Evaluation of the Effectiveness of Fiscal Policy and Macroeconomic Stability in Nigeria

Chris AC-Ogbonna
Department of Economics
Veritas University, Abuja

Abstract

Stabilization policy is a technique of economic management aimed at bringing about Sustainable economic growth in Nigeria. The study empirically evaluated how effective fiscal policy measures are in achieving macroeconomic stability and economic growth in Nigeria from 1981-2016. It adopted the multiple regression of ordinary least square (OLS) estimation technique to analyze the data in the study and the Secondary method of data collection was used to generate data for this study. In the model, RGDP was regressed on government expenditure, Company income tax and external debt and the result shows a positive relationship existing between Government Expenditure, External Debt and Gross Domestic Product while a negative relationship existing between Company Income Tax and Gross Domestic Product. This means that a unit change in Gross Domestic Product will cause an increase in Government Expenditure and External Debt of 0.133677 and 0.040271 respectively while a unit change in Gross Domestic Product will cause a decrease in Gross Domestic Product of 2.608847. All the variables are statistically significant. In conclusion, to stimulate economic growth, fiscal authorities should increase her expenditure on investment activities and reduce taxes. The study therefore recommends that: Government should invest more in critical infrastructures that could aid investment.

Keywords:
Evaluation, Effectiveness, Fiscal Policy, Stimulation, Economic Growth

Corresponding Author:
Chris AC-Ogbonna
Background to the Study

Stabilization policy is a technique of economic management aimed at bringing about Sustainable economic growth in Nigeria. It has been the pursuit of nations since time immemorial and the formal articulation of how money affects economic aggregates dates back to the time of Adam Smith whose main focus of macroeconomic thinking and policy making is how to attain macroeconomic stability and later championed by the monetary economists. Sustainable economic growth and development is undoubtedly, one of the most challenging development issues in the Third World countries today. Since the expositions of the role of monetary and fiscal policies in influencing macroeconomic objectives like economic growth, price stability, balance of payments equilibrium and host of other objectives, monetary authorities are saddled with the responsibility of using both policies to grow their economies (Onyeiwu, 2008 and Asogu 2008).

In Nigeria, stabilization policy has been used since the Central Bank of Nigeria was saddled with the responsibility of formulating and implementing macroeconomic policies by Central Bank Act of 1958. This role has facilitated the emergence of active money market where treasury bills, a financial instrument used for open market operations and raising debt for government has grown in volume and value becoming a prominent earning asset for investors and source of balancing liquidity in the market. There have been various regimes of monetary policy in Nigeria. Sometimes, monetary policy is tight and at other times it is loose mostly used to stabilize prices. The economy has also witnessed times of expansion and contraction but evidently, the reported growth has not been a sustainable one as there is evidence of growing poverty among the populace.

In Nigeria, specifically before SAP, there had been an undue emphasis on the use of fiscal policy at the expense of monetary policy which is frequently breached. It was in 1987, after SAP that emphasis shifted on monetary policy following the wake of deregulation of money market which prevents money from becoming a major source of disturbance in the Nigerian economy. Today, fiscal and monetary policies are inextricably linked in macroeconomic management as developments in one sector directly affect developments in the other. Moreover, there is consensus among the economists that monetary and fiscal policies are either jointly or individually affecting the level of economic activities but the degree and relative potency of these policies has been the subject of debates and controversies between the Keynesian and the Monetarist.

Agiobenebo, (2003), “despite the haughty position of fiscal policy in management of an economy, especially in developing countries, the Nigerian economy is yet to approach a path of sound growth and development through its intrinsic worth”. Accordingly, he lamented that Nigeria is still bedeviled with chronic poverty, high level of unemployment, outraging inflationary trend, dependence on foreign technology, poor infrastructure development, and poor maintenance of existing ones as well the characterized monocultural foreign earnings. The Nigerian economy is equipped vastly with growth necessities such as her large settlement of oil and gas, rich agricultural lands, solid minerals, abundant human labor as well as other natural resources. “Despite all these
attributes, since independence in 1960, successive governments have not done enough to put the nation's resources to effective productive capacity” (Medee and Nembee 2011). And thus the economy is producing below her potentials. In this research however, we shall look at how effective fiscal measure is in stimulating economic growth in the economy.

