Fiscal Policy and Macroeconomic Performance in Nigeria

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Abstract

This study examines the contribution of fiscal policy measures to economic stability in Nigeria. Specifically, the study examines the impact of fiscal policy measures on macroeconomic variable of growth - the gross domestic product. In order to achieve our objectives, we employed the econometric techniques of ordinary least squares and co-integration/error correction mechanism to analyze our data with a scope of 1970 to 2019. Our results and findings show that fiscal policy measures had serious implication on economic growth. This is evidenced by the coefficient of determination of the model. The R² value is consistently high in the model. Also, government expenditure and revenue were significant in the model. Based on findings, the study recommends that government should improve her role in the economic management by stepping up her capital expenditure and reducing recurrent expenditure in order to boost infrastructural development and create the enabling environment for increased private investment in the economy.

Keywords: Fiscal Policy, Expenditure, Revenue, Gross Domestic Product.

Jel c.: E62, E52.

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INTRODUCTION

The 1990s have witnessed a resurgence of interest in the growth performances of developing countries, and prominent in the policy advice given for them to enhance their growth potentials is the fundamental need to restructure the public sector and make it more responsive for efficient and equitable provision of public services and thereby enhance the public sector’s contribution to economic development, Aigbokhan (1993). Nigeria been an oil rich economy, the high abundant oil, trade openness and the level of oil price can play a key role in establishing the fiscal policy measures of the government.

The issues surrounding fiscal policy are not new, however a disturbing degree of structural imbalance across countries in the recent times has necessitated a rethink and debates among economists and politicians as to the usefulness of fiscal policy tools in fine-tuning economic growth. From whichever way it may be considered, the magnitude of governments fiscal surplus or deficit policy is probably the most important statistic in measuring the impact of government’s fiscal activities on the economy. In view of the foregoing, it is now widely accepted that public sector finances and their related policies constitute a central aspect of economic management, which partly influences the overall performances as well as the distribution of resources between the public and private sectors. There is therefore a growing recognition that the formulation and implementation of macroeconomic management proposals and reforms must include wide range fiscal reforms that will explicitly recognize the importance of a good fiscal policy in the economy. These reforms are expected to cover not only the size...
and financial patterns of government activities but also the structure of taxation, public spending and borrowing. These may be responsible for the type of fiscal policy that is prevalent in the federal Republic of Nigeria in which there are both vertical and horizontal distributions and allocation of functions and responsibilities among various levels of government otherwise known as fiscal federalism.

All these views have further been reinforced by the fact that over the past several years, there has been macroeconomic imbalance of varying degree in Nigeria, large public sector deficits, inappropriate public expenditure and revenue policies (including borrowing even after debt forgiveness) have been identified as some of the causes of the macroeconomic disequilibrium.

Good macroeconomic policy tools are used to correct these imbalances in the system through well-organized fiscal measures that will help to mobilize resources to all the sectors of the economy. It is believed that growth is an important factor necessary condition for economic development, but it may be very difficult to achieve without creating conducive environment that will reduce the imbalance to a greater extent to ensure a steady growth. This can only be achieved through well-designed fiscal measures involving reduction in unemployment rate, inflation rate as well as budget discipline and full capacity utilization of resources among other things. These measures will be attained through a good framework that will ensure adequate allocation, mobilization and distribution of resources. The most important factor is for this to be attained in a well-designed tax structure that will engender equitable resources allocation to all levels of government and sectors of the economy. Empirical studies of most economic scholars like Kuznet have helped to prove the usefulness of adequate resource distribution to economic growth and development, Jhingan (1999).

Improvement in macroeconomic performance is not an exclusively fiscal phenomenon, but it is a fact that it is largely fiscal in Nigeria, this is because public sector is the highest investor and manager of the economy. This study therefore seeks to examine the effectiveness of fiscal policy in ensuring a robust economic growth in Nigeria. The main objective is the evaluation of fiscal policy measures on the performance of Nigeria’s economic growth and specifically, is to examine the extent to which government capital expenditure, recurrent expenditure, borrowing and revenue impacted on economic growth (GDP).

