

Government Expenditure and Economic Growth: An Empirical Analysis.

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ABSTRACT

This study examines on the impact of Government expenditure on the economic growth of Nigeria. The time frame covered by the study is 1981 to 2016 and the study makes use of data sourced from the Central Bank of Nigeria Statistical Bulletin and the National Bureau of Statistics database. The Ordinary Least Square method of econometric technique is used to achieve the objective of the study. The result shows that there is a significant relationship between Government expenditure and economic growth in Nigeria. The result also shows that there is a positive relationship between Real GDP and recurrent expenditure and a negative relationship between capital expenditure and real GDP. This shows that capital expenditure has been unproductive and this could be attributed to the highly level of corruption in the country. Finally, the study recommends that Government should ensure that the capital and recurrent expenditures are properly managed in a manner that will enhance the nation's growth.

Keywords: GDP, expenditure, economic growth, Nigeria, development and government.

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1. INTRODUCTION

Government expenditure no doubt is an important instrument for a government to control the economy of a nation. Government have been playing serious role for most economic of the world, government usually intervenes in most economy to achieve macro-economic goals, price stability, creation of employment, achieve industrialization and maintain a reasonable level of economic growth. Economists have been well aware of the effects in promoting economic growth anyway, the general view is that government expenditure notably on social-economic, physical and economic infrastructure can be growth enhancing although the financing of such expenditure to provide essential infrastructural facilities including transport, electricity, telecommunication, water and sanitation, waste disposal, education and health can be growth retarding (Olukayode 2009). Similarly, expenditure on infrastructure such as road, power, etc. reduces production costs, increase private sector investment and profitability of firms, thus ensuring economic growth (Barro, 2010; Barro and Sali-i-Martin, 2010; Roux, 2004, Okojie 2016, Morisson and Schwatz 2016).

Nowadays, some scholars have argued that increase in government expenditure can be an effective tool to stimulate aggregate demand for a stagnant economy and to bring about crowd-in-effects on private sector. Relationship between government expenditure and economic growth has continues to generate sense or controversies among scholars in economic literature (Inuwa, 2012). As a matter of fact, while some author or researcher believed that the impact of government expenditure on economic growth is negative or non-significant (Tuban, 2010), others believed that the impact is positive and significant (Alexiou, 2015). The Structure of Nigeria Government Expenditure can be categorized into two (2); Capital Expenditure and Recurrent Expenditure (Muritala 2011). The recurrent expenditure is basically government expenses on administration such as wages, salaries, interest on loans, maintenance cost, etc. However, the expenses on capital project like roads, airports, education, telecommunication, electricity, generator, etc. are generally referred to as capital expenditure (Muritala 2011, Oni 2014).

Despite the rise in government expenditure in Nigeria over these years, there are still possible hullabaloo over decaying infrastructural facilities. Also, merely few empirical studies have taken holistic examination of the effects of government expenditure on economic growth regardless of its importance for policy decisions. Ironically, the effect of government expenditure in Nigeria in relation to the economic growth is still a puzzle and an unresolved issue. Indeed theoretically, it is an unresolved sequel. Although the theoretically positions on the subject are quite diverse, the conventional wisdom is that or spending is a source of economic instability or stagnation. Empirical research does not conclusively support the conventional wisdom, a few studies report position and significant negative or no relation between an increase in government spending and growth is real output.

It is against the backdrop, the study is undertaken to empirically evaluate the impact of government expenditure on economic growth in Nigeria. The main research question is there any relationship between government recurrent expenditure and Nigeria economic growth? The objective of this paper is therefore to show if there is any relationship between government expenditure and economic growth.

2. LITERATURE REVIEW

2.1 Empirical Literature Review

According to Udoffia and Godson (2016), investigated the impact of Federal Government Expenditure on the Nigeria Economic Growth. The study adopted Ordinary Least Square (OLS) estimation techniques to estimate the model using time series data for the period of 1981-2014. The result showed positive effect on real GDP. A study carried out by Gylch and Muhammad (2016), examined the impact of Government Expenditure on Economic Growth in Nigeria using time series data spanning 1981 - 2012 and OLS techniques were adopted. It was found that government expenditure has a positive and significant impact on economic growth.

