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DOES ECONOMIC GROWTH INFLUENCE GOVERNMENT EXPENDITURE? EVIDENCE FROM NIGERIA.

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ABSTRACT: *The main focus of this study is to investigate the impact of economic growth on government expenditure in Nigeria covering the periods 1970 to 2013. Gross Domestic Product (GDP) was used as a proxy for economic growth, and the GDP time series was decomposed using the partial sum approach in order to achieve asymmetry in the variable. The asymmetric ARDL estimation technique was appropriately employed in this study. The findings of this study revealed that economic growth has significant impact on government expenditure in Nigeria. The study further provided evidence of bi-causality between expansion in economic growth (GDP_P) and government expenditure in Nigeria. The study recommended among others that proactive steps must be taken by governments to stimulate economic growth through production.*

KEYWORDS: Economic growth, Government expenditure, Asymmetric ARDL, Aggregate demand and Granger Causality.

INTRODUCTION

The level of economic activities in an economy determines to great extent government expenditure in that economy. A growing and stimulated economy will cause increase in demand for all factors of production and subsequently increase in total output causing increase in government revenue and subsequently increase in government expenditure, as income generated through taxes and government direct investments are expended by the government in meeting the increasing need of infrastructure and social overheads. On the other hand, a depressed economic activities, that is, fall in aggregate demand will have the opposite effects on government expenditure.

Fall in economic growth rate will lead to fall in government revenue which acts as constraint to government expenditure, and where government revenue falls short of basic government obligations, the government is forced to borrow (either domestically or externally) which if continued over a period of time terms to exacerbate the worsening economic conditions in the economy. Therefore, changes in economic activities drives changes in government revenue which in turn drives changes in government expenditure. Fall in economic activities imply fall in the employment of productive resources in the economy, which brings about decrease in output hence decrease in income, which leads to corresponding decrease in government revenue resulting from fall in taxes, the decrease in revenue further brings about decrease in government spending.

The Nigerian economy had actually witnessed massive expansion with great intensity over the year; the annual National budget had metamorphosed from billions of Naira to trillions of Naira. The gross domestic product (GDP) had risen from 19,422.0 Naira in 1970 to

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40,5844,099.94 naira in 2012, while total government expenditure had risen from 1130.1 naira in 1970 to 4,605,319,72 naira in 2012, over the years , empirical studies are in agreement that positive relationship exist between government expenditure and economic growth, but have mixed findings on the existence of causality and also on the direction of causality running from government expenditure to economic growth and or from economic growth to government expenditure. Previous studies have treated economic growth in relation to government expenditures as symmetric, while in fact growth rate per annual is very much asymmetry having low times and high times (depression and boom periods) within a year, indicative of bad news and good news.

Since rise in public expenditure greatly depends on revenue collection, and revenue collection depends on the level of economic activities it therefore follows that government expenditure depends indirectly on the level of economic activities.

Objective of the Study

The major objective of this study is to estimate the impact of economic growth on government expenditure using asymmetric ARDL approach. While the specific objectives of this study include:

- ✓ To estimate the impact of expanding/contracting economic growth on government expenditure
- ✓ To determine the existence and direction of causality running between economic growth and government expenditure.

CONCEPTUAL FRAMEWORK

Government Expenditure

This is the acquisition by governments of goods and services for current consumption to directly satisfy the individual or collective needs of the society, referred to as government consumption expenditure, while government acquisition of goods and service intended to create future benefits is referred to as government investment expenditure (government gross capital formation). All governments' acquisitions (government consumption expenditure plus government investment expenditure) are classified total government expenditure.

Government expenditure can be financed by borrowing, printing of new money, taxes or revenues from government direct investments. However, in developing economics like Nigeria, the bulk of government revenues come from proceeds of governments' direct investments even though some government investments are supposed to be subsidized. This presupposes that while it is not in doubt that governments spending stimulates economic growth, economic growth on the other hand stimulates government spending as changes in economic growth rate determines change in revenues accruable to the government upon which spending in based.

