ABSTRACT

From records, many studies on public finance emphasis the problems of the Nigerian economy with focus on the revenue side of the budget scrutinizing various ways of and means to improve on receipts. This paper has attempted to provide support for the conjecture that certain structural characteristics, probably more related to the expenditure side of the budget than to the revenue side, have made it more problematic for Nigeria to break out of the circle of budget deficits. Empirically, this study seeks to ascertain those factors which might probably lead to increase in government deficit gap without a corresponding increase in the level of economic development over the years. This study proposes that some structural factors have been behind the ever teeming deficit gap of the Nigerian government. As such, four different factors were proposed and subjected to statistical test in others to identify which of these factors truly deepen the government deficit gap in Nigeria. Having subjected all proposed structural factors that could lead to increase in government budget deficit in Nigeria to statistical test, the study reveals that economic development, lack of government control over expenditure and Government revenue growth rate exhibit a positive and significant relationship, and thus deepens government budget deficit gap in Nigeria. The study, therefore, suggests that lack of government control over its expenditure, growth rate of government revenue and economic development pace are the major structural factors that deepen the budget deficit gap of the Nigerian economy. Hence, the study concludes that government backwardness in terms of development and a very high degree of participation in the commanding height of the economy makes it extremely difficult for the government to control its appetite for budget deficits.

INTRODUCTION

Over the years, the government of a country has been responsible for making available certain provisions in the state due to the fact that such basic necessities are germane. These basic necessities are capital intensive, and as such, the private firms are not financially tuned enough to handled such projects. On this premises, it is expected that the generated revenue of the government is sufficient enough to foot its bills. In a situation where the generated revenue is not enough in footing its bills, the government must resolve three basic means of financing which includes borrowing, taxation and monetisation. These are the three basic ways through which the government of a country could help in supplementing or boosting its revenue. Each of these means has a long and short run effect on the economy. In this context, however, budget deficit occurs when the generated revenue of the government is less than its total expenditure over a budget period.

In this research work, three fundamental issues are targeted. First, this research paper tends to empirically examine why the budget deficit has relatively been large in Nigeria. Prior to the independent era, (Monogbe, et al., 2015) recorded that the generated revenue of the government from farm products and coal has been the major source of income through which the nation was financed and that the first phase of the capital project executed in the country was through the fund generated from these sources. Towards the early 70s, Akinmulegun (2013) as cited in Momodu and Monogbe (2017) reported that many economic policies of the government, including the well-celebrated structural adjustment program (SAP) of 1986 were implemented with the help of the budget deficit. Not only this, the financing of the so-called “oil subsidy,” the perennial insecurity problems, as well as other engagements of the government, such as the 2011 and 2015 general elections were financed courtesy the budget deficit. The budget deficit in the Nigerian context experiences increment on a yearly basis based sequel to some structural factors and certain economic characteristics of the country, which are not changeable in the short run. These structural factors as reported by (Monogbe, et al., 2015) include mismanagement, misappropriation of borrowed funds, and mix match of internal and external debt.

