

Government Expenditure and Its Implications on Nigerian Economy

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Abstract: *Government expenditure and its implications on the Nigerian economy has been examined. The study's specific objectives were to examine the effect of recurrent expenditure on the growth of Nigeria economy and to examine the link between capital expenditure and the growth of Nigeria economy. In line with these objectives, secondary data were sourced from the CBN statistical bulletin and other relevant publication using the desk survey method. The exploratory and ex-post facto designs were used for the study. The data collected were analyzed using the ordinary least square multiple regression technique. Findings from the analysis revealed that recurrent expenditure had a significant relationship on the growth and development of Nigeria economy; capital expenditure had a significant effect on the growth and development of Nigeria economy and finally, aggregate expenditure had a positive impact on the growth of Nigerian economy. On the basis of these findings, it was recommended that government should spend more on security as this will promote investment; also, government should increase its expenditure on economic services such as agriculture, construction, transport, communication, electricity and other economic services and finally, government should increase its spending on transfers such as pensions, gratuities, bursaries and grants etc.*

Keywords: *Public expenditure, economic growth, economic development, recurrent expenditure and Capital expenditure*

I. Introduction

Public expenditure plays an important role in physical and human capital formation over time. Government performs two functions namely: protection and provision of certain goods (Abdullah, 2010) and Fasta, Hagen, Hughes, Siebert and Strauch (2003). Protection function consists of the creation of the rule of law and enforcement of property rights which help minimize risk of criminality and external aggression. Under the provision of public goods are health, education, power, agriculture, transportation etc. Many political philosophers like Hobbes and Locke considered the hypothetical disadvantages of life without government Devarjan, Swaroop and Zou (2006).

The ideal size of government is not the problem of the economic theory. But, economic theory tells us to examine cost and benefit in order to determine whether resources are allocated in a manner that increase or decrease economic growth. The basic economic policy of the good society is public expenditure in line with future economic growth and well being. For example, expenditure on health and education raises the productivity of labour and increase the growth of national output. Similarly, expenditure on infrastructure such as roads, Communication, power reduces productions cost and increases private sector investment and profitability of firms thus fostering economic growth. Supporting this view, Scholars such as Abdullah(2010) and Cooray (2009) concluded that expansion of government expenditure contribute positively to economic growth.

In the Nigerian context for instance, the public sector consists of the Federal, state and local government enterprises. Some government financial operations remain entirely outside the budget and are funded by extra budgetary accounts. Therefore, the effects of expenditure on economic growth may be a comprehensive indicator of public productivity. However, governments have always been very careful in planning her expenditures by means of government budgets and National income.

The central problem of this study is how effective public expenditure have been in the areas of promoting sustainable economic growth in Nigeria and how it can be used as a tool to control policy inconsistency and wasteful spending of the government. The researcher is of the view that education is meaningless if the acquired knowledge cannot be used to solve some problems in areas for which the knowledge was acquired. Knowledge of the effect of public expenditure on economic growth of Nigeria without being able to apply it in the solutions of related problem is meaningless and poses a problem.

Government in their different economic activities and policy formulations whether short term or long term usually encounters some problems which needs to be solved. Without solving these problems, government might not be able to formulate and implement of policies which is capable to put the economy along the path of sustainable economic growth and development. Knowledge of the effects of public expenditure on economic

growth and the application of this knowledge in the solutions of some problems encountered by different policy makers in their short term or long term economic activities with a view of arriving at a specific and active policy is a problem which this study will attempt to address.

1.3 Objective of the study

This research is designed to determine what public expenditure is and its effectiveness in promoting economic growth in Nigeria. Particularly, the study is expected to achieve the following objectives:

1. To examine the effect of recurrent expenditure on the growth of Nigeria economy;
2. To examine the link between capital expenditure and the growth of Nigeria economy.

1.5 Research hypotheses

The following hypotheses are formulated in line with the objectives of the study.

H01: There is no significant relationship between recurrent expenditure and growth of Nigeria Economy;

H02: There is no significant relationship between capital expenditure and the growth of Nigeria economy.

In order to achieve the above objectives, this paper is divided into five different sections. Section one is the introduction. It captures key elements relating to public expenditure and the growth of the Nigerian economy. Section two is on theories underlying public expenditure and economy growth and literature review. Section three covers research methodology. Section four focuses on data presentation, analysis and discussion of findings relating to this study. Section five is on summary, conclusion and recommendations emerging from the study.

