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The Applicability of Wagner's Law to the Nigerian Expenditure Growth Profile between 1960-2014

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Abstract
This empirical study of the growth of government total expenditure in Nigeria from 1960 to 2014 is to determine whether Wagner's law of expanding state activity on the long run is applicable and extendable to other environmental contexts. The paper discusses the applicability of Wagner's model and hypothesis to Nigeria. The study adopts the ordinary least squares (OLS) quantitative analysis to test the proposition. Results show that the growth of government expenditure in Nigeria was largely explained by the growth in debt servicing, per-capita GDP and inflation rate. The paper thus concludes that the stage of economic development consistent with 'Wagner's law' is still potent in explaining the rise of government expenditure in Nigeria. Several recommendations were made which among others include increasing investments in the real sector and diversifying the economy to bring down the present high inflation rate and halt the current debilitating local currency devaluation.
Keywords: Law of expanding state activity, Government expenditure, public spending in Nigeria

1.0. Introduction

Government expenditure measures the value of governmental goods and services. These goods and services provide the actual index of measuring the direct economic importance of government (Mbanefoh, 1989) to the citizenry. Such expenditures are usually on goods and services which government considers essential to the people but which the market system is either unable or unwilling to offer (Aboyade, 1983). Depending on the country, such governmental interventions could be pervasive when juxtaposed with the recommendations of Adam Smith in his classical book – Wealth of Nations. Adam Smith in 1938 had argued that governments should limit their involvements in the running of a country to providing defence, certain public works such as pipe borne water, roads, etc and administration of justice.

In all countries of the world, whether developed or developing, expenditures have been assigned following economic, socio-cultural and political considerations. In Nigeria as in many developing countries, government expenditures have been increasing due to ever increasing national insecurity, foreign affairs, law and order, maintenance of state apparatus especially in democracies (executive, legislature and judiciary), and public debt servicing. The rise may be attributed to the observed rise in gross domestic product (GDP), per capita-income/GDP, increasing available government revenue particularly from oil and gas, sky-rocketing inflation rate, falling naira value, urbanisation, population growth, etc consistent with Wagner's law of increasing state activity (Wagner, 1883). Other reasons government expenditure may have risen in Nigeria over the review period include cultural and welfare needs. Wagner postulated that the industrialisation of a nation creates a web of complex legal relationships and communications occasioned by increased division of labour. Although Wagner's law did not out-rightly refer to public expenditure growth, it was rather a general narrative of the secular trend in public spending (Goffman and Mahar, 1971) as a nation develops. Wagner's theory indicates that the role of government evolves and increases in the course of its development as the expenditure assignments are in such a way as to correspond with the varying needs of the different sectors of the economy (Ekpo, 1994).

The determinants of growth of government expenditure in Nigeria have been investigated by several researchers (see for example Akambi, 2014; Edame and Akpan, 2013; Aregbeyen and Akpan, 2013). These studies show that government expenditure may have risen over the years due to increase in per-capita income, debt servicing, and GDP. They call for restraint and fiscal discipline on the part of government. Besides these factors, it has been empirically found that double-digit inflation rate and the unproductive use of revenues most of which come from crude oil exportation are some of the reasons government expenditure has increased in Nigeria. Researchers warned that over-bloated public expenditure could among others have adverse effect of crowding out private investment and posing an unquantifiable danger to monetary stability and price level in the economy. This argument is consistent with the position of IMF and World Bank who in the bid to ensuring controlled government expenditures placed a rein on deficit budgeting so as not to exceed a stipulated threshold of a nation's GDP. With that, these international financial watchdogs strategically assist nations in reducing the temptation of unrestricted national spending. Researchers are however quick to observe that there is a limit to which particular expenditure item can be cut in other not to keep the economy in an uneven keel (Longe, 1984; Omoruyi, 1988).

Thus, this study aims to achieve two objectives. The first is to statistically analyse the structure and growth trend of total government expenditure in Nigeria. The second objective is to statistically determine the items of expenditure that are amenable to discretional manipulations by policy makers. To achieve this, the following

research questions become imperative.

1. What are the major factors influencing the increase in government total expenditure in Nigeria?
2. What is the size of the overall relationship between government total expenditure and the identified predicting factors
3. What is the degree of contribution of each of the factors to the observed increase in government total expenditure in Nigeria?

This study has been organised around five major sections beginning with this section. Section two is literature review and theoretical framework. Section three is methodology while section four is the presentation and analysis of both the time series data and results of the test of hypotheses. This involves the analysis of the trend and structure of growth of government expenditure and interpretation of results of the tested hypotheses. It also includes the analysis of the coefficient of variation. Finally, section five is discussion and recommendations.

