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Full Length Research Paper

How Government Expenditure Effects On Economic Growth In Nigeria

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Abstract

This research work Centers on the impact of Government Expenditure on Economic Growth in Nigeria. Given that Government Expenditure is at the core of economic stabilization, it is important to examine carefully how it influences the economic growth so that it would be in consonance with other macroeconomic objectives. Gross domestic product (GDP) was regressed on the Aggregate Government expenditure, interest rate and Money Supply in Nigeria for the period of 1986 – 2011. The analytical tools of analysis were used in analyzing the data collected, and the model used is multiple regression models. From the result, it is clear that Government Expenditure has a negative and insignificant impact on the economic growth of a country, despite the fact that the overall model performance is good as shown by the R – Square and F - test. It has been shown in the cause of the research through the review of empirical literature as well as the regression results that economic growth in the Nigerian economy is basically a fiscal policy phenomenon, as generally held. Consequently, based on findings from the research, the Government should pay priority attention to economic services in terms of the functional classification of its expenditure. Government Expenditure should be adequately monitored and further studies should be conducted to investigate other influences on the economic growth of Nigeria which would aid fiscal policy making and implementation.

Keywords: Fiscal policy, economy, expenditure, research.

INTRODUCTION

Background of the Study

Over the past decades, the public sector spending has been increasing in geometric terms through government various activities and interactions with its Ministries, Departments and Agencies (MDA's). Although, the general view is that Government expenditure either recurrent or capital expenditure, notably in social and economic infrastructure can be growth-enhancing, the financing of such expenditure to provide essential infrastructural facilities government, including transport, telecommunications, water, electricity and sanitation, waste disposal, education and health-can be growth-retarding (for example, the negative effect associated with taxation and excessive debt). The size and

structure of government expenditure will determine the pattern and form of growth in output of the economy (Taiwo, and Abayomi, 2011).

The structure of Nigerian government expenditure can broadly be categorized into capital and recurrent expenditure. The recurrent expenditure is government expenses of administration, such as wages, salaries, interest on loans, maintenance, etc., whereas expenses on capital projects like roads, airports, education, telecommunication, electricity generation etc., are referred to as capital expenditure. One of the main purposes of government spending is to provide infrastructural facilities (Taiwo and Abayomi, 2011).

Nurudeen and Usman (2010), added that, in Nigeria, government expenditure has continued to rise due to

the huge receipts from production and sales of crude oil, and the increased demand for public (utilities) goods like roads, communication, power, education and health. Besides, there is increasing need to provide both internal and external security for the people and the nation (Jelilov, 2015). Available statistics, according to Nurudeen and Usman (2010) show that total government expenditure (capital and recurrent) and its components have continued to rise in the last three decades. For instance, government total recurrent expenditure increased from N3,819.20 million in 1977 to N4,805.20 million in 1980 and further to N36,219.60 million in 1990. Recurrent expenditure was N461,600.00 million and N1,89,270.00 million in 2000 and 2007, respectively. In the same manner, composition of government recurrent expenditure shows that expenditure on defense, internal security, education, health, agriculture, construction, and transport and communication increased during the period under review (Jelilov, Gylych; Waziri, Fadimatu; Isik, Abdurahman, 2016). Moreover, government capital expenditure rose from N5,004.60 million in 1977 to N10,163.40 million in 1980 and further to N24,048.60 million in 1990. The value of capital expenditure stood at N239,450.90 million and N759,323.00 million in 2000 and 2007, respectively. Furthermore, the various components of capital expenditure (that is, defense, agriculture, transport and communication, education and health) also show a rising trend between 1977 and 2007.

Some scholars have argued that an increase in government spending can be an effective tool to stimulate aggregate demand for a stagnant economy and to bring about crowd-in effects on the private sector. According to Keynesian view, the government could reverse economic downturns by borrowing money from the private sector and then returning the money to the private sector through various spending programs (Jelilov, Gylych; Kalyoncu, Huseyin; Isik, Abdurahman, 2015). High levels of government consumption are likely to increase employment, profitability and investment via multiplier effects on aggregate demand. Thus, government expenditure, even of a recurrent nature, can contribute positively to economic growth. On the other hand, endogenous growth models such as Barro (1990), predict that only those productive government expenditures will positively affect the long run growth rate.

Various empirical studies on the relationship between government expenditure and economic growth also arrived at different and even conflicting results. Some studies suggest that increase in government expenditure on socioeconomic and physical infrastructure's impact on the long run growth rate. For instance, government expenditure on health and education raises that productivity of labor and increase the growth of national output. Similarly, expenditure on infrastructure such as road, power, etc. (Jelilov, Gylych; Abdurahman, Samira; Isik, Abdurahman, 2015), reduces production costs, increase private sector investment and profitability of firms, thus ensuring

economic growth (Barro, 1990; Barro and Sali-i-Martin, 1992; Roux, 1994; Okojie, 1995; Morrison and Schwartz, 1996). On the other hand, observations that growth in government spending, mainly based on non-productive spending is accompanied by a reduction in income growth has given rise to the hypothesis that the greater the size of government intervention the more negative is its impact on (Glomm and Ravikumar, 1997; Abu and Abdullah, 2010). In the light of the above, the research work intends to examine the impact of government expenditure on economic growth in Nigeria.