Government Expenditure and Production: Government expenditure on socially desirable goods or services increases productive capacity. Government expenditure on education, health, housing, communication and transportation services increases productivity and therefore, income. Rising income also means rising sowings and subsequently stimulates investment and

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gross capital formation. Also governments' expenditure through tax cuts and subsidies is an effective instrument to stimulate investment on a particular industry, thus stimulating overall growth in productivity in the economy.

Government Expenditure and Consumption: Government spending enhances redistribution of income in favour of low income earners in the economy. It improves the capacity of low income earners to consume. Government spending stimulates economic activities and therefore stimulates consumption in the economy.

Government Spending and Macroeconomic Stability: Macroeconomic instability takes the form of depression, recession and inflation. Government expenditure is used as a tool to control instability in an economy. Government spending has proved effective over years for stimulating effective demand and subsequently getting out of depression. Government spending is also amenable to controlling inflation and deflation, by reducing government spending during inflation and increasing government spending during deflation, thus bringing about price stability in the economy.

Economic growth and Government Expenditure: No doubt, the bulk of government revenues come from proceeds from government direct, investments in Nigeria, while printing of new money and taxes have remain an integral components of government revenues in Nigeria, revenues from governments direct investments have continued to dominate governments revenue streams in Nigeria. This phenomenon explains fluctuations in government expenditure over the years, the periods of oil boom for instance, witnessed reckless spending by governments at all levels in Nigeria, while the period of world oil price glut as it persists till date saw many states governments unable to pay salaries, thus economic growth stimulates government spending.

THEORETICAL FRAMEWORK

Wagner's law of Increasing State Activity: Named after the German economist, Adolph Wagner based on his studies; first on German economy and then other countries, analyzing trends in the growth of public sector come to the conclusion that for any country the public expenditure rises constantly. Hence Wagner's law states that "as the economy develops over time, the activities of functions of the government increase". According to Adolph Wagner cite in strategistng.blogspot.com (2013) "comprehensive comparisons of different countries and different times show that among progressive peoples (societies), with which alone we are concerned; an increase regularly takes place in the activity of bot the central government and local governments constantly undertake new functions, while they perform both old and new function more efficiently and more completely. In this way economic needs of the people to an increasing extent and in a more satisfactory fashion are satisfied by the central and local governments". Thus, Wagner' law can be summarized as follows: (a) in progressive societies, the activities of governments increase on a regular basis. (b) Government activities increase extensively and in intensity (c) The government undertake new functions in the interest of the society, performing both old and new functions more efficiently and comprehensively than before, (d) the expansion and intensity of government function leads to increase in public expenditure.

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Peacock –Wiseman Hypothesis

Peacock and Wiseman conducted a study based on Wagner's law and found out that Wagner's law is still valid. In furtherance to that they concluded that (1) the rise in public expenditure collection over the years, economic development results in substantial revenue to the governments, this enable to increase public expenditure". (ii) There exists a big gap between the expectations of the people about public expenditure and the tolerance level of taxation. Therefore, governments cannot ignore the demands, made by people regarding various services, especially, when the revenue collection in increasing at constant rate of taxation. (iii) They also stated that further increases the tax rates, and enlarges the tax structure to generate more funds to meet the increase in defence expenditure. After the war, the new tax rates and tax structures may remain the same, as people get used to them. Therefore, increase in revenue results in rise in government expenditure.

Musgrave's Development Hypothesis

Musgrave (1969) suggested that the growth of public expenditure is related to the pattern of economic growth and development societies. Thus, three stages in the development process could identified (i) The early development stage where considerable expenditure is needed on education and infrastructure, and where private saving is unable to finance this necessary expenditure due to paucity of funds, public expenditure must therefore constitute higher proportion of gross capital formation and subsequently total output; (ii) The phase of rapid growth in which there are large increases in private savings and public investment falls proportionality; and (c) high income societies with increased demand for private goods which need complementary public investment.

Thus as the society more into high income stage, there is increasing need for skilled labour which therefore leads to increasing public investment in education. In the same vein, rural-urban migration leads to urban slums. These factors leads to another round of increase in public expenditure in relation to gross national product (GNP); hence Musgrave study of the growth or government expenditure in the united states; 1890 to 1987 revealed that ratio of public expenditures to GNP rose from 6 to 35 percent over nearly ninety year period.