2.0. Conceptual/Theoretical Construct and Review of Empirical Literature

Adolf Wagner (1835-1917), a German economist, was the first to open the gate-way to curious and purposeful writings on the pattern and growth of government expenditures. Writing in 1883, Wagner believed he had discovered what he called the "Law of ever-increasing state activity" after he investigated the public expenditure records of several advanced countries. He based his model on the pressures for social progress and concomitant shifts in the relative spheres of the economy, especially public economy. As a result, he strongly recommended an increased allowance for social considerations in the conduct of industry. Probably unconscious of the implication of his argument, Wagner was by his study calling for continuous expansion of the public sector and its share in the economy. He posited that there are inherent tendencies for the activities of different layers of government –federal, state and local – to increase both intensively and extensively as the economy progresses (Longe, 1984).

Early writers had at various times supported Wagner's position, (see for example Beck, 1976; Reddy, 1988; Pryor, 1968; Phillips, 1971; Peacock and Wiseman, 1961; Eckstein, 1979; Musgrave and Musgrave, 1984; Aboyade, 1983; Aigbokhan, 1988; Enweze, 1973; Longe, 1984). These writers through empirical investigations found relevant justifications for Wagner's hypothesis. They variously attributed the long-term tendencies for government spending to grow to several factors including increase in urbanisation, population growth, international demonstration effect, and tendency for income elasticity of demand for certain public goods such as higher education and public health (Peacock and Wiseman, 1961; Aboyade, 1983; Aigbokhan, 1988). The logic is that with rising urbanisation, for example, the demand for greater defence and security as in the case of Boko Haram presently ravaging Nigeria and some African countries will increase the need to provide protection (Edame and Akpan, 2013; Sezgin, 2000) and build more police posts and stations, prisons, courts, buy more arms and ammunition, train military and Para-military personnel, etc. Another reason why government expenditure may be increasing is given by Peacock and Wiseman (1961) when they argued that in every decade, there is the inherent compulsion or exigency to finance a war leading to the broadening of the already existing tax system. They contend that once the war is over, the system which may have ameliorated does not necessarily return to the pre-war situation leading to a situation where some of the taxes and price hikes are retained and continued. This means sustaining the growth trend of revenues and expenditures. However, while raising taxes to improve government revenue may have applied in the contexts investigated by Peacock and Wiseman, it theory tended to have failed in the Nigerian context as no tax increase policy was implemented during the Nigerian civil war due mainly to the black-gold that had been discovered in commercial quantity couple with the accompanying favourable global oil price during the civil war.

Several writers have examined different forms of social goods including education, housing, health, information, etc and found conflicting results regarding the level of elasticity (Edame and Akpan, 2013) in relation to the level of government revenue. While some found elasticity between government expenditure and government revenue greater than unity (see for example Snyder and Yackovlev, 2000; Hesmati, 2001), others (Lopez-Casanovas and Saez, 2001; Manning et al, 1987) who on the contrary found elasticity less than unity contend that such outcome could be underpinned by spurious relationships such as failure to utilise cross-sectional variations which could be extraneous to the items measured. Dahlberg and Jacob (2000) and Ahlin and Johansen (2001) respectively found that education expenditure is inelastic. In an empirical study of the secular growth of government expenditure in India, Reddy (1988) found that government expenditure grows at a rate higher than that of the national income of India. Consistent with the argument of Reddy, Enweze (1973) in his study of fourteen developing countries based on time series data found a rising trend in the share of total government expenditure in national income without identifying the particular functional components responsible for the observed rise. In the same vein, Peacock and Wiseman (1961) found that the rate of increase in GNP of the United Kingdom was much slower than its public expenditures suggesting that public expenditure has the tendency to increase faster than increase in national income. Using both cross sectional and time series data sets, Lamartina and Zaghini (2003) investigated twenty-three OECD countries and found that for all the countries, public spending rose as GDP increased and that the long-run elasticity was greater than one indicating a more than proportionate increase in

public expenditure in relation to economic activity. Edame and Akpan (2013) examined the factors responsible for the observed growth in government expenditure in Nigeria since the 1970s and found that fiscal deficit, GDP, government revenue and debt servicing are some of the reasons. While Akanbi (2014) investigated the pattern and drivers of government expenditure in Nigeria, his approach was quite different. His analysis was captured within aggregated capital and recurrent expenditures. His result indicated that both capital and recurrent expenditures are resilient to shocks in total government expenditure in the same manner that total government expenditure is resilient in both capital and recurrent expenditures. Furthermore, he found that while total capital expenditure is resilient to government revenue, recurrent expenditure is significantly influenced by government revenue.

From the brief literature review, it is clear that public expenditure of every nation whether developed and developing has risen in line with Wagner's model of increasing state activity. Although these previous writers found different factors responsible for increase in government expenditure in their respective contexts, it is the intention of this study to subject some of such factors found in literature, mostly tested for advanced countries, to statistical analysis and see if they can explain why government expenditure in Nigeria has risen over the review period.