Statement of the Problem

In the last decade, Nigeria's economy has metamorphosed from the level of millions of Billions of Naira and postulating to trillions Naira on the expenditure side of the budget. This will not be surprising if the economy is experiencing surplus or equilibrium on the records of balance of payment (Jelilov, Gylych; Musa, Muhammad;, 2016). Better still, if there are infrastructures to improve commerce with the system or social amenities to raise the welfare of the average citizen of the economy. All these are not there, yet we always have a very high estimated expenditure. This indicates that something is definitely wrong either with the way government expands budget or with the ways and manners, it has always been computed (Jelilov, 2016).

Unfortunately, the rising government expenditure has not translated to meaningful growth and development, as Nigeria ranks among the poorest countries in the world. In addition, many Nigerians have continued to wallow in abject poverty, while more than 50 percent live on less than US\$2 per day. Coupled with this, is the dilapidated infrastructure (especially roads and power supply) that has led to the collapse of many industries, including high levels of unemployment (Nurudeen and Usman 2010). Moreover, macroeconomic indicators like the balance of payments, import obligations, inflation rate, exchange rate, and national savings problems reveal that Nigeria has not fared well since the 1980's.

Research Questions

Against the above identified problems in the Nigerian economy, the following research questions are raised for this research work to answer:

- i). What are the government expenditure patterns in Nigeria?
- ii). Is there a significant relationship between government investment expenditure and economic growth in Nigeria?
- iii). What are the ways forward to stimulate economic growth in Nigeria?
- iv). What are the factors influencing the level of economic growth in Nigeria?

Objectives of the Study

The broad objective of the study is to examine the relationship between government expenditure and economic growth in Nigeria. The specific objectives are:

- i). To study the government expenditure patterns in Nigeria.
- ii). To investigate if there is a significant relationship between government investment expenditure and economic growth in Nigeria.
- iii). To develop an econometric model that would serve as a guide to policy – makers in a bid to articulate government expenditure so as to stimulate economic growth in Nigeria.
- iv). To discuss the various factors influencing the level of economic growth in Nigeria.

Statement Of Hypothesis

The Null hypothesis is tested against the alternative hypothesis in this research work as stated below:

H_0 : There is no significant relationship between government expenditure and economic growth in Nigeria.

H_1 : There is a significant relationship between government expenditure and economic growth in Nigeria.

H_0 : Fiscal Policy has no significant impact on the Nigerian Economic Growth.

H_1 : Fiscal Policy has a significant impact on the Nigerian Economic Growth.

Scope Of The Study

The area of the study is Nigeria. The period of study is 24 years, which is 1986 – 2010. The choice of 1986 is based on the fact that the researcher wants to study Nigeria within the structural adjustment program (SAP) and the post structural adjustment program (SAP). The choice of 2010 as the terminal year is due to the fact that, the data required for this study are only available up to that date.

Limitations Of The Study

The study is conducted with a number of limitations; one of such limitations is time constraint as the research is carried out with other academic work. Another problem encountered during the course of the study is shortage of finance. Finally, the fundamental limitation of most research work in the developing countries, concerns the poor quality and inadequacy of data.

Organization Of The Work

This research project will be organized into five (5) chapters. Apart from the preliminary pages, which include: Title page, documentation, certification,

dedication, acknowledgment and abstract.

Chapter one contains

Introduction which includes; background of the study, a statement of the problem, research questions, objectives of the study, research hypothesis, the scope of the study, limitation of the study and organization of the work.

Chapter two consists of

Review of literature which includes; definition of concept, theoretical literature, theoretical framework, and empirical literature.

Chapter three contains

Research methodology which includes; source of data, method of data analysis, specification of the model and evaluation of criteria; economic a priori criteria, statistical criteria and econometric criteria.

Chapter four contains

Presentation and analysis of regression result, which includes; presentation of regression result, test of hypothesis; standard error test, student T – test, F – test and test for Autocorrelation. And finally the analysis of the regression result.

Chapter five contains

Summary, conclusions and recommendation. Then it will be followed by the references and appendices.

LITERATURE REVIEW

Concepts Of Government Expenditure

Government expenditure i.e. Government spending is incurred by Central, State and Local governments of a country. Government expenditure can be defined as, "The expenditure incurred by public authorities like central, state and local governments to satisfy the collective social wants of the people is known as public expenditure." Throughout the 19th Century, most governments followed laissez faire economic policies & their functions were only restricted to defending aggression & maintaining law & order. The size of government expenditure was very small.

But now the expenditure of governments all over has significantly increased. In the early 20th Century, John Maynard Keynes advocated the role of government expenditure in the determination of the level of income and its distribution. In developing countries, government expenditure policy not only accelerates economic growth & promotes employment opportunities, but also plays a useful role in reducing poverty and inequalities

in income distribution (Jelilov, Gylych; Onder, Evren, a 2016).

Classification of Government Expenditure

Classification of government expenditure refers to the systematic arrangement of different items on which the government incurs expenditure. Different economists have looked at government expenditure from different points of view. The following classifications are based on these different views.

Functional Classification

Some economists classify government expenditure on the basis of functions for which they are incurred. The government performs various functions like defense, social welfare, agriculture, infrastructure and industrial development. The expenditure incurred on such functions fall under this classification. These functions are further divided into subsidiary functions. This kind of classification provides a clear idea about how the government funds are spent.

