



**EXCHANGE RATE DEPRECIATION AND ITS IMPACT ON COST OF LIVING IN
NIGERIA**

OGBONNA UZOMA EMMANUEL (B.Sc, M.Sc Banking/Finance)

BANKING AND FINANCE DEPARTMENT

EBONYI STATE UNIVERSITY ABAKALIKI

IREM COLLINS O. (B.Sc, M.Sc, Ph.D Banking/Finance)

BANKING AND FINANCE DEPARTMENT

EBONYI STATE UNIVERSITY ABAKALIKI

NWOGO JUSTIN (B.Sc, M.Sc Banking/Finance)

BANKING AND FINANCE DEPARTMENT

EBONYI STATE UNIVERSITY ABAKALIKI

ABSTRACT

This study examined exchange rate depreciation and its impact on cost of living in Nigeria. The aim of this study is to examine the interaction of naira depreciation and cost of living in Nigeria. The study employed ordinary least square technique to examine the impact of depreciation in the nominal and real exchange rate of naira on the cost of living in Nigeria. The study revealed that the depreciation in the nominal and real exchange rate of naira have positive and significant impact on the cost of living. The study recommends that Government should maintain flexible exchange rate policy in order to quickly intervene when the need arises. Importation of goods and services that have close domestic substitutes should be discouraged. Production of agricultural products that have export value should be encouraged in order to boost our foreign exchange.

Key Words: Exchange Rate, Naira Depreciation, Real Exchange Rate, Nominal Exchange Rate and Cost of Living

1.0 Introduction

Exchange rate is one of the determinants of prices of goods and services. Exchange rate is the price of one country's currency expressed in terms of other countries' currencies. It is the rate at which a unit of currency of one country can be exchanged for a unit of another country's currency. It determines the prices of domestic and foreign goods as well as the strength of external sector participation in the internal trade.

According to Dada and Oyaranti (2012), exchange rate policy in Nigeria has undergone several changes from post independence period when Nigeria maintained a fixed parity with the British pound, through the oil boom of 1970's to the floating of currency in 1986. Consequently, the naira exchange rate remained stable between 1973 and 1979 during the oil boom period. Prior to this period, the country's emphasis was on agriculture and agricultural products accounted for more than 70% of the Nigeria GDP. With the development of oil sector in 1970's, the share of oil in the total export started increasing, while that of agriculture declined significantly (Oriakhi and Iyoha, 2013). Then, foreign exchange earnings from oil provided a strong back up to the naira. From 1981, due to decline in the world oil market, Nigeria economy was negatively affected because of the countries over dependence on oil sales for export earnings. (Oriakhi et al, 2012). One area largely affected was the exchange value of the local currency.

The introduction of structural adjustment program (SAP) in 1986 which resulted in transition from fixed exchange to flexible exchange rate regime made the monetary authorities to incessantly intervene in the foreign exchange market to achieve a certain objective. According to Gbosi (2005), such incessant intervention in exchange rate policies has contributed to a lot to further depreciation in the value of naira.

Exchange rate depreciation has become more pronounced in the recent time. Exchange rate is said to depreciate when the amount of domestic currency required to buy a foreign currency increases. It entails a decrease in the value of currency relative to another currency. A depreciated currency is less valuable (less expensive) and therefore can be exchanged for smaller amount of foreign currency. Consequently, the extent to which exchange rate depreciation affects cost of living is dependent on whether reference is on nominal or real exchange rate. Nominal exchange rate is the amount of units of domestic currency that can purchase a unit of a given foreign currency. A decrease in this variable is termed nominal appreciation of currency. On the other hand, an increase in this variable is termed nominal depreciation of currency. Real exchange rate is the ratio between the domestic price levels and price levels in a foreign country. It is exchange rate that is adjusted for inflation. It

measures the relative price of domestic and foreign goods. It is the rate that takes into account inflation differential between two countries (Nzekwu, 2006).

Depreciation in both real and nominal exchange rate has enormous effects on cost of living. Nigeria being an import dependent always suffer high cost of living each time exchange rate is depreciated because such depreciation will lead to high cost of goods and services. Since depreciated currency is less valuable, it can only buy fewer foreign produced goods that are denominated in foreign currency (Ismaila, 2016). For a country whose economy is import dependent, the impact of depreciation can be enormous.

Abdulraheed, Aliyu and George (2013) illustrate how depreciation in exchange rate could negatively affect the prices of imports in local terms. According to them, exchange rate depreciation engenders inflation and in turns increases the prices of goods and services. Persistent depreciation in exchange rate always leads to high inflation. For instance, 1990 and 1995, exchange rate moved from ₦8.04 to ₦81.65 per dollar, inflation moved from 7.5% to 72.8%. This implies that exchange depreciation trends with inflation.(Akpan and Atan, 2012).