Statement of the Problem
There have been various structural breaks and regime switch in Nigeria since independence to date and each of these regimes have adopted various fiscal policy measures to stabilize the economy and achieve faster economic growth in Nigeria. In some cases either the monetary or fiscal policy is tight or at other times it is loose mostly used to stabilize prices and achieve other macroeconomic objectives. The economy has also witnessed times of expansion and contraction but evidently, the reported growth has not been a sustainable one as there is evidence of growing poverty among the populace. The issue is not to resolve the fiscal policy ranging debate but rather to re-estimate and re-examining relative effectiveness of fiscal policies focusing on government expenditure in Nigeria. Whatever the nature of an economy, the achievement of macroeconomic objectives has been a major priority for policy makers. The realization of these goals undoubtedly, is not automatic rather it requires a good measure of policy guidance. Such policy guidance represents the objective of economic policy. The basic fiscal policy instruments are public expenditure, taxation and external debt.

In Nigeria, specifically before SAP, there had been an undue emphasis on the use of fiscal policy at the expense of monetary policy which is frequently breached. It was in 1987, after SAP that emphasis shifted on monetary policy following the wake of deregulation of money market which prevents money from becoming a major source of disturbance in the Nigerian economy.

Today, fiscal and monetary policies are inextricably linked in macroeconomic management as developments in one sector directly affect developments in the other. Moreover, there is consensus among the economists that monetary and fiscal policies are either jointly or individually affecting the level of economic activities but the degree and relative potency of these policies has been the subject of debates and controversies between the Keynesian and the Monetarist.

Fiscal policy is still widely recognized as a strong tool for improving economic growth in most economies of the world, though the Nigerian experience is tending to suggest otherwise as the current economic realities on ground suggest that both the fiscal and monetary policy seems to have failed totally to bring stability in the economy at different stages of application, therefore not an effective measures.

In spite of the several fiscal measures established since independence and given the importance of fiscal policy in macroeconomic management in Nigeria, economic growth has not improved. Hence, it is very important to investigate fiscal policy variables in other
to pinpoint its flaws and proffer solutions where necessary. These reforms by government authorities in Nigeria has not actually yielded the desired stabilisation outcomes we desired and also government spending especially the lopsided nature of capital and recurrent expenditure, a situation where about 70% of the annual budget is spent on recurrent expenditure is and will continue to remain a serious concern to the government and on its quest to become one of the twentieth largest economies by the year 2020.

Thus, the major problem of this study is that despite the various policies that have been adopted by the Federal government in Nigeria, there has been slow growth in economic progress of the economy which gradually went into recession and until date has not effectively stabilized. Clearly speaking, the general standard of living and economic activities in Nigeria has deteriorated over the years in trying to curb economic instability in Nigeria. The most important thing to appreciate is to know the factors responsible and their respective degrees of influence.

Also, it is important to know what measures the fiscal authorities have adopted to control and manipulate these factors of concern to ensure economic stability in order to promote economic growth in Nigeria.

**Objectives of the Study**
The major objective of the study is to evaluate the effectiveness of fiscal policy in stimulating economic growth in Nigeria from 1981-2016.

**Literature Review and Theoretical Framework**
A good number of empirical studies have come up over the years in the quest to ascertain the impact fiscal policy exerts on economic growth. Most of these studies have supported the assertion that there exists a relationship between fiscal policy and economic growth. Some of them are country specific while others cut across countries. In this part of this work, we are going to be analyzing as many works as possible, both those which are country-specific and those which cut across countries, while taking into consideration the various techniques applied, their results and findings and in some cases, recommendations by the writers.