LITERATURE REVIEW

Fiscal policy is most commonly viewed by economists as one-half of macroeconomic policy, the other half being monetary policy. In its most basic form fiscal policy describes how government funds its activities and what these activities are. The putting together of a government budget, for example, is fiscal policy. Fiscal policy is seen as sustainable or rational when the public and those buying government debt instruments perceive that a government’s fiscal policy is predictable and that the government will continue to make payments on its debt. The most obvious example of a rational fiscal policy is that a government’s revenues sources (taxes, tariffs, user fees) roughly equal its expenditures on government programs. A rational fiscal policy might also be defined by a government making public its budgets and the process by which these budgets are formulated. In addition, it is common practice and rational fiscal policy for governments to prepare financial statements and to have these statements audited. Fiscal policy goes hand-in-hand with monetary policy because a country’s currency will lose its value if its fiscal policy is not seen as sustainable.

An active fiscal policy then is the use of government taxing and spending policy to stimulate demand in an economy. In political debates, the use of government fiscal policy to increase demand is now known as a “fiscal stimulus”. If the private sector is not investing enough in productive assets and not spending to increase output, including the hiring of employees, then Keynesians believe that a fiscal stimulus created by government will start an upward cycle of economic activity. As government spending increases through a fiscal stimulus, the stimulus will provide more income to private individuals who will therefore spend more through consumption. This increased spending, through increased demand, will encourage private companies to begin spending more for output to meet the higher demand. This increase in output in turn will mean the hiring of more people. These newly hired employees will then spend more themselves, more demand is created and more output is produced to meet this demand, and an upward cycle of economic activity ensues. This idea of an active fiscal policy is also known as “demand management”.

The seminal work of [Barro 1990] opened new ground for the investigation of the impact of fiscal policy (government expenditure) on economic growth. In line with this, [Barro and Sala-i-Martin 1992, Easterly and Rebelo 1993 and Bruns et al 1999] emphasized that government activity influences the direction of economic growth. Similarly, [DarAtul and Amirkhalkhali, 2002] pointed out that in the endogenous growth models, fiscal policy is very crucial in predicting future economic growth. Many researchers have attempted to examine the effect of government expenditure on economic growth. For instance, [Laudau, 1983] examined the effect of government (consumption) expenditure on economic growth for a sample of 96 countries, and discovered a negative effect of government expenditure on growth of real output. [Komain and Brahmasrene, 2007]
examined the association between government expenditures and economic growth in Thailand, by employing the Granger causality test. The results revealed that government expenditures and economic growth are not co-integrated. Moreover, the results indicated a unidirectional relationship, as causality runs from government expenditures to growth. Lastly, the results illustrated a significant positive effect of government spending on economic growth. [Olugbenga and Awoye, 2007] investigated the relationships between government expenditure and economic growth for a group of 30 OECD countries during the period 1970-2005. The regression results showed the existence of a long-run relationship between government expenditure and economic growth.

RESEARCH METHODOLOGY

The choice of any research method depends on the kind of study to be carried out. This chapter is concerned with the presentation of how we carried out in the study. To this end we shall describe our research design, data required, data collection and sources, model specification and method of data analysis. The research design adopted in this research work was both descriptive and analytical. In the descriptive method, cross-sectional survey was used. This method is suitable because it enables us to know how public expenditure has affected the chosen macroeconomic variables of the economy. The analytical method was used for the purpose of determining variations in dependent variable as a result of changes in the independent variables. Therefore, the method of study will be quasi-experimental. The data was basically secondary. The secondary data was collected from appropriate government agencies – Central Bank of Nigeria (CBN), National Bureau of Statistics, for example, the statistical bulletin and Annual Abstract of Statistics. Others include the following: Journals, periodicals, textbooks, magazines, and daily newspapers, internet and so on.

Model Specification

The functional relationship between dependent and the independent variables in our study were established as follows GDP = f (RFGEX, CFGEX, GREV, GTDS) ------------------ a

Equation above were tried with both linear and log linear specifications and log specification was accepted, judging in terms of goodness of fit, precision of estimates and a tolerable level of multicollinearity. It is important to note that log model help to reduce the problem of multicorrelated.

Also logging the variables will give the variable a uniform scale given that some of the variables are in percentages while some are in naira. Thus, the mathematical forms of the model regulation are as follows:

In Y = \alpha + \beta_1 \ln (X_1) + \beta_2 \ln (X_2) + \beta_3 \ln (X_3) + \beta_4 \ln (X_4) + \lambda_5 \ldots - j^\theta Where Y = GDP, X_1 = RFGE, X_2 = CFGE, X_3 = GREV, X_4 = GTDS.