3.0. Methodology

Data were collected from the statistical publications of bureau of statistics (NBS) and central bank of Nigeria (CBN) for various years. Time series data analysis is adopted for this study. Some of the prominent factors identified in the expenditure literature to influence rise in government expenditure in countries including Nigeria include GDP (Peacock and Wiseman (1961), government revenue (Edame and Akpan, 2013), population growth (Akanbi, 2014), per-capita GDP (Goffman, 1968), inflation (Ezirim et al, 2008; Taiwo and Agbatogun, 2011), debt servicing (Edame and Akpan, 2013) and displacement effect (Peacock and Wiseman, 1961). In this study, we have chosen among these factors government revenue, urbanisation, per-capita GDP and debt servicing for statistical investigation. The displacement effect by Peacock and Wiseman (1961) was not selected as a result of the earlier adduced reason.

Following the comprehensive literature review and the need to answer the research questions, we hypothesise as follows:

H_1: Government expenditure is positively associated with increase in per-capita GDP

H_2: Government expenditure is positively correlated with increasing debt servicing

H_3: Government expenditure is positively correlated with urbanisation

H_4: Government expenditure is positively correlated with rise in inflation

Two different statistical analyses were performed. One is the OLS multiple regression analysis to determine the causal relationships between government total expenditure (dependent variable) and the selected independent variables listed earlier. The model used in this study has been specified to establish the statistical structure and set *a priori* expectations. Although Wagner in his model limited investigation of the relationship between government size and the economy on the GDP, there are today several strands of statistical models based on the fact that government size and economic output can be measured differently (Ju-Huang, 2006). In Peacock and Wiseman (1961), the relationship between government size and the economy was expressed as:

$$RGE = f(RGDP) \quad \text{..... (i)}$$

Where:

RGE = real government expenditure;

RGDP = real GDP

A year later, Goffman (1968) measured the relationship between government size and the economy using per-capita GDP thus:

$$RGE = f\left(\frac{RGDP}{N}\right) \quad \text{..... (ii)}$$

Where:

RGDP = real GDP;

N = population

In the two models, there is a noticeable difference in the measure of national economic output. The per-capita GDP seems to present a more realistic measure of revenue and income indices as it tends to give account of the aggregate earnings of the country (GDP) through what the people earn as income in the face of growing population. Therefore, to examine the factors influencing the government expenditure in Nigeria, we include the following variables based on Nigeria's context as already identified in literature. Our model is expressed thus:

$$TGE = f(GDP_{PC}, DBT_S, INF_R, URBAN) \quad \text{..... (iii)}$$

Where:

TGE = Total Government Expenditure

GDP_{PC} = Per-Capita GDP

DBT_S = Debt Servicing
INF_R = Rate of Inflation
URBAN = Urbanisation
From equation iii, we can estimate the relationship between government total expenditure and the selected independent variables in Nigeria to yield:

$$TGE = a_0 + a_1 GDP_{PC} + a_2 DBTSERV + a_3 INF_R + a4URBAN + \mu \text{ ..... (iv)}$$

Where:
a_0 = the Intercept of the model
a_1 = the coefficient of Per-capita GDP
a_2 = the coefficient of Debt Servicing
a_3 = the coefficient of Inflation
a_4 = the coefficient of Urbanisation
μ = unexplained error term
The *a priori* expectation is that all the coefficients of the explanatory variables would have positive values to justify the underlying economic theory of positive relationship between government total expenditure and economic growth i.e.

$$a_0 > 0;\ a_1 > 0;\ a_2 > 0;\ a_3 > 0;\ a_4 > 0$$

In the case of the included error term, it is assumed to have a mean value of zero (0) i.e. $E(\mu) = 0$ and each of the sets of values of the error term is uncorrelated i.e. $E(\mu_i, \mu_j) = 0$. It is also assumed that $E(X_i, \mu_j) = 0$ where $x_i \neq \mu_j$ for all values of i, j = (1, 2, 3, . . ., n) meaning that the error term and the explanatory variables are uncorrelated even in repeated samples. Furthermore, it is assumed that the error term is normally distributed (Koussoyianis, 1977).

4.0. Tests of Hypotheses and Discussion

Based on the stated hypotheses and the subsequently specified models in section three, this section seeks to empirically examine and verify the relationship between total government expenditure (TGE) and four explanatory variables [per-capita GDP **(**GDP_{PC}**)** debt servicing, (DBT_S), inflation (INF_R), and urbanisation (URBAN) to show the degree or extent to which these relationships exist using five separate linear regression analyses which have been collapsed into two categories. The test of "goodness of fit" called the coefficient of determination **(R^2)** was carried out to know the proportion of total Variation in government expenditure that can be explained by the variations in each of the explanatory variables. In addition, some statistical tests such as the test of significance of parameter estimates (t-test) choosing 5% level of significance aimed at evaluating the statistical reliability of the various estimated coefficients in the models were also conducted.

This study performed a standardised multiple regression between total government expenditure as the dependent variable (DV) and per-capita GDP, debt servicing, inflation and urbanisation as independent variables (IVs). Analysis was performed using IBM SPSS REGRESSION and EXPLORE for evaluation of assumptions. The outcomes of the assessment of assumptions led to the transformation of variables to reduce skewness, outliers and help to enhance normality, linearity and homoscedasticity of residuals (Tabachnick and Fidell, 2013). Using a $p < .001$ criterion, the Mahalanobis and Cook's distance tests suggest that there was no outlier among the cases. Also, there was no missing data in any of the 53 cases.

