

## Behavioral Pattern of Fiscal Policy Variables and Effects on Economic Growth: An Econometric Exposition on Nigeria

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**DOI Link:** <http://dx.doi.org/10.6007/IJARBSS/v5-i2/1488>

**Published Date:** 23 February 2015

### Abstract

The rationale of this study is to examine the effect of fiscal policy variables on economic growth in Nigeria. The fiscal policy variables considered in the study include government gross fixed capital formation, tax, government expenditure, budget deficit as well as external debt. The study covered the period 1986 to 2012. Unit roots of the time series were examined using the Augmented Dickey-Fuller technique after which the co-integration test was conducted using the Johansen Co-integration Approach. Error-correction models were estimated to take care of short-run dynamics. Over all, the results indicate that fiscal policy has a long-run relationship with Nigeria economic growth confirmed by the co-integration test. the study further reveals that government expenditure and gross fixed capital formation from government has positive and significant impact on Nigeria economic growth while budget deficit has negative and significant effect on Nigeria economic growth and concluded that that fiscal policy has the ability to induced economic growth in Nigeria through government expenditure and investment in the economy while ensuring that fiscal discipline are practised by keeping to budgetary provisions and minimising budget deficit .

**Keywords:** Fiscal Policy, Budget Deficit, Economic Growth, Government Expenditure and Revenue

### Introduction

The achievement of macroeconomic goals, namely full employment, stability of price level, high and sustainable economic growth and external balance, from immemorial, has been a policy priority of every economy, whether developed or developing. Adefeso and Mobalaji, (2010) asserted that the realization of these goals undoubtedly is not

automatic but requires policy guidance. This policy guidance represents the objective of economic policy. Fiscal policy is one of the macroeconomic instruments with which government in a country employed in the administration of their economy to attain desired objectives. It entails those actions initiated by the government which aim at influencing the budget in order to induced effective demand by various economic units. For most economies, the fundamental objectives of fiscal policy include price stability, maintenance of balance of payments equilibrium, and promotion of employment, output growth and sustainable development. These objectives are necessary for the attainment of internal and external balance of value of money and promotion of long run economic growth.

Rena and Kefela (2011) asserted that the governance of fiscal policy is a powerful instrument for stabilizing the economy, which controls over the amount and structure of taxes, expenditures, and the debt management of the governance of fiscal policy affects aggregate demand, the distribution of wealth, and the economy's capacity to produce goods and services. Effective debt and fiscal management is widely accepted form of tools of macroeconomic stability. It ensures the efficient allocation of public resources and serves as a precondition for economic growth.

Economic growth is fundamental for sustainable development. It is not possible, for a developing country, to ameliorate the quality of life of its growing population without economic growth. This latter is mainly enhanced by the expansion of infrastructure repairs, the improvement of education and health services, the encouragement of foreign and local investment, low cost housing, environmental restoration and strengthening of agricultural sector. This approach consists of stimulating the economy by addressing the nations for most needs which market alone cannot provide efficiently. Dealing with these issues will require huge capital outlay necessary for large scale production in heavy industries and for the provision of other infrastructure. Government expenditure interventions were made possible by the huge receipts from production and sales of crude oil. However, Akor (2001) noted that government revenue declined significantly as a result of the oil glut that followed and in order for government to meet its obligation in terms of provision of public utilities. Government thus resulted to fiscal deficit.

Government intervention began to be more popular in the management of the economy. Arising from the above, government over the years embarks on diverse macroeconomic policy options to tinker the economy on the path of growth and development. Amongst the policy options readily employed is that of fiscal policy. Medee and Nenbee (2011) noted that despite the lofty place of fiscal policy in the management of the Nigeria economy, the economy is yet to come on the path of sound growth and development while Audu (2012) asserted that the growth and development of the Nigerian economy has not been stable over the years as a result, the country's economy has witnesses so many shocks and disturbances both internally and externally over the decades. Internally, the unstable investment and consumption patterns as well as the improper implementation of public policies, changes in future expectations and the accelerator are some of the factors responsible for it. Similarly, the external factors identified are wars, revolutions, population growth rates and migration, technological transfer and changes as well as the openness of the Nigerian economy are some of the factors responsible.