Recurrent and Capital Expenditure

Recurrent expenditures are current or consumption expenditures incurred in civil administration, defense forces, public health and education, maintenance of government machinery. This type of expenditure is of recurring type which is incurred year after year. On the other hand, capital expenditures are incurred in building durable assets, like highways, multipurpose dams, irrigation projects, buying machinery and equipment. They are non-recurring types of expenditures in the form of capital investments. Such expenditures are expected to improve the productive capacity of the economy.

Transfer and Non-Transfer Expenditure

A.C. Pigou, a British economist has classified public expenditure as: - Transfer expenditure and Non-transfer expenditure. Transfer Expenditure relates to the expenditure against which there is no corresponding return. Such expenditure includes public expenditure on:

- i). National Old Age Pension Schemes,
- ii). Interest payments,
- iii). Subsidies,
- iv). Unemployment allowances,
- v). Welfare benefits to weaker sections, etc.

By incurring such expenditure, the government does not get anything in return, but it adds to the welfare of the people, especially belonging to the weaker sections of the society. Such expenditure basically results in redistribution of money incomes within the society. Non-Transfer Expenditure relates to expenditure which results in creation of income or output. The non-transfer

expenditure includes development as well as non-development expenditure that results in creation of output directly or indirectly.

- i). Economic infrastructure such as power, transport, irrigation, etc.
- ii). Social infrastructure such as education, health and family welfare.
- iii). Internal law and order and defense.
- iv). Public administration, etc.

By incurring such expenditure, the government creates a healthy condition or environment for economic activities. Due to economic growth, the government may be able to generate income in the form of duties and taxes.

Productive and Unproductive Expenditure

This classification was made by the Classical economists on the basis of creation of productive capacity.

Productive Expenditure

Expenditure on infrastructural development, public enterprises or development of agriculture increases productive capacity in the economy and bring income to the government. Thus, they are classified as productive expenditure.

Unproductive Expenditure

Expenditures in the nature of consumption, such as defense, interest payments, expenditure on law and order, public administration, do not create any productive asset which can bring income or returns to the government. Such expenses are classified as unproductive expenditures.

Development and Non-Development Expenditure

Modern economists have modified this classification into a distinction between development and non-development expenditures.

Development Expenditure

All expenditures that promote economic growth and development are termed as development expenditure. These are the same as productive expenditure.

Non-Development Expenditure

Unproductive expenditures are termed as non-development expenditures.

Grants and Purchase Prices

This classification has been suggested by economist Hugh Dalton. Grants are those payments made by a

public authority for which there may not be any quid-pro-quo, i.e., there will be no receipt of goods or services. For example, old age pension, unemployment benefits, subsidies, social insurance, etc. Grants are transferred expenditures. Purchase prices are expenditures for which the government receives goods and services in return. For example, salaries and wages to government employees and purchase of consumption and capital goods.

Classification According to Benefits

Public expenditure can be classified on the basis of benefits they confer on different groups of people.

- i). Common benefits to all: Expenditures that confer common benefits on all the people. For example, expenditure on education, public health, transport, defense, law and order, general administration.
- ii). Special benefits to all: Expenditures that confer special benefits on all. For example, administration of justice, social security measures, community welfare.
- iii). Special benefits to some: Expenditures that confer direct, special benefits on certain people and also add to the general welfare. For example, old age pension, subsidies to weaker section, unemployment benefits.

Hugh Dalton's Classification of Public Expenditure

Hugh Dalton has classified public expenditure as follows:

- i). Expenditures on political executives: i.e. maintenance of ceremonial heads of state, like the president.
- ii). Administrative expenditure: to maintain the general administration of the country, like government departments and offices.
- iii). Security expenditure: to maintain armed forces and the police forces.
- iv). Expenditure on administration of justice: include maintenance of courts, judges, public prosecutors.
- v). Developmental expenditures: to promote growth and development of the economy, like expenditure on infrastructure, irrigation, etc.
- vi). Social expenditures: on public health, community welfare, social security, etc.
- vii). Public debt charges: include payment of interest and repayment of the principle amount.

Concept Of Economic Growth

Economic growth is one of the objectives of macroeconomic policy of a nation's economy. Economic growth is defined as "the process whereby the real per capital income of a country increases over a long period of time." Economic growth is measured by the increase in the amount of goods and services produced in a country. A growing economy produces

more goods and services in each successive time period. This growth occurs when an economy's productive capacity increases which, in turn, are used to produce more goods and services. In its wider aspect, economic growth implies raising the standard of living of the people, and reducing inequalities of income distribution.

All agree that economic growth is a desirable goal for a country. But there is no agreement over "the magic number," viz., the annual growth rate which an economy should attain. Economic growth is a rise in the per capital income (Jelilov, Gylych; Muhammad Yakubu, Maimuna; 2015). This connotes an increase in the total output of an economy per person, all things being equal. Economic growth may also be described as an increase in the volume of flow of goods and services in an economy. Per capital income is the average earning per person in a given society during a given period of time. Per capital income (PCI) represent the monetary value of the productive activities of individuals in an economy. It is commonly calculated based on gross national product (GNP) or gross domestic product (GDP). It is on the basis of the value of PCI that countries are classified as high income, low – income, etc.

