

Implications of Public Sector Budget Deficit Financing on Economic Growth in Nigeria: 2003-2018

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Abstract

This term paper titled: “Implications of public sector budget deficit financing on Economic growth in Nigeria” was carried out with the intention of ascertaining which financial options out of many financial alternatives is the best for the Nigerian government. The research work gave considerations to the cost and risk associated to each finance option over the period 2003-2018. After review of several literatures and appropriate theories, the empirical analysis was carried out. The work employed regression analysis using log-linear of real GDP as the dependent variable and explanatory variables (Bank credit to government - BCG, Non-bank public credit - NBP, ways and means - WM, and external deficit financing - EXDF). The result revealed that budget financing through bank credit and non-bank public are positively proportional to the growth rate of Nigerian economy. It further showed that financing through ways and means is inversely related to real GDP growth. The result for external financing exhibited inverse relationship with the growth rate of Nigerian economy but the coefficient of EXDF was not statistically significant. It was recommended that government should weigh the risks associated with external borrowing as well as consider the medium and long-term repercussions of a possible default on debt servicing.

Keywords: *Gross Domestic Product, Ways and Means, Public Debt, External Financing, Budget Deficit, Economic Growth.*

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Background to the Study

The Keynesian contribution brought about a new scene in Economic thinking particularly as it affects public finance. Sound finance where government played little role, gave way for functional finance in which government can act as a major player by controlling the pattern of spending, consumption, inflation and other macroeconomic variables through the conduct of expansionary (budget deficit, increase in taxation) and/or contractionary (budget surplus, decrease in taxation) fiscal policies to achieve certain macroeconomic objectives. In the Keynesian analysis, it has been advocated that deficit financing could be adopted in order to tackle the problem of inflationary-unemployment pressure when there is recession or depression. This will increase the demand for productive output and to reduce the level of unemployment (Anyanwu and Oaikhenan, 1995). Keynesians and Neo-classical models depict that rise in government debt change output and employment levels and cause increase in interest rate.

The obvious implication of the economic system in Nigeria presently is an expanded role of the government. Thus, public expenditure has grown tremendously over the years. Government as an agent of the people requires revenue to provide education, employment, adequate health services, infrastructures and good roads but in the process of discharging this enormous responsibility the revenue and/or spending requirements of the government may sometimes outstrip its availability, hence the recourse to deficit financing so as to fill the gap between expenditure needs and revenue availability.

This work is structured into five sections: section one introduces the topic with sub-sections like background to the study, statement of the problem, research objectives among others. Section two is a review of many literatures that are relevant to the topic. Section three is titled methodology, section four is empirical result while section five is conclusion and recommendation.

Statement of the Problem

In the face of deficits financing, governments of all nations are confronted with the choice between external and domestic financing. If options are available, then the choice boils down to the cost and risk associated to each financing option. This choice is not straight jacketed as government usually pursue various objectives such as: low inflation, stable exchange rate, low interest rates and favourable yield curves, an adequate foreign reserve cover, and active domestic capital markets. Meeting the government's borrowing requirement has significant effects on the economy, due largely to its actual or potential magnitude. Thus, choosing between various options to meet the government's borrowing requirement should be based on numerous considerations.

Nigeria, being majorly a mono-product nation, has been over reliant on crude oil production and the proceed from oil export has been the basis for Nigeria's fiscal operation. During oil boom less savings were made and most of government fiscal operation were and still are deficit budget. Since the 1979/80s oil glut with attendant adverse effect on fiscal operation, budget surplus has given way for deficit financing with the exception of 1995 and 1996 (CBN 2018

Statistical Bulletin). Considerable attention has been focused on the consequences of deficit financing because of the belief that the presence of these consequences in the Nigeria economy might have informed the current thinking that the government through its deficit financing has contributed greatly to the country's current economic problem. Among the problems confronting the Nigerian economy are; pressure on balance of payment, declining growth and heavy debt burden in which the country had \$18 billion about 60 percent of the \$30 billion owed the Paris Club written off (Debt Management Office, 2006). The concern is not deficit in itself, this is because fiscal deficit is not a crime but it is worrisome, especially when it cannot be said to promote economic activities. Besides, most of the debt incurred in Nigeria are dead weight in the sense that they are not judiciously utilized to spur growth, thereby setting trap for generation yet unborn.