Table 1 depicts the correlation between the DV and IVs on the one hand and among the IVs on the other. It also displays the standardised (β) and unstandardised (B) regression coefficients, the semi-partial (Sr^2), the intercept, the R^2, and the adjusted R^2. R represents regression and it is significantly different from zero at $F(4, 48) = 140$, $p < .001$, with R^2 at .921 and 95% confidence limit. The adjusted R^2 of .914 is an indication that more than ninety percent of the variability in government total expenditure is predicted by per-capita GDP, debt servicing and price inflation of goods and services. For the three regression coefficients that differ significantly from zero, 95% confidence limits were calculated. The confidence limits for (square root of) per-capita GDP were 40.65 – 429.49, for debt servicing it is 2.85 – 4.10, and that of inflations is from -16170 – (-)605.38. The combination of the four IVs contributed an additional .701 in shared variability. In all, 92.1% (91.4% adjusted) of the variability in government total expenditure was predicted by the change in per-capita GDP, debt servicing (both local and foreign) and inflationary growth in goods and services in Nigeria. The result also shows that increase in debt servicing (usually dollar dependent) contributed most to the predicted increase in government total expenditure in Nigeria over the period.

Table 1: Standard Multiple Regression of Factors Influencing Government Total Expenditure in Nigeria

Variables	TGE	GDP_{PC}	DBT_S	INF_R	URBAN	*B*	*β*	Sr^2 (Unique Value)
TGE	1.000							
GDP_{PC}	.593	1.000				234.10**	0.259	.01
DBT_S	.548	.655	1.000			3.48**	0.755	.20
INF_R	-.156	.156	-.127	1.000		-8388.10**	-0.096	.01
URBAN	.440	.574	.402	.173	1.000	-3117.11	-0.024	
					Intercept = 1294.625			
Means	819386.5	1882.4	168692.0	16.4	23.6		R^2 = .921	
Standard Deviation	14269.4	1571.8	310094.4	13.4	11.1		Adjusted R^2 = .914	
							R = .960**	

Table 1 also indicates that per-capita GDP contributed significantly to the observed increase in expenditure. The per-capita GDP tends to affirm the role of population growth and increase in the incomes of citizens in the country including government employees whose salaries and wages have risen steadily over the review period. Between per-capita GDP and debt servicing, it is obvious that debt servicing is much more important in predicting increase in government total expenditure in Nigeria as indicated by the squared semi-partial correlation. Although there was a significant difference between inflation and government total expenditure, the result indicates that the higher the inflation, the lesser the real value of the naira. This means that even though the quantum of the naira expended on goods and services has increased tremendously, the purchasing power of the naira was increasingly falling and less powerful. Finally, urbanisation did not show any predictive power on the increase in government total expenditure. This may be attributed to the operationalisation and measurement technique used. Urbanisation was operationalised in terms of just number of states of the federation rather than by the social demands of new government administrative quarters.

4.1. Trend of Expenditure Growth in Nigeria

Although over the review period the rate of government total expenditure did not only increase and vary by sub-periods declining sometimes, it nonetheless evidently shows a corresponding increases several economic indicators including but not limited to total revenue, per-capita GDP, inflation rate, debt servicing, urbanisation (see tables 2 and 3). This is consistent with Wagner's law that as nations progress in the long-term, government expenditure also rises. The general increase in the size of government expenditure over the review period is consistent with the findings of past researchers who wrote for both developing and developed countries (see for example Aregbeyen, 2006; Huang, 2006; Chang, 2002; Mbanefoh, 1989; Longe, 1984; Eckstein, 1979; Enweze, 1973; Musgrave, 1969; Thorn, 1967). This analysis indicates that the Wagner's model of increasing public spending written for England centuries back also applies to Nigeria even in the 21st century.

Debt servicing is the greatest predictor of expenditure increase in Nigeria (see table 1). Gleaning through table 2, debt servicing has over the decades risen from a mere #48.7 million in 1962 to #1.03 billion in 1981 and further up to more than #1.18 trillion in 2010. The consistent rise in the public debt servicing is traceable to the fact that Nigeria owed more in 2014 than she owed both internally and externally fifthly or so years ago. The country as at September, 1989 had a total external outstanding debt of 2l2,750.7 million while she repaid #53.116 million in the same year. This, no doubt, has caused the expenditure of government to rise just by the proportion by which it rose. The situation has also been exacerbated by the continuous decline in the value of the naira against other notable currencies like the US dollar, British pound sterling and the European Euro.