Theoretical postulations emphasize that inflation influences the price level which in turns affects the cost of living. Inflation is the persistent rise in the prices of goods and services and as well decrease in the purchasing of currency. Inflation disturbs family's budget and decreases the purchasing power of consumers. Consequently, as people struggle to maintain their standard of living, the cost of living will increase. In a situation where such standard cannot be maintained at such high cost, it begins to slump down gradually (Anyanwu, 2011). Existing theoretical and empirical evidence widely support the exchange rate – Inflation – cost of living interaction. However, less emphasis has been paid to examining this dynamism under a depressive economic condition. Since the last quarter of 2015, the Nigerian economy has passed through severe economic recession, resulting to the crash in oil price from over US \$100 to less than US \$30 and in exchange rate of naira from ₦150 to as high as ₦440 per dollar between 2015 and first quarter of 2016. Consequently, prices of local and imported goods jumped by over 300%. The events in the few years appear to have posed significant threat to cost of living in Nigeria. The goal of this paper is therefore to examine the impact of exchange rate depreciation on cost of living in Nigeria.

Exchange rate depreciation since the beginning of floating exchange rate regime has been of great concern especially the impact of such depreciation on the cost of living. Depreciation in foreign exchange is one of the macroeconomic problems in developing countries; this is because it makes planning more problematic and investment more risky. This implies that

exchange rate depreciation increases the uncertainty of returns on investment and in the same vein scares foreign investors. Such depreciation can equally encourage capital flight since investors will not find it comfortable investing in the domestic economy. Consequently, for a developing country like Nigeria that is highly prone to import, exchange rate depreciation will not only increase the cost of imported goods but also the cost of some domestic goods since some of the materials used in domestic production are equally imported (Iyoha,1998).

Essentially, the main concern of every house hold is the cost they incur as they buy goods and services that will enable them maintain a certain standard of living. As exchange rate depreciates and cost of production affected, the prices of goods and services will keep on increasing thereby placing an upward pressure on the cost of living (Anafo, Kweku and Naatu, 2014). Currently, the depreciation in exchange rate has been attributed to fall in the oil price which resulted in the depletion of the country's external reserve. The activities of the militants in the Niger Delta area also contribute to short fall in the quantity of oil that is exported. Consequently, it has been observed that Nigeria is facing a serious dwindling in the supply of dollar and rise in its demand. This has led to a rise in the price of dollar at both interbank and bureau de change segments of the market (Jerume et al, 2016).

Naira has depreciated over the years; as a result posed great threat on cost of living. The cost of living has been on the increase owing to continuous depreciation of naira. Such depreciation became obvious since last quarter of 2015 as the exchange rate of naira depreciated from ₦150 to as high as ₦500 per dollar. Nigeria being an import dependent economy where virtually everything is imported including toothpick faces the risk of decline in purchasing power; this in turns affects standard of living of common man negatively.

Consistent with the above, depreciation in both nominal and real exchange rate is likely to have some implications on cost of living. Theoretically, increase in nominal implies depreciation in naira value while increase in real exchange rate implies that foreign goods are expensive. Decrease in real exchange rate is an appreciation and implies that foreign goods are cheap. Some empirical evidence support this assertion. Jongbo (2014) asserts that real depreciation of exchange rate raises the cost of imported goods and by so doing increases input costs which in turn raises prices of finished goods. Increase in the prices of goods consequently reduces the purchasing power of the households.

Consequently, there has been less emphasis on the interaction of exchange depreciation rate and cost of living in Nigeria. Most of the researchers lay much emphasis on the interaction of exchange rate and economic growth. To this end, this study wants to fill such gap by examining the impact of exchange depreciation on cost of living in Nigeria.

The general aim of this study is to determine the interaction between naira depreciation and cost of living in Nigeria, while the specific objectives include: to examine the impact of depreciation in the nominal exchange rate of naira on cost of living in Nigeria and to examine the impact of depreciation in the real exchange rate of naira on cost of living in Nigeria

2.0 REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

The strength or weakness of any currency is determined by the increase or decrease in the real exchange rate. Exchange rate can appreciate or depreciate depending on the amount of domestic currency required to purchase foreign currency. Consequently, exchange rate appreciation is when the amount of domestic currency it takes to purchase foreign currency decreases. On the other hand, exchange rate depreciation occurs when the amount of domestic currency required to purchase foreign currency increases. (Takaendesa, 2006).

Exchange rate depreciation has different implications on the cost of living. According to Ayadi and Jeremiah (2016), exchange rate depreciation can lead to increase in the prices of most imported goods that do not have close domestic substitute. Consequently, when exchange rate depreciation generates inflationary pressure on most of the imported goods, the cost of living as well will be affected. On the other hand, Akpan et al (2012) argue that exchange rate depreciation has positive effect on the cost of living. Sequel to this, exchange rate depreciation can boost domestic production through stimulating the net export component. This will lead to diversion of spending from foreign goods whose prices are high to domestic goods. The ability of exchange rate depreciation to boost domestic production is not automatic; it depends on the ability of the domestic economy to meet up with the additional demand by supplying more goods.