Critical –limit hypothesis

This hypothesis was developed by Colin Clark, a British economist soon after the World War II based on the tolerance level of taxation. Analyzing empirical data of some western countries for the inter-war period, he discovered that when government taxes exceed 25 percent of aggregate economic activities, inflation necessarily arises, even when the budget is balanced. He further concluded that: (i) when government tax system extricates increasing properties of additional income from taxpayers, this leads to disincentive to work and subsequent fall in productivity; (ii) People become less resistant to inflationary methods of government financing. While the aggregate demand expands as a result of inflationary financing techniques, aggregate supply falls due to less of incentives and subsequently, inflation.

EMPIRICAL FRAMEWORK

Dada and Adesina (2013) in their study "Empirical Investigation of the Validation of Peacock – Wiseman Hypothesis: Implication for Fiscal Discipline in Nigeria" employed vector error correction model and standard Granger causality test to determine the direction of causality between government expenditure and revenue in Nigeria. They came to the conclusion that unidirectional causality exists between government expenditure and revenue in Nigeria, with the causality runs from government expenditure to revenue.

Investigating the impact of government expenditure on economic growth in Nigeria, Abu and Abdullah (2010) employed disaggregated data on government expenditure to investigate the relationship between government expenditure and economic growth from the period 1970 to 2008. This study came to the conclusion that total government expenditure and expenditure on Education impact negatively on economic growth in Nigeria, while on the contrary, government expenditure on transport, communication and health stimulate economic growth in Nigeria.

World Bank's Development Report (1994) reveals that developing countries invest about $200billion per year in new infrastructure, representing 4 percent of their national output. This has resulted to radical increase in infrastructure expenditure for transport, power, water, sanitation, telecommunications, and irrigation. The expenditure on infrastructure to meet the growing demands of business, households, and other users is a major challenge in developing countries including Nigeria.

Olorunfemi, (2008) investigated the relationship between public investment and economic growth in Nigeria, using disaggregated data series spanning from 1975 to 2004. Study revealed that Government expenditure impacted positively on economic growth. The study revealed that of the total government expenditure, 62.9% was on current expenditure while 37.1% of total government expenditure was devoted to capital expenditure.

Ram (1988) studied the impact of government expenditure on economic growth using the production function, modelled for both public and private sectors. Using data for 115 countries, the result of study revealed that government expenditure have significant positive impact on economic growth, particular in the developing countries under study.

Mitchell (2005) investigated the impact of government spending on economic growth in developed countries. He assessed the international evidence, reviewed the latest academic research, cited examples of countries that have significantly reduced government spending as a share of national output and analyzed the economic consequences of these reforms. Regardless of the methodology or model employed, he concluded that a large and growing government is not conducive to better economic performance. He further argued that reducing the size of government would lead to higher incomes and improve American's competitiveness.

Junko and Vitali (2008) investigate the impact of government expenditure on economic growth in Azerbaijan because of the temporarily oil production boom (2005) which caused exceptionally large expenditure increase aimed at improving infrastructure and raising incomes. Azerbaijan's total expenditure increased by a cumulative 160 percent in nominal value from 2005 to 2007 (i.e. from 41 percent of non-oil GDP to 74 percent) in their research reference which were made to Nigeria and Saudi Arabia (1970-89) who have also experienced oil boom and increased government expenditure over the years. The study simulated the neo-classical growth model tailored to the Azeri conditions. Their analysis suggested that the evaluated fiscal scenario poses significant risks to growth sustainability and historical experience indicates that the initial growth performance largely depends on the efficiency of scale-up expenditure. The study also sheds light on the risks associated with a sudden scalingdown of expenditure, including the political difficulties to undertake an orderly expenditure reduction strategy without undermining economic growth and the crowding out effects of large government domestic borrowing.

