Interactions between Exchange Rate and Federal Government Expenditure in Nigeria

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ABSTRACT
The research evaluates the strength, relationship and interactions between Exchange rate and Federal Government Expenditure in Nigeria from 1981-2016. The ex-post facto designed which made use of secondary data obtained from CBN statistical Bulletin. The magnitude of association of the variable was validated using simply regressions analysis. The three null hypotheses used in this study were tested at 5% level of significant. The result showed that Exchange rate has effect on Federal government expenditure, Capital expenditure and recurrent expenditure. The study therefore concludes that Federal Government should have a standard exchange rate with other countries of the world since not all works are completed within one fiscal year. This will help to make Government execute more contacts.

Keywords: Exchange rate Volatility, Federal Government Expenditure, Capital Expenditures, Recurrent Expenditure

INTRODUCTION
Developed and developing economies of the world have experienced high level exchange, and this translates into high degree of uncertainly there by affecting major economic objectives and policies of a particular country as a whole. Exchange rate plays an increasing role in any economy as it directly affect domestic price level, profitability of traded goods and services, allocation of resources and investment decision. The stability of the exchange rate is today formidable bedrock of all economic activities, [1]. Expenditure plays an important role in poverty reduction. According to Keynesian approach, public spending may increase the aggregate demand which further stimulates the economy as a whole. Government of any country performs the major functions namely Protection and provision of certain public goods. Government expenditure is a major component of national income as seen in the expenditure approach to increasing national income(Y-C+L+G+(X-M)). This implies that government expenditure is a key determinant of the size of the economy on economic growth.

Exchange rate is an important contributor to risks in the financial world. According to [2] it is referred to short term fluctuation of the exchange rate about their longer term trends, it is also entails short term (monthly, weekly or even hourly) fluctuation in the exchange rate as measure by their absolute percentage charges during a particular period. Exchange rate has been known to reduce the level of economic growth by creating uncertainty about the profit, unemployment and poverty; it is also known to restrict the international flow of capital by reducing both direct investment in foreign operating facilities and financial portfolio investment. [3] define exchange rate as the risk associated with unexpected movement in the exchange rate, economic fundamentals, such as the inflation rate, interest rate and the balance of payment which have become more volatile in the year as sources of
exchange rate volatility. Exchange rate has important implication in Nigeria economic growth, increase in exchange rate would for instance increase the uncertainty of profit on contracts denominated in a foreign currency and would therefore reduce economic growth and development, this is because the exchange rate is agreed on at the time of the trade contract, but payment is not made until the future deliver actually takes place. If changes in exchange rate becomes unpredictable, this creates uncertainty about the profit to be made and hence reduces the benefit of the contract. Exchange rate risk for all country is generally not hedged because forward market are not accessible to all even if, hedging in the forward market were possible they are limitation and cost, the size of the contracts is generally large, the maturity is relatively short and it is difficult to plan the magnitude and timing of all international transaction to take advantage of forward market.

However there is widespread contention that volatility of the exchange rate of developing countries is one of the main sources of economic instability around the world. The impact of this global economy in emerging countries like Nigeria is driven significantly by swings in the currencies of the economic power like United States.

Since the deregulation of the foreign exchange market in 1986, they have been sharp depreciation of the naira, against major foreign currencies especially the US dollar. Available data shows that between 1988 and 2008 the naira has appreciated here. In 2000 the naira, exchange rate against the US dollar was 110 to US dollar, from 110to 112 in 2001 by 2003 it was 135 was exchanged for 1US dollar, from 2003 to 2010 it was 155 to US dollar the naira was 168 to US dollar, today as we are now the dollar is between 430 to 500 to 1 US dollar, CBN Bulletin (2015).

From the above data it can be seen that exchange rate has continuously fluctuated from year to year, in that government spending on Expenditure such as current and recurrent expenditure is affected by the volatility of exchange rate. Despite every policy put in place to make the naira stable it remained unstable since the deregulation period. The need to investigate the integrations between exchange rate and federal government expenditure in Nigeria is important for the economy. For a country that is heavily dependent on imported products, the stability of exchange rate is important, it is therefore important to examine how the level of exchange rate as it affects Government Expenditure.

Objective of the Study

They key objective of this work is to examine the interaction of exchange rate and Federal Government Expenditure (1981-2014). In line with this the specific objectives this study seeks to achieve include:

- To determine the extent to which exchange rate affect total Federal Government Expenditure
- To assess the extent to which exchange rate affects Federal Government of Nigeria capital expenditure
- To appraise the extent to which exchange rate affects Federal Government of Nigeria recurrent expenditure.