Given the above problems, the research questions are posed thus:

- i) Should policy makers stick to external financing and when is it appropriate to explore the option of external budget financing?
- ii) Does domestic financing through commercial banks better off and when is it appropriate to explore domestic credit market to finance budget deficit?
- iii) What impact does deficit financing through ways and means have on Nigerian economic growth?
- iv) Does Non-bank public play a vital role of Economic growth through deficit financing?

Research Objectives

The main objective of this research work is to find out the impact of budget deficit on Nigeria economic growth. The specific objectives are:

- i) To determine how foreign source of finance affect economic growth in Nigeria
- ii) To examine how domestic source of finance affect economic growth in Nigeria
- iii) To examine the impact of “ways and means” as another source of deficit financing
- iv) To examine the significant impact of Non-bank public on Economic growth through deficit financing.

Research Hypotheses

The hypotheses formulation for this research work is stated below:

- 1-H₀: External budget financing has no significant impact on Nigerian Economy
- 1-H₁: External budget financing has a robust impact on Nigerian Economic growth
- 2-H₀: Domestic financing has no significant impact on Nigerian Economic growth
- 2-H₁: Domestic financing has a significant impact on Nigerian Economic growth

- 3-H₀: Ways and means has no significant impact on Nigerian Economic growth
- 3-H₁: Ways and means has a robust and significant impact on Nigerian Economic growth
- 4-H₀: Financing through Non-bank public has no significant impact on Nigerian Economic growth
- 4-H₁: Financing through Non-bank public has a significant impact on Nigerian Economic growth

Conceptual Framework

The relationship between government spending and economic growth, has been a subject of controversy as it has led to the establishment of two positions. Folorunso and Falade (2013), employed the use of Pair-wise Granger causality results to examine the connection between fiscal deficit and public debt in Nigeria. Results from the study support the existence of a bi-directional relationship between the two macroeconomic variables. The results also suggested that domestic debt has a greater impact on fiscal deficit than external debt.

Ranjan and Sharma (2008), showed that government expenditure exerted significant positive impact on economic growth in India during the period 1950-2007, and that the two sets of variables co integrated. This was in line with the earlier work of Barro (1979), who observed a positive and significant impact of budget deficit on economic growth. In the empirical study carried out by Najid (2013), the relationship between budget deficit and gross domestic product in Pakistan were investigated by employing a time series data for the period of 1971-2007. The result showed that there was bi-directional causality running from budget deficit to GDP and from GDP to budget deficit. This was in contrast with the view of the earlier work of Hayati (2012), which established a no link of relationship between budget deficit and economic growth in the long run in Malaysia. This result was also supported by a study carried out by Ghali (1997), in Saudi Arabia. A contradicting study result came from the work by Fatima (2012). The study finds negative relation between budget deficit and economic growth in Pakistan. This finding was supported by the work of Ghosh and Hendrik (2009), they reported that, *ceteris paribus*, an increase in budget deficits slows growth of the U.S. economy.

Bose (2007), found a positive relationship between budget deficit and economic growth in 30 developing countries. In contrary, Laudau (1983), examined the effect of government deficit on economic growth for a sample of 96 countries and found that government deficit exerts a negative effect on real output. The empirical work of Adam and Bevan (2004), was on the relationship between fiscal deficits and growth (GDP) for a panel of 45 developing countries. Based on the consistent treatment of budget constraints, the study found evidence of a threshold effect at a level of the deficit around 1.5% of GDP. The threshold not only involves a change of slope but also a change of sign in the relation regardless of the budget category excluded from the model, indicating that for an economy not on its steady state growth path, there is a range over which deficit financing may be growth-enhancing. This was supported by the work of Olugbenga and Owoeye (2007).

Yavas (1998). showed that a rise in the size of fiscal deficit will increase the steady state level of output if the economy is at a slow steady state, and will decrease the steady state level of output if the economy is at a high steady state. He emphasized that in underdeveloped countries, a significant portion of the deficit is directed to building of the infrastructure of the economy and this type of expenditure will have a stimulating effect on private sector production. Ndung'u (1995) looked at the link between budget deficit, the rate of inflation and money supply growth on the one hand, and money printing and the rate of inflation on the other. He used Multivariate Granger Non- causality tests, and reported that at least in the case

of the Keynesian economy; fiscal deficits affect monetary base growth. He concluded that fiscal deficits affect growth in monetary base, money printing affects the rate of interest and hence, the rate of inflation and in addition, excess money printing affects the rate of inflation.