DATA ANALYSIS TECHNIQUE

Model Specification

The empirical model of this study is derived from the theoretical framework specifically of the Wagner's law. Theoretically, the feedback from economic growth to government spending is made explicit in the relationship between increases in economic growth leading to increase in government revenues (through corresponding increase in tax revenues). However, in order to analyze the differential impact of expanding (boom) and contracting economic activities on government expenditure as set out in this study, the point of departure is to transform the variable of interest into positive and negative partial sum. The decomposition of the variable is the most important step. Thus, adopting the asymmetric ARDL (Greenwood-Nimmo and Shin, 2013), this attempts to model the differential impact of expanding and contracting economic activities on government expenditure. The asymmetric ARDL of Greenwood-Nimmo and Shin (2013) is specified as:

$$\Delta y_t = \alpha + \lambda_1 y_{t-1} + \lambda_2^+ x_{t-1}^+ + \lambda_2^- x_{t-1}^- + \sum_{i=1}^{P} \theta_j \Delta y_{t-1} + \sum_{i=0}^{q} \beta_j^+ \Delta x^+_{t-1} + \sum_{i=0}^{q} \beta^-_j \Delta x^+_{t-1} + \varepsilon_t$$

The baseline model to be estimated for this study is first specified in the following functional form as shown below.

$$FTE = f(RGDP\_P, RGDP\_M) \quad \text{... (1)}$$

Where: FTE is Federal Government Total Expenditure

RGDP_P is expansion in economic growth

RGDP_M is contraction in economic growth

To obtain an estimate linear function, Equation (1) was rewritten as;

$$FTE = \alpha_0 + \alpha_1 RGDP\_P + \alpha_2 RGDP\_M + \varepsilon_t \quad \text{... (2)}$$

Equation (2) is estimated by the OLS procedure to obtain the vital F-statistics, thereafter, the coefficient diagnostic test is conducted to obtain the relevant F-statistic from the OLS result. The applicable hypothesis is the null hypothesis of no long-run relationship, such as:

H_0: $\lambda_1 = \lambda_2 = \lambda_3 = \lambda_4 = 0$ (no long-run relationship)

H_1: $\lambda_1 \neq \lambda_2 \neq \lambda_3 \neq \lambda_4 \neq 0$ (there exist long-run relationship)

If there is a long-run relationship, between the variables, that is, the estimated variables are cointegrated, and the estimated relationship not spurious, then estimated coefficient of the long-run relationship is analyzed and the error correction model may then be estimated. Equation (2) is further expressed in the generalized autoregressive distributed lag (ARDL) model of the form ARDL(p; q_1; q_2; …q_k). Such that:

$$ß(L,p)y_t = \sum_{i=1}^{k} ß_1(L_i q_i)x_{it} + ßw_t + Ɛ_t \qquad \ldots (3)$$

Where

$$ß(L,p) = 1 - ß_1L - ß_2L^2 - \ldots - ß_pL^P$$

$$ßi(L,q) = 1 + ß_{i1}L + ß_{i2}L^2 + \ldots + ß_{iq}L^{qi}, \text{ for } i = 1, 2, \ldots, k \qquad \ldots (4)$$

Since there is evidence of a long-run relationship among the variables included in Equation (2), the following long-run model will be estimated

$$FTE_t = \propto + \sum_{i=1}^{p} \propto_{1i}FTE_{t-1} + \sum_{i=0}^{p} \propto_{2i}RGDP\_P_{t-1} + \sum_{i=0}^{p} \propto_{3i}RGDP\_M_{t-1} + Ɛ_t \qquad \ldots (5)$$

The asymmetric ARDL model of Greenwood-Nimmo and Shin (2013) is then specified thus:

$$\Delta FTE_t = \alpha + \lambda_1 FTE_{t-1} + \lambda_2^{+}RGDP\_P_{t-1}^{+} + \lambda_2^{-}x_{t-1}^{-} + \sum_{i=1}^{P} \theta_j \Delta FTE_{t-1} + \sum_{i=0}^{q} ß_j^{+} \Delta RGDP\_P^{+}_{t-1} + \sum_{i=0}^{q} ß^{-}_j \Delta RGDP\_M^{+}_{t-1} + Ɛ_t$$

Where: Δ is the differenced operator.