Empirical Review

Several studies had been undertaken on the relationship between public expenditure and economic growth. According to Romp and De Haan (2005), the techniques adopted by the empirical studies can be grouped into: the production function approach, which is the most commonly used, the cost function approach, which exploits the dual properties of cost and production functions, vector autoregressive (VAR) studies, cross-country, or regional cross-section growth regressions and structural econometric models with public investment (see also Sturm (1998) on this issue), but the findings are generally mixed.

Some of the recent empirical studies include Bose, et al (2007) which examined the growth effect of public expenditure by sectors using data from a panel of 30 developing countries covering the period of 1970-1990. The findings show that public capital expenditure is positively correlated with economic growth, while the growth effects of current expenditure is insignificant for the group of countries (Jelilov, Gylych; Chidigo, Mary; Onder, Evren, 2016). Meanwhile, at sectoral level, government expenditure on education is the only outlay that remains significant throughout the analysis. While the growth effect of transport and communication, defense initially had significant impact, but could not survive when other sectors and budget constraints were incorporated into the analysis.

Devarajan *et al.*, (1996) studied the effects of different expenditure components of growth. The study covered 43 countries for periods of 1970 to 1990. The study shows that current expenditure has a positive impact on growth, while capital expenditure exerts a negative impact on growth. But when a sub-sample of developed

countries were considered the result was reversed, indicating that, the earlier result might be as a result of corruption and inefficiency in the use of public funds in the developing countries (Jelilov, Gylych; Onder, Evren, b 2016).

Haque and Kim (2003) examined the impacts of public investment on economic growth of 15 developing countries using dynamic panel data techniques. The findings indicated that public investment in transportation has dynamic effects on economic growth. Sutherland *et al.*, (2009) also examined the effects of infrastructure on economic growth by running a cross country growth regression. The study confirmed that investment in public infrastructure, especially in form of telecommunications and energy generation has a strong and significant effect on economic growth. Similarly, Romp and De Haan (2005) following a survey of the recent empirical literature on the subject found that, with respect to the earlier contributions, there is more agreement about the positive effect of public capital on growth.

Semmler *et al.*, (2007) investigated whether a country could use fiscal policy (and in particular, the level and composition of public expenditure) to promote sustainable growth and welfare in low- and middle – income countries. The study covered 35 countries and a model was developed following the production function approach. The model was calibrated. The study found that composition of public investment expenditure matters, as the gains of moving to optimal allocation between public infrastructure, and education and health facilities are significant. Based on the model and the calibration exercise, a practical rule of thumb suggests that about two-third of public investment should be directed towards public infrastructure that facilitates market production. The paper also noted that greater emphasis on education and health relative to investments that may contribute to expansion of market production may result in slower growth/progress in reducing poverty (Jelilov, Gylych; Kachallah Ibrahim, Fatima; Onder, Evren, 2016).

Chuba and Weber (1997) delves into the link between public expenditure and economic growth in Nigeria by regressing growth on public expenditure on six functional categories (Education, health, social welfare, transport, justice and national defense) using the data for 1950- 1994. The authors used time series models and OLS estimation method and found that fiscal spending can influence long run growth. However, out of the six expenditure categories only two (Education and Health) had been found to have permanent growth effects. The effect of education was positive while that of health was negative.

Ghani and Din, (2006) explored the role of public investments in the process of economic growth. The model consists of four variables; public investment, private investment, public consumption and GDP for the period of 1973- 2004 for Nigeria. Time series and VAR modeling approach were used for the study and it was found that growth is largely driven by private investment than public investment. And that public investment

crowd out private investment. David (2006) examined the growth effect of public expenditure at the state and local levels in Nigeria having identified that most of the previous studies concentrated on aggregate public expenditure. The study covered the period of 1981 and 2001. The finding of the study shows that public expenditure at both levels have negative impacts on growth as found in the previous studies at aggregate levels.

Badawi (2003) found that the impact of private investments on real growth in the Sudan has been more pronounced compared to that of public investment. While the crowding-out effect of public investment in private investment was found to be highly significant. Similar evidence was found in Pakistan by Ghani and Din, (2006) using a VAR model. Contrary, to Badawi (2003), Ghani and Din, (2006), Blanchard and Perotti (2002) and, Schaltegger and Torgler (2006) found that both private and public expenditure has insignificant impacts on growth.

Recent studies in Nigeria include Maku (2009), Nurudeen and Usman (2010) and Akpan (2005). The resulting findings are equally mixed. Nurudeen and Usman (2010) for instance, show that government total recurrent and capital expenditure had insignificant growth effects and the impact of expenditure on education was negative. Only expenditure on transport and communication, and health had positive effects on growth in their findings. This is partly in consonance to Fajingbensi and Odusola (1999) which found the contribution of recurrent expenditure to growth as insignificant. The findings of Akpan (2005) also indicated growth effects of the different components of government expenditure to be weak. This may be as a result of the prevailing corruption in the country as noted by Haque and Kneller (2008) that corruption increases public investment and reduces the returns to public investment, eventually, making it ineffective in promoting growth.

