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Government Spending and Exchange Rate Fluctuation Nexus in Nigeria.

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Abstract

The study evaluated the effect spending and Exchange Rate Oscillation Nexus among government in Nigeria. It studied capital expenditure, recurrent expenditure and deficit budgeting, money supply and trade openness of the government on exchange rate fluctuations in Nigeria. The study was anchored on the mundell-fleming model. The study employed a several regression model and data collected were analyzed by means of descriptive statistics. The results confirm that capital expenditure has no significant effect on Exchange Rate in Nigeria. Recurrent expenditure has no significant effect on Exchange Rate in Nigeria. Deficit budgeting has no significant effect on Exchange Rate in Nigeria. Money supply does not have any significant effect on Exchange Rate in Nigeria. Trade Openness does not have significant effect on Exchange Rate in Nigeria. It was recommended that to boost Nigeria Exchange Rate, there is basic need for proper re-evaluation of Government fiscal policies before adoption, credible supervision, monitoring and prudent spending to achieve the desired results among others.

Introduction

In Nigeria the shortage of income over total expenditure and bloating of various aspects of running the administration and provision of infrastructure led to persistent perennial budget deficits. Between 1970 and 2013 (a period of 44 years), the government ran deficit budget except for the years 1971, 1973, 1974, 1975, 1979,1995,1996 (Alagidede and Ibrahim, 2016; Ezeabasili, Tsegba and Herbert, 2012; Aguirre and Calderon, 2006). As Nigeria, for many decades, has remained a mono-economy, it is expected that deficit budgets would imply excess burden. With the incessant use of deficit budgeting in Nigeria, a tendency for an inflationary pressure if such recurrent spending is not accompanied by an increase in domestic productive activities may ensue. Such increase in domestic price makes price of local commodity expensive at the global market and also makes foreign goods cheaper. The low price of overseas goods means more demand for external currency and appreciates the foreign currency. Consequently, evaluating the appropriate fiscal policy that would exact the desired outcome becomes expedient.

In literature, fiscal policy has been identified as the main tool of stabilization policy available to individual countries (Kuncoro, 2015; Asinya and Takon, 2014; Bajo-Rubio and Berke, 2014; Corsetti,

Meier and Müller, 2011). Thus, the links among fiscal policy and exchange rate become particularly relevant and government spending is a variable of the former. The extent to which the volume and structure of government spending affect the cost of exchange rate is contingent on if procurements are mostly in tradable or non-tradable products (Okonkwo, 2019). This is richly supported by empirical studies in developed economies, showing that expenditure can be associated either by an undervaluation or overvaluation of exchange rate.

This exchange rate is used to determine an individual country's currency value relative to the other key currencies in the index, such as the U.S. dollar, Japanese yen and the euro (Mussa, Masson, Swoboda, Jadresic, Mauro, and Berg, 2000). The continuous search of a sustainable exchange rate in Nigeria has not found a sustainable solution given the continual devaluation of the Nigerian naira. A real exchange rate overvaluation is construed as a waning in price competitiveness, whereas a real exchange rate undervaluation spurs economic growth (Rodrik, 2008). Exchange rate vacillations in developing countries can affect aggregate demand and investment expansion (Okonkwo, Osakwe and Nwadibe, 2020; Frenkel, 2004), while an overvalued currency negatively affects employment (Hua, 2011). Thus, managing exchange rate is an issue of concern to all economies including the developing economy like Nigeria. Flexible exchange rate is preferable to fixed plan because of the receptiveness of the rates to market (Bajo, 2014). With the shift from a fixed to a flexible exchange rate regime that started in the 1970s both developed and developing countries, after the flop of the Bretton Woods system, the spending for most economies now has to respond to the changes in exchange rate (Isard, 1995).

Various reforms have not ameliorated the unidirectional depletion of the naira against other currency. Issues on Exchange rate crusade have continued to generate concern among economists, monetary authorities and end-users of foreign exchange. While some economists attributed the naira depreciation to wrong policies implementation occasioned by lack of harmony between monetary and fiscal policies, others are of the views that, movement in the external sector and the macroeconomic performance constitute the driving force behind the persistent depreciation. Therefore, the need for an investigation of the spending and exchange rate variations controlled for local (money supply) and external trade (trade openness) policies.