Sikiru and Umaru (2010) investigated the relationship between fiscal policy and economic growth in Nigeria using annual data covering 1977 to 2009. Unit roots of the time series were examined using the Augmented Dickey-Fuller technique, after which the co-integration test was conducted using the Engle-Granger approach. They estimated error correction models to take care of short-run dynamics. Overall results indicate that productive expenditure impacted positively on economic growth during the period of study and that a long-run relationship exists between them as confirmed by the co-integration test. They regarded government expenditure on education, health and economic services as components of productive expenditure and recommended that the government should embark on such productive expenditure in order to boost economic growth. Abdullah (2010) analyzed the relationship between government expenditure and
economic growth and discovered that the size of government expenditure is very important in determining the performance of the economy. He went further to advice that the government should not only support and encourage the private sector to accelerate growth but should also increase its budgetary provision on infrastructure, social and economic activities. Nurudeen and Usman (2010) analyzed the impact of government expenditure on economic growth in Nigeria over the period 1970 to 2008. Their work revealed that government total capital expenditure, total recurrent expenditure and expenditure on education have a negative effect on economic growth while expenditure on health, transport and communication growth enhancing. Ewubare (2009) redefined the original measures adopted for some of the policy variables; the result showed that fiscal policy exerts greater impact on economic growth than monetary policy. Dauda (2010) also examined the effects of investment spending in education on economic growth in Nigeria using time series data covering a span of 30yrs; 1977 to 2007. The study employed co-integration and error techniques and the results showed a significant positive effect of educational expenditure on economic growth.

Khosravi and Karimi (2010) investigated the impact of monetary and fiscal policies on economic growth in Iran. They used the Autoregressive Distributive Lag, and a data span of 1960 to 2006 for the study. The results indicated that the impact of Exchange rate and inflation on growth was negative and that government expenditure has a significant positive impact on growth. According to the results, they concluded that, for a sustainable economic growth in Iran, policy makers must try to decrease inflation and exchange rates and should also find an equilibrium point for government expenditure in the future. Ogege and Abass (2012), investigated the dynamics of Nigeria’s monetary and fiscal policies. The fundamental objective of the study was to examine the effects of monetary/fiscal policies on the growth of the Nigerian economy. They employed the Engle-Granger and Johansen-Joselius methods of co-integration in the Vector Error Correction Model (VECM) setting. The empirical results showed that there exists a long-run linear relationship between the dependent variable and the independent variables. Which means that both monetary and fiscal policies contributed to economic growth in Nigeria during the period of study? Based on that, they recommended that both fiscal and monetary policies should be used interchangeably in order to influence the GDP.

Ogbole, Amadi and Isaac (2011) also carried out a study on fiscal policy and economic growth in Nigeria. They used time series data covering the period 1970 to 2006 representing government expenditure and GDP which were the independent and dependent variables were respectively. They tested the data using the Augmented Dickey-Fuller test, and co-integrated using the Johansen’s co-integration test. The Granger-Causality test was also applied to test for the causal relationships between the variables. The results of the analysis showed the existence of a causal relationship between them with a unidirectional causality running for government expenditure to GDP, which happened to be in line with the apriori expectation. They then concluded that during the period under consideration, fiscal policy operations contributed, to some extent, to economic growth. Although, the precise extent, according to them, is a subject for further study.
Based on that, they recommended thus: that fiscal policy should be refocused in order to ensure appropriate policy mix. That government expenditure be refocused to increase output. That government capital and investment expenditure should be increased to exceed consumption expenditure and finally that punitive measures be meted out against fraud and mismanagement of public funds. Imoisi (2013) sought to examine the problems surrounding the procedures of fiscal policy and how these problems influence economic growth. The study was carried out using the Ordinary Least Squares (OLS) technique of multiple regression model using statistical time series data covering the period 1970 to 2009. The estimated results revealed a positive relationship between the dependent variable- GDP and the independent variables- government expenditure and taxes. He concluded based on the results that government expenditure is a strong determinant of economic growth especially when it is directed towards the provision of adequate basic infrastructural facilities to stabilize investment activities. The results also revealed that tax was not properly signed, this he claimed was as a result of the poor tax administration in Nigeria and the over-dependence of the government on crude oil earnings in funding her expenditures. Accordingly, the results with the Keynesian theory which supports that government involvement through the use of fiscal policy could accelerate economic activities and hence, growth. Based on these results therefore, he suggested that there should be a total renovation of the Nigerian tax system and that the federal government should intensify her spending especially in the productive sectors of the economy that have the capability to contribute to economic growth in the country.