In spite of the diversity of the reviewed empirical studies in terms of methodologies, coverage and level of country developments, almost a common conclusion has been apparent. Government expenditure on education, transportation, infrastructure and telecommunication has persistently appeared to have had significant growth effects on both the developed and developing countries. These studies include Easterly and Rebelo (1993), Singh R.J and Weber, R (1997); Bose, N *et al.*, (2007), Haque and Kim (2003), Sutherland *et al.*, (2009) and Semmler *et al.*, (2007), Other earlier studies with a similar conclusion in the U.S include Aschaeur (1989), Motmmell (1990) and Delorme *et al.*, (1999). However, the impacts of capital and recurrent expenditure on growth have been somehow mixed and inconclusive. While the majority of the studies, especially on the rich countries indicated that the large government size is detrimental to economic growth (Schaltegger and Torgler, 2006 and Abu- Badaer and Abu Quarn (2003). From the review above, empirical evidence on the impacts of government expenditure on economic growth in Nigeria

are scanty. This study, therefore, not only contributes to the debate on the use of fiscal policy to influence growth but also provides further empirical evidence on the impacts of government expenditure on economic growth in Nigeria.

Theoretical Review

Theories are viewed generally because they are presumed useful in accounting for some observed phenomenon. Various theories have been propounded to explain clearly what actually determines economic growth.

The Classical Theory Of Economic Growth

The proponents of the classical theory are Adam Smith (1723 - 1790), David Ricardo (1772 - 1823), and others. To the classical economists; what actually determines the growth rate – and thus, ultimately, the wealth – of nations? The expansion process in the Smith's growth model depends, as is still the case in most modern growth theorizing, on the level of inputs of three factors of production – land, labor, and capital – and on technical progress. Increases in the size of the labor force (L), in the amount of capital (K), and in the available land (H), all lead to increases in total output (Y), suggesting a basic production function of the form:

$$Y = f(L, K, H)$$

Growth in total output (Yg) will be caused by growth in the labor force (Lg), in the capital stock (Kg) and in the supply of land (Hg). In addition, improvements in technology (Tg) lead to expanded output by increasing the productivity of the factors inputs:

$$Y_g = f(L_g, K_g, H_g, T_g)$$

To the classical; in a 'stationary' economy in which the labor force (and the population), and the stock of capital are constant, then the output will also be constant – there will be no economic growth. The real wage earned by labor will be just enough to provide a subsistence living, with no surplus to make possible an increase in population. Similarly, on the capital side, new investment (I), financed by the new saving (S) of capitalists, will be just enough to replace depreciation of existing capital goods, so there is no growth in the stock of productive capital goods. And land, in the absence of new discoveries or improvements in fertility, is also effectively fixed in quantity. This situation can persist indefinitely, or it may be disturbed by an external 'stock' such as a new invention which improved efficiency of production, or improved opportunities for international trade (perhaps by opening up of new markets overseas). Increased output makes possible increased saving and investment, which in turn creates conditions favorable for increasing the extent of specialization and further improving productivity. This scenario also permits a rise in wages above subsistence level, which

encourages population growth and the expansion of the labor force – a requirement for continued economic growth.

Neo-Keynesian Theory Of Economic Growth

Both Harrod and Domar are interested in discovering the rate of income growth necessary for a smooth and uninterrupted working of the economy. Though their models differ in details, yet they arrive at similar conclusions. Harrod and Domar assign a key role to invest in the process of economic growth. But they lay emphasis on the dual character of investment. Firstly, it creates income, and secondly, it augments the productive capacity of the economy by increasing its capital stock. The former may be regarded as the 'demand effect' and the latter, the 'supply effect' of investment. Hence so long as net investment is taking place, real income and output will continue to expand. However, for maintaining a full employment equilibrium level of income from year to year, it is necessary that both real income and output should expand at the same rate at which the productive capacity of the capital stock is expanding. Otherwise, any divergence between the two will lead to an excess of idle capacity, thus forcing entrepreneurs to curtail their investment expenditures. Ultimately, it will adversely affect the economy by lowering incomes and employment in the subsequent periods and moving the economy off the equilibrium path of steady growth. Thus, if full employment is to be maintained in the long run, net investment should expand continuously. This further requires continuous growth in real income at a rate sufficient enough to ensure full capacity use of a growing stock of capital. This required rate of income growth may be called the warranted rate of growth or "the full capacity growth rate according to Harrod and Domar.

Neo-Classical Theory: The Endogenous Growth Theory

The endogenous growth theory was developed as a reaction to omissions and deficiencies in the Solow-Swan neoclassical growth model. It is a new theory which explains the long – run growth rate of an economy on the basis of endogenous factors as against exogenous factors of the neoclassical growth theory (Jhingan, 2010). The Solow – Swan neoclassical growth model explains the long-run growth rate of output based on two exogenous variables: the rate of population growth and the rate of technological progress and that are independent of the saving rate. As the long-run growth rate depended on exogenous factors, the neoclassical theory had few policy implications. As pointed out by Romer, "In models with exogenous technical change and exogenous population growth, it never really mattered what the government did." The new growth theory does not simply criticize the neoclassical growth theory. Rather, it extends the latter by introducing endogenous technical progress in growth models. The endogenous growth models have

been developed by Arrow, Romer, and Lucas, among other economists.