II. Theoretical Framework and Literature Review

Wagner's law of increasing activities

Wagner's law stated that as per capita income of an economy grows, there will be increase in the number of urban centres with the associated social vices such as crime which requires the intervention of the government to maintain law and order and these interventions by the government have lots of implications leading to an increase in government expenditure. As held by Wagner (1935), there are inherent tendencies for the activities of different layers of a government (such as central and state governments) to increase both intensively and extensively. There is a functional relationship between the growths of an economy and expenditure. From the original version of this theory, it is not clear whether Wagner was referring to an increase in: Absolute level of public expenditure; the ratio of government expenditure to GNP and proportion of public sector in the total economy.

Nature and concept of public expenditure

Public expenditure denotes the dispensation of the state on non-market criteria of economic resources that has acquired from firms and households. However, the detail is highly complex because the modern state is such a difficult concept to analyze. Consequently care is always required in the interpretation of public expenditure figures, particularly when these become the subject of heated political debate (Onyinlola, 2013).

In public expenditure statistics, classification decisions follow the advice of the office for National Statistics and apply the rules of the European System of accounts. The reported size of public expenditure can also be affected by the treatment of fees and charges. Public expenditure can be expressed on a gross or net basis where charges are very small relative to total expenditure (for example in the National Health Service (NHS)) where the effect is minimal.

The interpretation of public expenditure data can be complicated by factors external to public expenditure definitions. A government might reduce the reported level of public expenditure by confiscating resources for example by means of military conscription with pay below market wages or by seizing privately owned land for road construction with compensation set below market values (Ukwu, 2002).

However, at any given level of public expenditure, there are important choices between policy instruments that lead to exhaustive public expenditure and those that involve transfers. We must note here that, disequilibrium between demand and supply typically manifests itself in balance of payments problems, rising inflation and low output and growth. Such public expenditures seek to achieve an orderly adjustment, preferably the early adoption of corrective policy measures and the provision of appropriate amounts of external financing.

According to Olugbenga and Owoye (2007) and Ezirim and Ofurum (2003), public expenditure is usually categorized into recurrent and capital expenditure. These are further broken down into their compositions. For instance, recurrent expenditure is composed of administration/defence, general administration, internal security, economic services (agriculture, construction, transportation and communication and others) social and community services such as education, health and others.

In the same vein, capital expenditure is composed of general administration, defence, internal security, agriculture and natural resources, manufacturing, mining and quarrying, special projects etc.

The benefits flowing tend to be limited to the year in which the expenditure is incurred. The recurrent expenditure serves the following purposes: determining income and planning, authorizing future expenditure, providing the basis for controlling income and expenditure, setting a standard for evaluating performance, motivating managers and employees and coordinating the activities of multi-purpose organizations as pointed out by Maku (2009) and Linchih, Hsu and Younis (2008).

The benefits that result from this type of expenditure extends beyond the year of payment for example, the cost of building a new school, construction of new roads, setting up a new water project etc.

According to Gregorious and Ghosh (2007) capital expenditure is a plan for acquiring and maintaining long term assets. It is also a means of providing the means of financing these activities. Typically, the capital expenditure includes some of the followings: new infrastructural facilities, major renovations and repairs to existing facilities. It is pertinent to state here that capital expenditure confers benefits for several years.

III. The Effects of Public Expenditure

Public expenditure has far reaching effects on production, employment and distribution in a country. According to Dalton (1999), production and employment in the country depends on three factors: ability of the people to work, save, and invest; willingness to work, save and invest; and diversion of economic resources as between different uses and localities.

Public expenditures by increasing social welfare help in reducing inequalities of income and wealth. According to Dalton (2005) it is only progressive expenditure that tends to reduce inequalities. A progressive expenditure is one when a person with lower income receives larger benefits as compared to a person with higher income. Public expenditure for purpose of income distribution is of two types: transfer expenditure and exhaustive expenditure. In the case of transfer expenditure, low groups are given cash benefits in the form of employment, sickness, disablement, dependants and maternity benefits and old age pensions. All such expenditure by the state helps the poor and middle income groups in raising their income indirectly.

Increase in public expenditure tends to raise national income and economic stabilization. An increase in public expenditure during deflation increases the aggregate demand for goods and services and leads to a large increase in income via the multiplier process. It has the effect of raising disposable income, thereby increasing consumption and investment expenditures of the people. The public expenditure include expenditure on such public works as roads, canals, dams, parks, schools, hospitals and other building and on such relief measures as unemployment insurance, pensions etc.