Has government budget been a key policy issue over the years? This is the second fundamental issue this study tends to address. This research work, therefore, tend to empirically examine why the budget deficit has relatively been large in Nigeria. Prior to the independent era, (Monogbe, et al., 2015) recorded that the generated revenue of the government from farm products and coal has been the major source of income through which the nation was financed and that the first phase of the capital project executed in the country was through the fund generated from these sources. Towards the early 70s, Akinmulegun (2013) as cited in Momodu and Monogbe (2017) reported that many economic policies of the government, including the well-celebrated structural adjustment program (SAP) of 1986 were implemented with the help of the budget deficit. Not only this, the financing of the so-called “oil subsidy,” the perennial insecurity problems, as well as other engagements of the government, such as the 2011 and 2015 general elections were financed courtesy the budget deficit. The budget deficit in the Nigerian context experiences increment on a yearly basis based sequel to some structural factors and certain economic characteristics of the country, which are not changeable in the short run. These structural factors as reported by (Monogbe, et al., 2015) include mismanagement, misappropriation of borrowed funds, and mix match of internal and external debt.
to address. Before venturing into expenditures and execution of some developmental project, the government of a country usually makes some plans and budget for the purpose of proper accountability. A cursory at the budget figure in the reference period shows that while the country’s budget witness a geometric incremental pattern annually, the expected level of development is not being achieved and this creates a notion of disapproval in the heart of every Nigerian. However, despite the extended expansion of government expenditure in Nigeria over the years, the generating results were nothing to write home about. A larger percentage of the Nigeria citizens still live in chronic poverty, persistent high mortality rate, and low life expectancy due to inaccessibility to quality medical facilities, poor and bad road network, shortage of food and essential nutrients for physical growth, and embarrassingly high rate of unemployment (Ogunleye and Simon 2004). Going by all of this, put together, can one emphatically say that the government budget deficit policy has promoted the Nigerian economy? From the break down obtained from the released budget proposal for the year 2016, about 73 billion was allocated to the judiciary, which amounts to about 1.1% of the total budget, while the legislative takes 115 billion, which is equivalent to about 2.01% of the total budget for the year. The 6.08 trillion naira budget was appropriated in the following manner; 1.59 trillion for capital expenditure, 2.65 trillion naira for recurrent expenditure, 1.48 trillion naira for debt servicing, 2.2 trillion naira for deficit, and 500 million naira for social intervention and 351.4 trillion naira for recurrent expenditure, 1.48 trillion naira for capital expenditure, 2.65 trillion naira for statutory transfer accordingly as reported by (This Day Newspapers March 27, 2016). Considering the appropriation ratio, it is obvious that the percentage allocated to the recurrent expenditure is excessively much compared to the amount allocated for capital expenditure, which means that the capital projects that are supposed to promote economic growth, and thus trigger the government generated revenue, were given less consideration which might in the future lead to demand for loanable fund from other means by the government, and hence result into inter-generational effect of debt on the unborn generation as cited by Ricardo (1973). Of course, the role of the recurrent expenditure in the society cannot be under estimated, but it is expected that more quantum of fund should be allocated to the capital sector, as this will help in yielding more returns to the government, and thus reduce the burden of external debt servicing. This, therefore, suggests that for the government budget decision to be a key policy in the Nigerian economy, the appropriation strategy must be revisited accordingly and those structural factors must be addressed haphazardly. Finally, the impact of the lag in tax revenue collection of the government is multidimensional in nature. Like it was reported by (Monogbe et al., 2015) that the generated revenue of the government from farm products, taxation and coal has been the major source of income through which the nation was financed and that the first phase of the capital project executed in the country was through such funds. Failure to make provision for the rainy days by the past administration has resulted into the geometric increment in the government budget deficit, and thus skyrocket the external debt servicing burden on a yearly basis. Recently, the percentage of the tax generated revenue to the total government revenue is less than 3.2%. This shows that the quantum of fund generated from the tax corner of the nation is not sufficient enough to implement the government project, and hence, there is a need to source for fund from elsewhere. Meanwhile, Michael (2014) reported that the generated revenue from taxation in Nigeria has drastically reduced due to certain factors, which includes policy failure and corrupt federal government tax officials. It was reported that some government ministries, officials and parastatals collude with the tax payer to manipulate the amount expected to be paid as tax to the government in their own favour, which has, over time, deepened the tax gap. The aim of this study is to examine the possibilities that certain structural factors have made Nigeria become deficit prone. By structural factors, we mean certain economic characteristics of a country not changeable in the short run.

Meanwhile, the theoretical position of budget deficit as a tool for economic growth is inconclusive. The Keynesian holds a notion that budget deficit is a key stimuli to economic growth as it crowds in private investors. The neoclassical economist report that budget deficit maintains an inverse relationship to economic growth, and thus crowds out private investors, while Ricardo spelt it out that increase or decrease in government borrowing is irrelevant as it keeps the interest rate unchanged. This controversial issue is far beyond settlement. Hence, there is the need for further studies. It is on this back drop that this study tends to examine the structural factors affecting the government budget deficit in Nigeria between the periods 1981 and 2016.

THEORETICAL FRAMEWORK
Conceptual Mapping of the Structural factors that May Affect Budget Deficit in Nigeria
By structural factors, we mean certain economic characteristics of a country, which are not changeable in the short run and includes

The Level of Economic Development
Government of countries at relatively low levels of development may have particular difficulties in controlling their budget balances for three main reasons

a. Spending pressure
b. Low private savings
c. Low tax revenue
According to Adolph Wagner (1835–1917) the expansion of the functions or duties of the public sector, especially, the case of developing economies leads to an increase in public expenditure on administration, regulation of the economy, and others. Hence, increase in the government activities usually leads to growth in government expenditure, which then calls for growth in the government revenue, and thus affects government budget plans.