METHOD OF DATA ANALYSIS

This research will employ the Ordinary least squares (OLS) and Cointegration and Error Correction Model (ECM) based on the Engle-Granger (1987) co-integration theorem. The choice of these econometric techniques is informed due to shortfall that sometimes-characterized time series data. Time series data sometimes give spurious regression due to fluctuation in data collated and deviation from OLS assumptions. The choice of these techniques will also help provide both short and help the variables in adjusting to long-run relationship and finally indicate the impact of fiscal policy on the selected macroeconomic variables during the period of the study.

Data Used for the Research

Gross Domestic Product (GDP) 1970 – 2019
Government Revenue (GREV) 1970 – 2019
Government Total Debt Stock (GTDS) 1970 – 2019


<table>
<thead>
<tr>
<th>Year</th>
<th>GDP (Nb)</th>
<th>CFGEX (Nb)</th>
<th>RFGEX (Nb)</th>
<th>GREV (Nb)</th>
<th>GTDS (Nb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>0.0052811</td>
<td>0.0001878</td>
<td>0.0007161</td>
<td>0.000634</td>
<td>0.001266</td>
</tr>
<tr>
<td>1971</td>
<td>0.0066509</td>
<td>0.0001736</td>
<td>0.0008236</td>
<td>0.0011688</td>
<td>0.0014055</td>
</tr>
<tr>
<td>1972</td>
<td>0.0071875</td>
<td>0.0004513</td>
<td>0.0010123</td>
<td>0.0014051</td>
<td>0.0012529</td>
</tr>
<tr>
<td>1973</td>
<td>0.0086305</td>
<td>0.0005657</td>
<td>0.0009635</td>
<td>0.0016953</td>
<td>0.0013341</td>
</tr>
<tr>
<td>1974</td>
<td>0.0188231</td>
<td>0.0012235</td>
<td>0.0015171</td>
<td>0.0045374</td>
<td>0.0015848</td>
</tr>
<tr>
<td>1975</td>
<td>0.02147524</td>
<td>0.0032077</td>
<td>0.0027349</td>
<td>0.0055147</td>
<td>0.0020254</td>
</tr>
<tr>
<td>1976</td>
<td>0.02665578</td>
<td>0.004013</td>
<td>0.0038154</td>
<td>0.0067659</td>
<td>0.0030015</td>
</tr>
<tr>
<td>1977</td>
<td>0.03152034</td>
<td>0.0050046</td>
<td>0.0038192</td>
<td>0.0080424</td>
<td>0.0037718</td>
</tr>
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<td>1978</td>
<td>0.0345401</td>
<td>0.0052</td>
<td>0.0028</td>
<td>0.007371</td>
<td>0.0060658</td>
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<tr>
<td>1979</td>
<td>0.0419747</td>
<td>0.0042195</td>
<td>0.0031872</td>
<td>0.0109124</td>
<td>0.008255</td>
</tr>
<tr>
<td>1980</td>
<td>0.04963232</td>
<td>0.0101634</td>
<td>0.0048052</td>
<td>0.0152335</td>
<td>0.0100824</td>
</tr>
</tbody>
</table>

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Cointegration and Error Correction Model (ECM) Techniques

It has been observed recently that virtually, the body of statistical estimation theory is based on asymptotic convergence theorems which assume that data series are stationary. However, econometric tools are increasingly being brought to bear on non-stationary data which are not even asymptotically consistent with the notions of convergence. Furthermore, far from being a special case, non-stationary is extremely common in macroeconomic time-series such as income, consumption, money, prices and trade data.

There are two tests for co-integration. The first is the Engle-Granger methodology and the second is Johansen’s methodology. We shall the Johansen’s method. The basic argument of Johansen’s procedure is that the rank of matrix of variables can be used to determine whether or not the two variables are co-integrated.

Summarily, the first stage of co-integrated and error correction techniques is the test for unit root. The whole analysis then proceeds from it. Consequent upon the above, these macroeconomic variables RFGE, CFGE, GREV, GTDS were subjected to a unit root test to determine their time series characteristic. Unit root test is basically required to ascertain the number of times a variable has to be differenced to arrive at stationary (Yoshida, 1990).