The management of the Nigerian economy in order to achieve macroeconomic stability has been unproductive and negative hence one cannot say that Nigeria economy is performing. This is evidence in the adverse inflationary trend, government fiscal policies, undulating foreign exchange rates, the fall and rise of gross domestic product, unfavourable

balance of payments as well as increasing unemployment rates are all symptoms of growing macroeconomic instability. As such, the Nigeria economy is unable to function well in an environment where there is low capacity utilization attributed to shortage in foreign exchange as well as the volatile and unpredictable fiscal policies in Nigeria (Isaksson, 2001). The intent of fiscal policy is essentially to stimulate economic and social development by pursuing a policy stance that ensures a sense of balance between taxation, expenditure and borrowing that is consistent with sustainable growth. However, the extent to which fiscal policy engender economic growth continue to attract theoretical and empirical debate especially in developing countries like Nigeria.

With this, one continues to wonder if the theoretical linkage between fiscal policy variables and economic growth is actually attainable in the Nigerian economy. On the basis of this, it is therefore necessary to examine the relationship between fiscal policy variables and Nigeria economic growth; what is the disaggregated effect of fiscal policy on economic growth in Nigeria? The purpose of this paper is to identify those fiscal policy variables that may or may not contribute to Nigeria's economic growth. Following this introduction the rest of the paper is divided into the following sections. Section 2 is literature review, section 3 is the overview of fiscal performance in Nigerian economy, section 4 is methodology of the study, section 5 is data analysis and presentation of result, section 6 is conclusion and policy recommendations

### **Literature Review**

The economists opined that there are circumstances in which market may fail to produce socially desirable outcomes. This may be because of some imperfection in a particular market may or may reflect the absence of markets for some commodities or because of externality. In order to have optimal provision of these goods required government intervention in the economic activities through fiscal policy. Fiscal policy involves the use of government spending, taxation and borrowing to influence the pattern of economic activities and also the level and growth of aggregate demand, output and employment. Fiscal policy entails government's management of the economy through the manipulation of its income and spending power to achieve certain desired macroeconomic objectives (goals) amongst which is economic growth. Longe (2005) asserted that Government can reduce poverty, income distribution and enhance economic growth through its expenditure and the changes in the composition of government expenditure indicate the manner in the allocation of resources by the government in the economy.

Fiscal policy refers to government's efforts to influence the direction of the economy through changes in taxes or expenditures. Optimal fiscal policy in Nigeria and in other developing countries plays a pivotal role in growth process and, hence, serves as a vital instrument for economic growth. The efficacy of fiscal policy in improving economic conditions in the short and long run is, however, a controversial issue and needs further investigation.

Gheorghita and Marius (2013) analyse the correlation between fiscal policy and economic growth. Using a multiple regression on European Union data on the effects of the fiscal pressure, gross capital formation, exchange rate, labour productivity and economic openness on the growth rate of the Gross Domestic Product per capita and grouped the countries into two categories: old member countries and new member countries of the European Union, gathering them data for the 2001-2011 period. The results obtained have shown that the economic growth rate is positively influenced by fiscal pressure, gross capital

formation in the private sector, degree of economy openness and labour productivity. The variables government expenditures, exchange rate and public debt likely exerted a negative influence upon the economic growth.

Devarajan et.al (1996) evaluate the relationship between expenditure composition and growth for 43 developing countries for the period 1970-1990 and found no significant effect of total public spending on economic growth. But contrary to the commonly-held view, they found that public consumption had a significant positive effect on economic growth, while public investment had a significant negative effect. This negative effect also held for each of the components of government investment, including transportation and communication. The authors interpreted these results as a matter of over-investment in public projects with negative marginal returns.

Abdullah, Habibullah and Baharumshah (2009) investigated the relationship between fiscal variables and economic growth in Asian economies using a generalized method of moments (GMM) method as a dynamic panel data analysis over the 1985-2001 periods and found positive and statistically significant relationship among health and education expenditure, aggregate of government expenditure and aggregate of other fiscal variables on real per capita GDP. They also showed that the defence expenditure, distortionary taxation and budget balance are significantly and negatively related to real per capita GDP.