Model Estimation Technique

The method of estimation used in this study is the Asymmetric Autoregressive Distributed Lag (ARDL) technique which operates on the Ordinary Least Square (OLS) estimation platform. While the operational software used in this study is the E-views, version 7.1. The question of asymmetry in economics is common place and of importance. Good and bad news are everywhere. Here, we want to understand the differential impacts of boom and contracting economic activities on government expenditure. The distinction is important if we want to appropriately respond to and formulate policies to address changes in economic activities. If linearity is assumed in the relationship between income and government spending as in the literature on traditional Wagner's law, symmetric policy response will be expected to be inadequate or to impair the relationship if indeed the assumed linear relationship is appropriate (Olayeni, 2015).

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Nature and Sources of Data

This study employed secondary data collected from the following sources; Central bank of Nigeria's statistical bulletin (various issues including 1999, 2006 and 2012 editions); National bureau of statistics' statistical fact sheets; CBN's annual reports (various editions); www.economywatch.com; www.knoema.com; and indexmundi.com. The data series sourced therefrom and used in this study include: Federal Government Total Expenditure (FTE) and Real Gross Domestic Product (RGDP). In order to situate this study appropriately under the purview of asymmetric analysis, the real gross domestic product (as the explanatory variable) was discomposed into expansion in growth (RGDP_P) and contraction in growth (RGDP_M) indicative of asymmetry in the growth rate in economic activities.

Data Analysis and Discussion of Findings

After estimating the ARDL model for which the result is displayed in table 4.1 below, the joint (Wald) test of the coefficients of the long run ordinary least square (OLS) was estimated in order to derive the F- statistic needed to conduct bound test (to establish long run relationship among the variables). The F-statistic of the joint test of coefficients of the long run as shown in table 4.2 was 13.30121 while the upper bound of the Pesaran critical value bounds at 5% is 4.85. Since the value of our F-statistic exceeds the upper bound at 5% levels of significance, we can conclude that long run relationship exist between FTE and the explanatory variables. We can also see that the long run multiplier between GDP_P and FTE is 0.402387/2.151462 = 0.19, that is, in the long run, a one percent increase in GDP will lead to an increase of 0.19 percent in government expenditure, while the long run multiplier between falling aggregate demand (GDP_M) and FTE is 0.899997/2.151462 = 0.42, meaning that in the long run, a one percent decrease in GDP will lead to 0.42 percent decrease in government expenditure

In order to validate the ARDL technique as a suitable method of data analysis in this study, it became imperative to conduct stationarity test to ensure that there is no I(2) variable, the ADF statistics in table 4.3 revealed that all variables are I(0) and I(1).

Table 4.1: OLS Result

Dependent Variable: DFTE
Method: Least Squares
Date: 08/01/15 Time: 15:31
Sample (adjusted): 1974 2013
Included observations: 40 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	33738.03	24539.72	1.374833	0.1809
FTE(-1)	2.151462	0.654022	3.289587	0.0029
GDP_P(-1)	0.402387	0.103496	3.887948	0.0006
GDP_M(-1)	-0.899997	0.443315	-2.030151	0.0527
DFTE(-1)	0.846878	0.452832	1.870180	0.0728
DFTE(-2)	1.028119	0.212895	4.829224	0.0001
DGDP_P	0.013380	0.018928	0.706886	0.4859
DGDP_P(-1)	0.387977	0.097781	3.967800	0.0005
DGDP_P(-2)	0.270236	0.090229	2.995005	0.0060

DGDP_P(-3)	0.140485	0.076051	1.847249	0.0761
DGDP_M	-2.082270	0.628149	-3.314931	0.0027
DGDP_M(-1)	-0.051698	0.761827	-0.067860	0.9464
DGDP_M(-2)	-3.234201	0.712090	-4.541845	0.0001
DGDP_M(-3)	-2.149842	0.934958	-2.299401	0.0298