The work seeks to study the effect of government capital expenditure, government recurrent expenditure, government deficit budgeting, money supply and trade openness on exchange rate changes in Nigeria. Most of the empirical studies on this subject in Nigeria has not incorporated deficit financing to understanding the role of government spending in exchange rate movement in Nigeria.

Literature

Government spending

Government spending includes capital and recurrent expenditure. Despite attempts by most government and public sector organizations to clearly distinguish between items of a recurrent nature and items of capital nature, no definition of each is acceptable in every circumstance.

The general approach that is adopted to isolate capital expenditure from recurrent expenditure, concerns that of benefit. (Giorgio, Nisticó and Traficante, 2016; Miyamoto, Nguyen and Sheremirov, 2016; Cakrani, Resulaj and Koprencka, 2013). Based on this, for recurrent expenditure, the benefits flowing from it is limited to the year in which the expenditure is incurred, whereas the benefits that result from capital expenditure extend the year of payment. Recurrent government expenditure could be expanded as spending on its day to day recurring items such as personnel cost and overhead cost such as travel and transport utility services, telephone services, stationary, maintenance of office furniture and equipment, entertainment and hospitality. Recurrent expenditure are mostly incidentals on administration such as wages, salaries, interest on loans etc., whereas expenses on capital projects like roads, airports, health etc., are referred to as capital expenditure (Çebi and Çulha, 2013; Saheed, 2012).

On the other hand, capital expenditures are expenditures on new construction, land extensions of and alterations to existing building and the acquisition of any other fixed assets (such as plant and machinery), including vehicles, having an expected working life of more than one year. Also included are expenditures on stocks and grants and lending for capital purposes. This is similar to the government expenditure classified earlier as government investment expenditures, otherwise referred to as gross fixed capital formation (GFCF). It is government procurement of goods and services projected to create benefits. Therefore, capital expenditure refers to spending on capital projects such as roads, airports, education, telecommunications, electricity and the acquisition of investment of goods like plants and machinery and other items having an expected life of more than one year. Although sometimes in reality, we may find this current classification less obvious, especially when the benefits from a recurrent expenditure item flow beyond one year. For instance, expenditure on the education of school children will hopefully provide benefits for many years ahead

Exchange rate

Exchange rate is used to measure the ratio of one nation's currency to another. In the view of Saheed and Ayodeji (2012), it is the rate at which one currency will be traded for the other, that is, the worth of a nation's currency in terms of another. Ojo and Alege (2014) defined exchange rate as the local worth of foreign money. The above definitions connote a comparison of the price of one currency to another. For instance, the cost of Nigerian Naira can be compared to those of USA dollar or United Kingdom (U.K) pounds. Furthermore, foreign exchange is the financial transaction where currency worth of one country is traded into another country's currency (Usman and Adejare, 2012). The process involves a network of various financial institutions like bank, investors and government. Exchange rate of a country to another can be stated in a normal or real term. The Nominal exchange rate is a financial concept, which ascertains the comparative worth of the two moneys or currencies e.g Naira to U.S dollar; while Real exchange rate is being regarded measures the relative price of two tradable goods (exports and imports) in relation to non-tradable goods (goods and services produced. Because it is so visible, the nominal exchange rate is a sensitive policy indicator; yet, for purposes of

growth analysis, economic managers need to focus on trends in the real exchange rate (McPherson and Rakovski, 2000).

The liberalization of the exchange rate regime in 1986 has led to introduction of numerous practices with the aim of finding the most suitable for attaining satisfactory exchange rate for the Naira. The Second tier Foreign Exchange Market (SFEM) was introduced in 1986, while the First and Second tier markets were fused into enlarged Foreign Exchange Market (FEM) in 1987, this was later reformed to the Inter-Bank Foreign Exchange Market (IFEM) in January 1989. This new system allowed for bureau de change to source for their foreign exchange requirement from the IFEM. This was later improved to the Autonomous Foreign Exchange Market (AFEM) in 1995 which allow the Central Bank to purchase foreign exchange from oil companies. Floating exchange rate has been shown to be desirable to the fixed because of the sensitivity of the rates to the foreign exchange market as it is determined by the market forces of demand and supply (Alagidede and Ibrahim, 2016; Ojo and Alege, 2014; Saheed and Ayodeji, 2012)