2.1.1 An Overview of Exchange Rate Policy in Nigeria.

Exchange rate policy has undergone a very significant transformation. This could be traced back to post independence when naira maintained a fixed parity with British pound and 1970s oil boom to the floating exchange rate in 1986. During the oil boom era – between 1973 and 1979, the naira exchange rate was relatively stable; this was the period when agricultural products accounted for more than 70% of the nation's gross domestic product. However, due to development in the petroleum oil sector in 1970s, the share of agriculture in total exports declined significantly while that of oil increased (Obadan, 2006).

In 1986, Nigeria adopted structural adjustment program (SAP) which the country moved from a peg regime to a flexible exchange rate where exchange rate is to be determined completely by market forces.

However, the prevailing system is managed float where the monetary authorities intervene periodically in the foreign exchange market in order to attain some strategic objectives (Adeniran, Yusuf and Adeyemi, 2014). The second foreign exchange market was introduced on September 20th, 1986 essentially to achieve a realistic exchange rate for naira through the operation of market forces. This was expected to bring about a more optimal allocation of nation's scarce foreign exchange resource (Jebbin and Osu,2012). However, due to failure of SFEM to protect the naira from depreciation, the foreign exchange market (FEM) was introduced in 1987 and all transactions were subjected to market forces. The system was later repackaged in January 1989 into interbank foreign exchange market (IBFEM). The Bureau De Change (BDC) component of FEM was established the same year to aid small end users of foreign exchange. Consequently, guided deregulation was introduced in 1994 but it could not prevent naira depreciation. Following the failures of the variants of the flexible exchange mechanism (AFEM and IFEM), the Dutch Auction system was re- introduced in 2002. The re- introduction of DAS helped to stabilize the naira exchange rate, reduce the widening premium, conserve external reserves and reduce speculative tendencies of authorized dealers. In order to further liberalize the market, narrow the arbitrage premium between the official interbank and bureau de change segments of the markets, the CBN introduces the Wholesale Dutch Auction System (WDAS) on February 20, 2006. Whole sale Dutch Auction System entails bulk sale of foreign exchange currencies by CBN to the authorized dealers after optimal bidding price has been determined. Under this arrangement, the authorized dealers were permitted to deal in foreign exchange on their own accounts for onward sale to their customers (Akpan et al, 2012). In the same vein, Retail Dutch Auction System was introduced on October 2, 2013. The overall objective of RDAS is to achieve exchange rate convergence. It was against the backdrop of widening premium between the parallel and official market that RDAS was introduced. Interbank Foreign Exchange Market was reintroduced on February, 2015. This entails closure of official window by CBN and channeling all demand for foreign exchange to interbank foreign exchange market. In this, consumers are left with only two access way to dollar ie interbank and parallel market (Umar, 2016). The

inconsistency in the policies and lack of continuity in exchange rate policies contributed greatly to unstable nature of naira even till date (Jerume et al, 2016).

2.1.2 Determinants of Exchange Rate Depreciation.

Essentially, many factors are responsible for exchange rate depreciation. According to Obadan (2006), some of these factors are fundamental while others are secondary. The fundamental factors include: weak production base and undiversified nature of the economy, Import dependent production structure, fragile export base, weak non oil export earnings and fiscal imbalances and accommodating monetary policy. Obadan (2006) further pointed out secondary factors to include: sluggish foreign capital inflow, excess demand for foreign exchange in relation to supply, instability of earnings from crude oil upon which the economy depends heavily, unguided trade liberalization policy and speculative activities and sharp practices of the foreign exchange dealers.

Cost of living on the hand can be defined as the cost of maintaining a certain standard of living. It entails the amount of money needed to sustain a certain level of living including basic expenses such as housing, food, taxes and health care. It is a useful measurement that allows comparison of expenses between locations, that is, it compares the how much income is needed to live in various locations (Reinsdorf and Moulton, 1997). According to Anyanwu (2011), inflation is the major cause of high cost of living in Nigeria. During inflation the prices of many goods and services tend to rise over time thereby placing upward pressure on the cost of living. Essentially, cost of living is directly influenced by inflation in terms of food and non-food items. People at this point are compelled to get loans and do over work in order to fulfill their family expenditures. Consequently, family budget and purchasing power are affected as people struggle to maintain their living standard which eventually slumped down (Farid,Khan and Ahmed).

2.1.3 Effects of Nominal versus Real Exchange Rate on Cost of Living.

Exchange is a key macroeconomic variable and it can be divided into nominal and real exchange rate.