IV. Public Expenditure and Economic Growth

Economic growth represents the expansion of a country's potential GDP or output. For instance, if the social rate of return on investment exceeds the private the return, then expenditure policies can raise the growth rate and levels utility. Economic growth has provided insight into why state growth at different rates over years; and this influence government in her choice of tax rates and expenditure levels that will influence the growth rates.

One way in which public expenditure is expected to affect the pace of economic growth is the will or capacity of the people to work, save and invest. In this connection, the exact effect depends largely upon the precise form and magnitude of public expenditure as seen in the context of accompanying circumstances. Now, when public expenditure is incurred, by itself it may be directed to particular investments or may be able to bring reallocation of the investible resources in the private sector of the economy.

An important way in which public expenditure can accelerate the pace of economic growth is by narrowing down the difference between social and private marginal productivity of certain investments. Here public expenditures can be used to provide subsidies for those investments which are commercially non-viable but which are very helpful for economic growth. Such a system of subsidies for example may be for agricultural inputs, if agricultural production is to be stimulated or for investment in backward area to reduce regional disparities and unemployment. Subsidies can also be used to promote import substitution and at the same time, to keep prices of necessary imports of capital goods etc. As far as savings are concerned, it may be presumed that public expenditure would be designed in such a way as to increase the overall savings in the country, though of course not necessarily (Rotimi, 2005).

Some public expenditure may be in the form of education, various social services and so on in which case it will lead to an increase in consumption rather than savings. On the other hand, public expenditure helps the people in attaining higher efficiency and productivity, their capacity to work and save increases. But above all, we must recognize the lead which public expenditure, if used in a judicious way and with a purpose can give to the economy. It has the capacity to open up vast opportunities and it can create an awakening and desire in the mind of the people to improve their lot.

V. Research Methodology

The study employs the exploratory and ex-post facto designs. While the exploratory design guided the collection of data from text books, journals, articles, and other relevant for hypotheses formulation, the ex-post facto design was used because the events under study had already taken place and cannot be controlled.

The study predominantly used secondary source of data. These data were time series data collected using the desk survey approach from text books, journals, internet, CBN statistical bulletin and other relevant government publications. The study covers the period from 1980 to 2012.

VI. Techniques Of Data Analysis And Model Specification

Ordinary least square of multiple regression techniques was used in analyzing the relationship between dependent variable and independent variables

In order to test the hypothesis, the variables shall be built into a functional relationship.

$$GDP = F (REC, CAP)$$

Where:

- GDP = Gross Domestic Product
- REC = Recurrent expenditures
- CAP = Capital expenditure

The variables are expressed as

$$GDP = b_0 + b_1RE + b_2CAP + U_t$$

Where:

- GDP = Dependent variable
- b_0 = Regression constant
- b_1 - b_2 = Regression parameters
- u = Stochastic error term.

VII. Estimation and Validation

The ordinary least square (OLS) estimation techniques used in the study is only valid as an efficient estimator based on the Gauss-market theory which states that OLS is the best linear Estimator (BLUE) of all the unbiased and linear estimators. If:

1. I_1 is a random real variable i.e the value at which the error term I_1 may assume in any one period, depends on chances. It may be positive, negative or zero
2. The random terms of different observations ($I_1 \dots I_3$) are independent.

VIII. Data Analysis and Discussion of Finding

Analysis of data

The regression results of the effect of public expenditure on the growth and development of the Nigeria economy (1980-2012).

TABLE 4.2
(Regression result)

Dependent variable: GDP

Variable	Coefficient	Std.error	t-stat	Prob.
C	2.080533	7.762449	0.268025	0.7917
LCESCS	0.251125	3.268551	0.076831*	0.0000
LRESCS	0.264518	0.275260	0.960976	0.8376
LCEAD	0.709781	0.234384	3.028289*	0.00071
LREAD	1.775880	1.547535	1.147554	0.2662
LCEES	0.338534	0.046223	7.323976*	0.0000
LREES	1.92E-08	9.25E-08	0.207974*	0.0000
LCETRANS	5.33E-06	1.97E-06	2.70222*	0.0146
LRETRANS	3.308403	1.811856	1.825975****	0.0866

$R^2 = 0.967376$
 $R^2(\text{adj}) = 0.961938$
 SER = 0.288026
 DW = 1.744505
 f-stat = 116.8394

*significant at 1% level, *** significant at 105 level

The coefficient of multiple determination (R^2) is 0.967376 and on adjusted R^2 of 0.961938. The later indicates that 96 percent of variations in the observed behaviour of GDP is jointly explained by the independent variables namely; CESCO, RESCO, CEAD, READ, CEES, REES, CETRANS, RETRANS. This shows that the model fits the data well and has a tight fit. Also, the f-statistic is used to test for the significance of such good or tight fit. The model reports on effectively high f-statistic value of 116.8394 which when compared with the table value. This indicates that the high adjusted R^2 value is better than would have occurred by chance; therefore the model is statistically robust.