The concept of exchange rate misalignment has been introduced by an overvaluation or undervaluation of one country currency in terms of another. Real exchange rate misalignment refers to a nonconformity of the actual real exchange rate from its long-run sustainable equilibrium path (Ebaidalla, 2014). Thus, overvaluation or undervaluation occurs when a domestic currency appreciates over or depreciates under its equilibrium level. Exchange rate overvaluation can damage the potential economic growth of a country through foreign currency shortage, large current account deficits and frequent macroeconomic cycles (Rodrik, 2008). Exchange rate devaluation, on the other hand, distorts price signals and negatively affects the aggregate demand by raising the cost of imported goods and deterring both domestic and foreign investment (Bahmani-Oskooee & Miteza, 2003). Two common methods widely used to measure exchange rate misalignment are purchasing power parity (PPP) estimates and the single equation-reduced form model (Ebaidalla, 2014). According to the PPP method, real exchange rate misalignment refers to a deviation of the real exchange rate with respect to parity in some determined level of equilibrium exchange (Chinn, 2006). Though, the PPP approach seems simple to apply, the main shortcoming of the method is that it chooses a single equilibrium rate for all periods and only accounts for the monetary causes of exchange rate fluctuations, without capturing the exchange rate fluctuations attributed to real factors (Aguirre and Calderon, 2006).

Single equation model is a reduced form of the equilibrium real exchange rate, derived from a wide variety of theoretical model that relates real exchange rate to a group of variables known as fundamentals. These fundamentals include productivity differentials, net foreign assets, terms of trade, trade openness, government consumption and trade policy. Thus, misalignments arise when real exchange rate strays from its symmetry path, which construes the misalignments as being the consequence of insufficient macroeconomic, trade and exchange rate strategies. The gain of the single equation model is that it uses time series techniques to evaluate the equipoise real exchange rate from the basics. Moreover, the single

equation approach requires fewer time series and allows for changes in the equilibrium exchange rate over time (Ebaidalla, 2014).

The outcome of having inappropriate exchange rate strategies would be a misaligned exchange rate. This misalignment has been blamed for a series of economic disasters suffered by economies around the globe. The increase in globalization has also made the exchange rate policy to be a key determinant of both internal and external stability (Mlambo, 2013). Following the criticisms to the fixed exchange rate system, countries shifted to the flexible exchange rate regime. According to Hossain and Chowdhury (1998), the shift from fixed to flexible exchange rate was to serve three purposes in developing countries; first, to reduce the level of inflation through depreciation hence improve export; secondly, the shift was to ensure political stability and lastly to control the effects of the fluctuations of the major world currencies. In addition, developing countries through the shift to flexible exchange rates could absorb economic shocks to stabilize the economy (Mussa, Masson, Swoboda, Jadresic, Mauro and Berg, 2000).

Theoretical Framework

The study is anchored on the Mundell-Fleming model which was propounded by Robert Mundell in 1960. It hinges on the proposition that real exchange rate appreciation follows an increase in government spending. According to Miyamoto, Nguyen and Sheremirov (2016), "an upsurge in spending puts pressure on the domestic currency to escalate, leading to current account deterioration (and potentially a "twin deficit") and to a reduction in consumption through an international risk-sharing condition". The claim is that this prodecure holds across a wide range of models, including both New Keynesian and neoclassical models. In the context of a two period, small open economy model, Frenkel and Razin note that government spending influences the private sector and the real exchange rate essentially through two channels: the *resource-withdrawal* and *consumption-tilting* channels.

This means that "fiscal expansion would result in the increase of the income (through multiplier mechanism) and appreciation pressures on the domestic currency" (Bajo-Rubio & Berke, 2014). Since the central bank has the assignment to keep the exchange rate at a certain level or keep it between certain implicit frames of fluctuation, it will have to react by monetary expansion in order to satisfy an excess demand for domestic currency. In that way it will annul the pressures on the currency and simultaneously stimulate the economic activity through lower interest rates. The traditional Mundell- Fleming model, more spending rises interest rates, which results in higher capital inflows that entail a nominal and real exchange rate appreciation. This model explains the theoretical framework for this study because it was able to relate government fiscal policy (one of which is government spending) to exchange rate movements.