Nominal exchange rate is the monetary concept that measures the relative price of two currencies. It is the price of one currency in terms of another currency. Nominal exchange rate can either appreciate or depreciate. It appreciates when less units of domestic currency are required to buy a unit of foreign currency. It depreciates when more units of domestic currency are required to purchase a unit of foreign currency. Depreciation in nominal

exchange rate makes prices of imports to be too high and export to be cheaper in foreign currency (Obadan, 2006).

Real exchange rate on the other hand is the ratio of domestic price levels and price levels in a foreign country. It measures the relative price of domestic and foreign goods. It is the rate that takes into account inflation differential between two countries (Nzekwu, 2006).

Depreciation in both real and nominal exchange rate has enormous effects on cost of living. Nigeria being an import dependent always suffer high cost of living each time exchange rate is depreciated because such depreciation will lead to high cost of goods and services.

2.1.4 Exchange Rate Depreciation and Inflation.

Depreciation in exchange rate has some ripple effects on inflation. According to Enoma and Imimole (2011), inflation rate increases as exchange rate depreciates. Consequently, exchange rate depreciation generates inflationary pressures as most of the imported goods have no close substitutes. However, pegging the exchange rate can lower inflation by inducing greater policy discipline and instilling greater confidence in the currency. Essentially, policy makers believe that a pegged exchange rate is an anti inflationary tool since it provides a highly visible commitment and thus raises the political costs of loose monetary and fiscal policies. In the same vein, since pegged exchange rate is credible, there is a stronger readiness to hold domestic currency which reduces inflationary consequences of a given expansion in the monetary supply (Nzekwu, 2006). Audu and Amaegberi (2013) maintain that inflation can be controlled by using inflation target policy. This entails an estimate of inflation target and deliberately pursuing it using the instrument of monetary management such as interest rate, for instance, the central bank of the country can raise interest rate when the actual inflation is getting above the target.

2.2 Empirical Review.

There exist plethora of empirical studies on exchange rate depreciation and cost of living. Some of the studies are reviewed below:

With the objective of finding the relationship between exchange rate and consumer prices, Ramona (2013) studied exchange rate pass – through in the new EU member states. The study employed Generalized Moment Method (GMM) and found that exchange rate has significant impact on consumer price index. In a similar study by Saha and Zhang (2012) on exchange rate pass – through and on consumer prices and import prices in china, Australia and India. The study used VAR and found that exchange rate has insignificant impact on CPI in China and India, while in Australia; exchange rate has significant impact on CPI. The study also found that depreciation of Australian dollar increases import prices and consumer

prices. Adekunle (2010) studied exchange rate and consumer price index in Nigeria with the aim of finding the relationship between official/parallel exchange rates and consumer price index. The study used correlation and granger causality and found that official exchange rate has weak relationship with consumer price index while parallel rate has strong relationship with CPI.

Consequently, though the studies were on exchange rate pass – through and consumer price index but their results were different. The difference in the results may be as a result of different analytical techniques used as well as the location of the study. For instance, the study by Ramona (2013) was carried out in Europe using GMM analytical technique and found significant impact of exchange rate on consumer price index, while Saha et al (2012) used VAR and found insignificant impact of exchange rate on CPI in Australia. However, the result of the study in china and India is same with Ramona (2013) even though different analytical techniques and locations were involved.

Manizha (2014) studied inflation and exchange rate depreciation in Zimbabwe. The objective of the study was to find the relationship exchange rate depreciation and inflation. The study used granger causality test and found that there is a feedback relationship between the depreciating local currency and inflation rate. Immirole and Enoma (2011) studied exchange rate depreciation and inflation in Nigeria with the aim of finding the impact of exchange rate depreciation on inflation Nigeria. The study used auto regressive distributed lag and found that exchange rate depreciation has significant impact on inflation. Jaebeom (2014) studied inflation targeting and real exchange rate with the aim of finding whether inflation targeting influences purchasing power parity. The study employed recursive mean adjustment method and found that inflation targeting lowers variability of real exchange rate and plays an important role in providing favourable evidence for long run purchasing power parity.

From the above studies on exchange rate depreciation and inflation, the studies used different analytical techniques and as well different locations but they have the same result. The studies revealed significant impact of exchange rate depreciation on inflation.