Research Hypotheses

H01 There is no significant effect between exchange rate and Federal Government and total Expenditure.

H02 Exchange rate has no significant effect on Federal Government Capital Expenditure.

H03 Exchange rate has no significant effect on Federal Government Recurrent Expenditure.

LITERATURE REVIEW

Conceptual Definition

Government Expenditure: This refers to the purchases of goods and services, which include Public consumption and Public investment and transfer payment consisting of income transfer (pension, social benefits and capital transfer).
Recurrent Expenditure: This are expenditures which does not result in the creation or acquisition of fixed assets. It consists mainly of expenditure on wages salaries and supplements, purchases of goods and services and consumption of fixed capital (depreciation).

Capital Expenditure: This is amount spent on long-term asset such as equipment or building. Usually the cost is recorded in an account classified as property, plant and equipment.

Foreign Exchange: This is the currency of another country obtained through International Economic transactions.

Exchange rate: It is the price of one country’s currency in relation to another country. It is the required amount of units of a currency that can buy another amount of units of another currency.

Theoretical Literature
The theory of Exchange rate rests on the optimal currency area (OCA) and Mickinnon (1963). The theory is based on the concept of the symmetry of stocks, the degree of openness and labour market mobility, according to the theory, fixed exchange regime can increase rate uncertainty and thus the cost of hedging and also encouraging investment by lowering currency premium from interest rates, on the other hand it can also reduce trade and output growth by stopping, delaying or slowing the necessary relative price adjustment process.

The theory also focused on financial market stabilization of speculation of financial behaviour as it relates particularly to emerging economies. According to the theory, a fixed exchange rate regime can increase trade and output by providing a nominal anchor and the often needed credibility for monetary policy by avoiding competitive depreciation and enhancing the development of financial market, [4].

On the other hand however the theory also suggest that a fixed exchange rate regime can also delay the necessary relative price adjustment and often lead to speculative attacks of which many developing and emerging economics suffer from a fear of floating, according to [5] fixed exchange rate also end in crashes when there is a sudden stop of foreign investment and capital flight follows.

The role of government in economic growth is mostly defected on the through their choice of monetary and fiscal policies.

Empirical Literature
There have been several studies on government expenditure and exchange rate, both inside and outside Nigeria.

[6] did a work on Exchange rate volatility and economic growth in Nigeria from 1970-2014. The study made use of Johansen co-integration estimation techniques to test the variable used which include, Balance of payment, Oil revenue and inflection. The result of the study showed that exchange rate vitality are oil revenue contributes positively to GDP on the long run of which they recommend that graft should be tackled frontally in the oil sector to ensure better utilization of oil revenue, also the should be policies that would curb inflection and ensure exchange stability for a sustainable economic growth in Nigeria.

[7] carried out a study on the effect of Government spending on Real exchange rate: Evidence from Military spending for 125 countries, the study find out that increase in government purchases appreciates real exchange rates and increases consumption significantly in developing countries, it depreciates real exchange and decrease consumption in advance countries.

[8] did a study on Government spending and Real Exchange rate: Case of Albania, the study used log liner model with quarterly data. The result of the study indicates that government spending is associated with

The study focuses on the overvaluation of real exchange rate in Albania. [9] examine relationship between the Real exchange rate and its fundamentals for a set of countries from 1980 to 2009. Their study suggests that in developed countries, changes in both
government transfer and Public investment do not generate a significant change in RER. For developing economies, however, they concluded that government transfer tend to appreciate the RER, whereas government investment tends to depreciate it. Finally for both countries government expenditure tends to appreciate the RER, although the impact is comparatively larger in developing economies. [10] carried out a study on Exchange rate and Macroeconomic Aggregates in Nigeria. The study analyzed the impact of exchange rate on macroeconomic aggregates in Nigeria, based on the annual time series data for the period of 1970-2009. The study made use of unit simultaneous equation macroeconomic model and vector auto regression model. The result showed that there is no evidence of a strong direct relationship between changes in the exchange rate and GDP growth. The study went further to say that there is need for improvement in exchange rate management.

[11] examined the effect of exchange rate fluctuations on Nigeria manufacturing industry. They employed multiple regression econometric tools which revealed a negative relationship between exchange rate volatility and manufacturing sector performance. [12] examine the impact of capital expenditure in exchange rate within the period of the second and fourth republic in Nigeria, using E- view analysis and the result was that exchange rate and government expenditure experienced highest increase between the period of 1985-1993 under the military government. [13] examined the effect of government spending on exchange rate in a model exhibiting complementarities between consumption at different point. He used time series data from a cross section of European countries for a period of 1970-1982. The result being that fiscal expansion may depreciate the real exchange rate. [14] offered empirical evidence that real exchange rate volatility can have a significant impact on productivity growth, which its effect depends critically on a country’s level of financial development. [15] examined the effect of government spending shocks on the real exchange rate and trade balance for a series of OECD countries. The result obtained indicates that in all countries examined a rise in government spending induces real exchange rate depreciation and a trade balance deficit.