Empirical Studies

In a study at Albania, Cakrani, Resulaj and Koprencka (2013) investigated the impact of government spending on real exchange rate. The study employed exchange rate as the dependent variable while the explanatory variables included government expenditure, foreign direct investment,

remittances, real GDP per capita, openness. The data were analysed using the unit root and cointegration. The results indicated that government spending is associated with overvaluation of real exchange rate in Albania. This suggests that government spending can boost exchange rate appreciate.

Miyamoto, Nguyen and Sheremirov (2016) examined the effect of changes in government purchases on the real exchange rate, consumption, and current accounts in both advanced and developing countries. The variables used include military spending, total government spending, private consumption, real GDP, real effective exchange rates, inflation, current account, trade balance, unemployment rate, government debt, wars, taxes, interest rates, exchange rate regimes and other control variables such as the degree of political risk, commodity exports, military imports, financial crises, and international aid. The pooled regression analyses were used and revealed that an increase in government purchases causes real exchange rates to appreciate and increases consumption significantly in developing countries, it causes real exchange rates to depreciate and decreases consumption in advanced countries.

Using a disaggregated approach, Saheed (2012) examined the impact of government capital expenditure on exchange rate in Nigeria. It developed a model that regressed Total Capital Expenditure, Administration Expenditure, Economics Expenditure, Social Services Expenditure and Transfers Expenditure on the Exchange Rate between 1981 and 2010. The results from OLS regression technique showed that government spending on social and community services has a statistically significant impact on exchange rate in Nigeria, while capital expenditures on administration, economic services and transfer are not statistically significant on exchange rate.

Giorgio, Nisticó and Traficante (2016) carried out a study that provided a characterization of the effects of different fiscal shocks on the exchange rate. The study employed impulse response and VAR. In the introduction of productive government purchases, the study found that the real exchange rate can depreciate after a positive spending shock.

Çebi and Çulha (2013) investigated the effects of government spending shocks on the real exchange rate and foreign trade balance in Turkey for the period of 2002.I - 2012.IV within a structural VAR framework. Analyses found that composition of the government spending matters. While shocks to government non-wage consumption generate an appreciation in the real exchange rate and worsening of the trade balance, effects of government investment shocks remain insignificant. Furthermore, the analysis demonstrates that shocks to government spending are associated with a rise in taxes, which points to the existence of a spending-driven tax adjustment process in Turkey.

With a data set covering European Union, the United States and Japan, Lane (2008) showed that the composition of government spending influences the long-run behaviour of the real exchange rate within a sample period covering 1980 to 2004. The empirical investigation confirmed that government consumption and government investment have

differential effects on the real exchange rate and the relative price of non-tradable.

Bajo-Rubio and Berke (2014) examined the relationship between fiscal policy and the real exchange rate in Spain. Specifically, the study explored how changes in government spending, differentiating between consumption and investment, can affect the long-run evolution of the real exchange rate vis-a-vis the euro area. The result from cointegration analyses showed that exchange rate has long run relationship with government spending.

Castro and Garrote (2012) investigated the impact of government spending shocks on the real effective exchange rate and net exports in the Euro Area within a standard structural VAR framework. The results from impulse response showed that government spending brings about positive output responses, with output multipliers somewhat below one. In turn, higher government spending leads to positive responses of private consumption, real exchange rate appreciation and a fall in net exports, coupled with lower primary surpluses.

Benetrix and Lane (2013) estimated the real exchange rate impact of shocks to government spending for a panel of member countries of the euro area using a time span of annual frequency from 1970 to 2008. Using a structural restriction in VAR models, the study revealed that the impact differs across different types of government spending, with shocks to public investment generating larger and more persistent real appreciation than shocks to government consumption. Further results showed that the impact of shocks to the wage component of government consumption is more persistent than that of shocks to the non-wage component.

Kollmann (2010) employed a simple model with limited international risk sharing that can account for the empirical real exchange rate response to examine the effects of government spending on exchange rate. The study tested different economic scenarios using impulse response function. The study found that in a country-specific rise in government purchases, local households experience a negative wealth effect; they work harder, and domestic output increases. However, under balanced trade (financial autarky) this supply-side effect is so strong that the terms of trade worsen, and the real exchange rate depreciates.