Azu and Nasiri(2015) examined exchange rate fluctuation and sustainable economic growth in Nigeria. The objective of the study was to ascertain the relationship between real exchange rate and economic growth. They used VAR technique and found that exchange rate depreciation has positive relationship with economic growth; ie exchange rate depreciation stimulates Nigerian economy. In a similar study, Adeniran, Yusuf and Adeyemi (2014) examined impact of exchange rate fluctuation on the Nigerian economic growth. The study was set to find the impact of exchange rate fluctuation on economic growth. They used

correlation and regression and found that exchange rate has positive but insignificant impact on economic growth in Nigeria. Akpan et al (2012) studied effect of exchange rate movement on economic growth in Nigeria with the objective of examining the direct and indirect relationship between exchange rate and economic growth. They used method of moments and discovered that there is no evidence of strong direct relationship between changes in exchange rate and output growth. However, Nigeria economic growth has been directly affected by monetary variables. Amassoma and Odeniyi (2016) studied the nexus between exchange rate variation and economic growth in Nigeria with the objective of finding the impact of exchange rate fluctuation on economic growth. They used error correction model and found that there is positive but insignificant impact of exchange rate fluctuation on Nigeria economic growth. This study is similar with Adeyemi (2014). Though the two studies used different analytical techniques, but their findings are the same. Jerume et al (2016) in their study on effect of currency fluctuation on economic growth potential of Nigeria used error correction model to examine the impact of exchange rate on economic growth. The result showed that exchange rate has a negative and significant impact on economic growth.

From the studies reviewed on exchange rate fluctuation on economic growth, almost all the studies found that exchange rate fluctuation has positive and significant impact on economic growth except Akpan et al (2012) found no relationship between exchange rate fluctuation and economic growth. Similarly, Amassoma et al (2016) and Jerume et al (2016) used error correction model but their results are different. Amassoma et al (2016) found positive but insignificant impact of exchange rate fluctuation on economic growth, while Jerume et al (2016) found negative and significant impact of exchange rate fluctuation on economic growth.

Mayowa and Igbekoyi (2013) studied the determinants of real exchange rate volatility in Nigeria with the objective of measuring quantitatively the determinants of real exchange rate volatility in Nigeria. They used GARCH model and found that trade openness, Government expenditure, interest rate and lagged exchange rate are the major variables that influence exchange rate volatility during the period studied. Exchange rate fluctuation was studied by Osigwe (2015) with the aim of finding the effect of exchange rate fluctuation on crude oil price and also the effect of exchange rate fluctuation on economic performance Nigeria. It was found using ordinary square technique that real exchange rate has a negative effect on the oil price and a positive effect on the economic performance. David, Ume and Ameh (2010) studied effect of exchange rate fluctuation on Nigeria manufacturing sector with the

objective of finding the relationship between exchange rate volatility and manufacturing sector performance. They used multiple regression and found that there is a negative relationship between exchange rate volatility and manufacturing sector performance. Williams (1992) used VAR to study the sources of fluctuation in real and nominal exchange rates with the aim of finding the shocks that have permanent effects on the real exchange rate and those that have transitory effects. The study revealed that real shocks dominate nominal shocks for both exchange rates in short and long run. Granguly and Breuer (2010) studied nominal exchange rate volatility, relative price volatility and real exchange rate volatility with the aim of finding the level of real and nominal exchange volatility in developed and developing countries. They used regression techniques and found that real exchange rate volatility is higher in developing countries and as well higher price volatility. Osigwe (2015) and David et al (2010) carried out different studies, but their results on negative effect of exchange volatility on oil price and manufacturing sector performance are the same. However, they have different view on the impact of exchange rate volatility on economic performance.

Elif and Oksan (2014) studied the effect exchange rate on import and exports of emerging countries with the objectives of finding the impact of exchange rate on imports and exports of economic developing countries. The study used co integration and found that there is co integrated relationship between effective exchange rate and exports – imports of emerging countries.

2.1 Theoretical Framework

This study is anchored on purchasing power parity. This theory was pioneered by Cassel (1922). Purchasing power parity (PPP) is a theory of exchange rate determination which compares the average cost of goods and services between countries. The theory assumes that the actions of importers and exporters induce changes in exchange rate. Consequently, the theory compares different countries' currencies through a market basket of goods approach. In this, two currencies are in equilibrium or at par when a market basket of goods is priced the same in both countries.

Consequently, the actual purchasing power of any currency is the quantity of such currency needed to buy a specified unit of a good or a basket of common goods and services.

This theory is relevant to this study because purchasing power parity theory is determined based on the cost of living and exchange rate in any given country. In this, the differences in cost of living (proxied by inflation) must be accounted to get the purchasing power parity.

3.0 METHODOLOGY

The study employed graph and ordinary least square (OLS) method to measure the impact of depreciation in nominal exchange rate of naira and of depreciation in real exchange rate of naira on cost of living. Exchange rate depreciation (EXRD) is the explanatory variable, and it represents the depreciation in the value of naira relative to the US Dollar. It is collectively proxied by depreciation in the nominal and real exchange rate of naira. Depreciation in nominal exchange rate represents decline in the price of naira relative to US dollar. Real exchange rate depreciation represents the decline in the local and foreign price levels of goods and services. Gross domestic product (GDP) is one of the control variables and it represents the country's total output for a given period. Import (IMP) is the second control variable and it represents the foreign goods and services bought by the residents of a country.

The model for this study is specified thus:

$$CPI_t = \alpha + B_1EXRD_t + B_2GDP_t + B_3IMP_t + \mu_t$$

Where:

CPI = Consumer Price Index, which proxies cost of living.