Ocran (2009) asserted that the target of fiscal policy is essentially to stimulate economic and social development by pursuing a policy stance that ensures a sense of balance between taxation, expenditure and borrowing that is consistent with sustainable growth. Evaluate the effect of fiscal policy variables on economic growth in South Africa. The fiscal policy variables employed in the study include government gross fixed capital formation, tax expenditure and government consumption expenditure as well as budget deficit. The study covered the period 1990 to 2004. Quarterly data was used in the estimation with the aid of vector regressive modelling technique and impulse response functions. The findings support four key conclusions. First, government consumption expenditure has a significant positive effect on economic growth. Gross fixed capital formation from government also has a positive impact on output growth but the size of the impact is less than that attained by consumption expenditure. Tax receipts also have a positive effect on output growth while the sizes of the deficit have no significant impact on growth outcomes.

Diego (2005) studies the effects of several fiscal variables on the regional growth of labour productivity in Spain over the period 1965-1997. The results showed that public consumption affects growth negatively whereas public investment exerts a positive effect on the productivity growth rate. Public investment in education has a positive impact on the dependent variable, while the opposite is true for public investment in health. The findings also discovered that taxes and social benefits are growth-impeding. Joharji and Starr (2010) postulated that in endogenous growth models, an increase in government spending may raise the steady-state rate of growth due to positive spill over effects on investment in physical and/or human capital and study the relationship between government spending and non-oil GDP in Saudi Arabia. Using time-series methods and data for 1969-2005 and found that increases in government spending have a positive and significant long-run effect on the rate of growth. They also revealed that estimated effects of current expenditure on growth turn out to exceed those of capital expenditure and concluded that government investment in infrastructure and productive capacity has been less growth-enhancing in Saudi Arabia than programs to improve administration and operation of government entities and support purchasing power.

Hadiwibowo (2010) reviewed the relationships among fiscal variables, investment and economic growth. The growth accounting shows that physical capital is the largest contributor of economic growth. The results indicate that government revenue and current expenditure affect investment and economic growth negatively. On the contrary, development expenditure has positive effects on investment and economic growth and concluded that the government may use development expenditure and budget deficits to enhance economic growth as far as fiscal sustainability and resilience can be maintained.

Yasin (2003) studied the relationship between government expenditure and economic growth. His studies re-examined the effect of government spending on economic growth using panel data set from Sub-Saharan Africa. The results from both estimation techniques indicated that government spending, trade-openness, and private investment spending all had positive and significant effect on economic growth.

In Nigeria, Ekpo (1994) studied the contributions of public expenditure to economic growth in Nigeria over the periods 1960 to 1992. The findings from the study provided support for fiscal policy-led growth through crowd-in private investment resulting from government expenditure on infrastructure. Abata, Kehinde and Bolarinwa (2012) theoretically investigated the impact of fiscal policy variables on economic growth in Nigeria. They asserted that Fiscal policy involves the use of government spending, taxation and borrowing to influence both the pattern of economic activity and also the level and growth of aggregate demand, output and employment and concluded that the achievement of economic growth through fiscal policy in Nigeria has remained a mirage and recommended that There is need for an improvement in government expenditure on health, education and economic services, as components of productive expenditure, to boost economic growth and what Nigeria needs is a fiscal policy rule, which would commit the government to a certain level of conduct in fiscal and budgetary management.

Audu (2012) examined the causal relationship between money supply, fiscal deficits and exports as a means of analysing the impact of policy on the growth of the Nigerian economy between 1970 and 2010. The research employed the Co-integration Error Correction Mechanism (ECM), a two band recursive least square to test for the stability of the Nigerian economy as well as determine the effect of money supply, fiscal deficits, and exports on the relative effectiveness of fiscal policies in the Nigerian economy and concluded that fiscal policies have a significant influence on the output growth of the Nigeria economy. Medee and Nenbee (2011) investigated the impact of fiscal policy variables on Nigeria's economic growth between 1970 and 2009 employing Vector Auto Regression (VAR) and error correction mechanism Techniques. The result revealed that there exist a long-run equilibrium relationship between economic growth and fiscal policy variables in Nigeria and recommended that government should formulate and implement viable fiscal policy options that will stabilize the economy and this could be achieved through the practice of true fiscal federalism and the decentralization of the various levels of government in Nigeria.