Obi and Nurudeen (2009), looked at the effects of fiscal deficits and government debt on interest rates in Nigeria, by applying the Vector Auto-regression approach. The results of the estimation show that the explanatory variables account for approximately 73.6% variation in interest rate in Nigeria. The estimation data also shows that fiscal deficits and government debt are statistically and economically significant. They concluded that deficits financing leads to huge debt stock and tend to crowd out private sector investment, by reducing the access of investors to adequate funds, thereby raising interest rates. The rise in interest rate reduces investment demand and output of goods and services. These in turn reduces national income as well as employment rate and the overall welfare of the people would reduce. Adams and Bevan (2001) looked at the relationship between fiscal deficits and growth in a panel of forty five (45) developing countries. The estimation strategy involved a standard fixed effect panel data estimation and bi-variate linear regression of growth on fiscal deficits using pooled data. They also discovered the existence of a statistically significant non-linearity in the impact of budget deficits on growth. They however said that this non-linearity reflected the underlying composition of deficit financing.

Empirical Review

Onyeiwu (2012) investigated the relationship between domestic debt and the growth of Nigeria economy. Parsimonious model, error correction model and ordinary least square (OLS) were used for analysis. He employed gross domestic product as dependent variable while foreign exchange rate, credit to private sector, budget deficit, money supply and domestic debt were used as independent variables. It was found that the domestic debt holding of government is far above a healthy threshold of 35 percent of bank deposit over the period. Osuji and Ozurumba (2013) investigated the impact of external debt financing on economic development in Nigeria using stationarity test, co-integration test and vector error correction model. The study shows that London debt financing possessed positive impact on economic growth while Paris Club debt and Promissory Note were inversely related to economic development in Nigeria. The study recommended that debt services should be cancelled to encourage survival of Small and Medium Enterprises in Nigeria.

Kumhof et al., (2012), investigate the empirical and theoretical link between increases in income inequality and increases in current account deficits. Cross-sectional econometric evidence shows that higher top income shares, and also financial liberalization, which is a common policy response to increases in income inequality, are associated with substantially larger external deficits. They developed a model that features workers whose income share declines at the expense of investors. Loans to workers from domestic and foreign investors support aggregate demand and result in current account deficits. Financial liberalization helps workers smooth consumption, but at the cost of higher household debt and larger current account deficits. In emerging markets, workers cannot borrow from investors, who instead deploy their surplus funds abroad, leading to current account surpluses instead of deficits.

Oladipo et al., (2012), examine the effects of twins' deficits in Nigeria for the period 1970-2008 using Secondary time-series data and econometric techniques. The results show a bidirectional causal relationship between budget deficits and trade deficits in Nigeria. The study concludes that an appropriate policy measures to reduce budget deficits could play an important role in reducing trade deficit and complement this with budget-cut policies via a coherent package that focus on policies for export promotion, productivity improvement and exchange rate, amongst others.

Adeboye (2003), examined the long run relationship between budget deficit and economic growth incorporating savings and investment. He grouped 64 developing countries, Nigeria inclusive into A, B, and C based on their level of interest rate. The study indicates that crowding out effect of budget deficit on private investment in Nigeria's economy has significance impact on the economic growth, output, the level of employment, and the standard of living. The study recommends that the government should put adequate measures in place to reduce its recurrent expenditure and increase its capital expenditure in order to encourage and make conducive environment for private investment to grow and that this will make the level of income growth in short and long run to rise. Okoye and Akenbor (2010), examined the impact of deficit financing on socio-economic activities in Nigeria from 1997 to 2007 using pearson product moment correlation coefficient to test the significance of the relationship between deficit financing, economic and social community service. The study found that deficit financing has a positive and significant impact on economic activities in Nigeria.

Akinmulegun (2014), in a study of deficit financing and its effect on economic growth in Nigeria employing the econometric technique of Vector Auto Regression (VAR) Model. The relevance variables used are as follows: real gross domestic product (RGDP), the gross capital formation (GCF), the real interest rate (RINTR), inflation rate (INFR) and budget deficit. It was discovered that deficit financing has not contributed significantly to economic growth in Nigeria. This is because of the negative impact of deficit financing on economic growth during the period under review. The study recommends that government should reduce unnecessary public spending, ensure greater budget discipline and adopt a financial structural transformation that can help to reduce wastage in public spending.