As a country progresses to a higher level of development, the more of the economy is monetised, the tax base is widened, and eventually, direct taxes account for a greater share of the total revenue. At the earlier stage of development, reliance on indirect taxes lead to low tax buoyancy, and consequently, slow down the government performance on the economy. Revenue, however, responds to increased spending pressure.

**Growth and Instability in Government Revenue**

Instability of government revenue may be even more troublesome to government budget than to slow growth in revenue. It must be noted that government plans for economic growth and other developmental project is based on the generated revenue. When instability occurs in government revenue, the expected level of economic development might not be met due to lack of accuracy in the quantum of fund that could be generated into the government pulse. The economic implication of instability in government revenue is that the targeted level of growth for that particular year will not be met and this debars the government performance for the year. Furthermore, the government that experiences relatively large fluctuations in revenue will tend to incur large deficits. The enhancement of government spending is to ensure that the basic necessities needed by the citizens are met. These basic necessities, which include good roads, electricity, education, bridges, and so on are capital intensive, which the private individual might not be able to afford due to the financial implications. The inability of the government to generate the needed revenue to meet these necessities leads to sourcing of funds from other means, which, over time, deepens the government deficit. So, instability in government revenue is one of the causes of increase in government deficit. Another major factor associated with government revenue instability is export earnings instability based on the limited quantum of Nigerian export level.

**Lack of Government Control Over Its Expenditure.**

The ability to control government expenditure is often influenced by institutional, political, and structural factors. Some of the good examples of those factors that influence the ability to control expenditure include the budgetary system, which is a coordination between the finance ministry and the planning ministry, central and the state government, and the share of the recurrent expenditure in total expenditures. This lack of control of the government over expenditure can be related to structural factors that are difficult to change in the short run and other factors include conscious policy choice.

**The Extent of Government Participation in the Economy**

Government with very high degree of participation in the economy are subject to greater spending pressure due to the expectation of the citizens. The cumulative effect of this is that the public has grown to rely more and more on the government for range of goods and services that are capital intensive. Under these circumstances, it may be difficult for any government to restrain expenditure in the face of revenue constraints when the impact on the economy would be so substantial. The relative level of government spending in the economy is a structural factor in the sense that increased government intervention is very difficult to reverse. This is because the public has learned to depend on the government for the services that it provides and to consider subsidies as a right.

**Review of Related Literature**

Momodu and Monogbe (2017) examine the effect of budget deficit on performance of the Nigerian economy using vector auto regressive estimate of the Granger causality test between the periods 1981 and 2015. A univariate model was developed using secondary data. The output of the Granger causality test shows that budget deficit statistically granger causes economic performance and viz versa, while the result of the multiple regression of the ordinary least square reports a significant but negative relationship to economic performance. The negative response of budget deficit to economic performance could be attributed to moral hazard, mismanagement of fund, and financial indiscipline, which prevent the country from enjoying the sustainable level of expected growth overtime. The output of the VAR estimate established that the lag value of federal government budget deficit has contributed to performance of the economy in the current year, although the contributive quadrant is not felt to a reasonable extent. Prior to the findings, the study recommends that policy makers should ensure effective utilisation of borrowed fund and maintain a sporadic evaluation and supervision of such project in which borrowed funds are channelled into in order to achieve profitable returns, which will help in servicing of such debt and also stimulate economic performance.

Momogbe and Okah (2017) examine deficit financing in the process of economic development in Nigeria between the periods 1981 and 2015. The gross objective of the study was to test the Keynesian postulation of positive relationship between deficit financing and
economic development, especially when the economy is experiencing persistently high level of unemployment. The study employs unit root test, error correction model, and Granger causality test. The study reports that Federal government external debt exhibit a significant P-value of 0.0173 with a positive coefficient of 0.000031 suggesting that 1% increase in government external debt is capable of stimulating economic development in Nigeria to the tune of 0.00003. The result of the causality test also validates the report in the error correction model, and thus suggest that external debt significantly contributes to the development of the Nigerian economy, while domestic debt and deficit budget do not seems to granger cause economic development in Nigeria. On this premise, the study concludes that deficit financing is a vital stimuli in promoting economic development in Nigeria if adequately channelled for the original purpose for which it was meant. Furthermore, the study, thus validates the Keynesian postulation of the existence of positive relationship between deficit financing and economic development. On this note, the study recommends that managers of the Nigerian economy should coordinate the appropriation of borrowed fund and ensure that it is properly channelled towards improving the capital and production dominance of the nation as this will further help in achieving a sustainable level of economic development in Nigeria.