The per-capital GDP partly measures the national income and output of the country with regard to the population. Over the years, Nigeria's GDP rose stupendously culminating in the rebasing of the economy in 2013 making her the biggest economy in Africa beating South Africa to the second position. As indicated in table 2, the country's expenditure profile has increased stupendously from a modest #144.5 in 1960 to a whopping #4,661,580.0 in 2015 representing more than 32,260.1 fold increase. However, the share of expenditure in GDP fell from 6.4% in 1960 to 4.9% in 2015. Per-capita GDP has also grown over the years (see table 3). Although population has equally risen, its rate of growth is less than the growth rate of GDP. That has led to the observed rise in Per-capita GDP. The rise has been remarkable representing approximately two hundred and twenty—four fold increase. The major area of revenue earnings is foreign trade in crude oil and gas which started in 1956. So much was the deluge of petro-dollars that even as far back as 1975, the Third National Development Plan (1975-1980) which was originally planned to cost #32.9 billion was revised upwards to #433 billion. Even more so was the #82 billion Fourth National Development Plan (1981-1985) drawn up by the politicians who were euphoric about the given tidings of the deluge of foreign earnings from petroleum which stood at approximately #26,782.73 per minute and on the premise that daily production of crude oil would average 2.1 million barrels per day and price would rise to $50 per barrel in 1985 (Osho, 1989). They were correct because in actual fact, daily production increased to 240 million barrels per day and price of crude oil on the international market also rose to about $US100.

As politicians fed fat from the mono-economy based on such unsustainable high oil prices, workers and pensioners also began to ask for higher wages and salaries thus increasing the recurrent expenditure profile of government. From the simple "law of nature", one spends more as one has more at his disposal. This also applies to nations (countries) as nations spend more because they have more revenue at their disposal.

Table 2: Total Government Expenditure and Some Expenditure Ratios from 1960-2015

Year	Real GDP (NGN Million)	Recurrent (NGN Million)	Capital (NGN Million)	Total (NGN Million)	Recurrent Exp/GDP (%)	Capital Exp/GDP (%)	Total Exp/GDP (%)
1960	2,247.4	72.3	72.2	144.5	3.2	3.2	6.4
1961	2,359.6	96.2	99.2	195.4	4.1	4,2	8.3
1962	2,489.0	103.4	75.0	178.4	4.0	2.9	6.9
1963	2,501.2	119.6	90.1	209.7	4.3	3.3	7.6
1964	2,597.6	142.5	119.0	261.5	4.9	3.1	9.0
1965	2,825.6	156.9	116.4	273.3	5.1	3.7	8.8
1966	2,947.6	177.3	117.9	295.2	5.3	3.5	8.7
1967	3,146.8	116.8	131.9	298.7	4.4	3.5	10.9
1968	3,044.8	176.8	161.2	338.0	6.7	6.0	12.7
1969	2,527.3	287.8	172.2	460.0	8.1	4.9	13.0
1970	2,543.8	716.1	187.8	903.9	13.8	3.6	17.4
1971	3,225.5	823.6	173.6	997.2	12.5	2.6	15.1
1972	4,219.0	1 012.3	451.3	1 463.6	14.0	6.3	20.3
1973	4,715.5	963.5	565.7	1 529.2	8.8	6.6	15.4
1974	4,892.8	1 517.1	1 223.5	2 740.6	8.3	6.5	14.8
1975	5310.0	2 734.9	3 207.7	5 942.6	12.7	14.9	27.6
1976	15,919.7	3 815.4	4 041.3	7 856.7	14.0	15.2	29.2
1977	27,172.0	3 819.2	5 004.6	8 823.8	11.7	15.9	27.6
1978	29,146.5	2 800.0	5 200.0	8 000.0	7.8	15.1	22.9
1979	31,520.3	3 187.2	4 219.5	7 406.7	7.4	10.1	17.5
1980	29,212.4	4 805.2	10 163.3	14 968.5	9.4	20.5	29.9
1981	29,948.0	4 846.7	6 567.0	11 413.7	4.7	13.8	18.5
1982	31,546.8	5 506.0	6 417.2	11 923.2	4.4	13.1	17.5
1983	205,222.1	4 750.8	4 885.7	9 636.5	4.4	9.2	13.6
1984	199,685.3	5 827.5	4 100.1	9 927.6	4.7	6.9	11.6
1985	185,598.1	7 576.4	5 464.7	13 041.1	5.2	8.0	13.2
1986	183,561.0	7 696.9	8 526.8	16 223.7	5.4	12.3	17.7
1987	201,036.3	15 646.2	6 372.5	22 018.7	7.7	6.1	13.8
1988	205,971.4	19 409.4	8 340.1	27 749.5	7.1	6.0	13.1
1989	204,806.5	25 994.2	15 034.1	41 028.3	6.4	6.9	13.3
1990	219,875.6	36 219.6	24 048.6	60 268.2	7.3	9.0	16.3
1991	236,729.6	38 243.5	28 340.9	66 584.4	6.7	9.1	15.8
1992	267,550.0	53 034.1	39 763.3	92 797.4	5.9	7.5	13.4
1993	265,379.1	136 727.1	54 501.8	191 228.9	7.3	8.0	15.3
1994	271,365.5	89 974.9	70 918.3	160 893.2	5.9	7.9	13.8
1995	274,833.3	127 629.8	121,138.3	248 768.1	4.4	6.3	10.7
1996	275,450.6	124 491.3	212,926.3	337 217.6	3.0	7.9	10.9
1997	281,407.4	158 563.5	269,651.7	428 215.2	3.7	9.6	13.3
1998	293,745.4	178 097.8	309,015.6	487 113.4	4.3	11.4	15.7
1999	302,022.5	449 662.4	498,027.6	947 690.0	9.4	15.6	25.0
2000	310,890.1	461,600.0	239,450.9	701,050.9	6.7	5.2	11.9
2001	312,183.5	579,300.0	438,696.5	1,017,996.5	8.2	9.3	17.5
2002	329,176.7	696,800.0	321,378.1	1,018,178.1	10.9	4.6	15.5
2003	356,994.3	984,300.0	241,688.3	1,225988.3	9.7	2.4	12.1
2004	433,203.5	1,032,700.0	351,300.0	1,384,000.0	8.8	3.0	11.8
2005	477,533.0	1,223,700.0	519,500.0	1,743,200.0	8.2	3.5	11.7
2006	527,576.0	1,290,201.9	552,385.8	1,842,587.7	7.6	3.0	10.6
2007	561,931.4	1,589,270.0	759,323.0	1,348,593.0	7.0	3.6	10.6
2008	595,821.6	2,117,400.0	960,900.0	3,078,300.0	4.5	4.0	8.5
2009	634,251.1	2,127,970.0	1,152,800.0	3,280,780.0	3.4	1,8	5.2
2010	674,889.0	3,109,440.0	883,875.7	3,993,315.7	4.6	1.3	5.9
2011	718,980.0	3,314,440.0	918,546.5	4,232,986.5	4.6	1.3	5.9
2012	776,330.0	3,325,160.0	874,840.0	4,200,000.0	4.2	1.1	5.3
2013	834,000.0	3,689,070.8	1,108,390.0	4,797,460.8	4.4	1.3	6.7
2014	888,890.0	2,530,340.0	2,681,080.0	5,211,320.0	2.8	3.0	5.8
2015[1]	950,110.0	3,971,000.0	690,580.0	4,661,580.0	4.2	0.7	4.9