Ilegbinosa1 (2009) examined problems surrounding procedures of fiscal policy and their influence on economic growth in Nigeria from 1970 - 2009. He noted that fiscal policy can impinge on economic growth by changing motivation for investment and labour as well as by altering after-tax proceeds across sectors using the Ordinary Least Squares (OLS) technique of multiple regression models using statistical time series data from 1970-2009. The estimated result showed a positive relationship between real gross domestic product and Government Expenditure and Taxes. This implies that the government expenditure is a strong determinant of economic growth especially when properly directed towards the provision of

adequate basic infrastructural facilities to stabilize investment activities and concluded that tax was not properly signed and this could largely be credited to poor tax administration in Nigeria and over dependence of government on earnings from crude oil in funding her projects. Accordingly, the result agreed with the Keynesian theory, which supports that government involvement through the use of fiscal policy could accelerate economic activities hence growth and suggested that there should be a total renovation of the tax system in Nigeria and the federal government of Nigeria should intensify her spending especially in the productive sectors of the economy that has the capability to contribute to economic growth in the country.

Ebimobowei (2010) evaluated the effects of fiscal policy on the economic growth in Nigeria for the period 1991 to 2005. The study examined the contributions of tax revenue, government debts, government recurrent expenditure, government capital expenditure, government recurrent budget, and government capital budget to the gross domestic product. Using multiple regressions to analyse the data, the result indicated that a significant relationship exists between the explanatory variables taken together and gross domestic product, and no significant relationship between the specific explanatory variables contributing to gross domestic product except government recurrent and capital expenditures and concluded that the achievement of economic growth through fiscal policy in Nigeria is a mirage as a result of inconsistencies in government policies, wasteful spending, corruption and poor policy implementation. Therefore, he recommended among others that government should avoid unnecessary borrowings; ensure that policies are implemented and inconsistencies are minimized; leakages and corruption in the country are tackled with all level of seriousness; and above all, the application of fiscal transparency and responsibility in the running of government business.

### Overview Of Fiscal Performance In Nigeria (1986-2012)

Table 1. Trends in Nigeria Fiscal Policy Variables and Growth Rate of Gross Domestic Product, 1986 - 2012

Period average	1986-1992	1993-1997	1999-2002	2003-2007	2008-2012
<i>As percentage of GDP</i>					
Debt	54.61	31.73	42.72	22.20	2.30
Tax	3.62	3.45	6.5	4.97	6.05
Deficit	-8.63	-3.26	-5.04	-1.21	-2.45
Consumption	4.61	0.75	0.28	0.58	0.79
Expenditure	11.47	11.24	14.14	11.93	12.71
Gross fixed capital formation	7.84	6.43	5.55	7.90	10.25

Growth rate of GDP	4.28	2.29	5.0	7.03	7.08
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Sources: Central Bank of Nigeria Statistical Bulletin (2012) and Authors Computations

Public financing in Nigeria has gone through diverse changes over the years. Significantly, the post structural Adjustment Programme witnessed a propel of reforms among these was the introduction of the medium term expenditure framework programme (MTEF) and tax reforms programme and administration capacity improvements were carried out. Fiscal policy performance in SAP and Post SAP has been mixed. For instance debt as a percentage of GDP has decreased marginally over the years. After falling from an average high of 54.61% in 1986-1992 to 31.73% in the year 1993-1997 and increase to 42.72% in 1998-2002 which further decrease to 22.20% and 2.30% in 2003-2007 and 2008-2012 respectively the decrease in value is as a result of debt conciliation witness in the economy in 2005.

Similarly, the deficit level that peaked at -8.63% as a proportion of GDP between 1986-1992 was reducing to an average of -3.26% in 1993-1997 and further increased to -5.04% in 1998-2002. The value was halved by the 2003-2007 to -1.21% while 2008-2012 sub-periods recorded an average of -2.45%, a level comparable to average deficit to GDP ratio in the 1986 to 1992s. Government Expenditure as a share of GDP has generally increased over the years from a low of 11.47 % in 1986-1992 to 14.14% in 1998-2002 and decrease to an average of 11.93 % in 2003 -2007 and soared to an average of 12.71% in 2008-2012. The increase in government expenditure is as a result of prevision of infrastructure and increase in administrative cost while the fluctuational value of government expenditure is as a result of considerable increase in government indebtedness. Beyond the issue of poor quality of public expenditures, the ability to save windfalls from excess crude oil proceeds by the government remains critical in ensuring that government expenditure is maintained at a sustainable level and consistent with the absorptive capacity of the economy (Baungard, 2003).