The endogenous growth theory has important policy implication for both developed and developing economies. This theory suggests that the major contributions of both physical and human capital to growth may be larger than suggested by the Solow residual model. Investment in education or research and development of a firm has not only a positive effect on the firm itself, but also spill-over effects on other firms and hence on the economy as a whole.

Theoretical Framework

This research work is based on the Neo classical endogenous theory of economic growth. It is common knowledge that fiscal policies cannot bring about changes in long-run growth of output in a neoclassical growth model. The introduction of endogenous growth models that incorporates the government sector has led to the opposite conclusion that fiscal policies can affect the long-run growth rate of an economy (Barro and Sala-i-Martin, 1992).

In models of endogenous growth, government policies can improve the factor allocation of the market due to market failure. As a result, private factor productivity and the accumulation of physical capital and human capital respectively can be increased. Public input, natural monopolies or spill-over effects are the main justifications for government provision. In theory, these publicly provided goods enter the production function so that they can boost the steady-state growth rate (Barro and Sala-i-Martin, 1992,). Of course, there is some debate over the question of which particular expenditures should be classified as productive and which not (Kneller et al., 1999). Certainly, empirical studies should shed some light on this debate.

Several alternative models of government finance characterize the dynamic relation between expenditures and revenues. The tax-and-spend school championed by Friedman views expenditures as adjusting, up or down, to whatever level can be supported by revenues (Friedman, 1978). This view implies a causal relation running from revenues to expenditures. The spend-and-tax model posits the reverse relation, with revenues responding to prior spending changes. Peacock and Wiseman see economic or political crises creating increased expenditure programs that are subsequently ratified by tax increases (Peacock and Wiseman, 1979). Barro's tax-smoothing model also implies causation running from expenditures to revenues (Barro, 1979).

Within the public finance literature, it is often assumed that a government determines both revenues and expenditures in ways that maximize the social welfare of the society. However, four alternative hypotheses have been advanced to ascertain the nature of the causality between these variables in the budgetary process. The tax-and-spend argument proposes that changes in government revenues lead to changes in government expenditures. Friedman (1978) and Buchanan and Wagner (1978) were early proponents of

this view but differed in their perspectives. Friedman argued that increasing the resources available to government by increasing tax revenues will only lead to increases in government expenditures. The Friedman version of the tax-spend hypothesis suggests that government revenues have a positive effect on government expenditures. Alternatively, Buchanan and Wagner argued that increases in government revenues may lead to decreases in government expenditures through fiscal illusion. In particular, if the government is financing expenditures by means other than direct taxation, the fiscal illusion occurs because the public pays less in direct taxation but more in the form of indirect taxation (e.g., crowding-out effects and bracket creep caused by inflation). If indirect taxation declines while direct taxation increases, this trend could reduce government expenditures.

METHODOLOGY

Sources of Data Collection

The source of data for this research work is purely a secondary source. The data are obtained from central bank of Nigeria (CBN) publications, World Bank publications, and the publications of the federal office of statistic, text book, published and unpublished thesis.

Techniques of Data Analysis

For the purpose of the research work, we use the analytical tools of analysis, which consists of the use of ordinary least square (OLS) regression technique. The ordinary least square method of multiple regression analysis is adopted to determine the effect of government expenditure on economic growth in Nigeria.

Specification of the Model

This involves the expression of the theoretical relationship in mathematical form with which the economic phenomenon will be explored empirically. The methodology of this work focuses on the assessment the impact of government expenditure on economic growth in Nigeria. Hence on the basis of this we formulate the model for this research work as specified thus;

$$GDP = f(GE, INTR, MS)$$

$$GDP = \beta_0 + \beta_1GE + \beta_2INTR + \beta_3MS + \mu$$

Where;

- GDP = Gross domestic product as a proxy for economic growth
- GE = Government expenditure
- INTR = Interest rate
- MS = money supply
- $\beta_0, \beta_1, \beta_2, \beta_3$ are the parameters to be estimated
- μ = Stochastic term or error term.

Evaluation Criteria

The model specified above will undergo three major evaluation criteria;

Economic Apriori Criteria

These are determined by the principle of economic theory and refer to the sign and the size of the parameters of the function. These apriori definitions will be the theoretical criteria on the basis of which the result of the estimation of the model will be evaluated. The parameter β_0 is expected to be positive (+) which means that even if when government expenditure, interest rate and money supply are zero, gross domestic product (GDP) will assume a positive value.

Statistical Criteria

The statistical criteria (first order test); aimed at the evaluation of statistical reliability of the estimates in the parameter of the model. They are as follows:

The standard error of the estimates

It is applied for judging the statistical reliability of the estimates of the regression coefficients. It provides a measure of the degree of confidence that we may attribute to the estimates. For instance; If the standard error S.E (β_i) $< \beta_i/2$, we conclude that β_i is statistically significant. But if S.E (β_i) $> \beta_i/2$, we conclude that β_i is statistically insignificant.

The Student T – Tests

This will be used in testing the statistical significance of each regression coefficient at a given level of significance with N–K degree of freedom and in this case, we will use 5% level of significance and it is given as; $\pm t_{\alpha/2} (N - K)$ where;

$\pm t$ = tabulated t or t – critical

α = level of significance

N = Sample size

K = total number of estimated parameters.