Momodu (2012) empirically x-ray the correlations between debt servicing and economic growth in Nigeria using time series data between the periods 1981 and 2004. The study employed the multiple regression of the ordinary least square and findings reveals that debt payment to Nigerian creditors has a significant impact on gross domestic product and gross fixed capital formation, while debt payment to Paris club creditor and debt payment to promissory note holders are positively related to GDP and GFCF, and finally, debt payment to London club and creditors and other creditors shows a negative significant relationship to GDP and GFCF accordingly. The study, therefore, recommends that the government should ensure that any loan from London club or other creditors should be used to expand the capacity for greater foreign trade and investment, as well as stimulating private sector investment.

Monogbe (2016) tend to elucidate the argument in 'Ricardo Hypotheses that increase in government spending is irrelevant and that it could lead to inter-generational burden on the unborn generation. In an attempt to justify this, the study examines the inter-generational effect of external debt on the Nigerian economy using time series data during the period of regulation and more effective during the period of deregulation. The study employed the Augmented Dicky Fuller (ADF) stationarity test, Johanson's co-integration test, OLS, multiple regression analysis and the Granger causality test. Findings revealed that the public sector was more effective, although marginally, in stimulating economic growth (measured by GDP) during the period of regulation and more effective in reducing unemployment and enhancing BOP during the period of regulation. With respect to maintaining price stability, the public sector was significantly more effective during the period of deregulation. Based on the findings, the paper recommends appropriate policy mix improvement in the quality of government expenditure, infrastructural development value – added export, regulated flow of FDI to retail sector, emphasis on import of capital good, and focus on the agricultural sector among others.

Ogumbiyo and Okoye (2016) tend to contribute to the literature by providing answers to the reasons why the fiscal policy tools recommended by the Keynesian in combating economic growth have been unproductive in Nigeria despite its demonstrated efficacy in other economies as an effective policy that exert influence on the economic growth. The study went into a long run analysis as it covered a time frame from 1970 to 2015 using the time series data. Six explanatory variables were incorporated, while the gross domestic product was proxy for economic performance. The study revealed that from all the six explanatory variables under investigation, only two passed the test of the hypothesis. The study, thus, concluded that total revenue and government expenditure on social community services are positive and significantly promote economic growth in the longer run. Based on this finding, the study recommends that the government should embrace fiscal mechanism that will encourage increment in revenue through tax instead of borrowing and over depending on oil revenue.

Adeneye and Isa (2016) tend to amplify the three theoretical positions of the Keynesian school, the neoclassical school and the REH postulation and their respective view on budget deficit. The study employed
the time series data from 1981 to 2014 when the series of econometrics analysis were conducted and which included multiple regression, unit root test and co-integration test accordingly. Budget deficit and total money supply was proxy for the explanatory variables, while inflation rate was used to cover the Nigerian economy. Findings revealed that there existed a causal relationship between budget deficit and inflation rate in Nigeria. The study, therefore, recommended that the government must incorporate high sense of transparency in the fiscal operation to bring about realistic fiscal deficit.

In another related Pakistan study, Humera (2015) examined the relationship between budget deficit and economic growth using the time series data during the period from 1976 to 2007. The study employed the Johansen co-integration test and vector auto regression analysis to examine the lag effect of government deficit on the Pakistan economy while the Granger causality test was adopted to test the influence of one variable on the orders accordingly. Findings reveal that increase in gross domestic product promote investment while high level of investment leads to deficit. On the whole, the study concludes that budget deficit does not promote economic growth in Pakistan due to the fact that the budget deficit does not seem to sustain the economy as reported by the result of the error correction model. Based on these discoveries, the study recommended that the budget deficit, which was a result of inadequate revenue to foot the government bills, should be reduced. In doing this, taxation should be increased instead of borrowing and the government should cut its spending to the barest minimum.