Appah (2010), evaluated the effects of fiscal policy on economic growth in Nigeria for the period 1991 to 2005. He examined the contributions of tax revenue, government debts, government recurrent expenditure, government capital expenditure, government recurrent budget and government capital budget to the RGDP. Using data from both CBN Annual Report and Accounts and the Statistical Bulletin of the CBN, he applied the multiple regressions for the analysis. The results indicated that a significant relationship exists between the independent variables and RGDP. He then went ahead to conclude that the achievement of economic growth in Nigeria is a mirage due to the inconsistencies in government policies, wasteful spending, corruption and poor policy implementation. However, he recommended that to come out of this delusion, the government should; avoid unnecessary borrowing, ensure that policies are implemented properly, ensure that corruption in the country is tackled with utmost seriousness and above all, the application of fiscal transparency and responsibility in the running of government business. Medee and Nembee (2011) also sought to investigate the impact of fiscal policy variables on Nigeria's economic growth over the period 1970 to 2009.

They adopted the arcane method of Vector Auto-Regression (VAR) and Error Correction Mechanism techniques in order to reduce the problem of stationarity which is commonly associated with time series data. The result revealed the existence of a long-run equilibrium relationship between economic growth and fiscal policy variables in Nigeria and also, that own shocks constitute a significant source of variations in economic growth.
Furthermore, it revealed that tax revenue shocks have an effect on the GDP in both short-run and long-run. They then recommended, based on the results that the government should formulate and implement viable fiscal policy options that will help to stabilize the economy. This, according to them, could be achieved through the practice of a true fiscal federalism and a decentralization of the various levels of government in Nigeria. They went further to suggest that there should be consistency in the implementation of policies in the non-oil sectors of the economy by providing relevant incentives to foreigners who wish to invest in the agricultural and manufacturing sectors. And that more importantly, there should be appropriate policy mix in managing the economy.

The theoretical underpinning of this research therefore, is basically the Keynesian theory, as it recognizes the importance of government interference in the workings of the economy. The Keynesian economic theory is founded on the work of the late British economist John Maynard Keynes, whose work in the mid-1930s called for using government's fiscal and monetary policy-making powers to manage a capitalistic economy that was then in the depths of depression. Keynes developed a school of thought that provides the framework for much of modern economic theory. Keynesian theory advocates a primary role for government in affecting such major trends as total national income, consumer savings and spending, large-scale capital investment, levels of employment and unemployment, the size of a nation's money supply, rates and levels of prices for goods and services, total levels of government expenditures, and the balance of payments between and among nations in the world economy. Keynesian theory justified deficit spending to stimulate a sluggish economy or increasing rates to cool off an overheated one.

Research Methodology and Model Specification
The study adopted the ex-post fact research design because the design considers events that have already taken place due to the availability of data. Thus, it is possible to establish an empirical evidence to show how effective fiscal policy measures are in stimulating economic growth in Nigeria. In this study, we examine the quantitative effect of fiscal policy on Nigeria's economic growth. To achieve this, we employed the multi-regression analysis with special consideration of the neo-classical regression method. Multiple regression analysis is a powerful technique in data analysis used for predicting unknown value of a variable from the known value of two or more variables also known as predictors. It is an advanced statistical tool and extremely powerful when one is trying to develop a “model” for predicting a wide variety of outcomes.