Decision Rule

If $t^c < \pm t_{\alpha/2} (N - K)$ at a given level of significance, we reject H_0 and accept H_1 and or if $t^c > \pm t_{\alpha/2} (N - K)$ we reject H_0 and accept H_1 . But if $-t_{\alpha/2} (N - K) < t^c < +t_{\alpha/2} (N - K)$ we reject H_0 and accept H_1 , and take a decision based on the findings.

Econometric Criteria

The econometric criteria (second order tests) are used to test the presence of autocorrelation between independents variable and error term. The test compares the empirical (d^*) value calculated from the regression residuals with the upper (du) and lower (dL) limits for the significance levels of d in the DW tables

and with their transforms $(4 - du)$ and $(4 - dL)$. The comparison using dL and du investigates the possibility of positive autocorrelation. While the comparison with $(4 - dL)$ and $(4 - du)$ investigates the possibility of negative autocorrelation. K(1979), The decision rules are as follows;

If $d^* < du$, or $d^* > (4 - du)$ we reject H_0 and conclude that there is autocorrelation.

But if $du < d^* < (4 - du)$ we reject H_0 and conclude that there is no Autocorrelation in the model.

Presentation of Result

This section presents the results computed using the SPSS window 16. The results of the OLS regression specified in chapter three, estimated based on some assumption, subject to various statistical and econometric test are presented below:

$$\begin{aligned} \text{GDP} &= 239869.12 - 0.063\text{GEX} + 1656.64\text{INTR} \\ &+ 0.072\text{MMS} \\ \text{S.E} &= (62150.02) \quad (0.023) \\ &(3015.25) \quad (0.009) \\ \text{T - Value} &= (3.860) \quad (-2.748) \quad (0.549) \\ &\quad (8.207) \\ R &= 0.950 \\ R^2 &= 0.902 \\ \text{Adjusted } R^2 &= 0.888 \\ \text{F - Value} &= 64.223 \\ \text{D.W} &= 0.841 \\ N &= 24 \end{aligned}$$

Analyses of Results

The results are analyzed as follows:

Standard Error Test

From the result presented in section 4:1 Since S.E (bi) $> bi/2$ that is $0.023 > -0.063/2$ we conclude that the coefficient of Government expenditure is statistically insignificant; also since S.E (b_2) $> b_2/2$ i.e. $3015.25 > 1656.64/2$ we conclude that the coefficient estimate of Interest rate is statistically insignificant, and for b_3 , $0.009 < 0.072/2$ we conclude that the coefficient estimate of Money supply is statistically significant.

Student T–Test

This hypothesis will be tested at 5% level of significance with N–K degree of freedom which means a 95% level of confidence. Therefore, the critical value of t is; $\pm t_{\alpha/2} (n - k) = \pm t_{0.05/2} (24 - 4) = \pm t_{0.025} (20) = t^c = \pm 2.086$ Based on the decision rule stated in chapter three, since $t^c (\beta_i) < \pm t^c$ i.e. $-2.748 < \pm 2.086$ we conclude that the coefficient estimate of Government expenditure is statistically significant at the 5% level. Since $-2.086 < 0.549 < +2.086$ we also conclude that the coefficient of Interest rate is statistically insignificant, and given $\pm t^c < t^c$

(β_3) i.e. $\pm 2.086 < 8.207$ we conclude that the coefficient of Money supply is statistically significant at 5% level of significance, which means at 95% level of confidence, we can attribute the effect of the explanatory variables on the dependent variable in our model.

F – Test

The F – test, which follows an F – distribution, measure or test the joint significance of independent variables on the dependent variable. It is also used to test the significance of R – square. In this section F – test will be tested at 5% level of significance.

At $\alpha = 5\%$, with $K - 1 (v_1)$ and $N - K (v_2)$, i.e. ($V_1 = 3$) & ($V_2 = 20$) degree freedom. From the F – distribution table, we have F – critical, $F^{0.05}_{v_1, v_2} = 3.10$ and F – calculated, $F^* = 64.223$. Since $F^* > F^{0.05}_{v_1, v_2}$, i.e. $64.223 > 3.10$ at the 5% level of significance, we reject H_0 and conclude that the variables in the model are statistically and jointly significant, which implies that the R – square is statistically significant and different from zero.

Test for Autocorrelation

In the regression equations estimated, we estimated the Durbin – Watson, d – statistics. The essence of this test is to check whether the random term (U’s) of different observation is independent or not as stated in chapter three under the assumption of stochastic term. Thus, below is the test for Autocorrelation of the estimated model with $\alpha = 5\%$

From the Durbin – Watson table when $N = 24$ and $K = 3$, then $dL = 1.101$ while $du = 1.656$ however, the computed Durbin – Watson test (d^*), from the result presented in section 4.1 is 0.841 i.e. since $d^* < du$ i.e. $0.841 < 1.656$ we conclude that there is an evidence of positive Autocorrelation or positive first – order serial correlation as the case may be.