In another prominent study carried out by Vien and Tatchalerm (2015) the study tends to amplify and explore government budget deficit and economic growth evidence from Southeast Asia. The study covers for about twelve years where foreign direct investment, budget deficit and gross domestic product were incorporated into the model. Findings reveal that government budget deficit does not seem to promote the output level of the economy over the period under investigation. Instead, foreign direct investment plays a prominent role in stimulating the output level of productivity in the country, while real interest rate responds in an inverse manner on economic growth. The study recommends that instead of the government expanding its quest to expand deficit spending, administrative and regulatory reform should be embraced to ensure an effective use of government resources.

Oludele, (2010) examined the nexus between budget deficit and interest rates in South Africa for a 25-year study range. In the process of actualising the objective of this study, two models were formulated where the Granger causality test was used in examining the cause and effect of one variable on the order. The second model tested the interrelationship between the budget deficit and interest rate in South Africa. The result shows that budget deficit has not significantly affected the interest rate in South Africa. The result of the causality test validates the report of the multiple regressions by reporting that the budget deficit and interest rate operated in an independent manner.

**METHODOLOGY**

**Research Design**

This study employed the econometrics investigative research design based on the fact that it is difficult to identify the direction of causality between the employed variables. Data were sourced from the central bank of Nigeria statistical bulletin for the period from 1981 to 2016.

**Operational Measure of Variables**

**Dependent Variables**

**Average Annual Government Budget Deficit**: This is captured as a percentage of total government expenditure.

**Explanatory Variables**

**Economic Development**: Human development index is a proxy for economic development as stated by the world economics standard. This is a composite statistics of life expectancy rate, birth rate, level of education and par capital income indicators, which are used to rank countries into four tiers of human development.

**Government Revenue Growth Rate**: This is captured as the annual average growth rate, which is adjusted for inflation.

**Instability of Government Revenue**: This is captured by the normalised coefficient of variance, that is, the standard error of the estimated time trend equation of government revenue within the period under study divided by the mean value of revenue over the same period.

**Government Control over Expenditure**: This is captured using the ratio of government expenditure instability to government revenue instability over the period under study. This suggested proxy variable is anchored on the assumption that the government exercising control over its expenditure through sound financial management will probably be able to determine a steady growth in the expenditure that will result in surplus in years of upward fluctuation in revenue, which will somewhat cushion the deficits in revenue shortfall years.

**Model Identification**

In line with the classical linear regression model assumption, we formulate our model thus

\[
AAGBD = f(ECDD, GCOE, GRGR, IGOR) \quad (1)
\]
We convert the above model into economy econometrics form by introducing constant, slope and error term, thus

\[ AAGBD = \beta_0 + \beta_1 \text{ECDD}_t + \beta_2 \text{GCOE}_t + \beta_3 \text{GRGR}_t + \beta_4 \text{IOGR}_t + \epsilon_t \] \hspace{1cm} (2)

Where

- \( AAGBD \) = Average Annual Government Budget Deficit
- \( \text{ECDD} \) = Economic Development
- \( \text{GCOE} \) = Government Control Over Expenditure
- \( \text{GRGR} \) = Government Revenue Growth Rate
- \( \text{IOGR} \) = Instability of Government Revenue
- \( \beta_0 \) = Constant
- \( \beta_1-\beta_4 \) = Slope
- \( \epsilon \) = Error Term

On a priori, we expect a mixed response between all variables under investigation. 

\( \beta_1, \beta_4 > 0, \beta_2, \beta_3 < 0 \)

Economic development (ECDD) and instability of government revenue (IOGR) is expected to deepen the government budget deficit gap, while the government control over expenditure (GCOE) and growth rate of government revenue (GRGR) is expected to reduce the deficit gap of the government.

**PRESENTATION OF ANALYTICAL RESULT**

Following the assumption of Porter and Gujarati (2009) that the time series data are prone to stationarity problems, we subject our time series to unit root test to hedge against having a spurious result.

All explanatory and explained variables have a unit root level, and as such we proceeded to test at first differences. Further analysis shows that all variables were stationary after first differences in the order of 1(1) integration. Based on the stationarity of the data set, we proceeded to check for long run correlation using Johansen co-integration test accordingly.

The result in the above multiple regression output tends to report the interrelationship between the explanatory variables and the explained variable accordingly. From the four explanatory variables that were suspected to be the structural factors affecting the government budget deficit, only three reported a positive and significant relationship to the explained variable. The result shows that the government control over expenditure has a positive and significant relationship to budget deficit judging by its significant P-value of (0.000) and a positive co-efficient value of 0.8020 respectively. This suggests that the lack of governmental control over its expenditure is one of those structural factors that led to the geometric increase in the government budget deficit on a yearly basis.