R-squared	0.987365	Mean dependent var	243956.6
Adjusted R-squared	0.981048	S.D. dependent var	826101.0
S.E. of regression	113725.8	Akaike info criterion	26.39019
Sum squared resid	3.36E+11	Schwarz criterion	26.98129
Log likelihood	-513.8037	Hannan-Quinn criter.	26.60391
F-statistic	156.2957	Durbin-Watson stat	1.644188
Prob(F-statistic)	0.000000		

Table 4.2: Wald Test

Wald Test:
Equation: Untitled

Test Statistic	Value	df	Probability
F-statistic	13.30121	(3, 26)	0.0000
Chi-square	39.90364	3	0.0000

Pesaran, Shin and Smith (2001) Unrestricted Intercept & No Trend

	0.05	
K	I(0)	I(1)
0	8.21	8.21
1	4.94	5.73
2	3.79	4.85
3	3.23	4.35
4	2.86	4.01
5	2.62	3.79

Table 4.3: Stationarity Test

Unit Root Tests
Sample: 1970 2012
Test Type: ADF

	Level	First	Second
FTE	1.884632	3.898872	-0.932582
GDP_P	5.857435	6.817074	1.644623
GDP_M	0.000000	-6.324555	-7.449832
1% level	-2.621185	-2.622585	-2.625606
5% level	-1.948886	-1.949097	-1.949609
10% level	-1.611932	-1.611824	-1.611593

The residuals series were constructed and the restricted ECM was fitted. The ECM in table 4.4 revealed that at current value depression in economic growth (GDP_M) significantly impact on government expenditure in Nigeria at one percent critical value, while at different lags all variables in the model do significantly impact on total government expenditure (DFTE) in Nigeria at 1% critical value.

The coefficient of determination R^2 was very high at 99%, this implies that all the explanatory variables in the model explained about 99% of the total variations in government expenditure (DFTE) in Nigeria. Also, the F-statistic was significant even at 1% which means that the joint test was statistically significant and the model is a good fit. The error correction coefficient was rightly signed and highly significant at 1 per cent, this is also indicative of long causality running from the explanatory variables to government expenditure in Nigeria. The D.W value at 1.65, means that there is no autocorrelation in the model.

Table 4.4: Error Correction Model

Dependent Variable: DFTE
Method: Least Squares
Date: 08/01/15 Time: 16:14
Sample (adjusted): 1974 2013
Included observations: 40 after adjustments
DFTE = C(1) + C(5)*DGDP_P(-3) + C(6)*DFTE(-1) + C(7)*DFTE(-2) + C(8)
*DGDP_M(-2) + C(9)*DGDP_P(-1) + C(10)*DGDP_M + C(11)
*DGDP_P(-2) + C(12)*DGDP_M(-3) + C(13)*DGDP_P + C(14)*ECM(-1)

	Coefficient	Std. Error	t-Statistic	Prob.
C	370.2606	21914.10	0.016896	0.9866
DGDP_P(-3)	0.141058	0.054577	2.584577	0.0150
DFTE(-1)	2.998176	0.178099	16.83436	0.0000
DFTE(-2)	1.028745	0.162599	6.326869	0.0000
DGDP_M(-2)	-3.238772	0.619626	-5.226977	0.0000
DGDP_P(-1)	0.386886	0.066027	5.859506	0.0000
DGDP_M	2.080995	0.569265	3.655582	0.0010
DGDP_P(-2)	0.269272	0.062681	4.295929	0.0002
DGDP_M(-3)	-2.144756	0.781378	-2.744837	0.0103
DGDP_P	0.013427	0.014564	0.921903	0.3642
ECM(-1)	-2.147203	0.319202	-6.726790	0.0000

R-squared	0.987362	Mean dependent var	243956.6
Adjusted R-squared	0.983004	S.D. dependent var	826101.0
S.E. of regression	107698.7	Akaike info criterion	26.24048
Sum squared resid	3.36E+11	Schwarz criterion	26.70492
Log likelihood	-513.8096	Hannan-Quinn criter.	26.40841
F-statistic	226.5617	Durbin-Watson stat	1.647242
Prob(F-statistic)	0.000000		