Onwe (2014), investigated the implications of deficit financing on economic stability in Nigeria between 1970-2013. The study adopted regression analysis and revealed that External Source of Deficit Financing (EXF), Non-banking Public Source of Deficit Financing (NBPF) and Exchange Rate has significant and positive implications on Economic Stability proxy for Gross Domestic Product (GDP), while Ways and Means Source of Deficit Financing (WM), Banking System Source of Deficit Financing (BSF) and Interest Rate (INTR) has negative implications on economic stability in Nigeria. It was recommended that deficit financing in Nigeria should be focused on the productive sectors of the economy. This is because deficit financing has merely resulted in economic instability indicating that sound policies are needed to achieve economic stability in Nigeria.

Fagbohun (2017), examined the impact of budget deficit on economic performance in Nigeria between 1970 and 2013. The study incorporated bank rate, broad money supply, external reserves and fiscal balance as the independent variables, while, economic performance is measured by per capita income, unemployment rate and price stability. Using the least square method, the results revealed that both budget deficits and external reserves have positive and significant impact on capita income, whereas bank rate and money supply have indirect and insignificant on the same per capita income. The work recommended that government should formulate policy that would check the channels of government expenditure in order to find out why the huge spending has not translated into a viable economic performance in terms of price stability and growth that guarantees employment creation.

Theoretical Framework

The main objective in choosing any method of borrowing by the government is to minimize the costs and risks to the economy. There is no single optimal approach for all circumstances as it depends on the availability of financing, the economic environment, the institutional framework, and the degree of development of domestic financial markets. This sub-section presents some theoretical issues that should be taken into account when deciding deficit financing. Three main factors may help decision makers to choose among alternative options:

- (i) The macroeconomic repercussions, notably with respect to private investment and the external current account;
- (ii) The cost and the interest rate, foreign exchange and other risks; and
- (iii) The impact of the proposed borrowing on debt sustainability.

There are many theories (Keynesian economics theory, neoclassical economics theory, Ricardian equivalence approach, Fiscal Theory of Price Level and Musgrave Theory of Public Expenditure) which seek to explain the implications of deficit financing on the performance of economic stability around the world. These theories are of relevance to this study as they serve as building blocks to the topic of this term paper. For the purpose of this study, the theoretical frameworks that were considered relevant are as follow:

Ricardian Equivalence Theorem

Ricardian equivalent theorem states that if government expenditure remains constant and there is a tax cut, individuals will anticipate a tax increase some times in the future. Therefore, for this reason, individuals will allocate the increase in disposable income to savings. The interest earned on this money will cover the interest element of government debt liability, so that there will be no change in the present value of real tax liability. To this effect, national savings will remain constant, because the increase in private savings equals the decrease in government savings.

In summary, proponents of the Ricardian Equivalence Hypothesis (REH) deny any correspondence between the budget deficit and the current account imbalance. This concept is of the view that since people are rational, they know that the reduction in taxes, resulting from the government expansionary fiscal policy of tax cut, is temporal and so they will save the extra disposable income to pay for the future higher taxes.

Keynesian Economic Theory

Keynesian Economic Theory was developed by British Economist John Maynard Keynes, christened functional finance (1936) and was used by many researchers including Ojong and Hycenth (2013) in their studies. Keynesian theory states that public expenditures can contribute positively to economic growth by increasing government consumption through increase in employment, profitability and investment. The theory also states that government can reverse economic downturns by borrowing money from the private sector and returning the money to private sector through various spending. This theory believes that active government intervention in the market place through deficit financing was the only method for ensuring growth and stability by ensuring efficiency in resources allocation, regulation of markets, stabilization of the economy and harmonization of social conflicts. Keynes states that in the short run, economic growth through economic stability is strongly influenced by total spending in the economy.

Central Bank Borrowing

The budget deficit can be covered directly by money creation or the printing of new notes by the monetary authority i.e. the Central bank or, more generally by increasing credit of the banking system. The direct cost can be minimal or even nil, but macroeconomic risks associated to this option is huge. Excessive monetary financing results in excess overall demand, which in turn translates into inflation or, under a fixed exchange rate, pressure on the balance of payments.

Nevertheless, the relation between monetary financing of the budget deficit and inflation is neither direct nor linear, particularly in the short-run. The unstable nature of this link is generally attributed to several factors:

- (i) Private saving may change as a result of changes in inflation expectations;
- (ii) The composition of budget financing may change over time;
- (iii) The demand for money is sometimes unstable; and
- (iv) Expectations may be shaping future government policy.

Borrowing From the Domestic Banking System or the Private Sector

Domestic debt is the means of gross liability of Government (Federal, State and Local) transfer obligations to the citizens and corporate firms within the country. Consequently, the Central Bank of Nigeria (CBN) as banker and financial adviser to the Federal Government is charged with the responsibility for managing the domestic Public debt. Domestic borrowing from the banking system (excluding the Central Bank) and the private sector requires a relatively well-developed financial intermediation system. It reduces inflationary pressures and the risk of external debt overhang.