The government revenue growth rate also reported a positive coefficient value of 0.99655 and a significant P-value of 0.000 which suggested the existence of a positive and significant relationship between the government revenue growth rate and budget deficit in Nigeria. This, therefore, created a notion that as the government revenue increases, the government budget deficit also increases, which is against our a priori expectation. A significant government revenue growth rate is expected to reduce government budget deficit, but in this stance, reverse is the case. Some of the factors that could have led to this direct relationship between increase in government revenue growth rate and budget deficit are what we reversed to as “please effect”, which includes public and private graft, financial indiscipline and non- remittance of revenue to the government purse as reported by Michael (2013).

The economic development also exhibited a positive coefficient of 0.57289 with a corresponding significant P-value of 0.0375 which implies the existence of positive and significant relationship between economic development and budget deficit. This, further suggests that the increase in the development of the Nigerian economy has over time led to request for more funds, and thus, deepens the deficit gap of the government. The report from this

<table>
<thead>
<tr>
<th>Variables</th>
<th>ADF Stat</th>
<th>5% critical value</th>
<th>Order</th>
<th>Prob</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(AAGBD)</td>
<td>-6.73235</td>
<td>-2.96397</td>
<td>1(1)</td>
<td>0.000</td>
<td>Stationary</td>
</tr>
<tr>
<td>D(ECDD)</td>
<td>-7.83785</td>
<td>-2.96041</td>
<td>1(1)</td>
<td>0.000</td>
<td>Stationary</td>
</tr>
<tr>
<td>D(GCOE)</td>
<td>-6.12650</td>
<td>-2.96776</td>
<td>1(1)</td>
<td>0.000</td>
<td>Stationary</td>
</tr>
<tr>
<td>D(GRGR)</td>
<td>-6.38440</td>
<td>-2.96776</td>
<td>1(1)</td>
<td>0.000</td>
<td>Stationary</td>
</tr>
<tr>
<td>D(IOGR)</td>
<td>-6.63106</td>
<td>-2.96041</td>
<td>1(1)</td>
<td>0.000</td>
<td>Stationary</td>
</tr>
</tbody>
</table>

Source: E-View 9.1 Output.
finding validates the Wagner’s Theory of Increasing State Activities (1835), which states that increase in the government and economic activities usually leads to growth in government expenditure, which then calls for growth in the government revenue, and thus, affects government budget plans.

The result further suggests that instability in government revenue does not significantly promote government budget deficit. This empirical study has successfully tested and identifies three major structural factors that deepens the government budget deficit gap in the short run and they include lack of control over government expenditure, economic development and growth in government revenue.

From the global statistics, the adjusted R-square stood at 0.82394, there by suggesting that the explanatory variable explained about 82% variation in the explained variable. The F-statistics and the corresponding probability justify the overall fitness of the model, while the Durbin Watson statistics exhibit a high coefficient of 2.786, there by suggesting the absence of autocorrelation.

From the result presented in Table 3 above, we observe the existence of four co-integrating equations that suggest the existence of long-run association among the employed variables under investigation, and hence, we proceed to error correction model so as to ascertain the speed at which the error in the short run is corrected in the long run. The relationship between the growth rate of government revenue and budget deficit could be attributed to other forces not captured in our model, such as corruption, misappropriation of funds and financial indiscipline which resulted in inefficient utilisation of government revenue, and thus, deepens the deficit gap over time. The other explanatory variables appear to be insignificant in promoting government budget deficit in Nigeria, while increase in economic development seems to deepen the government budget deficit gap in the long run. In line with a priori, the error correction term ECM is negative and significant, which suggests that about 70% disequilibrium in the short run is corrected in the long run, while the Durbin Watson value is still within the accepted range, thereby suggesting the absence of auto correlation.