Consumption expenditure by government has also increased significantly in 1986-1992 to an average of 4.61% and decrease significantly. Ocran (2009 ) noted that consumption expenditure is largely seen as unproductive by the literature on fiscal policy and economic growth. However, when gross fixed capital formation is considered, it is noted that government has been investing at lower levels as compared with 1986-1992 which recorded an average of 7.84% and decrease to 6.43% and 5.55% in 1993-1997 and 1998-2002 respectively. The value further increase to 7.90% and 10.25% in between 2003-2007 and 2008-2012 respectively. The growth rate of the economy was 4.28% in 1986-1992 and decrease to 2.29% in 1993-1997 and continuous to increase to 7.08% in 2008-2012. The increase value of the economic performance can be attributed to sound macroeconomic policies put in place to enhance productivities of the real sector by monetary authority and the federal government.

## Research Methodology

### Sources of Data

The data to be used in carry out this study would be time series data for the period 1986 – 2011 obtained mainly from secondary sources. Among these are Central Bank of Nigeria (CBN) statistical bulletin (various issues) and The National Bureau of Statistic (NBS)

### Method of Data Analysis

The research techniques employed in this study is econometric technique that is rooted in co-integration while the method of estimation is the error correction model (ECM). The choice

of error correction is informed by the fact that it is Best Linear Unbiased Estimation (BLUE). The steps includes the testing of the series individually for stationarity using the Engle and Granger (1987) two step approach to determine the order of integration of the variables using the Augmented Dickey-Fuller (ADF) set of unit root test. After that we proceeded to search for the existence of long-run equilibrium casual relationship between fiscal policy and the macroeconomic variable economic growth as stated in the model.

**Model Specification**

According to endogenous growth theory, fiscal policy can affect both the level and growth rate of the economy. A detailed illustration of the mechanism through which fiscal policy influences growth can be found in, amongst others, Barro (1990) and Barro and Sala-i-Martin (1995). These authors employ a Cobb Douglas production function with government provided goods and services as an input to show the positive effect of productive government expenditure and the adverse effects associated with distortionary taxes. In line with the endogenous theoretical framework of fiscal policy, the following empirical model is specified.

$$GDP = f (GVT, BDG, TAX, EXD, GFCF) \text{ ----- (1)}$$

This can be stated in operational form as

$$GDP = \beta_0 + \beta_1GVT + \beta_2BDG + \beta_3TAX + \beta_4 EXD \beta_5GFCF + Ut \text{ ----- (2)}$$

Where

GVT = Aggregate Government Expenditure

BDG = Government Deficit as a Percentage of GDP

GFCF = Gross Fixed Capital Formation

TAX= Tax (proxy by Total non oil revenue of government),

EXD = External Debt

GDP= Gross domestic produc

$\beta$  Depict coefficients and Ut is the error term (assumed white noise)

Apriori,  $\beta_1, \beta_2, \beta_5, > 0$  while  $\beta_2, \beta_3 < 0$

**Data Analysis And Presentation Of Result**

**Unit Root Test**

Granger and Newbold (1974), Granger (1986), have demonstrated that if time series variables are non-stationary, all regression findings with these time series will be at variance from the conventional theory of regression with stationary series. That is, regression coefficients with non-stationary variables will be spurious and deceptive.

To get over this problem, we test for stationarity of the time series. Conventional method of Augmented Dickey Fuller (ADF) test will be used to investigate whether variables used in this study have a unit root or not. The results of the unit root test are presented below.

Table 2: Unit Root Test

Variable	ADF calculated value in Level	ADF calculated value at 1st Difference	McKinnon 5% Critical value	Orderof Integration
GDP	-2.1468	-3.5855	-2.9907	1(1)
GVT	-3.2163	-	-2.9850	1(0)
GFCF	-1.4842	-5.2247	-2.9907	1(1)
BD	-2.241889	-3.930736	-2.9907	1(1)
TAX	-1.4887	-3.9999	-2.9907	1(1)

EXD	-2.1141	-3.0158	-2.9907	1(1)
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Sources: Authors' calculation.

In Table 1 above, budget deficit as a Percentage of GDP, Gross Fixed Capital Formation, Tax (proxy by Total non oil revenue of government), External Debt and Gross domestic product are stationary at first difference 1(1), since the ADF value of each of the variables at first difference is greater than the McKinnon 5% critical values, while aggregate Government Expenditure is stationary in level.