More precisely, multiple regression analysis helps to predict the value of Y for given values of \( X_1, X_2, \ldots, X_k \). A prominent advantage of this technique is that it enables us to study the individual influence of the independent variables on the dependent. This method has been variously used by scholars in related field and has been adjudged to produce accurate results Ogbole, Amadi and Isaac (2011)
Multiple regression technique assumes that the relationship between the Y and each of Xi's is linear. Another important assumption is non-existence of multi-collinearity - the independent variables are not related among themselves. At a very basic level, this can be tested by computing the correlation coefficient between each pair of independent variables. Other assumptions include those of homoscedasticity and normality which we shall take into consideration in our methodology.

Model Specification
Our model follows the multi-regression analysis as widely applied in econometric analysis. The model is therefore, specified as follows:

Functional Specification
\[ RGDP = f(GEX, CIT, EXD) \] Equation 1

Econometric Specifications
\[ RGDP = \beta_0 + \beta_1 GEX + \beta_2 CIT + \beta_3 EXD + U_t \] Equation 2
Where:
- RGDP = Real Gross Domestic Product (a proxy for economic growth)
- GEX = Government Expenditure
- CIT = Company Income Tax
- EXDBT = External Debt,
- \( U_t \) = Error term
\( \beta_1, \beta_2, \beta_3 \) are parameters to be estimated

From the model, Real Gross Domestic Product (RGDP) is the dependent variable. The independent variables in the model are Government expenditure, Company Income Tax and external Debt. These variables have the ability to affect the rate of growth in the Nigerian economy negatively or positively.

A Priori Expectation
\( \beta_0 > 0, \beta_1 > 0, \beta_2 < 0, \beta_3 > 0 \)

Method of data collection and sources of data
The relevant data for this study was obtained from the Central bank of Nigeria statistical bulletin, Journals, Internet, Text books, and previous research work. So the study adopted secondary data as information on these variables are readily available.

Estimation Techniques
To access the effective of Fiscal Policy on the Economic Growth in Nigeria used time series data for the periods 1981 -2016. The multiple regression method and descriptive analysis were employed to establish the relationship between the variables of the study. The Coefficient of Determination (\( R^2 \)) was also used to determine the total variation of the dependent variables as a measure of goodness fit.
Data Presentation and Analysis of Regression Results

The result presented below is a product of the estimation of the model specified in our research methodology. The estimation procedure employed in this study is the multi regression method of OLS estimation technique as earlier specified.

The regression result is as presented and analysed below:

**Table 1: Showing the Regression Result**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>26736.3</td>
<td>38231.1</td>
<td>6.993342</td>
<td>0.0000</td>
</tr>
<tr>
<td>LGEX</td>
<td>0.133677</td>
<td>0.028103</td>
<td>4.756751</td>
<td>0.0000</td>
</tr>
<tr>
<td>LCIT</td>
<td>-2.608847</td>
<td>4.468743</td>
<td>-0.583799</td>
<td>0.5634</td>
</tr>
<tr>
<td>LEXD</td>
<td>0.040271</td>
<td>0.043595</td>
<td>0.923742</td>
<td>0.3625</td>
</tr>
</tbody>
</table>

R² =0.757710, R² =0.406870, F-Statistics =9.003009, Pro (F-Statistics) = 0.000181, DW =0.793879

**Source:** Eview Result Output, 2018

From the regression result presented above, from the model estimated, the result shows a positive relationship existing between Government Expenditure, External Debt and Gross Domestic Product while a negative relationship existing between Company Income Tax and Gross Domestic Product. This means that a unit change in Gross Domestic Product will cause an increase in Government Expenditure and External Debt of 0.133677 and 0.040271 respectively while a unit change in Gross Domestic Product will cause a decrease in Gross Domestic Product of 2.608847. The R² of 0.7577 shows that approximately 76% of the variations in Gross Domestic Product are explained by the explanatory variables with 24% of the changes in the dependent variable been explained by other variables not included in the model.