External Borrowing

External debt may be defined as debt owed to non-residents repayable in terms of foreign currency, food or service (World Bank, 2004). Nigeria's external debts are basically from multilateral agencies, Paris Club of Creditors, London Club of Creditors, Promissory Note Holders, Bilateral and Private Sector Creditors and other sources.

Although government external borrowing does not directly affect domestic interest rates and the supply of loanable funds, it may also crowd-out private investment through its impact on prices or the nominal exchange rate (in a flexible or managed exchange rate regime). When the budget deficit stems from expenditure on locally produced goods, external borrowing brings about an appreciation of the real effective exchange rate (under a fixed or managed exchange regime) that has a crowding-out effect on certain local producers.

Research Design

This study made use of the Ex-post facto research design. Ex-post facto design is the type of research involving events that have already taken place thereby analysis data that had already been collected and stored reliably. The data already exist and no attempt will be made to control or manipulate relevant independent variable. It aims at determining and measuring the relationship between one variable and another or the implications of one variable on another. We applied sets of regression estimation techniques to resolve the four hypotheses stated in section one while time series analysis will be utilized to examine the magnitude and significance of the relationship among the research variables. This study covered deficit financing options for the period under review (2003 - 2018) and its implications on Nigeria economic growth. Annual secondary data of the variables were used and they include deficit financing variables (external source of deficit financing, ways and means sources of deficit financing, banking system source of deficit financing, and economic growth variables being gross domestic product (GDP).

Sources of Data

The data for this study was obtained mainly from secondary source, which was collected from CBN statistical bulletin 2018, economic and financial review of the CBN (various issues), National Bureau of Statistics NBS, various journals, internet and online materials.

Description of Research Variables

These variables are as described in table 1 below.

Table 1: Description of Research Variables

Variables	Proxies	Nature	Abbreviation
Economic Growth	Gross Domestic Product	Dependent	GDP
Public Sector Budget Deficit Financing	Bank Credit to the Government	Independent	BCG
	Ways and Means	Independent	WM
	Non-bank credit to the Government	Independent	NBP
	External Debt Financing	Independent	EXDF

Source: Author's compilation, October 2019.

The Estimation Model/ Analytical Method

The model is implicitly stated thus:

$$GDP = f(BCG, WM, NBP, EXDF) \dots\dots\dots 1$$

The above model can be compactly and explicitly stated econometrically thus:

$$GDP = \beta_0 + \beta_1 BCG + \beta_2 WM + \beta_3 NBP + \beta_4 EXDF + \mu \dots \dots \dots 2$$

By transforming the above equation into log-linear model, it becomes:

$$\text{Log}(GDP) = \beta_0 + \beta_1 \text{log}(BCG) + \beta_2 \text{log}(WM) + \beta_3 \text{log}(NBP) + \beta_4 \text{log}(EXDF) + \mu \dots \dots \dots 3$$

Where:

GDP is gross domestic product, BCG is bank credit to the government

BCG is banking sector credit to the government

WM is “ways and means” which is a proxy for CBN credit to the government

NBP is Non-Bank public credit to the government, and

EXDF is external debt financing.

Data Presentation

This sub-section presents data to be used for empirical analysis. The data is sourced from CBN statistical bulletin 2018. Real GDP is gotten from real sector division of the bulletin while other explanatory variables: Commercial bank loan, Non-bank public, ways and means, and external financing data are gotten from public finance division of CBN bulletin.

Analysis of Results

To carry out this analysis, test for stationarity of data is very important to ascertain whether the data need to be transformed or used in raw form.

Unit Root Test

In the literature, most time series variables are non-stationary and using non-stationary variables in the model might lead to spurious regression, a situation that causes wrong inference making. The first or second difference term of most variables will usually be stationary. Following Engle and Granger (1987) procedure, we start with the testing for the order of property of the variables of interest, the Augmented Dickey-Fuller (ADF) and Phillips-Perron test are employed.

Table 2: Unit Root Test Using Augmented Dickey-Fuller (ADF) and Phillips-Perron Tests

Variables	Test Statistic		5% Critical Level		Order of Integration
	ADF	Phillips-Perron	ADF	Phillips-Perron	
RGDP	-	-3.95	-	-1.97	1(2)
BCG	-6.07	-4.48	-3.87	-3.82	1(2)
WM	-3.97	-5.45	-3.82	-3.79	1(1)
NBP	-6.65	-9.85	-3.82	-3.79	1(1)
EXDF	-4.26	-4.26	-3.79	-3.79	1(1)

Source: E-views, September 2019.