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP (Nb)</th>
<th>CFGEX (Nb)</th>
<th>RFGE (Nb)</th>
<th>GREV (Nb)</th>
<th>GTDS (Nb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>144.83</td>
<td>6.57</td>
<td>4.85</td>
<td>13.29</td>
<td>13.5238</td>
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<tr>
<td>1982</td>
<td>154.98</td>
<td>6.42</td>
<td>5.51</td>
<td>11.43</td>
<td>23.827</td>
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<tr>
<td>1983</td>
<td>163.00</td>
<td>4.89</td>
<td>4.75</td>
<td>10.51</td>
<td>32.7991</td>
</tr>
<tr>
<td>1984</td>
<td>170.38</td>
<td>4.10</td>
<td>5.83</td>
<td>11.25</td>
<td>40.4808</td>
</tr>
<tr>
<td>1985</td>
<td>192.27</td>
<td>5.46</td>
<td>7.58</td>
<td>15.05</td>
<td>45.2497</td>
</tr>
<tr>
<td>1986</td>
<td>202.44</td>
<td>8.53</td>
<td>7.70</td>
<td>12.60</td>
<td>69.8911</td>
</tr>
<tr>
<td>1987</td>
<td>249.44</td>
<td>6.37</td>
<td>15.65</td>
<td>25.38</td>
<td>137.5782</td>
</tr>
<tr>
<td>1988</td>
<td>320.33</td>
<td>8.34</td>
<td>19.41</td>
<td>27.60</td>
<td>180.9859</td>
</tr>
<tr>
<td>1989</td>
<td>419.20</td>
<td>15.03</td>
<td>25.99</td>
<td>53.87</td>
<td>287.4433</td>
</tr>
<tr>
<td>1990</td>
<td>499.68</td>
<td>24.05</td>
<td>36.22</td>
<td>98.10</td>
<td>382.7075</td>
</tr>
<tr>
<td>1991</td>
<td>596.04</td>
<td>28.34</td>
<td>38.24</td>
<td>100.99</td>
<td>444.6525</td>
</tr>
<tr>
<td>1992</td>
<td>909.80</td>
<td>39.76</td>
<td>53.03</td>
<td>190.45</td>
<td>722.2258</td>
</tr>
<tr>
<td>1993</td>
<td>1259.07</td>
<td>54.50</td>
<td>136.73</td>
<td>192.77</td>
<td>906.9808</td>
</tr>
<tr>
<td>1994</td>
<td>1762.81</td>
<td>70.92</td>
<td>89.97</td>
<td>201.91</td>
<td>1056.3957</td>
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<tr>
<td>1995</td>
<td>2895.20</td>
<td>121.14</td>
<td>127.63</td>
<td>459.99</td>
<td>1194.5994</td>
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<tr>
<td>1996</td>
<td>3779.13</td>
<td>212.93</td>
<td>124.49</td>
<td>523.60</td>
<td>1037.2956</td>
</tr>
<tr>
<td>1997</td>
<td>4111.64</td>
<td>269.65</td>
<td>158.56</td>
<td>582.81</td>
<td>1097.683</td>
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<tr>
<td>1998</td>
<td>4588.99</td>
<td>309.02</td>
<td>178.10</td>
<td>463.61</td>
<td>1193.8472</td>
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<tr>
<td>1999</td>
<td>5307.36</td>
<td>498.03</td>
<td>449.66</td>
<td>949.19</td>
<td>3372.181</td>
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<tr>
<td>2000</td>
<td>6897.48</td>
<td>239.45</td>
<td>461.60</td>
<td>1906.16</td>
<td>3995.6378</td>
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<tr>
<td>2001</td>
<td>8134.14</td>
<td>438.70</td>
<td>579.30</td>
<td>2231.60</td>
<td>4193.265</td>
</tr>
<tr>
<td>2002</td>
<td>11332.25</td>
<td>321.38</td>
<td>696.80</td>
<td>1731.84</td>
<td>5098.8855</td>
</tr>
<tr>
<td>2003</td>
<td>13301.56</td>
<td>241.69</td>
<td>984.30</td>
<td>2575.10</td>
<td>5808.0138</td>
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<tr>
<td>2004</td>
<td>17321.30</td>
<td>351.30</td>
<td>1110.64</td>
<td>3920.50</td>
<td>6260.5948</td>
</tr>
<tr>
<td>2005</td>
<td>22269.98</td>
<td>519.50</td>
<td>1321.23</td>
<td>5547.50</td>
<td>4220.9788</td>
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<tr>
<td>2006</td>
<td>28662.47</td>
<td>552.39</td>
<td>1390.10</td>
<td>5965.10</td>
<td>2204.7208</td>
</tr>
<tr>
<td>2007</td>
<td>32995.38</td>
<td>759.32</td>
<td>1589.27</td>
<td>5727.51</td>
<td>2608.5284</td>
</tr>
<tr>
<td>2008</td>
<td>39157.88</td>
<td>960.89</td>
<td>2117.36</td>
<td>7866.60</td>
<td>2843.5612</td>
</tr>
<tr>
<td>2009</td>
<td>44285.56</td>
<td>1152.80</td>
<td>2127.97</td>
<td>4844.59</td>
<td>3818.4615</td>
</tr>
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<td>2010</td>
<td>54612.26</td>
<td>883.87</td>
<td>3109.44</td>
<td>7303.67</td>
<td>5241.6593</td>
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<td>2011</td>
<td>62980.40</td>
<td>918.55</td>
<td>3314.51</td>
<td>11116.85</td>
<td>6519.6928</td>
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<tr>
<td>2012</td>
<td>71713.94</td>
<td>874.83</td>
<td>3325.16</td>
<td>10654.75</td>
<td>7564.4402</td>
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<tr>
<td>2013</td>
<td>80092.56</td>
<td>1108.39</td>
<td>3214.95</td>
<td>9759.79</td>
<td>8506.3108</td>
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<tr>
<td>2014</td>
<td>89043.62</td>
<td>783.12</td>
<td>3426.94</td>
<td>10068.85</td>
<td>9535.5254</td>
</tr>
<tr>
<td>2015</td>
<td>94144.96</td>
<td>818.37</td>
<td>3831.95</td>
<td>6912.50</td>
<td>10948.508</td>
</tr>
<tr>
<td>2016</td>
<td>101489.49</td>
<td>653.61</td>
<td>4160.11</td>
<td>5616.40</td>
<td>14537.1143</td>
</tr>
<tr>
<td>2017</td>
<td>113711.63</td>
<td>1242.30</td>
<td>4779.99</td>
<td>7445.00</td>
<td>18377.0026</td>
</tr>
<tr>
<td>2018</td>
<td>127736.83</td>
<td>1682.10</td>
<td>6519.28</td>
<td>9551.80</td>
<td>20533.6</td>
</tr>
<tr>
<td>2019</td>
<td>144210.49</td>
<td>2289.00</td>
<td>6997.39</td>
<td>10262.30</td>
<td>23295.0664</td>
</tr>
</tbody>
</table>