With monthly data covering January 1999 to June 2010, Gaol, Kuncoro and Sebayang (2015) showed that there are positive effects of government debt to exchange rate stability in Indonesia. These results were obtained using the cointegration test and regression analyses. The implication is that in an economy with free capital movements, exchange rate volatility becomes the price that must be paid.

Bouakez and Eyquem (2012) found out that an unexpected increase in public expenditures leads to a fall in the risk-adjusted long-term real interest rate causing the real exchange rate to depreciate. In their study, they proposed a small-open-economy model that features three key ingredients: incomplete and imperfect international financial markets, sticky prices, and a not- too-aggressive monetary policy.

In a similar study, Corsetti, Meier and Müller (2011) developed a two-country model with complete markets, sticky prices and wages, and spending reversals. The main assumption of this study is that debt-financed increases in government spending will cause subsequent spending to fall below its steady state level for some time. Consequently, this lowers the long-term real interest rates and leads to an appreciation of the currency in real terms.

Insah and Chiaraah (2013) employed the Autoregressive Distributed Lag (ADL) Model to determine the sources of exchange rate volatility in Ghana with the period of 1980 to 2012. The results indicated that government expenditure is a major determinant of real exchange rate volatility. Current external debt and a four-year lag of domestic debt had significant impacts on real exchange rate volatility.

Parsley and Shang-Jin (2014) employed the two-step feasible GMM technique to provided evidence that exogenous increases in government spending cause real exchange rate appreciations. The results differ from OLS and suggest that a one standard deviation exogenous fiscal stimulus at home produces a real exchange rate appreciation of about 3.3 percent in USA.

Kuncoro (2015) tested for the potential impact of fiscal policy credibility on the exchange rates stabilization in Indonesia over the period of 2001 to 2013. Based on the quarterly data analysis, the study found that the impact of credible fiscal policy typically depends on characteristics of fiscal rules commitment. Given the above results, the study concluded that credibility matters in stabilizing foreign exchange market.

In another study, Galstyan and Lane (2009) used a 2-sector model for a small open economy for some OECD countries. Long run effect of spending was considered while an increase in government investment may generate real depreciation. Their empirical work confirms that government consumption and government investments have different effects on the real exchange rate.

Model Specification

The model was developed from the works of Cakrani, Resulaj and Koprencka (2013) in Albania, Saheed (2012) in Nigeria and Asinya andTakon (2014) in Nigeria. These studies employed a multiple regression model. Their models were:

Cakrani, Resulaj and Koprencka (2013):
RER = f(OPEN, REM, GDP/c, FDI, GOV)
Where: real effective exchange rate (RER), Trade openness (OPEN), Remittances (REM), Real income per capita (GDP/c), Foreign Direct Investment (FDI), andgovernment expenditures (GOV).

Saheed (2012): ER =f(TCE, ADM, ECO, SOC, TRF)
Where: Exchange Rate (ER), Total Capital Expenditure (TCE), Administration Expenditure (ADM), Economics Expenditure (ECO), Social Services Expenditure (SOC), Transfers Expenditure (TRF)

Asinya andTakon (2014): EXCHR = f(LFD, $LFD_{(-1)}$, INTR, LM, $Ms_{(-1)}$)
Where: Exchange rate (EXCHR), Log of fiscal deficit (LFD), Log of lagged fiscal deficit ($LFD_{(-1)}$), Interest rate (INTR), Money supply (LMs), and Log of lagged money supply ($LMs_{(-1)}$).

The idea to employ disintegration of government spending came from the work

of Saheed (2012) which disintegrated along the line of functional government spending. The present study divided government spending into capital and recurrent sub-heads. However, control variables were borrowed from the works of Cakrani, Resulaj and Koprencka (2013) and Asinya andTakon (2014). Thus, the present study is modified to disintegrate government spending into capital (CAP) and recurrent (REC) and also considers the traditional deficit spending (DEF) in Nigerian economy. However, it was controlled for money policy using money supply (M_2) and effect of external economy using trade openness (OPEN).