### Johansen Co-integration Test Result

The result of Johansen co-integration test is shown in table 2 below. The result shows that there exist three (3) cointegrating equations at 5% level of significance. This is because the likelihood ratio is greater than critical values at 5%. This shows that there is long run relationship between economic growth and fiscal policy variables. The result indicates that, in the long run; the dependent variables can be efficiently anticipated using the specified independent variables. Thus, error correction model can be estimated.

Table 2 :

Co-integration Rank Test Assuming Linear Deterministic Trend for Model

Series: LGVT, LTAX, LGFCF, LEXD, LBDG, GDP				
Eigenvalue	Likelihood Ratio	5 Percent Critical Value	1 Percent Critical Value	Hypothesized No. of CE(s)
0.784579	103.0435	68.52	76.07	None **
0.727567	64.66441	47.21	54.46	At most 1 **
0.607666	32.15533	29.68	35.65	At most 2 *
0.232415	8.764290	15.41	20.04	At most 3
0.082466	2.151641	3.76	6.65	At most 4

\*(\*\*) denotes rejection of the hypothesis at 5% (1%) significance level

L.R. test indicates 3 co-integrating equation(s) at 5% significance level

Sources: Authors computation.

### Presentation of Regression Result

The result of error correction model is presented in table 3 below.

Table 3:

Parsimonious Error-Correction Model (DLGDP) by OLS

Regressor	Coefficient	Std Error	T-statistic	Probability.
C	-0.080	0.077	-1.035	0.317
D(LGVT)	0.290	0.109	1.980	0.062
D(LGVT-1)	0.450	0.137	3.293	0.004
D (LTAX)	0.106	0.086	1.225	0.234
D (LGFCF(-1))	0.451	0.099	3.657	0.002
D(LBD)	-0.668	0.014	-4.783	0.000
D(LEXD(-1))	-0.242	0.041	-1.825	0.084
D(LEXD(-2))	0.005	0.304	1.485	0.153

ECM(-1)	-0.549	0.208	-3.968	0.001
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$R^2 = 0.742$ ;  $R^2 = 0.661$ ; F – Statistic = 9.000; Prob (F – Statistic) = 0.000; D.W Statistic 2.213  
Sources: Authors computation.

The over parameterized model from which the parsimonious ECM emanated is presented in Table 2. The examination of the econometric models in Table 2 above shows that budget deficit as a Percentage of GDP, Gross Fixed Capital Formation, Tax (proxy by Total non oil revenue of government) and External Debt variables explains 66% of the total variations in economic growth. This is indicated by the values of the adjusted  $R^2$ (0.661). Given the F-values of 9.000, reveals that the overall regression is statistically significant while the Durbin–Watson statistics of 2.213 indicated the absence of serial autocorrelation.

The coefficient of the error correction term (ECM) is statistically significant and carries the expected negative sign at 5% level of significant. However, the speed of adjustment is fast, that is 55% of the adjustment to equilibrium fiscal policy is expected to occur in the long run. Further, this figure shows the average speed of adjustment of fiscal policy movement to its long-run change in the equilibrium conditions. This result indicate that ignoring error correction in non-stationary time series analysis would lead to misspecification of the underlying process to achieve real fiscal policy stability and Nigeria’s economic growth.

From table 3, it could be observed that total government expenditure (DLGVT) assumes its apriori predicted sign of positive. This shows that a positive change in the DLGVT variable will lead to positive change in Real Gross Domestic Product (RGDP) proxy for Nigeria economic growth. Precisely ten per cent increase in DLGVT will lead to 2.90 per cent increase in Nigeria economic growth. The coefficient of DLGVT is not significant at 0.05significance level with a very high probability value of 0.062. However, one period lag of DLGVT has positive effect on economic growth such that ten percent increase in DLGVT-1will leads to 4.5 percent increase on economic. The coefficient of DLGVT(-1) is significant at 0.05significance level with a very low probability value of 0.004.The implication of this finding is that continuous increase in government expenditure on infracture and the productive venture has the tendency to induced Nigeria economic.