Source: CBN and NBS for various years

1/ Provisional and expressed in billion

Note:

(1) From 1992 to 1997 – Total Recurrent Expenditure included extra-budgetary expenditure

(2) From 1970 to 1985 – Total Recurrent Expenditure excluded statutory allocation to States

Partly as a consequence of the jerk-up in government expenditure and the inflow of foreign capital, inflation rate made for the ceiling. It is worthy to emphasise that for the past one and a half decade, the value of the naira (Nigeria's money bill) has continuously crashed against the other countries' currencies thereby exacerbating the interest payment crisis for the country. Inflation has been an evil which successive governments in Nigeria have sought to reduce or at least moderate. The rate of inflation in the economy has been fluctuating

since 1960 most of the time remaining above a single digit. It rose from 2.8% in 1960 to 54% in 1988 but fell slightly to 50.5% in 1989. In the early 1960s, particularly between 1964-1973, inflation hovered around a single digit sometimes less than unit. But in 1974, inflation in Nigeria for the first time rose to 13.58%. since then, it has remained in double digit save for 1982 (7.7%), 1985 (5.4%), and 1986 (5.7%). In recent past specifically 2013 and 2014, the inflation rate was 8.6% and 8.1% respectively. The implication of this is that there has been a general increase in the prices and costs of goods and services and of doing business by government. This increase has translated to the observed increase in the total government expenditure in Nigeria. It has over the review period made the cost of providing the same amount of social and public goods and services by government to rise tremendously.