α = Constant or intercept

EXR_t = Exchange Rate

GDP_t = Gross Domestic Product

IMP_t = Import

μ_t = Standard error of coefficients.

To capture the stated objectives, the main independent variable EXR is decomposed into nominal exchange rate depreciation (NEXRD) and real exchange rate depreciation (REXR).

To this end, the model is stated thus:

$$CPI = \alpha + B_1NEXRD_t + \mu_t$$

$$CPI = \alpha + B_1REXR_t + \mu_t$$

3.1 Results.

The graph 1 below showed a priori relationship between consumer price index (CPI) and nominal exchange rate depreciation (NEXRD). It could be seen from the graph that as nominal exchange rate goes down (depreciates), cost of living goes up. The implication is that as nominal value of naira keeps depreciating, the consumer price index keeps increasing. Similarly, graph 2 showed that consumer price index increases as real exchange rate depreciates. It implies that consumers pay higher on goods and services each time real value of naira depreciates.

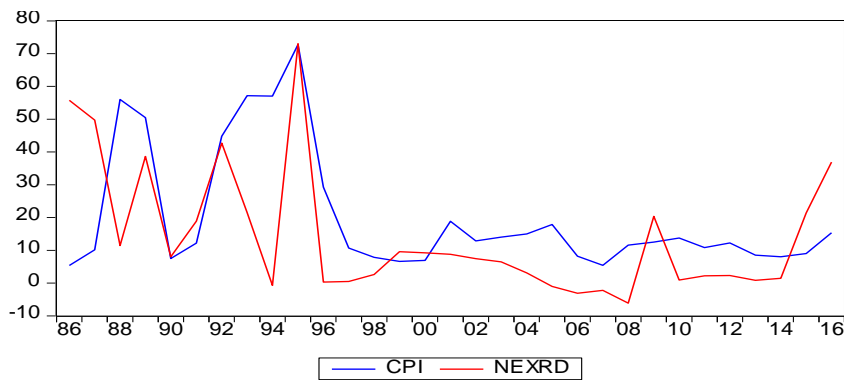


Fig 1: CPI and NEXRD

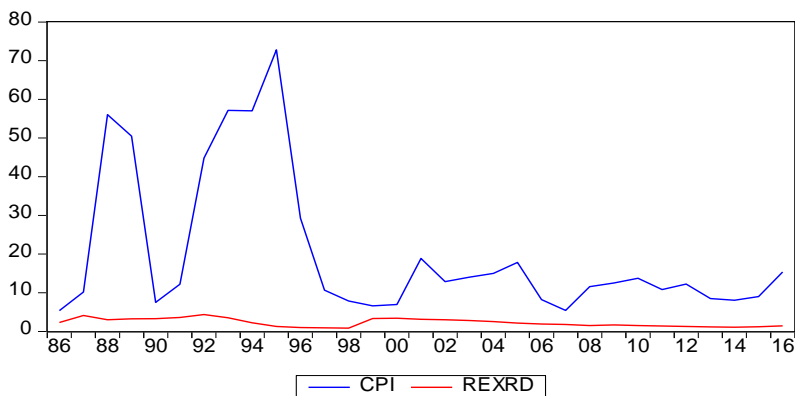


Fig 2: CPI and REXRD

The table below showed the empirical result of the stated model.

Table 1: Ordinary Least Square Result.

Dependent Variable: CPI
 Method: Least Squares
 Date: 05/31/18 Time: 11:08
 Sample: 1986 2016
 Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXR	0.629258	0.049004	12.84091	0.0000
GDP	1.173139	1.289646	0.909659	0.3708
IMP	-0.498582	0.318808	-1.563896	0.1291
R-squared	0.830020	Mean dependent var		53.32032
Adjusted R-squared	0.817879	S.D. dependent var		51.26625
S.E. of regression	21.87820	Akaike info criterion		9.100624
Sum squared resid	13402.36	Schwarz criterion		9.239397
Log likelihood	-138.0597	Hannan-Quinn criter.		9.145861
Durbin-Watson stat	0.617693			

Source: Eview computation.

The result from the table above shows that only exchange rate has positive and significant impact on consumer price index. This could be seen in its coefficient and probability of 0.629 and 0.00 respectively. The implication is that any change in exchange rate will have serious implication on cost of living. GDP has positive but insignificant impact on consumer price

index. This is shown by its coefficient and probability of 1.173 and 0.37 respectively, the implication of this is that changes in gross domestic product will not have much impact on cost of living. Import on the other hand has negative and insignificant impact on the consumer price index. This could also be seen in its coefficient and probability of - 0.498 and 0.129 respectively.