Discussion of the Result

From the estimated regression equation above in section 4:1 it was found that a unit change in Government expenditure (GEX) will lead to -0.063 change in the Gross domestic product (GDP) in Nigeria, meaning that there is a negative relationship between the rate of Government expenditure and economic growth (GDP) in Nigeria based on this result. 1656.64 shows the rate of change in the Gross Domestic Product (GDP) when there is a unit change in the interest rate in Nigeria, which means that there is a positive relationship between gross domestic product and interest rate. 0.072 shows the rate at which the gross domestic product (Economic growth) will increase or decrease when there is a unit change in money supply in Nigeria and it shows a positive relationship between money supply and gross domestic product.

Finally, the model R – square (R^2) is 0.902 . The implication of this is that the explanatory variables in the

model (Government expenditure, interest rate and money supply) explained about 90.2% of the total variations in the Gross domestic product (GDP) in the Nigeria economy. Likewise, the model coefficient of correlation (R) is 0.950 , which shows that there is a very strong positive correlation between the selected variables and the economic growth in Nigeria during the period of study. With these we conclude that the variables are well selected.

SUMMARY OF MAJOR FINDINGS

Generally, the model's performance is good since its significance was shown by F – statistics, R – square (coefficient of determination) and coefficient of correlation (R) during the period of study. Therefore the research work has succeeded in showing that Fiscal policy has a significant impact on the economic growth in Nigeria. This research work focused on the Impact of Government Expenditure on Economic Growth in Nigeria. Modeling Gross Domestic Product (GDP) against Government Expenditure, Interest rate and Money supply, the results shows that the impact of Government expenditure and interest rate of the Economy growth in Nigeria is statistically insignificant while that of money supply is positive and statistically significant.

CONCLUSION

Empirical tests were carried out testing the impact of Government Expenditure on the economic growth in Nigeria (using GDP as our proxy for economic growth). The explanatory variables are Government expenditure, interest rate and money supply between $1986 - 2010$, the three variables were regressed against Gross Domestic Product (GDP) gave high result. This can be attributed to the fact that most change in most macroeconomic variables is induced by government participation in the economic activities of the nation.

RECOMMENDATIONS

Based on the findings, the recommendations from the research are as follows:

- 1). The government should concentrate its spending on capital expenditure when the choice is between recurrent and capital expenditure.
- 2). Effort should be geared towards eradicating corruption and corrupt practices in the economy. This will likely ensure that financial allocations are channeled appropriately. When this is done, the impact of government expenditure on the economy will be better felt, and more precisely assessed.
- 3). Finally, further studies should be conducted to investigate other major influences on the economic

growth in Nigeria, which would aid fiscal policy making and implementation.

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APPENDIX I

YEAR	GDP	GE	INTR	MMS
1986	205971.44	16223.7	10.5	27389.8
1987	204806.54	22018.7	17.5	33667.4
1988	219875.63	27,749.50	16.5	45446.9
1989	236729.58	41,028.30	26.8	47055
1990	267549.99	60,268.20	25.5	68662.5
1991	265379.14	66,584.40	20.01	87499.8
1992	271365.52	92,797.40	29.8	129085.47
1993	274833.29	191,228.90	18.32	198479.2
1994	275450.56	160,893.20	21.0	266944.89
1995	281407.4	248,768.10	20.18	318763.47
1996	293745.38	337,217.60	19.74	370333.53
1997	302022.48	428,215.20	13.54	429731.33
1998	310890.05	487,113.40	18.29	525637.8
1999	312183.48	947,690.00	21.32	699733.7
2000	329178.74	701,059.40	17.98	1036079.5
2001	356994.26	1018025.6	18.29	1315869.1
2002	433203.51	1,018,155.80	24.85	1599494.6
2003	477532.98	1,225,965.90	20.71	1985191.8
2004	527576.04	1,426,200.00	19.18	2263587.9
2005	561931.39	1,822,100.00	17.95	2814846.1
2006	595821.61	1938002.5	17.26	4027901.7
2007	634251.14	2,450,896.70	16.94	5832488.5
2008	672202.55	3240820	15.14	9208462.6
2009	718977.33	3452990.8	18.36	9615221.5
2010	775525.7	4194217.88	17.59	11154783

SOURCE: Cbn Statistical Bulletin, 2011

APPENDIX II

Regression Results

Variables Entered/Removed^o

Model	Variables Entered	Variables Removed	Method
1	MMS, GMXa	INTR,	Enter

a). All requested variables entered.

b). Dependent Variable: GDP

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.950 ^a	.902	.888	58606.396921	.841

a). Predictors: (Constant), MMS, INTR, GEX

b). Dependent Variable: GDP

ANOVA^b

Model	Sum of Squares	df	Mean square	F	Sig.
1 Regression	6.618E11	3	2.206E11	64.223	.000 ^a
Residual	7.213E10	21	3.435E9		
Total	7.339E11	24			

a). Predictors: (Constant), MMS, INTR, GEX

b). Dependent Variable: GDP

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
1 (Constant)	239869.116	62150.015		3.860	.001
GEX	-.063	.023	-.449	-2.748	.012
INTR	1656.637	3015.248	.039	.549	.589
MMS	.072	.009	1.348	8.207	.000

a). Dependent Variable: GDP

Residual Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.5821E5	8.0519E5	3.9222E5	1.66052E5	25
Residual	-6.5081E4	1.60482E5	.00000	54821.26449	25
Std. Predicted Value	-.807	2.487	.000	1.000	25
Std. Residual	-1.110	2.738	.000	.935	25

a). Dependent Variable: GDP