Table 3: Some Variable Used in the Multiple Regression Analysis

Year	Total Govt Expenditure (NGN Million)	Real GDP (NGN Million)	Population	Per-Capita GDP (NGN Million)	Inflation	Urbanisation	Deb Servicing(NGN Million)
1960	144.5	2,247.4	51.6	43.6	2.8	3	N/A
1961	195.4	2,359.6	52.9	44.6	N/A	3	N/A
1962	178.4	2,489.0	54.3	45.84	5.01	3	48.70
1963	209.7	2,501.2	55.7	44.90	29.74	4	43.90
1964	261.5	2,597.6	57.0	45.57	.29	4	65.20
1965	273.3	2,825.6	58.5	48.30	.88	4	46.30
1966	295.2	2,947.6	60.6	48.64	2.49	4	62.90
1967	298.7	3,146.8	61.4	51.25	2.02	12	57.40
1968	338.0	3,044.8	63.0	48.33	2.44	12	240.60
1969	460.0	2,527.3	64.0	39.49	1.79	12	243.10
1970	903.9	2,543.8	66.2	38.43	1.75	12	514.50
1971	997.2	3,225.5	67.8	47.57	1.69	12	133.30
1972	1, 463.6	4,219.0	69.5	60.71	9.41	12	123.60
1973	1, 529.2	4,715.5	71.2	66.23	4.61	12	74.75
1974	2, 740.6	4,892.8	73.2	66.84	13.58	12	74.72
1975	5, 942.6	5310.0	75.0	70.80	33.93	12	108.62
1976	7, 856.7	15,919.7	76.0	209.47	21.10	19	920.46
1977	8, 823.8	27,172.0	78.6	345.70	21.48	19	134.05
1978	8, 000.0	29,146.5	80.6	361.62	13.30	19	309.23
1979	7, 406.7	31,520.3	82.6	381.60	11.85	19	229.45
1980	14, 968.5	29,212.4	84.7	344.89	10.00	19	256.95
1981	11, 413.7	29,948.0	75.7	395.61	20.80	19	1,027.41
1982	11, 923.2	31,546.8	77.7	406.01	7.70	19	1,167.17
1983	9, 636.5	205,222.1	79.7	2,574.93	23.20	19	1,007.08
1984	9, 927.6	199,685.3	81.8	2,441.14	17.80	19	1,235.32
1985	13, 041.1	185,598.1	83.9	2,212.13	7.40	19	1,606.05
1986	16, 223.7	183,561.0	86.1	2,131.95	5.70	19	1,631.59
1987	22, 018.7	201,036.3	88.4	2,274.17	11.30	21	3,928.95
1988	27, 749.5	205,971.4	90.8	2,268.41	54.50	21	9,238.70
1989	41, 028.3	204,806.5	93.2	2,197.49	50.50	21	13,273.70
1990	60, 268.2	219,875.6	95.6	2,299.95	7.40	21	39,545.10
1991	66, 584.4	236,729.6	98.1	2,413.15	13.00	30	46,014.40
1992	92, 797.4	267,550.0	100.6	2,659.54	44.60	30	65,777.30
1993	191, 228.9	265,379.1	103.1	2,574.00	57.20	30	75,296.60
1994	160, 893.2	271,365.5	105.8	2,564.89	57.00	30	49,400.32
1995	248, 768.1	274,833.3	108.4	2,535.36	72.80	30	51,058.40
1996	337, 217.6	275,450.6	111.2	2,477.07	29.30	30	53,047.50
1997	428, 215.2	281,407.4	114.0	2,468.49	8.50	36	68,539.74
1998	487, 113.4	293,745.4	116.0	2,532.29	10.00	36	64,394.53
1999	947, 690.0	302,022.5	119.8	2,521.06	6.60	36	30,843.38
2000	701,050.9	310,890.1	122.9	2,529.62	6.90	36	131,048.02
2001	1,017,996.5	312,183.5	126.0	2,477.65	18.90	36	155,416.22
2002	1,018,178.1	329,176.7	129.2	2,547.81	12.90	36	163,811.32
2003	1,225988.3	356,994.3	132.6	2,692.26	14.00	36	363,510.32
2004	1,384,000.0	433,203.5	136.0	3,185.32	15.00	36	382,509.94
2005	1,743,200.0	477,533.0	139.6	3,420.72	17.90	36	393,953.41
2006	1,842,587.7	527,576.0	143.3	3,681.62	8.20	36	415,362.78
2007	1,348,593.0	561,931.4	147.2	3,817.47	5.40	36	511,643.65
2008	3,078,300.0	595,821.6	151.1	3,943.23	11.60	36	240,141.20
2009	3,280,780.0	634,251.1	155.2	4,086.67	11.50	36	607,400.00
2010	3,993,315.7	674,889.0	159.4	4,233.93	13.70	36	1,185,550.00
2011	4,232,986.5	718,980.0	163.8	4,389.38	10.80	36	928,630.00
2012	4,200,000.0	776,330.0	168.2	4,615.52	12.20	36	975,750.00
2013	4,797,460.8	834,000.0	172.8	4,826.39	8.50	36	1,153,490.00
2014	5,211,320.0	888,890.0	177.5	5,007.83	8.10	36	750,740.00

Source: CBN and NBS for various years

Although urbanisation was not statistically significant in predicting government expenditure in Nigeria, this may have been due to the operationalisation issue as urbanisation was measured in terms of the number of

states that make up Nigerian geo-polity (see table 3). However, urbanisation is much more than just the number of states. The growth (or balkanisation) of Nigeria into several states from just three (3) regions in 1960 to four (4) regions in 1963, twelve (12) states in 1967, nineteen (19) states in 1976, twenty-one (21) states in 1987, 30 states in 1991 and 36 states as at today, has both positive and negative implications for the nation's expenditure profile. Urbanisation as not captured in the measure in this study refers to the increase in the number of states and state capitals to 36, 774 local government headquarters and several urban areas. These new states and local Government Headquarters brought with them pressure for provision of paraphernalia to befit the hitherto villages to wear a new look of state and local government headquarters. Each of these 774 local governments like their state and federal counterparts has legislative, judiciary and executive arms with their respective full complements of staff and other perquisites of office. These have implications for expenditure increase.