According to Maddala (1992), testing for unit roots is a formalization of the Box-Jenkins approach of differencing the time after a visual inspection of the correlogram. The analyzing of and testing for unit roots naturally lead to the theory of cointegration (Iyoha and Ekanem, 2002). This is because, basically, cointegration deals with methodology of modeling non-stationary time series variables and the idea rest on the thesis that even though two time series may not themselves be stationary, a linear combination of two non-stationary time series is said to be “cointegrated” (Iyoha and Ekanem, 2002). Usually, for cointegration, the two-time series have to be of the same “order” i.e., they should be stationary after the same number of differencing.

This study will use the ADF. The Augmented Dickey-Fuller (ADF) test is considered superior to the other test because it adjusts appropriately for the occurrence of serial correlation.

**DATA ANALYSIS AND DISCUSSION**

The Augmented Dickey Fuller (ADF) unit roots test were employed to test for the time series properties of the model variables (Gross Domestic Product – GDP, Capital Federal Government Expenditure – CFGEX, Recurrent Federal Government Expenditure – RFGEX, Government Revenue – GREV and Government Total Debt Stock – GTDS).

The null hypothesis is that the variable under investigation has a unit root against the alternative that it does not. The choice of lag length was based on Akaike and Schwartz-Bayesian information criteria. The decision rule is to reject the null hypothesis if the ADF statistic value exceeds the critical value at a chosen level of significance.

All the variables examined were stationary (significant) at first differenced; that is, they were integrated of order one \((I ~ (1))\). In effects, the order of integration as shown by the unit root clearly left us with the suspicion of evidence of co-integration from the variables. And for this reason, we conduct cointegration test using Engle-Granger procedure.