Table 2 Presentation of Multiple 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>0.138247</td>
<td>3.343784</td>
<td>0.041345</td>
<td>0.9673</td>
</tr>
<tr>
<td>D(ECDD)</td>
<td>0.572893</td>
<td>0.262316</td>
<td>2.183978</td>
<td>0.0375</td>
</tr>
<tr>
<td>D(GCOE)</td>
<td>0.874512</td>
<td>0.089415</td>
<td>9.780406</td>
<td>0.0000</td>
</tr>
<tr>
<td>D(GRGR)</td>
<td>1.073558</td>
<td>0.098624</td>
<td>10.90744</td>
<td>0.0000</td>
</tr>
<tr>
<td>D(IOGR)</td>
<td>-0.033274</td>
<td>0.122268</td>
<td>-0.272140</td>
<td>0.7875</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.832650</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.808743</td>
<td>S.D. dependent var</td>
<td>43.90899</td>
<td></td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>19.20270</td>
<td>Akaike info criterion</td>
<td>8.886707</td>
<td></td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>10324.83</td>
<td>Schwarz criterion</td>
<td>9.113450</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-141.6307</td>
<td>Hannan-Quinn crit.</td>
<td>8.962999</td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>34.82847</td>
<td>Durbin-Watson stat</td>
<td>3.150818</td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: views 9 output
SUMMARY OF STUDY AND DISCUSSION OF FINDINGS

This is an econometric investigative study, which tends to ascertain those factors that deepen government deficit gap without a corresponding increase in the level of economic development. This study proposes that some structural factors are contributing to the deficit gap of the government in Nigeria. As such, four different factors were proposed and subjected to statistical test in others to identify which of these factors truly deepens the government deficit gap in Nigeria.

Findings reveal that in the short run, the economic development seems to promote government budget deficit gap in Nigeria. Judging by its significant P-value of 0.0000, this suggests that 1% increase in economic development is capable of increasing the deficit gap of the government to the tune of 0.0572893 unit, while in the long run, the same thing is applicable. The result of this finding is in consonant with the Wagner (1835) Theory of Increasing State Activities, which states that increase in the government activities usually leads to growth in government expenditure, which then calls for growth in the government revenue, and thus, affects government budget plans.

The study further shows that government control over expenditure has a positive and significant relationship to budget deficit judging by its significant P-value of (0.000) and a positive co-efficient value of 0.8020 respectively. This suggests that lack of governmental control over its expenditure is one of those structural factors that led to the geometric increase in the government budget deficit on a yearly basis.

Table 3 Presentation of Johansson Co-integration Test.

<table>
<thead>
<tr>
<th>Hypothesised No. of CE(s)</th>
<th>Trace Eigenvalue</th>
<th>Statistic</th>
<th>Critical Value</th>
<th>Prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>0.892508</td>
<td>198.8809</td>
<td>69.81889</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 1 *</td>
<td>0.769810</td>
<td>129.7404</td>
<td>47.85613</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 2 *</td>
<td>0.668253</td>
<td>84.20599</td>
<td>29.79707</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 3 *</td>
<td>0.578060</td>
<td>50.0117</td>
<td>15.49471</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 4</td>
<td>0.527656</td>
<td>13.25151</td>
<td>23.841466</td>
<td>0.0654</td>
</tr>
</tbody>
</table>

Trace test indicates 4 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

<table>
<thead>
<tr>
<th>Hypothesised No. of CE(s)</th>
<th>Max-Eigen Eigenvalue</th>
<th>Statistic</th>
<th>Critical Value</th>
<th>Prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>0.892508</td>
<td>69.14053</td>
<td>33.87687</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 1 *</td>
<td>0.769810</td>
<td>45.53441</td>
<td>27.58434</td>
<td>0.0001</td>
</tr>
<tr>
<td>At most 2 *</td>
<td>0.668253</td>
<td>34.20483</td>
<td>21.13162</td>
<td>0.0004</td>
</tr>
<tr>
<td>At most 3</td>
<td>0.578060</td>
<td>16.74966</td>
<td>24.26460</td>
<td>0.0543</td>
</tr>
<tr>
<td>At most 4</td>
<td>0.527656</td>
<td>13.25151</td>
<td>23.841466</td>
<td>0.0650</td>
</tr>
</tbody>
</table>

Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Source: -views 9 output
And finally, it was identified that government revenue growth rate also report a positive coefficient value of 0.99655 and a significant P-value of 0.000, which suggest the existence of a positive and significant relationship between government revenue growth rate and budget deficit in Nigeria. This, therefore, created a notion that as the government revenue increases, the government budget deficit also increases, which is against our a priori expectation.