All these infrastructural facilities cost money which weigh heavily on the purse of the Federal Government on the aggregate. On the other hand, there are negative implications of urbanisation which include crime waves that go with city or urban life for which reasons government would find the need to beef-up security. The security system involves setting up of new police stations and outposts, courts, prisons, and increase in the number of personnel to man these structures. Since 1960, these security outfits to stem crimes have been on the increase and have more than doubled in line with the rate of increase in the number of states.

5.0. Conclusion and Recommendations

Results of the hypotheses testing reveal that per-capita GDP contributes significantly to increase in government expenditure in Nigeria. The per-capita GDP which has been used as proxy for the average income of the citizens tends to show that government income also increased over the review period. Therefore, we can conclude that increase in government income correspondingly led to an increase in citizens' income. Debt servicing showed a remarkable rise thus contributing greater increase in government total expenditure in Nigeria. Such debts were incurred through deficit budgeting among others. The orthodox economist believe that if government expenditures are financed through borrowing (whether domestic or external) , or financed by reserve draw-downs it may be expected to have a negative effect and so would lead to a rise in external liabilities and a leap-frog inflatinary growth trend on the economy. The effects of debt burden on the economy in terms of increase in the rate of debt servicing and principal repayments are negative on the promotion of rapid economic growth, creation of employment opportunities and diversification of the industrial base of the economy among others. If the borrowed money is used to finance productive ventures that will ensure and promote a sustained productivity and economic growth, the amount so invested (or borrowed) would in no time be repaid from the gains and profits made from such ventures. This is because the deficits used as the rate of special returns on the debts will be higher than the interest payable. But, if on the other hand such money is invested on consumer goods importation or **white-elephant projects** to score political points as has always been the case in Nigeria, the effects would be a pathetic trade deficit and would in addition be as mentioned earlier (above) . Also, if the increasing government expenditures are financed through money creation or from budget surplus as was the case during the oil-boom years in the 1970s, the economy is expected to blossom and enhance the promotion of equitable distribution of national wealth and income; creation of job or employment opportunities to absorb young school leavers and graduates of tertiary institutions without much ado. The financing of government expenditures was assessed from these perspectives because no government worth its salt would want to raise taxes to such a disincentive level as to make it unpopular and as to cause social and political anarchy and disaffection among its citizenry.

Inflation was found to have doubled within the review period. This explains why the last administration through the CBN embarked on certain monetary strategies that helped in bringing down the rate of inflation from 2010 to 2015. Inflationary growth rate arising also from deficit budgeting has a multiplier effect which could lead to the overthrow of any government. However, heretics would retort in parable that: "though ***they may not know who first discovered the seas, but they are purely sure it wasn't a fish*****".** This means that the entire economy is crammed full of latent inflation by infrastructural and institutional inadequacies as well as foreign exchange bottlenecks rather than entirely traced to deficit financing. Thus, the argument is that deficit financing which ordinarily should be good to the economy's health easily results in inflation because of the inherent bottles including supply rigidities in the form of infrastructural, institutional and foreign exchange constraints as evident in Nigeria today. Hence, it is advised that inflation should not be an excuse for cutting deficit financing as an argument predicated on the inverted ***Says' Law*** of 'increased demand' arising from the excess of expenditure over revenues which in turn results in increased aggregate supply.

Based on the outcome of this study, we recommend that that in as much as there is no harm in borrowing to finance budgets as long as such budgets are directed at ventures that have great productive and profit yielding capacities and potentialities, the Nigerian government should cut down or reduce its pervasive economic activities. But we do know that the result of an excellently administered deficit would be: enhanced structural harmony by which the economy's artificial supply ceiling will be removed and that if owing to favourable comparative production qualities or protective tariff regimes, incomes are spent on locally made goods and services, the

economy receives a boost which would lead to increase in output, income and employment. However, the call for a reduction in government pervasive economic activities is born out of the fact that the larger government activities in the economy becomes, the more it crowds—out private expenditures and activities. More so, government expenditures pose great dangers to monetary stability and price level - inflationary – as already discussed.

One cannot but recognise laudable efforts of the administration of President Goodluck Jonathan in this direction. The Jonathan administration took a bold step by privatising most of government owned institutions that became a draining pipe of the national resources. One of such privatised institutions is NEPA. It was indeed a follow up to the effort made as far back as 1986 in which the then government introduced the structural adjustment programme (SAP) where many of the hitherto wholly owned principal government owned companies and ventures were either wholly privatised or commercialised or both. These government enterprises sometime constituted unnecessarily high burden on government resources. This study recommends that government should diversify the economy from its mono-economy to other sources of income generation such as farming, extraction and exploration of the numerous solid mineral deposits in the country. Government must close the gap between the modern and traditional sectors by encouraging local sourcing of raw materials for our industries. This is even more pertinent now in view of the reckless and continual depreciation of the naira. Government must strengthen the naira and prevent it from further depreciation as no nation lives it local currency to the uncontrollable vagaries of the market.

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