The co-integration results done using the Engle-Granger co-integration procedure after the unit root test properties of the variables have been tested, shows that all the variables have the same order \((I ~ (1))\) of integration; we estimate their linear combination at their level form with the intercept term and obtain their residual which is then subjected to co integration test. The co-integration test shows there exist a long run relationship among the variables.

Having established the long run relationship, we now conduct the error correction model. In order to develop the error correction model, the lagged residuals from the cointegrating regression are incorporated in an OLS estimation incorporating the first differences of all the variables and the differences of all the variables from the cointegrating vector as independent variable.

The methodology employed in driving the preferred short-run dynamic model is the general – specific approach. Initially, a highly general error correction model was specified, which included lags up to the fifth order. This general model was then tested in order to arrive at a parsimonious preferred short-run dynamic specification.

**Parsimonious Error Correction Model (Ecm)**

<table>
<thead>
<tr>
<th>Dependent Variable: D(LOG(GDP))</th>
<th>Method: Least Squares</th>
<th>Date: 01/20/21 Time: 14:12</th>
<th>Sample (adjusted): 1976 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Included observations: 44 after adjustments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Variable</strong></td>
<td><strong>Coefficient</strong></td>
<td><strong>Std. Error</strong></td>
<td><strong>t-Statistic</strong></td>
</tr>
<tr>
<td>C</td>
<td>-0.076206</td>
<td>0.037627</td>
<td>-2.025282</td>
</tr>
<tr>
<td>D(LOG(GDP(-1)))</td>
<td>0.311869</td>
<td>0.133888</td>
<td>2.329322</td>
</tr>
<tr>
<td>D(LOG(GDP(-2)))</td>
<td>0.439906</td>
<td>0.117605</td>
<td>3.740547</td>
</tr>
<tr>
<td>D(LOG(GDP(-3)))</td>
<td>0.426592</td>
<td>0.136403</td>
<td>3.127439</td>
</tr>
<tr>
<td>D(LOG(GDP(-4)))</td>
<td>0.423626</td>
<td>0.123192</td>
<td>3.438736</td>
</tr>
<tr>
<td>D(LOG(CFGEX))</td>
<td>0.234930</td>
<td>0.079927</td>
<td>2.939314</td>
</tr>
<tr>
<td>D(LOG(CFGEX(-2)))</td>
<td>-0.091450</td>
<td>0.090881</td>
<td>-1.006266</td>
</tr>
<tr>
<td>D(LOG(CFGEX(-3)))</td>
<td>-0.254003</td>
<td>0.101646</td>
<td>-2.498904</td>
</tr>
<tr>
<td>D(LOG(CFGEX(-4)))</td>
<td>-0.239414</td>
<td>0.084043</td>
<td>-2.848720</td>
</tr>
<tr>
<td>D(LOG(CFGEX(-5)))</td>
<td>-0.095946</td>
<td>0.075485</td>
<td>-1.271064</td>
</tr>
<tr>
<td>D(LOG(RFGEX))</td>
<td>0.277860</td>
<td>0.136178</td>
<td>2.040427</td>
</tr>
<tr>
<td>D(LOG(RFGEX(-1)))</td>
<td>-0.317964</td>
<td>0.146990</td>
<td>-2.163168</td>
</tr>
<tr>
<td>D(LOG(RFGEX(-2)))</td>
<td>-0.330526</td>
<td>0.124618</td>
<td>-2.652320</td>
</tr>
<tr>
<td>D(LOG(GREV))</td>
<td>0.097854</td>
<td>0.076187</td>
<td>1.284405</td>
</tr>
<tr>
<td>D(LOG(GREV))</td>
<td>0.056464</td>
<td>0.109514</td>
<td>0.515591</td>
</tr>
</tbody>
</table>
The error correction model (ECM) for the estimated equation is statistically significant and negative. Thus, it will rightly act to correct any deviations from long-run equilibrium. Specifically, if actual equilibrium value is too high, the ECM will reduce it, while if it is too low, the ECM will raise it. The coefficient of -0.866139 denotes that over 86.6% of any past deviation will be corrected in the current period.

The coefficient of determination ($R^2$) and the adjusted coefficient of determination respectively suggest that there exists goodness of fit in the model. This means that about 98.8% of the deviations in macroeconomic growth variable (GDP) is accounted for by variation in the exogenous fiscal policy variables of disaggregated government expenditure, revenue and debts. The overall regression is significant at 1% level of significance implying that the joint effects of all the included variables are significant.