The present model is thus:
EXR = f(CAP, REC, DEF, M2, OPEN).
The equation form of the model is:
$EXR = \alpha + \beta_1 LnCAP + \beta_2 LnREC + \beta_3 LnDEF + \beta_4 LnM_2 + \beta_5 OPEN + \varepsilon$
Where:
CAP = Total Government Expenditure
REC = Total Government Recurrent Expenditure
DEF = Government Deficit Spending
M_2 = Broad money supply as proxy for monetary policy
OPEN = Trade openness as proxy for trade liberalisation policy
α is the constant, β_{1-5} are the coefficients of regression and ε is the error term. Ln is the natural Log of the variables that smoothens possible scholastic effects.

$$\Delta Y_t = \emptyset_0 + \sum_{i=1}^{p-1} \emptyset_i \Delta Y_{t-1} + ECM_{t-1} + \mu$$

Descriptive Statistics of the variables

	EXR	CAP	REC	LNDEF	OPEN	FINDEEP
Mean	88.83	3.32	5.58	-2.15	25.86	14.50
Median	111.94	2.60	5.41	-1.83	30.53	13.10
Maximum	253.49	9.38	10.86	0.85	58.92	21.30
Minimum	2.02	0.63	3.29	-6.01	3.88	9.20
Std. Dev.	70.29	2.01	1.61	1.81	17.09	3.93
Skewness	0.21	0.99	1.16	-0.45	-0.01	0.58
Kurtosis	1.99	3.89	2.96	2.18	1.71	1.81
Jarque-Bera	1.53	6.15	11.96	1.93	2.16	3.55
Probability	0.47	0.05	0.00	0.38	0.34	0.17
Sum	2753.64	102.95	172.94	-66.73	801.70	449.50
Sum Sq. Dev.	148221.0	121.32	77.40	98.51	8767.27	463.08
Observations	32	32	32	32	32	32

Source: E-views 10.0

The mean of official exchange rate of Nigeria (EXR) is 88.83. This indicates that exchange rate in Nigeria has an average rate of 88.83 unit per US dollar. However, the median, maximum and minimum are 111.94, 253.49 and 2.02 respectively. That the mean value of the EXR is far from the median value by 22.66 tend to suggest presence of outliers in the series. This indicates that presence of point of excessive exchange rate variations in Nigeria. However, the minimum value is 2.02 and the maximum (111.94) far away

from the mean suggests high variation. Again, the standard deviation (70.29) indicates that there is fluctuation in the EXR of Nigeria. Supporting that the EXR is normally distributed, the skewness and the kurtosis are within the benchmark values of 1 and 3 respectively. However, the Jarque-Bera statistics is 1.53 with probability value of 0.47. The null hypothesis of the Jarque-Bera statistics is that the variable is normally distributed. Since the probability is greater than 0.05 level of significance, we cannot reject the null hypothesis and conclude that EXR is normally distributed.

Based on the Jarque-Bera statistics however, CAP, LnDEF, OPEN and FINDEEP are not normally distribution. The p.values of their Jargue Bera statistics are less than 0.05, indicating that null hypotheses are rejected for each of the variables: CAP, LnDEF, OPEN and FINDEEP. In the case of REC, the probability of their Jarque-Bera statistics (11.96, p. 0.00) indicated that they are normally distributed.Again, a cursory look at the standard deviation, skewness and kurtosis show that they are well behaved.

Test of Stationarity

Table 2: Test of Stationarity of the Variables

Variables	At Level		First Difference		Order of Integration
	t-Statistic	Prob	t-Statistic	Prob	
ADF Test of Stationarity					
EXR	0.888926	0.9939	-3.480327	0.0160	1(1)
CAP	-0.939108	0.7609	-8.349993	0.0000	1(1)
REC	-3.811894	0.0071	-	-	1(0)
LnDEF	-2.381424	0.1554	-5.606686	0.0001	1(1)
OPEN	-1.781372	0.3821	-6.786570	0.0000	1(1)
FINDEEP	-0.554874	0.8663	-4.861712	0.0005	1(1)
Philips and Perron (PP) Test of Stationarity					
EXR	0.738224	0.9910	-3.456691	0.0169	1(1)
CAP	-1.778676	0.3833	-8.122043	0.0000	1(1)
REC	-3.807590	0.0072	-	-	1(0)
LnDEF	-2.603491	0.1034	-7.124224	0.0000	1(1)
OPEN	-1.741682	0.4009	-7.014884	0.0000	1(1)
FINDEEP	-0.641358	0.8465	-4.953291	0.0004	1(1)