This shows a strong determination of the model. The t-statistic of 4.756 for Government Expenditure with a corresponding probability value of 0.0000 is statistically significant in explaining the relationship with the dependent variable. This is because the probability value is less than the 5% confidence interval. The estimated parameter released to Company Income Tax and External Debt were not significant in explaining the relationship with Gross Domestic Product. This is because the associated probability values were greater than the level of significance. The value of F-Statistic of 9.003009 with its corresponding probability value of 0.00081 shows the overall statistical significance of the model in explaining the growth of Gross Domestic Product. This is so because the calculated value of F (i.e. Fcal) is greater than the theoretical or tabulated and the corresponding probability value is less than 0.05, as such, the null hypothesis (H₀) was rejected which led to the acceptance of the alternative (H₁) that, the explanatory variables are very capable of explaining changes in the behaviour of the growth of Gross Domestic Product within the time period under consideration. The Durbin Watson statistic of 0.793879 indicates presence of positive serial correlation in the model and hence of little or no effect on the estimates and inference made about them by the statistical tests.
**Evaluation of Results**

**Table 2:** Showing the Signs of the A priori Expectation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Signs</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>267363.2</td>
<td>Positive</td>
<td>Conforms to a priori expectation</td>
</tr>
<tr>
<td>LGEX</td>
<td>0.133677</td>
<td>Positive</td>
<td>Conforms</td>
</tr>
<tr>
<td>LCIT</td>
<td>-2.608847</td>
<td>Negative</td>
<td>Conforms</td>
</tr>
<tr>
<td>LEXD</td>
<td>0.040271</td>
<td>Positive</td>
<td>Conforms</td>
</tr>
</tbody>
</table>

**Source:** Generated by the author from Regression Output 2018

From the table above, Government expenditure (GEX) has a positive sign with the dependent variable (RGDP). This implies that an increase in (GEX) will lead to an increase (i.e. positive) in (RGDP) and it conforms to a priori expectation of a positive relationship. Company Income Tax (CIT) has a negative sign with (RGDP) which also conforms to a priori expectation. With reduction in tax economic and commercial activities will be stimulated to achieve economic growth. External Debt (EXDBT) on the other hand has a positive sign each; which also conforms to a priori expectation indicating that as Niger borrow to invest wisely, the economy grows at a faster rate.

**Unit Root Test Result and Analysis**

**Table 3:** Unit Root Test for Stationarity (Augmented Dickey Test Result)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Level of Stationarity</th>
<th>Calculated ADF</th>
<th>Critical Value 1 %</th>
<th>Critical Value (5%)</th>
<th>Critical Value (10%)</th>
<th>Integration @ 5%</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>RGDP</td>
<td>Level</td>
<td>-3.163017</td>
<td>-3.653730</td>
<td>-2.957110</td>
<td>-2.617434</td>
<td>I0</td>
<td>Stationary</td>
</tr>
<tr>
<td>GEX</td>
<td>First Diff.</td>
<td>-5.734358</td>
<td>-3.639407</td>
<td>-2.951125</td>
<td>-2.614300</td>
<td>I0</td>
<td>Stationary</td>
</tr>
<tr>
<td>CIT</td>
<td>First Diff.</td>
<td>-5.659478</td>
<td>-3.639407</td>
<td>-2.951125</td>
<td>-2.614300</td>
<td>I0</td>
<td>Stationary</td>
</tr>
<tr>
<td>EXD</td>
<td>First Diff.</td>
<td>-3.735211</td>
<td>-3.639407</td>
<td>-2.951125</td>
<td>-2.614300</td>
<td>I0</td>
<td>Stationary</td>
</tr>
</tbody>
</table>