Ebong, Ogwumike, Udongwo and Ayodele (2016) examined the impact of government capital expenditure on economic growth in Nigeria during 1970 and 2012. A multiple regression model based on a modified endogenous growth framework was utilized to capture the interrelationship among capital expenditures on agricultural, education, health economic infrastructure and economic growth. The finding was positive and statistically significant at 5%. Chude and Chude (2013) investigated the impact of Government Expenditure on Economic Growth in Nigeria over a period of 1977 to 2012, with particular focus on disaggregated and sectoral expenditure analysis. The study used ex-post facto research design and time series econometrics technique to examine the long and short run effects on public expenditure on economic growth in Nigeria.

Oni and Ozemhoka (2014) assessed the impact of public expenditure on the growth of Nigeria Economy between 1981-2011 and Ordinary Least Square (OLS) method of econometric analysis indicated a positive relationship between the dependent and independent variables. Furthermore, Okoro (2013) carried out a research on Government spending and Economic Growth in Nigeria using time series data covering 1980-2011. The study employed the Ordinary Least Square (OLS) multiple regression analysis to estimate the model specified. The result shows that there exists a long-run equilibrium between government spending and economic growth. Agbonkhese and Asekhome, (2014) applying OLS method of econometric technique, assessed the impact of public expenditure, credit to the economy, private capital formation, and exchange rate and lagged values of GDP on current Gross Domestic Product. The result of their assessment showed that with the exception of exchange rate (which had a negative impact on GDP) other explanatory variables have a positive impact on Gross Domestic Product.

Emenini and Okezie (2014) analyzed the relationship between Nigeria's total government expenditure and economic growth from 1980 to 2012. Their analysis showed a co-integration between GDP and total government expenditure. According to them, the speed of adjustment to equilibrium is 44 per cent within a year when the variables wander away from their equilibrium values.

2.2 Theoretical Reviews

Basic theories that have been used to support the impacts of government expenditure on economic growth are:

a. The keynesian theory

Of all economists who discussed on the relation between government expenditure and economic growth, Keynes was among the most noted with his apparently contrasting viewpoint, on this relation Keynes regards government expenditure as an exogenous factor which can be utilized as a policy instrument to promote economic growth. From the Keynesian thought, government expenditure can contribute positively to economic growth. Hence, an increase in the government consumption is likely to lead to an increase in employment, profitability and investment through multiplier effects on aggregate demand. As a result, government expenditure augments the aggregate demand, which provokes an increased output depending on expenditure multipliers.

b. Musgrave theory of government expenditure growth

This theory was propounded by Musgrave as he found changes in the income elasticity of demand for government services in three ranges per capita income. He posits that as low levels of per capita income, demand for government services tends to be very low, this is so because according to him such income is devoted to satisfy primary needs and that when per capita income starts above these levels of low income, the demand for service supplied by government to increase expenditure on them. He observes that the high levels of per capita income, typical of developed economies; the rate of growth in public sector tends to fall as the more basic wants are being satisfied.

c. The wagner's law / theory of increasing state activities

Wagner's Law is a principle named after the German economist Adolph Wagner (1835 - 1917). Wagner advanced his law of rising government expenditure by analyzing trends in the growth of government expenditure and in the size of public sector. Wagner's law postulates that:

- i. Extension of the functions of the state leads to an increase in government expenditure on administration and regulations.
- ii. The development of modern industrial society would and call for increasing political pressure for social consideration in the conduct of industry.

- iii. The rise in expenditure will be more than proportional increase in the national income (income elastic wants) and will thus result in a relative expansion of the public sector. Musgrave (1988).

