (2005) *Modern Economic Theory*. Shyam Lal Charitable Trust, New Delhi.
- Dollar, D. & Kraay, A. (2001). Trade, Growth, and Poverty. Policy Research Working Paper, 2615, Word Bank.
- Englama, A.;Duke, O.O & Ogunleye, T. S. (2010) Oil Prices and Exchange Rate Volatility in Nigeria: An Empirical Investigation, *CBN Economic and Financial Review*, 48(3), 31-42.
- Foster, J., Greer, J., and Thorbecke, E. (1984). A Class of Decomposable Poverty Measures. *Econometrica*, 52(3), 761-766.
- Gbebeh, B.D, Alex-Akukue, N., Piabari, N. & Njoku, K. (2015) The Effect of Exchange Rate on Agricultural Commodity and Pricing on Nigeria: 2009-2014, *Scholars Journal of Economics, Business and Management*, 2(12), 1151-1158
- Gustav, R. (2004). Human capital and economic growth. *Center Discussion Paper No 887*. Economic Growth Center, Yale University. <http://www.econ.yale.edu/~egcenter/>.
- Hassan, A., Abubakar, M & Dantama, Y.U (2017) Determinants of Exchange Rate Volatility: New Estimates from Nigeria, *Eastern Journal of Economics and Finance*, 3(1), 1-12, 2017

- Insah, B. & Bangniyel, P. (2014) Real Exchange Rate Volatility And Economic Growth In A Small Open Economy, *Research journal's Journal of Finance* 2(8), 3-7.
- Ismaila, M. (2016) Exchange Rate Depreciation and Nigeria Economic Performance after Structural Adjustment Programmes (SAPs), *NG-Journal of Social Development*, 5(2), 105-221
- Jean-Louis, C & Patrick, G. (2002) Commodity Price Volatility, Vulnerability and Development, *Development Policy Review*, 20 (1): 25-39
- Jongbo, O.C (2014) The Impact of Real Exchange Rate Fluctuation on Industrial Output in Nigeria, *Journal of Policy and Development Studies*, 9(1), 4-8.
- Laderchi, C. R., Saith, R., & Stewart, F. (2003), "Does it matter that we do not agree on the definition of poverty? A comparison of four approaches", *Oxford Development Studies*, 31(3).
- Maier, R (2007) Exchange Rate Regimes and Pro-Poor Growth, *Journal of Economic Literature*, 39, 771-799.
- Mensah, M. & Awunyo-Vitor, D. (2013) Exchange Rate Volatility and Employment Growth in Ghana's Manufacturing Sector, *International Journal of Business and Social Science*, 4(4), 225
- Musyoki, D., Pokhariyal, G.P., & Pundo, M. (2012), Real exchange rate volatility in Kenya. *Journal of Emerging Trends in Economics and Management Sciences*, 3(2), 117-122.
- Nwokoye, G.A; Zubairu, M & Ayuba, B (2015) The Effect of Misalignment in Exchange Rate during Pre and Post Liberalization Periods In Nigeria, *Research Journal of Finance and Accounting*, 6(16).
- Nyong, M.O., (2005). Population growth, savings rate and economic development in Nigeria. *Dakar, Senegal Union for African Population Studies*.
- Omotosho, B.S., (2015). Is real exchange rate misalignment a leading indicator of currency crises in Nigeria. *CBN Journal of Applied Statistics*, 6(1a): 153-179.
- Stephen, B.A. & O. Sanmi, (2011). The exchange rate determination in Nigeria: The purchasing power parity option. *Mathematical Theory and Modeling*, 1(2): 5-22.
- Todara, M. P. & Smith, S. C., (2006). *Economic Development*, 9th Edition. Pearson Educational Limited England.
- Uniamikogbo, S.O. & Enoma AI, (2001). The Impact of monetary policy on manufacturing sector in Nigeria: an empirical analysis. *The Nigerian Journal of Economic and Financial Review*, 3 (2): 37-45.
- Yunana, T.W & Mato, W.R (2016) Economic Implications of Exchange Rate Volatility on Macroeconomic Variables in Nigeria, *International Journal of Original Research*, 2(3)



This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported license. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/3.0>