Table 2: OLS Result on CPI and NEXRD

Dependent Variable: CPI
 Method: Least Squares
 Date: 05/31/18 Time: 11:54
 Sample: 1986 2016
 Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NEXR	0.884779	0.076640	11.54466	0.0000
R-squared	0.610888	Mean dependent var		53.32032
Adjusted R-squared	0.610888	S.D. dependent var		51.26625
S.E. of regression	31.97929	Akaike info criterion		9.799780
Sum squared resid	30680.25	Schwarz criterion		9.846038
Log likelihood	-150.8966	Hannan-Quinn criter.		9.814859
Durbin-Watson stat	0.166280			

Source: Eview computation

Table 3: OLS Result on CPI and REXRD

Dependent Variable: CPI
 Method: Least Squares
 Date: 06/02/18 Time: 10:35
 Sample: 1986 2016
 Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
REXR	6.121319	0.436611	14.02008	0.0000
R-squared	0.719575	Mean dependent var		53.32032
Adjusted R-squared	0.719575	S.D. dependent var		51.26625
S.E. of regression	27.14815	Akaike info criterion		9.472221
Sum squared resid	22110.66	Schwarz criterion		9.518479
Log likelihood	-145.8194	Hannan-Quinn criter.		9.487300
Durbin-Watson stat	0.999227			

Source: Eview computation.

The result from the table 2 above shows that nominal exchange rate depreciation has positive and significant impact on consumer price index. This could be seen in its coefficient and probability of 0.884 and 0.00 respectively. It implies that as the amount of naira needed to purchase a unit of US dollar increases, the consumer price index increases. Table 3 above also shows that real exchange rate depreciation has positive and significant impact on consumer price index. An increase in the real exchange rate of naira brings about increase in consumer price index. The implication is that consumers have to pay heavily for goods and

services especially the imported ones. This study is in line with Imiole et al (2011) who found that exchange rate depreciation has positive and impact on inflation. It also supports the findings of Ramona (2013) and Saha et al (2012) that exchange rate has significant impact on consumer price index.

3.2 Conclusion.

This study examined exchange rate depreciation and cost of living in Nigeria from 1986 to 2016. The aim of the study was to determine the interaction of naira depreciation and cost of living in Nigeria. The study decomposed exchange rate depreciation into depreciation in the nominal and real value of naira. The study employed ordinary least square technique to ascertain the impact of nominal and real exchange depreciation on cost of living in Nigeria. The study revealed that depreciation in nominal and real exchange rate of naira have positive and significant impact on cost of living. This affirms previous studies by Imiole et al (2011) who found that exchange rate depreciation has positive and significant impact on inflation. It also supports the findings of Ramona (2013) and Saha et al (2012) that exchange rate has significant impact on consumer price index.

To this end, empirical and theoretical evidence have shown that each time there is depreciation in either nominal or real value of naira, prices of goods and services will increase there by affecting the cost of maintaining a certain standard of living. This situation is worst in import dependent country like Nigeria where almost everything including tooth pick is imported.

3.3 Recommendations

The study recommends the following:

- 1 Government should maintain flexible exchange rate policy in order to quickly intervene when the need arises.
- 2 Importation of goods and services that have close domestic substitutes should be discouraged.
- 3 Production of agricultural products that have export value should be encouraged in order to boost our foreign exchange.

References

- Abdukadir, I. and Ali, O. (2014). Real Exchange Rate Misalignment and Economic Growth in Nigeria. *CBN Journal of Applied Statistics*. 6 (2).
- Abdulasheed, Z., George, O. and Aliyu, R. (2013). Exchange Rate Pass- Through to Domestic Prices in Nigeria: An Empirical Investigation . *Economic and Financial Review*. 5 (1):5.
- Adekunle, A. K. (2010). Exchange Rates and Consumer Price Index in Nigeria: A Causality Approach. *Journal of Emerging Trends in Economics and Management Sciences*. 1 (2).
- Adeniran, J. O., Yusuf, S. A. and Adeyemi, O. A (2014). The Impact of Exchange Rate Fluctuation on the Nigeria Economic Growth: An Empirical Investigation. *International Journal of Academic Research in Business and Social Sciences*. 4 (8): 224 -226.
- Akpan, E. O. and Atan, J. A. (2012). Effects of Exchange Rate Movements on Economic Growth in Nigeria. *CBN Journal of Statistics*. 2 (2): 2.
- Amassom, D. and Odeniyi, B. D.(2016). The Nexus between Exchange Rate Variation and Economic Growth in Nigeria. *Singaporean Journal of Business Economics and Management Studies*.4 (12):9 – 12.
- Anafo, S. A., Kweku, V. A. and Naatu, F. (2014). The Impact of Inflation on the Standard of Living: A Study of Navrongo in the Upper East of Ghana. *European Journal of Business and Management*.
- Azu, N. P. and Nasiri, A. (2015). Exchange Rate Fluctuation and Sustainable Economic growth in Nigeria. *Journal of Economics and Sustainable Development*.6 (13).
- Bayo, F. (2005). Determinant of Inflation in Nigeria: An Empirical Analysis. *International Journal of Humanities and Social Science*.
- Dada, E. A. and Oyeranti, O.A. (2012). Exchange Rate and Macro Economic Aggregates in Nigeria. *Journal of Economic and Sustainable Development*. 3 (8).
- David, Ume and Ameh (2010). Effect of Exchange Rate Fluctuation on Nigeria Manufacturing Sector. *African Journal of Business Management* . 4 (14): 29-94.
- Elif, G. and Oksan, K. (2014). Effect of Exchange Rates on Exports and Imports of Emerging Countries. *European Scientific Journal*. 10 (2):129
- Farid, S., Khan, W. A. and Ahmed, I. W. (2012). Effects of Inflation on Standard of Living (A Study of Multan Pakistan). *Universal Journal of Management and Social Sciences*. 2 (12).
- Gbosi, A. N. (2005). Money Monetary Theory and Economy. Port Harcourt. Sodek.