The coefficient of tax (DLTAX) is 0.106. This implies that a ten percent increase in DTAX will result in a 1.06 percent increase in Nigeria economic growth. This variable was found to be statistically insignificant at 0.05 percent levels of significance judging from the high probability value estimate of 0.234. The implication of this finding is that Nigeria tax is not growth inducing due to poor administration of tax and the dominant role of oil as a source of revenue to the government.

The estimated coefficient of gross fixed capital formation ( DLGFCF (-1)) was found to be 0.451. Thus, a direct relationship with economic growth was established. This is consistent with the apriori expectation. The variable is also significant at 0.05 per cent levels of significance due to the low value of the probability of 0.002. This result indicates that DLGFCF is growth inducing in the Nigerian economy. This indicate that government investment in the economy enhance economic performance.

Budget deficit as ratio of GDP (DLBD) variable coefficient bears a negative sign. This conforms to the apriori expectation. This implies that there is inverse relationship between budget deficit and Nigeria economic growth. The value of the coefficient is -0.668. This implies that a ten per cent increase in Budget deficit as ratio of GDP will lead to about 66.8 per cent decrease in Nigeria economic growth. The coefficient value of the variable is significant at 0.05 significances level, which is confirmed by low probability value of 0.000. The robustness

and inverse nature of this variable is as a result fiscal indiscipline and poor implementation of budget in the Nigerian economy.

Furthermore, one period lag of the variable external debt has the theoretical expected negative sign. This implies that a one per cent increase in a year period lag of DLEXD will lead to 0.242 per cent increase in Nigeria economic growth. The coefficient value of DLEX is insignificant at 0.05 significances level, which is confirmed by high probability value of 0.084. The result also shows that external debt in two period lag has direct and insignificant impact on Nigeria economic growth. This is not consistent with the apriori expectation. The positive and insignificant nature of this variable point to the fact that its effect on the economic is still very low indicates that this variable have the tendency to induced Nigeria economic performance if the loan is invested on productive venture which has the capacity to liquidate the principal and the interest.

### **Conclusion And Policy Recommendations**

The study examined the impact of fiscal policy variables on Nigeria economic growth for the period which spanned from 1986 to 2012, using co-integration approach. The empirical analysis is based on time series econometrics. It is found in the study that fiscal policy variables of budget deficit as a Percentage of GDP, Gross Fixed Capital Formation, Tax and External Debt are stationary at first difference 1(1). Gross domestic product is also stationary at fist difference while aggregate Government Expenditure is stationary in level 1(0). The results of Johansens's co-integration test indicate that there exist a long run and short run relationship between Nigeria economic growth and fiscal policy variables. The estimated coefficient of the ECM indicates a high speed of adjustment to equilibrium. The sign of error correction term is negative and significant, confirming that there exists a long-run equilibrium relationship among the variables.

Furthermore, the results reveal that government expenditure and gross fixed capital formation from government has positive and significant impact on Nigeria economic growth. Tax also has a positive impact on output growth but insignificant. However, budget deficit has negative and significant effect on Nigeria economic growth. External debt has negative and insignificant influence on Nigeria economic growth.

Conclusively, the general lesson that emerges from this study is that fiscal policy has the ability to induced economic growth in Nigeria through government expenditure and investment in the economy while ensuring that fiscal discipline are practised by keeping to budgetary provisions and minimising budget deficit .

Based on the findings in this study and to induce the impact of fiscal policy variables on Nigeria economic growth the following recommendations are advocated:

1. The government should ensure that fiscal policy irregularities are minimized and policy reversals are properly checked for both short and long run effects on the economy.
2. The passage of annual budgets should be done month of the year to give room for proper implementation, monitoring and review where necessary to achieve the desired objectives of fiscal policy
3. Government should restructure its revenue base to finance fiscal deficit expansion rather than embarking on external borrowing since external debt and budget deficit has an inverse effect on Nigeria economic growth. This can be achieved by improving its revenue sources and efficient pursuit of tax reforms which will help to minimized tax avoidance and invasion.

4. Government should ensure that expenditure programmes are properly monitored to avoid leakages in the system through the application of fiscal transparency and responsibility and due process.
5. Government should continue to direct foreign loan into the programmes that produce public capital since this improves the productivity of the economy and hence, is likely to have a positive long run effect on economic growth in Nigeria.
6. Finally, government should fight the problem of corruption because without a reduction of the level of corruption in the country, fiscal policy components will not achieve the required level of economic growth in Nigeria.

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