Source: Eviews 10.0

The variables used in the analysis were subjected to two types of unit root tests, Augmented Dicker Fuller (ADF) and Philips and Peron (PP) Tests, to determine whether they are stationary series or non-stationary series. The two tests are employed to ascertain if they reinforce one another, which is expected to boost the confidence in their reliability. The null hypothesis that is tested in both unit root tests is the presence of unit root. The results of the stationarity test are shown on Table 2 for ADF and PP tests. The results ADF and PP jointly indicate that REC is stationary at level, 1(0), while EXR, CAP, LnDEF, OPEN and FINDEEP are stationary at first difference, 1(1). Generally, the results show that all the variables are stationary, at most in their first differences. Thus, the variables are suitable for econometric analyses.

Cointegration Test

Table 3: Result of the Cointegration test for longrun relationship

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.735128	113.0114	95.75366	0.0019
At most 1 *	0.721782	74.48464	69.81889	0.0202
At most 2	0.497498	37.38351	47.85613	0.3297
At most 3	0.335096	17.42700	29.79707	0.6085
At most 4	0.161303	5.591742	15.49471	0.7431
At most 5	0.016770	0.490460	3.841466	0.4837
Trace test indicates 2 cointegrating eqn(s) at the 0.05 level * denotes rejection of the hypothesis at the 0.05 level **MacKinnon-Haug-Michelis (1999) p-values				
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None	0.735128	38.52671	40.07757	0.0740
At most 1 *	0.721782	37.10113	33.87687	0.0199
At most 2	0.497498	19.95651	27.58434	0.3442
At most 3	0.335096	11.83526	21.13162	0.5640
At most 4	0.161303	5.101282	14.26460	0.7290
At most 5	0.016770	0.490460	3.841466	0.4837
Max-eigenvalue test indicates no cointegration at the 0.05 level * denotes rejection of the hypothesis at the 0.05 level **MacKinnon-Haug-Michelis (1999) p-values				

Source: E-views 10.0

Having established that the variables are stationary, cointegration analyses was employed to test for long run relationship among the variables in the model. The result is shown on Table 3. The probability values showed that both Trace Statistics and Maximum Eigenvalue statistics are significant at "AT MOST ONE". This indicate that at least two cointegrating equation exist for the model. Therefore the study conclude that there is a long run relationship between government spending and exchange rate in Nigeria. This implies that government spending has propensity to influence exchange rate Naira in the long run.

Normalized Long-Run Coefficient Based on Johansen Test

Dependent Variable: EXR					
CAP	REC	LnDEF	OPEN	FINDEEP	C
-13.8600	-78.6440**	-69.6583**	3.2929**	-6.3155	261.0524
(8.3141)	(10.3258)	(9.7538)	(1.1491)	(4.2394)	
[-1.6670]	[-7.6163]	[-7.1417]	[2.8656]	[-1.4897]	

Note: Standard errors in ( ) and t- statistic in [ ].** implies significant at 5% level.
Source: E-views 10.0 Output

The coefficients of government capital expenditure (CAP), government recurrent expenditure (REC), deficit budgeting (LnDEF) and Financial Deepening (Money Supply) (FINDEEP)have long-run negative effect on exchange rate in Nigeria such that increase in CAP, REC, LnDEF and FINDEEP by one percent (1%) would lead to an decrease in exchange rate by about 13.86%, 78.64%, 69.65% and 6.32% respectively in the long-run. On the other hand, the coefficients of trade opening (OPEN) has a long run positive effect on exchange rate in Nigeria such that an increase in by one percent (1%) would lead to an increase in exchange rate by about 3.29% in the long-run.

Vector Error Correction

Since the results above reveal the existence of co-integration among the variables of the model, error correction models (ECM) is required to determine the short run dynamism of the relationships. For theoretical meaningfulness, the coefficient of the error term should be negative and range between zero and one in absolute term (Ogundipe &Oluwatobi, 2014). The error-correction term to be estimated represents the speed of adjustment to equilibrium trends. The result of the ECM is shown on Table 5. The result of the error correction term did conform to the theoretical expectation. The ECM value is 0.0256 which is positive and not significant at 0.05 level. The t-statistics of the ECM value is 0.290734 with probability value of 0.7740. Since the probability value is greater than 0.05, the result is not statistically significant. This indicates exchange rate in Nigeria does not adjust back to equilibrium in the short run.The showed that there is no significant short run dynamism for government spending and exchange rate in Nigeria.By implication, government spending is not enough to control exchange rate movements in of the Nigerian naira.