Musgrave and Musgrave (1998), in support of Wagner's law, opined that as progressive nation's industrialization, the share of the public sector in the national economy grows continually.

d. The endogenous growth theory

The basic improvement of endogenous growth theory over the previous model is that it explicitly tries to model technology (that is, looks into the determinants of technology) rather than assuming it to be exogenous. Mostly, economic growth comes from technological progress, which is essentially the ability of an economic organization to utilize its productive resources more effectively over time. Much of this ability comes from the prices of learning to operate newly created production facilities in a more productive way or more generally from learning to with rapid changes in the structure of production which industrial progress must imply (Verbeck, 2016).

2.3 Determinants Of Government Expenditure

The factors adduced for the growth in government expenditure overtime are discussed below:

1. Inflation

Inflation is a sharp and persistent rise in the general price of goods and services characterized by prevalent increases in the prices generally and not just a temporary fluctuation (Patience and Augustine, 2008). It is one of the most control macroeconomic problems facing most countries of the world especially the underdeveloped and developing countries. Some of the adverse effects include decreasing of purchasing power of the country's currency, unemployment and uneven distribution of income. (Ezirion and Ofurum, 2013)

2. Public debt

Public Debt is the act of borrowing creates debt (Anyanwu 2012). Debt therefore, refers to the resources the money in use in an organization which is not contributed by its owners and does not in any other way belong to them (Oyejide et al, 1985). Public debt on its own is not the problem but servicing, this debt is what poses a challenge and increase government expenditure overtime. Once incurred, debt must be serviced through the payment of interest charges, and amortization charges as at when due (Anyanwu, 2012). When the governments incur a larger debt through continual net borrowing, the interest charged on the public debt naturally grow, provided that the interest rate is not falling. This leads to a subsequent increase in government expenditure.

3. Tax

Tax as a compulsory levy. It is a liability imposed upon the masses that may be individuals or other legal entities (Oriakhi, 2014). The fund gotten from this levy is what is termed as "tax revenue". The primary objective of taxation is to raise revenue for the government to sponsor the provision of essentials services for the people. Also "Abeng (2012) in his study revealed that tax revenue is highly significant indicating the strong impact it has on government's expenditure. According to him, a percentage increase in government tax revenue could potentially expand government expenditure by as much as 29%. This result accelerate "Peacock and Wiseman (1961)" hypothesis of government inherent tendency to spend once revenue is available and rightly mirrors the expenditure behavior of the Nigerian economy.

4. Population

Population i.e. change in population growth, according to Musgrave and Musgrave (2010) generate change in age distribution and this trend is reflected in expenditure for education as well as care for the aged. Population growth of a nation is a major and dominant contributing factor to the growth of expenditure as government policies are geared towards narrowing, as much as possible, the gap between social and economic services with population growth. The provision of schools, hospital and other social amenities necessary has to grow with population. The result of Abeng (2015) research also indicates that in Nigeria, demographic factor (i.e. population) is an important determinant of government expenditure growth exerting a direct, strong positive and significant relationship with the level of government expenditure.

3. METHOD OF DATA ANALYSIS

This paper employs the trend and descriptive analysis in examining the impact of Government Expenditure on Economic Growth in Nigeria with the use of E-views Statistical package.

3.1 Sources of data

Data for this study were obtained mainly from secondary sources, particularly from Central Bank of Nigeria (CBN) statistical Bulletin and National Bureau of Statistics annual report for various years. The data covers the period 1981-2016.

3.2 Model specification

In an attempt to capture our essence of this study, and based on previous studies; the real gross domestic product (RGDP), government recurrent expenditure (GREXP), government capital expenditure (GCEXP) were used to formulate our model. Thus, the model is represented in a functional form shown below:

$$RGDP = F(GCEXP, GREXP) \dots \dots \dots \text{eqn. (1)}$$

Where

- RGDP = Real Gross Domestic Product (Dependent Variables)
- GREXP = Government Recurrent Expenditure (Independent Variables)
- GCEXP = Government Capital Expenditure (Independent Variables)

In a linear function, it is represented as follows:

$$RGDP = \beta_0 + \beta_1 GCEXP + \beta_2 GREXP + U_t \dots \dots \dots \text{eqn. (2)}$$

Where

- β_0 = Constant Term
- β_1 = Regression Coefficient of GCEXP
- β_2 = Regression Coefficient of GREXP and
- U_t = error term