Using this criterion, therefore, CESCO, RESCO, CEAD, READ, CEES, REES, CETRANS, and RETRANS are significant at 1 percent and 10 percent specifically a 1 percent increase in all the explanatory variables will prop up the economy more than proportionate percentage point. The constant term indicates that if all the variables held constant, the economy will be improved by 2.080. The DW statistic (1.744) is used to test for the serial correlation in the residuals of the model. The calculated DW is 1.74. The $du = 1.66$, $4-du = 2.34$, $dl = 2.88$ at 5 percent level. The decision rule is that if the calculated DW falls outside du and $4-du$ (1.66 and 2.34) then there is a serial correlation in the residuals. This shows that our calculated $DW=1.272$ falls and this indicates that the estimates should be taken with caution. The goodness of fit of the model as indicated by the adjusted R-squared shows a good fit of the model that the model fits the data well.

To test for the individual statistical significant of the parameters, the t-statistic of the respective variables were considered considering their probability values, computer software shows the constant term is positive while independent variables are statistically significant at 1 percent and 10 percent level. The prior expectations about the signs of the parameter estimates are confirmation to economic theory.

Test Of Hypotheses

In order to test the already stated hypotheses, the following decision rule is stated:

Decision rule

The decision rule is to reject the null hypothesis if the f-calculated is $>$ f-critical and accept the null hypothesis if the f-calculated $<$ f-critical.

Hypothesis One

Results

F-calculated = 116.8394

F-critical (N-K) (K-1) = 2.36

Based on these results and our decision rule the null hypothesis is rejected and alternate hypothesis is upheld. It is concluded that there is a significant relationship between government expenditure and the growth of Nigeria economy (GDP).

IX. Discussion Of Findings

The study portrays the effect of public in expenditure on the growth and development of the Nigeria economy (1980-2012). From the results of our hypotheses as stated above, government expenditure (capital and Recurrent) had a significant impact on the growth and development of Nigeria economy. This means that the effectiveness of the economy is dependent on the contributions of public expenditure. All the incorporated variables such as CESCO, RESCO, CEAD, READ, CEES, REES, CETRANS and RETRANS had a positive impact on the performance of Nigeria economy and were determinants of economic growth using GDP as a proxy.

The result shows in the second equation revealed that recurrent expenditure had a positive impact on the growth of Nigeria economy. Also, recurrent expenditure was statistically significant to the growth and development of Nigeria economy.

Given the empirical results of the model, the study revealed that capital expenditure contributed positively to the growth of Nigeria economy. Moreso, these results are in the conformity with economic theory that states a rise in an independent variables lead to a rise in the dependent variable.

As an addendum, this study is in conformity with Wagner law which states that the growth of an economy is accompanied by an increase in the share of public expenditure. The finding is theoretically based on how public expenditure tends to increase the growth of Nigeria economy.

X. Summary of Findings, Conclusion and Recommendation

Summary of findings

This research work carried out to assess the effect of public expenditure on the growth and development of the Nigeria economy. In order to validate the work; theoretical and empirical literature relevant

to our study were reviewed. At the empirical level, ordinary least square (OLS) was adopted to examine the performance of variables on Nigeria economy.

1. Recurrent expenditure had a significant relationship on the growth and development of Nigeria economy.
2. Capital expenditure had a significant effect on the growth and development of Nigeria economy.
3. Aggregate expenditure had a positive impact on the growth of Nigerian economy.

XI. Conclusion

The study has established that public expenditure in the Nigeria economy increase the level of output. It is a variable option which is often to bring about income and employment stability in an economy. The results showed that both capital and recurrent expenditure have positive and significant impact on economic growth. The estimated results revealed that public expenditure is incurred by the government for maintaining itself and the economy as a whole.

XII. Recommendation

The following recommendations are proffered:

1. The government should spend more on security as this will promote investment.
2. Government should increase its expenditure on economic services such as agriculture, construction, transport, communication, electricity and other economic services.
3. Government should increase its spending on transfers such as pensions, gratuities, bursaries and grants etc.

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