ECM Test of Short run dynamism of the effect of government spending on exchange rate in Nigeria

Dependent Variable: EXR
Sample (adjusted): 1988 2017
Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CAP	-5.759904	5.403244	-1.066009	0.2980
REC	4.521303	6.695016	0.675324	0.5065
LNDEF	8.618586	7.279841	1.183898	0.2491
OPEN	1.295041	1.049012	2.234534	0.0300
FINDEEP	-16.14579	4.203921	-3.840651	0.0009
ECM_{-1}	0.025688	0.088357	0.290734	0.7740
C	-165.7489	87.17202	-1.901400	0.0704
R-squared	0.776770	Durbin-Watson stat		1.056375
F-statistic	12.75886			
Prob(F-statistic)	0.000003			

Hypotheses Testing

Also, the hypotheses of the study are testing based on the t-statistics and its

corresponding p.values on Table 5. Government capital expenditure (CAP) has a negative (-5.7599) and insignificant (p. > 0.05) effect on government spending. The t-statistic is -1.066009 with a p.value of 0.2980. Since the p.value is greater than 0.05 level of significance, we cannot reject the null hypothesis indicating that government capital expenditure has no significant effect on exchange rate in Nigeria. The study thus concludes that government capital expenditure has an insignificant negative effect on exchange rate in Nigeria.

Government recurrent expenditure (REC) has a coefficient of 4.5213 which suggests that REC has positive effect on exchange rate. The t-statistic is 0.6753 with probability value of 0.5065. Since the p.value is greater than 0.05 (p > 0.05), we cannot reject the null hypothesis, which implies that government recurrent expenditure has no significant effect on exchange rate in Nigeria. The study therefore conclude that government recurrent expenditure has an insignificant positive effect on exchange rate in Nigeria.

The coefficient of Deficit financing (LnDEF) is 8.6185. This means that deficit financing has a positive effect on exchange rate. However, the t-statistic is 1.183898 with p.value of 0.2491. Since the p.value is greater than (p>0.05) 5% level of significance, the study cannot reject the null hypothesis that "Government deficit budgeting has no significant effect on exchange rate in Nigeria". It therefore concludes that government deficit budgeting has an insignificant positive effect on exchange rate in Nigeria.

The coefficient of regression is -16.1458 indicating that money supply represented as financial deepening (FINDEEP) has a negative effect on exchange rate fluctuation in Nigeria. The t-statistics is 3.8407 with probability value of 0.0009. Since the p.value is less than 0.05 level of significance, the null hypothesis is rejected. Thus the study conclude that money supply has significant negative effect on exchange rate fluctuations in Nigeria.

The coefficient of OPEN is 1.2950. This means that trade openness has a positive effect on exchange rate fluctuation. As the t-statistics is 2.234534 and significant at 0.0300, the study rejected that null hypotheses and conclude that trade openness has significant effect on exchange rate fluctuations in Nigeria.

Conclusions and Recommendations

Government spending is not a significant policy for exchange rate stability in Nigeria. However, money supply can be targeted at exchange rate appreciation whereas excessive use of trade liberalization is capable of depreciating the Nigeria Naira and making the economy less competitive.

The following recommendations are apt:

1. In order to boost Nigerian exchange rate, there is a basic need for proper re -evaluation of government fiscal policies before adoption, credible supervision, monitoring and prudent spending in a bid to achieve the desired or stated results.
2. Another solution would be for adoption of policies capable of reducing the broad money supply in Nigerian economy, and redirecting these funds to productive activities. A clue from

the Development bank of Nigeria SME loans, geared towards providing funding for MSMEs and risk sharing guarantees, accessible through the participating financial Institutions.

3. The government can make concerted efforts towards import substitution so that trade openness can be used to stabilise the economy and enhance economic competiveness of Nigeria.
4. More importantly, the study recommends that government should invest capital expenditures on infrastructures, human capital development (Example YouWin program by Goodluck Jonathan led administration) and an effective export-driven master plan is required to catalyse Nigeria's economic and industrial development. This will save Nigeria from the claws of import dependency.

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