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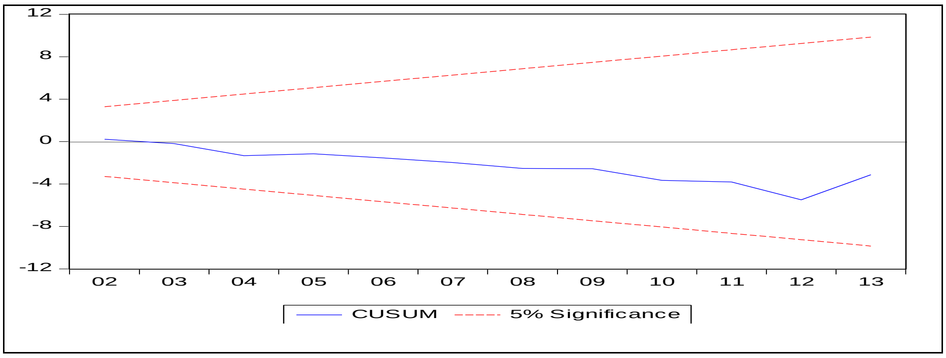
The error correction model was tested for serial correlation as shown in table 4.6 below, which revealed that the model is serially independent. Also to ensure that the model is dynamically stable, the cumulative sum of recursive residuals (CUSUM) test was conducted and the result revealed that the model is dynamically stable as shown in figure 4.1 below.

Table 4.6: Test for Serial Correlation

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.333294	Prob. F(2,30)	0.2788
Obs*R-squared	3.265219	Prob. Chi-Square(2)	0.1954

Figure 4.1: Stability Test of the Error Correction Model



Granger Causality Test

The Granger Causality tests whether X causes Y, in order to see how much of the current Y can be explained by past values of X. A variable granger causes another if the F-statistic is significant at p-value of 5 percent or less.

Table 4.7: Pairwise Granger Causality Tests

Pairwise Granger Causality Tests
Date: 08/01/15 Time: 16:41
Sample: 1970 2013
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
GDP_P does not Granger Cause FTE	42	5.25112	0.0098
FTE does not Granger Cause GDP_P		6.03500	0.0054
GDP_M does not Granger Cause FTE	42	0.29163	0.7487
FTE does not Granger Cause GDP_M		0.13383	0.8752
GDP_M does not Granger Cause GDP_P	42	3.17388	0.0534
GDP_P does not Granger Cause GDP_M		0.19780	0.8214

The table above revealed that bi-directional causal relationship exists between expansion in economic in growth (GDP_P) and government expenditure in Nigeria.

SUMMARY OF MAJOR FINDINGS

This study had offered evidence that there is indeed significant relationship between economic growth and government expenditure in Nigeria. This study revealed the existence of long-run causal relationship running from economic growth to government expenditure, while the granger causality test showed that bi-directional causal relationship exists between expansion in economic in growth (GDP_P) and government expenditure in Nigeria.

CONCLUSION

The impact of economic growth (expanding/contracting) on government expenditure has been extensively investigated in this study. The application of asymmetric autoregressive distributed lag (ARDL) estimator to a set of dynamic time series data models in investigating the research problem have proved quite intuitive, robust and unequivocally suitable. This study focused mainly on the asymmetry in economic growth and its impact on government expenditure in Nigeria. Time series data covering the periods 1970 to 2013 were used for this study, the statistical properties of the data were properly investigated using appropriate econometric techniques. The findings of this study provided strong evidence of causality between changes in economic growth and government expenditure in Nigeria.

RECOMMENDATIONS

The researchers recommend that policy decisions on improving economic growth by stimulating aggregate demand in the economy should be of priority as the findings re-enforces the Peacock-Wiseman revenue-spending hypothesis. Governments in Nigeria should give more impetus to policies that will guarantee sustainable economic growth.

Finally, there is need to reverse governments priority on spending decision. Empirical evidence shows that government spending decision occurs prior to the decision to raise revenue in Nigeria (Dada and Adesina, 2013), this is responsible for the rising fiscal deficits in Nigeria, and hence a reversal will mean sustainable economic growth.

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