### Table 4 Presentation of error correction model

<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>-0.043071</td>
<td>2.707777</td>
<td>-0.015906</td>
<td>0.9874</td>
</tr>
<tr>
<td>D(ECDD)</td>
<td>0.475628</td>
<td>0.210428</td>
<td>2.260292</td>
<td>0.0324</td>
</tr>
<tr>
<td>D(GCOE)</td>
<td>0.860417</td>
<td>0.071646</td>
<td>12.00922</td>
<td>0.0000</td>
</tr>
<tr>
<td>D(GRGR)</td>
<td>1.011551</td>
<td>0.080975</td>
<td>12.49220</td>
<td>0.0000</td>
</tr>
<tr>
<td>D(IOGR)</td>
<td>-0.190746</td>
<td>0.104460</td>
<td>-1.826026</td>
<td>0.0794</td>
</tr>
<tr>
<td>ECM(-1)</td>
<td>-0.704524</td>
<td>0.166686</td>
<td>-4.226657</td>
<td>0.0003</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.900252</td>
<td>Mean dependent var</td>
<td>0.872824</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.881070</td>
<td>S.D. dependent var</td>
<td>44.40037</td>
<td></td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>15.31203</td>
<td>Akaike info criterion</td>
<td>8.462516</td>
<td></td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>6095.916</td>
<td>Schwarz criterion</td>
<td>8.737341</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-129.4002</td>
<td>Hannan-Quinn criter.</td>
<td>8.553612</td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>46.93138</td>
<td>Durbin-Watson stat</td>
<td>2.357951</td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000000</td>
<td>Source: views 9 output</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A significant government revenue growth rate is expected to reduce government budget deficit but in this stance, reverse is the case. This identified that direct relationship between the growth rate of government revenue and budget deficit could be attributed to other forces not captured in our model, such as corruption, misappropriation of fund, financial indiscipline and the “Please Effect”, which has resulted into inefficient utilisation of government revenue, and therefore, deepens the deficit gap over time.

Having subjected to statistical test all the proposed structural factors that could lead to increase in government budget deficit in Nigeria, the study, therefore, concluded that lack of government control over its expenditure, growth rate of government revenue and economic development pace are the major structural factors deepening the deficit gap of the Nigerian economy.

### CONCLUSION AND RECOMMENDATION

From records, many studies on public finance emphasise the problems of the Nigerian economy with focus on the revenue side of the budget scrutinizing various ways of and means to improve on receipts.

This study apparently centred on the problem of providing adequate funds for government rather than with the problems of spending needs and the effect of the government finance gap in the country. This paper has attempted to provide support for the conjecture that certain structural characteristics probably more related to the expenditure side of the budget than to the revenue side have made it more problematic for Nigeria to break out of the circle of budget deficits.

It is obvious that increasing tax and oil revenue has not necessarily helped in the budget finance gap, and to the extent that the “Please Effect” and the penchant for unaccountable expenditure, which is deeply entrenched in our political life will even widen the gap. That is to say that political, religious, social and institutional deficiencies that put pressure on government to spend recklessly, obviously appear to have a strong impact on the government to inadequately fund its expenditures.

The strongest information emerging from this paper is that government backwardness in terms of development and a very high degree of participation in the commanding height of the economy makes it extremely difficult for the government to control
its appetite for budget deficits. The hypothesis that government with unstable revenue tends to incur greater deficits is also supported, while the result also shows that government with greater control over its expenditure will tend to have smaller budget deficits. Whether this control is related to structural factors or not can further be investigated. However, it is noted from the context of this study that reckless budget deficits can lead to a weak currency efficacy and low interest rate.

CONTRIBUTIONS TO KNOWLEDGE

i. This empirical study has successfully tested and identified three major structural factors that deepen the government budget deficit gap in the short run and includes lack of control over government expenditure and economic development pace.

ii. The findings of this analysis provide handlers of the economy, especially the researchers, policy makers and the entire nation with the variable to keep an eye on, in their quest in identifying those factors that have wrongly deepened the government budget deficit gap in Nigeria over the years.

iii. The study has revealed, and thus, justifies that the Wagner’s (1835) Theory of Increasing State Activities has been exiting in the Nigerian context, and as such cushion the deficit gap of the government over the years.

iv. Methodologically, the study shows that the structural factors that deepen the government budget deficit in Nigeria can be explained using the econometric techniques of Vector error correction mechanism (VECM).

REFERENCES


Structural Factors and Budget Deficits in Nigeria

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