The Durbin Watson statistic shows evidence of no first order serial autocorrelation in the model given that it is approximately 2.

The long run result of the economic growth model reported in table above reveals that government expenditure (both capital and recurrent) theoretically agrees with the expected sign as it is positive at current levels. It is also significant at 1% and 5% levels respectively. This implies that increase in government spending significantly increase economic growth while a fall in government spending reduced economic growth during the 50 years period of this study. This result is not in agreement with the works of Fan, S. Hazell, P. and Thoret, S. (1999), and Adamgbe (2006) who discovered a negative effect of public spending on GDP. Some studies have found that there is a positive and significant relationship between government expenditure and GDP (Yasin, 2000; Attari, Javed, 2013; Kimaro, Keong, Sea, 2017) as it is in this work. This must not be unconnected with the present government effort at improving infract structural development as can be seen in the increased power generation, road construction and rail construction in Nigeria.

Government revenue complied with our expectation of a positive sign but insignificant. This positive relationship may be as a result of insurgency in Nigeria, bandity, herdsmen clashes with farmers and kidnapping, which resulted in multinational companies leaving the country and inadequate productions of agricultural and manufactured products which are major sources of revenue to the government. This implies that decreases in government revenue retarded growth.

Government total debt stock is in consonance with our expectation by bearing a positive sign and significant at 1% level. Increases in debt stock (Not for consumption) increase government spending on infrastructure and social overheads and enhance economic growth. The compliance of this may not be unconnected with the loans obtained from China for the construction of railways in Nigeria which cut across almost all the geopolitical zones of the country. Reasonable borrowing levels, internal or foreign would improve economic growth in a less developed countries.

Countries have a limited stock of capital at their early stages of development and are projected to have investment prospects with return rates higher than those in advanced economies (Nguyen, 2020). In their own research, Akos & Istvan (2019) have observed, as long as these countries are using borrowed funds for productive investment and do not suffer from macroeconomic instability, policies that distort economic inducements or major adverse shocks, growth should increase and allow for timely debt repayment.

**CONCLUSIONS AND RECOMMENDATIONS**

This study examined the contribution of fiscal policy measures on Gross Domestic Product (GDP) for a period fifty (50) years. We discovered from our results and findings that fiscal policy measures had serious implication on economic growth; this is evidenced in the coefficient of determination of all the model. The $R^2$ value is high which shows that changes in the fiscal policy variables affect the level of economic growth in a developing country like Nigeria.

| D(LOG(GREV(-3))) | -0.159744 | 0.114926 | -1.389975 | 0.1768 |
| D(LOG(GREV(-4))) | -0.212231 | 0.103197 | -2.056561 | 0.0503 |
| D(LOG(GTDS)) | 0.549760 | 0.119684 | 4.593446 | 0.0001 |
| ECM(-1) | -0.866139 | 0.171098 | -5.062250 | 0.0000 |
| R-squared | 0.988441 | Mean dependent var | 0.357270 |
| Adjusted R-squared | 0.980119 | S.D. dependent var | 1.179880 |
| S.E. of regression | 0.166362 | Akaike info criterion | 0.450981 |
| Sum squared resid | 0.691906 | Schwarz criterion | 0.319465 |
| Log likelihood | 28.92158 | Hannan-Quinn criter. | 0.165262 |
| F-statistic | 118.7723 | Durbin-Watson stat | 2.075171 |
| Prob(F-statistic) | 0.000000 |
Based on the results and findings of this study, we therefore make the following recommendations: That government expenditure should be increased because of its effects on infrastructural development which ultimately increases the level of production of goods and services.

That government borrowing should be increased provided that it is used on the productive sectors of the economy for which it can generate enough revenue for its repayment.

That government revenue should be improved; Government revenue appeared with the right sign (positive) in the models for GDP and was statistically significant. Therefore, increasing government revenue will make funds available for onward investment in capital goods such as physical infrastructure and other social overheads that can promote economic growth.

REFERENCES


Annex, S. (2004). developments and policies. Based on information available at the time of these discussions, the staff report was completed on June 15, 2004. The views expressed in the.


• Glewwe, P. (2002). ‘Schools and Skills in Developing Countries: Education polices and socioeconomic outcomes”. Journal of Economic Literature, 40, 436-82.