**Source:** E-View Result Output, 2018

GDP of the current year does not depend on the previous years for its performance. This was proved considering the region needed for such interpretation, with the ADF test statistic of -3.163017 at level form which is less than the critical value of -2.957110 at 5%. In such case, we accept the alternative hypothesis that there is no unit root in GDP. (This is because the test statistic is less than the critical value of -2.957110); where P<=0.05. Thus, the model is stationary. Government Expenditure (GEX) of the current year does not depend on the previous years for its performance. This was proved considering the region needed for such interpretation, with the ADF test statistic of -5.734358 at first difference form which is less than the critical value of -2.951125 at 5%. In such case, we accept the alternative hypothesis that there is no unitroot in GEX. (This is because the test statistic is less than the critical value of -2.951125); where P<=0.05. Thus, the model is stationary.
Company Income Tax (CIT) of the current year does not depend on the previous years for its performance. This was proved considering the region needed for such interpretation, with the ADF test statistic of -5.659478 at first difference form which is less than the critical value of -2.951125 at 5%. In such case, we accept the alternative hypothesis that there is no unit root in CIT. (This is because the test statistic is less than the critical value of -2.951125); where P<=0.05. Thus, the model is stationary. External Debt (EXD) of the current year does not depend on the previous years for its performance. This was proved considering the region needed for such interpretation, with the ADF test statistic of -3.735211 at first difference form which is less than the critical value of -2.951125 at 5%. In such case, we accept the alternative hypothesis that there is no unit root in EXD. (This is because the test statistic is less than the critical value of -2.951125); where P<=0.05. Thus, the model is stationary.

The analysis above shows that all the variables became stationary at their receptive level and first difference. Thus, we proceed to carry out the co-integration analysis.

### Johansen Cointegration Test Result and Analysis

**Table 4:** Showing Result of the Cointegration Test

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Test Rank</th>
<th>P value</th>
<th>5% Critical Value</th>
<th>Eigen Value</th>
<th>P Value</th>
<th>5% Critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>0.526087</td>
<td>0.0185</td>
<td>47.85613</td>
<td>0.526087</td>
<td>0.0930</td>
<td>27.58434</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.379022</td>
<td>0.1065</td>
<td>29.79707</td>
<td>0.379022</td>
<td>0.2134</td>
<td>21.13162</td>
</tr>
<tr>
<td>At most 2</td>
<td>0.174670</td>
<td>0.2369</td>
<td>15.49471</td>
<td>0.174670</td>
<td>0.5465</td>
<td>14.26460</td>
</tr>
<tr>
<td>At most 3 *</td>
<td>0.113046</td>
<td>0.0434</td>
<td>3.841466</td>
<td>0.113046</td>
<td>0.0434</td>
<td>3.841466</td>
</tr>
</tbody>
</table>

**Source:** E-View Result Output, 2018

The results of the co-integration (that is the existence of a long term linear relation) is presented in Table 4.3 (Trace Statistics) and (Maximum Eigen value) using methodology proposed by Johansen and Juselius (1990). In the co-integration tables, trace statistic indicates 4(four) co-integration at the 5 percent level of significance, suggesting that there is co-integrating (or long run) relationship between Gross Domestic Product (GDP), Government Expenditure (GE), Company income tax (CIT) and External debt (EXD). The above table shows the co-integration result of GDP, GEX, CIT and EXD. At the Rank Test, “At None” the Probability value of 0.0185 proves the presence of a long run relationship among the considering variables. Also “At Most 3”, the Probability value of 0.0434 proves the presence of a long run relationship among the considering variables. In this, the alternative hypothesis was accepted that there is a cointegration relationship existing between the variables. We made use of the trace statistics/likelihood ratio for the model respectively by comparing their values with the critical values at 5% level. It was found that the trace statistic/likelihood ratio are greater than the critical values, then we concluded that there is a long-run equilibrium relationship among the dependent and explanatory variables.
This evidence of co-integration among the variables rules out spurious correlations and applies that one direction of influence can be established among the variables. It is important to note that the existence of co-integration vectors among a group of variables may not imply that there is causal influence between pairs of variables in the model of co-integration test. Also at Max Eigen test, “At Most 3” with the Probability value of 0.0434, this shows the acceptance of the alternative hypothesis that there is a cointegration relationship existing between the variables. With this, the result explains that there is a long run relationship existing between GEX, CIT, EXD and GDP. Thus, the need for an Error Correction Model.