- Granguly, S. and Breuer, J.B (2010). Nominal Exchange Rate Volatility, Relative price Volatility and Real Exchange Rate. *Journal of International Money and Finance*. 29 (8).
- Harworth and Rasmussen (1973). Determinant of Metropolitan Cost of Living Variation. *Southern Economic Journal*.40 (2): 183- 192.
- Immiolo, B. and Enoma, A. (2011). Exchange Rate Depreciation and Inflation in Nigeria. *Business and Economic Journal*. 2 (1): 28.
- Isimila, M. (2016). Exchange Rate Depreciation and Nigeria Economic Performance after Structural Adjustment Program (SAP). *NG- Journal of Social Development*. 5 (2):123
- Jaebeom, K. (2014). Inflation Targeting and Real Exchange Rate. *Economics Letters*,125.
- Jebbin, M. I. and Osu, A. K. (2012). Oil Prices and Exchange Rate Fluctuation in Nigeria: An Empirical Analysis. *African Journal of Social Sciences* . 2 (4):97 -102.
- Jerome, T., Akinribido, B., popoola, O., Ogunnubi, C. and Okoniwa, V. (2016). Effect of Currency Fluctuation on the Economic Growth Potentials of Nigeria. *European Journal of Business and Management*.8 (1):36.
- Mandizha, B. (2014). Inflation and Exchange Rate Depreciation: A Granger Causality Test. *Economic and Financial Review*. 3 (9): 22 – 26.
- Maurizio, M. and Elitza, M. (2017). The Real Exchange Rate and Economic Growth. *Journal of International Money and Finance*. Accepted Manuscript.
- Mayowa, A. G and Igbekoyi, O. E (2013). Determinants of Real Exchange rate Volatility in Nigeria. *Academic Journal of Inter disciplinary Studies*. 2 (1):452 – 460.
- Modi, C. N (2006). Challenges of Exchange Rate Volatility in Economic Management of Nigeria. *CBN* 30 (3).
- Nzekwu, G. (2006). Exchange Rate Stability and Poverty Reduction in Nigeria. *CBN*. 30 (3):54 – 58.
- Obadan, M. I. (2006). Overview of Exchange Rate Management in Nigeria. *CBN Bullion*. (30 :1 – 9.
- Oriakhi, D and Iyoha, D (2013). Oil Price Volatility and its Consequences on Growth of the Nigerian Economy: An Examination (1970 - 2010). *Asian Economic and Financial Review*. 3 (5):683.
- Osigwe, A. C. (2015). Exchange, Oil Prices and Economic Performance: Empirical Evidence from Nigeria . *International Journal of Energy Economics and Policy*.(2) :502.

- Ramona, J. (2013). The Exchange Rate Pass-Through in New EU Member States. *Economic Systems*. 37.
- Reinsdorf, B.M. and Moulton, B. R. (1997). Construction of Basic Components of Cost of Living Index. Chikago. University of Chikago press.
- Rewane, B. (2016). Nigeria Exchange Rate Policy Dilemma. Financial Derivatives coy. Ltd.
- Robert, L and Lawrence, I. (2000). The Exchange Rate Productivity and Standard of Living. Bank of Canada Review.
- Saha, S. and Zhang , Z. (2013). Do Exchange Rates Affect Consumer Prices? A Comparative Analysis for Australia, china and India. *Mathematics and computers in simulation*.
- Takaendes, P (2006). The Behaviour and Fundamental Determinants of real Exchange Rate in South Africa . A Master Thesis submitted to Rhode University, South Africa .
- Umar, B. (2016). The Dutch Auction System Exchange Management in Nigeria. *CBN Monetary policy Series No. 52*.
- Williams, L. D (1999). Sources of Fluctuation in Real and Nominal Exchange Rate. *Review of Economies and Statistics*, 74 (3).