None of the above prior studies is in Nigeria expect [16], which his study is on the impact of capital expenditure in exchange rate within the second and fourth Republic in Nigeria and so there is a gap, this study covers the period of both Civilian administration and military regimes up to the present administration (1981-2014)

**METHODOLOGY**

Interaction between Exchange Rate and Federal Government Expenditure from 1981-2014. The research design is ex-post facto because data relating to exchange rate and federal government expenditure already exist and is not subject to manipulation by the researchers. Data used in this study were mainly secondary data sourced from federal budget office, Central Bank of Nigeria Statistical Bulletin, the internet and various publications of the federal government of Nigeria.

**Model Specification**

Based on the foregoing analytical considerations of the study, it adopted a model as follows.

ER =f(TGE)-------------------------(1)

ER= f (GCE, GRE) ------------- (2)

ER= β₀ +β₁GCE +β₂GRE +ε

Where ER= Exchange Rate

TGE=Total Government Expenditure

TRE=Total Recurrent Expenditure

TCE=Total Capital Expenditure

ε = Error term
DATA ANALYSES AND PRESENTATION

Estimation Analysis

Dependent Variable: TGE
Method: Least Squares
Date: 10/17/17   Time: 14:45
Sample: 1981 2014
Included observations: 34

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>67.22818</td>
<td>78.99106</td>
<td>0.851086</td>
<td>0.4015</td>
</tr>
<tr>
<td>TRE</td>
<td>1.362602</td>
<td>0.052702</td>
<td>25.85463</td>
<td>0.0000</td>
</tr>
<tr>
<td>TCE</td>
<td>0.025548</td>
<td>0.029253</td>
<td>0.873327</td>
<td>0.3894</td>
</tr>
<tr>
<td>ER</td>
<td>-0.000287</td>
<td>0.001611</td>
<td>-0.178094</td>
<td>0.8598</td>
</tr>
</tbody>
</table>

R-squared 0.958217  Mean dependent var 1280.412
Adjusted R-squared 0.954039  S.D. dependent var 1620.271
S.E. of regression 347.3631  Akaike info criterion 14.64875
Sum squared resid 3619834.  Schwarz criterion 14.82832
Log likelihood -245.0287  Hannan-Quinn criter. 14.70999
F-statistic 229.3319  Durbin-Watson stat 1.287285
Prob(F-statistic) 0.000000

Interpretation

The coefficient of TRE (C₁) is 1.362602. This indicates that there is a direct and positive relationship between the independent variable and the dependent variable and it statistically significant at 5% level given that the t-statistics 25.854 is greater than the t-table at 5% (34 d/f) which is 1.960. We therefore reject H1 and accept H0 and conclude that Total recurrent expenditure impacted on Total government expenditure.

The coefficient of TCE (C₂) is 0.025548. This indicates that there is an insignificant but positive relationship between the independent variable and the dependent variable and it is not statistically significant at 5% level though the t-statistics 0.873327 is less than the t-table at 5% (34 d/f) which is 1.960. We therefore accept null hypothesis and conclude that Total capital expenditure had a negative impact on Total government expenditure.

The coefficient of ER (C₃) is (-0.0002). This indicates that there is negative relationship between the independent variable and the dependent variable and it is not statistically significant at 5% level, well the t-statistics (-0.1780) is less than the t-table at 5% (34 d/f) which is 1.960. We therefore accept null hypothesis and conclude that exchange rate negatively affected Total government expenditure.
The coefficient of determination ($R^2$) is 0.958. This indicates that the independent variables explained 96% of the total variation in the dependent variable while the remaining 04% is unexplained due to error term (E).

CONCLUSION

Based on the analysis carried out on the available data, it is observed that Exchange rate is on the increase and so as Exchange increases, so also Government Expenditures also increases both current and recurrent.

RECOMMENDATION

Based on the findings, it is therefore recommended that;

- Countries of the world should go back to the Button wood commission and have a fixed exchange rate for the world.
- Government should insure that local content are used in doing most of the project.
- Nigerian should form the habit of loving their own things, e.g. Cloths, Education etc.
- Demand for Foreign exchange should be channeled to CBN only.
- Government should try to commercialize and privatized most of it enterprise.
- There should be a policy on the reduction in the area of government spending.

REFERENCES