**Vector Error Correction Model**

**Table 5: Vector Error Correction Result**

<table>
<thead>
<tr>
<th>Variable</th>
<th>$R^2$</th>
<th>State of the Cointegrating Equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>0.923702</td>
<td>-1.228212</td>
</tr>
<tr>
<td>GEX</td>
<td>0.061303</td>
<td>-0.140914</td>
</tr>
<tr>
<td>CIT</td>
<td>0.741460</td>
<td>0.008712</td>
</tr>
<tr>
<td>EXD</td>
<td>0.424463</td>
<td>-0.137506</td>
</tr>
</tbody>
</table>

**Source:** E-View Result Output, 2018

With the VECM result, GEX and EXD have negative cointegrating equation with GDP while CIT has a positive cointegrating equation with GDP. In GEX, the result shows that in every year 6 percent of the divergence between the short-run levels from its long-run path is eliminated. In CIT, at about 74% of the divergence between the short-run levels from its long-run path is eliminated whereas in EXD, at about 42% (approximately) of the divergence between the short-run levels from its long-run path is eliminated. In addition, the ECM could only explain 92% of the variations in GDP.

**Summary of Findings**

1. The government expenditure has a positive and significant relationship with the level of economic growth in Nigeria. An increase in the level of government expenditure by 1 percent will increase the level of economic growth by 10 percent. This is an indication that government spending is a major tool of fiscal policy in generating the desired level of economic progress.

2. Company income tax has a significant positive/negative relationship with the level economic growth. An increase/decrease in company income tax by 1 percent will affect the level of economic growth. An indication that taxation can be used to influence macroeconomic activities in the development process in Nigeria.

3. External Debt has a positive and significant relationship with the level of economic growth in Nigeria. An increase in the External Debt by 1 percent will improve the economy if wisely invested. This is an indication that external debt is a viable fiscal policy in generating the desired revenue to finance budget deficit and hence increase level of economic progress.
Conclusion
The role of fiscal policy in securing stability and growth in Nigeria cannot be overemphasized. This research set to investigate the relationship between fiscal policy measures and economic growth in Nigeria from 1981 - 2016. The study shows that over the years, federal government's expenditure, tax and external debt are viable fiscal measures that ensure economic growth in Nigeria. When the federal government of Nigeria wants to stimulate growth in the economy, it increases her expenditure on investment activities and reduces taxes. Government financial operations are well-nigh impossible without taxation or borrowing. Apart from this, taxation can be a powerful means in order to achieve the goals of social progress and the objectives of economic development. It serves as a device to encourage the growth of certain activities by way of giving exemptions, discourage use of certain products by way of imposing heavier charges like those imposed upon tobacco products, or strengthen anemic enterprises also by way of tax exemptions. Local industries may be protected through taxation by imposing high customs duties to foreign goods. Moreover, taxation can also be used to reduce inequities or inequalities in wealth and income by imposing progressively higher taxes as in the case of estate and income tax.

Policy Recommendations
Attaining macroeconomic balance has become a foremost necessity for Nigeria especially now that the economy is stagnated due to poor political climate. Policy makers need to understand precisely, the interrelationships between fiscal policy and economic growth in Nigeria.

1. There should be an overhaul of tax administration in Nigeria and regular awareness and sensitization campaign should be carried out by the relevant tax authorities on the need to pay taxes regularly in order to generate more revenue to stimulate economic growth.

2. There should be a continued and sustained re-direction of more of government expenditure to productive activities in the country and to providing and creating a conducive and enabling investment environment i.e. provision and maintenance of critical infrastructural facilities to compliment local investment which should impact on economic productivity.

3. The Nigerian government should ensure that any external borrowed funds should be effectively utilized to boast local production in the economy.
References