For usual statistics reasons the above model will be transformed into log linear model as specified below:

$$LRGDP = \beta_0 + \beta_1 LGCEXP + \beta_2 LGREXP + U_t \dots \dots \dots \text{eqn (3)}$$

4. RESULT

4.1 Regression Result

Dependent Variable: RGDP

Sample: 1981 2016

Included observations: 36

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RECEX	0.377945	0.050055	7.550591	0.0000
CAPEX	-0.193638	0.058816	-3.292252	0.0024
C	3.962550	0.030932	128.1041	0.0000
R-squared	0.916609	Mean dependent var		4.438630
Adjusted R-squared	0.911555	S.D. dependent var		0.232558
S.E. of regression	0.069162	Akaike info criterion		-2.425070
Sum squared resid	0.157852	Schwarz criterion		-2.293110
Log likelihood	46.65125	Hannan-Quinn criter.		-2.379012
F-statistic	181.3623			
Prob(F-statistic)	0.000000			

Source: Author's Computation, underlying data from Central Bank of Nigeria's Statistical Bulletin and National Bureau of Statistics (NBS), 2016.

4.1 Regression Analysis

The study investigates the relationship between real gross domestic product (RGDP) and government expenditure indicators (Recurrent and Capital Expenditure) and the result is presented in regression result above. From the result, the overall probability (F-statistics) is 0.000 which is less than 0.05 rightly explains the significance of the selected government expenditure indicators on economic growth in Nigeria. The R-square value (0.917) indicates that the independent variables (recurrent and capital expenditure) explain about 91.7% variations in RGDP. In terms of the significance of the individual variables, it was observed that the two (2) variables exhibit significant relationship with economic growth indicator (Real Gross Domestic Product) at 1% level of significance. Specifically, the significant relationship between RECEX and RGDP is positive. This implies that RECEX tends to improve the RGDP of Nigeria by 37.8% given 1 percent increase in its value. On the contrary, the significant relationship that exists between CAPEX and RGDP is negative and this means that CAPEX dampens the RGDP of the country within the period under review. This also means that 1 percent increase in CAPEX will lead to about 19.4% decrease in GDP. On the whole, the result indicates that government expenditure significantly influences economic growth in Nigeria during the period of the study.

5. CONCLUSION

This study emphasized on the issue of government expenditure and its impact on Nigeria' economic growth for the period 1981- 2016. The Ordinary Least Square method of econometric technique was used to achieve the objective of the study. From the result, it is clear that there is a significant relationship between Government expenditure and economic growth in Nigeria. The result also shows that there is a positive relationship between Real GDP and recurrent expenditure and a negative relationship between capital expenditure and real GDP. This shows that capital expenditure has been unproductive and this could be attributed to the highly level of corruption in the country.

On the whole, the study concludes that Government expenditure has a significant impact on the economic growth of Nigeria.

6. RECOMMENDATION

Based on the findings, the following recommendations are significantly suggested:

- ❖ Government should ensure that capital expenditure and recurrent expenditure are properly managed in a manner that will enhance the nation's production capacity.
- ❖ Government should direct its expenditure towards the productive sectors like education, as it would reduce the cost of doing business as well as raise the standard of living of poor ones in the country.
- ❖ Government capital expenses and intervention in industries and sectors like mining, agriculture etc., if properly managed will raise the production capacity and reduce the level of unemployment which in turn will increase economic growth in Nigeria.
- ❖ Government should increase its expenditure on rural roads and electricity as it will accelerate the productive sectors.
- ❖ Government should ensure there is good security of life, product and services, for wellbeing of the citizen which will attract the foreign investors.
- ❖ Government should moderate tax, which attract more foreign investors that will in turn to increase in production and increase in economic growth of Nigeria.
- ❖ Anti-graft or anti-corruption agencies like Economic and Financial Crime Commission (EFCC), and Independent Corrupt Practices Commission (ICPC), they should be practically independent to enable them to be more forceful in their actions.
- ❖ Those who direct and embezzle public funds should be treated as terrorists

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