Adopting the simple economic relationship of random walk with drift, the results of the unit root tests are reported Using ADF and Phillips-Perron test. All variables are not stationary at level but stationary at first difference and second difference.

Regression Result

Since the data are not stationery, there is a need for their transformation. Rather than differentiating, we decide to transform through log-linearisation. The model employed therefore is given below:

$$\text{Log(GDP)} = \beta_0 + \beta_1 \log(\text{BCG}) + \beta_2 \log(\text{WM}) + \beta_3 \log(\text{NBP}) + \beta_4 \log(\text{EXDF}) + \mu$$

And the regression output is shown below:

Table 3

Variable	Coefficient	Std. Error	t-Statistic	Prob
C	8.959317	0.108349	82.68924	0
LOG(BCG)	0.125560	0.021803	5.758844	0.0001
LOG(NBP)	0.160526	0.015154	10.592910	0.000000
LOG(WM)	-0.019038	0.008135	-2.340130	0.039200
LOG(EXDF)	-0.013265	0.008059	-1.645989	0.128000
R-Squared	0.9940	Mean Dependent Var		10.8607
Adjusted R-Squared	0.9918	S. D. dependent Var		0.2685
S. E. of Regression	0.0243	Akaike Info Criterion		(4.3444)
Sum Squared Resid	0.0065	Schwarz criterion		(4.1030)
Log Likelihood	39.7552	Hannan-Quinn criteria		(4.3320)
F-Statistic	454.0763	Durbin-Watson stat		2.2233
Prob(F-statistic)	0.000000			

Source: E-views Output, September 2019.

Discussions on the Results

The above result shows that Bank Credit to government BCG has significant impact on Nigerian economic growth. It implies that at 1 percent level of significant, 1% rise in Bank Credit to government leads on average to 12.6% rise in GDP. The insinuation in some quarters that budget finance through bank credit leads to increase in the rate of interest and thereby crowd-out private sector investors does not hold here. Many Commercial banks investment portfolio is in form of government treasury bills, government bond. This is so because it is generally believed that investing in government security is more secure and less risky compared to investing in private investment.

Also, budget financing through Non-bank public (NBP) is positively related to Nigerian economic growth, the result implies that 1% rise in NBP leads to 16% rise in GDP. The coefficient is significant at 1 percent level. Many government projects in road construction, power project etc are recently being concessioned in form of Public Private Partnership (PPP), build-operate and transfer (BOT), and these have been impacting positively on Nigerian economic growth.

However, debt financing through “ways and means” shows inverse relationship on Nigerian economic growth. The regression result implies that at 5% level of significant, a percent increase in CBN “ways and means” causes about 1.6% fall in Real GDP. This is expected as money creation through issuance of new notes especially when aggregate supply is stagnant has consequence of fueling inflation, reduce real income and increases interest rate, thereby serves as disincentive for investment and dampen the growth rate of economy.

The regression result is not in support of a positive impact of deficit financing through external sources. A rising external debt tends to weaken the economy. First, foreign borrowing increases vulnerability to external conditions. When debt is contracted at a floating rate, higher foreign interest rates lead to an increase in debt-servicing costs. This raises budgetary outlays, which may translate into a larger deficit or a reduction of non-debt outlays. Likewise, currency depreciation leads to increase debt servicing (in domestic currency terms), and has the same effects as those mentioned earlier. Second, when government borrows to cover a growing deficit, foreign borrowing leads to an unsustainable level of debt, an excessive share of debt service in overall government expenditure, and substantial use of foreign exchange to service the debt. In the long run, this may lead to a debt crisis.

The diagnostic test further shows that adjusted R-square is 0.991 which implies that 99.1% of variations in dependent variable i.e. RGDP is explained by the included explanatory variables. This shows goodness of fit of the model. The Durbin-Watson statistics also shows that the model is free of serial or autocorrelation. The higher order tests are shown in the appendix.

The findings of this study is consistent with Onwe (2014), who finds that External Source of Deficit Financing (EXF), Non-banking Public Source of Deficit Financing (NBPF) and Exchange Rate has significant and positive implications on Economic Stability proxy for Gross Domestic Product (GDP), while Ways and Means Source of Deficit Financing (WM), Banking System Source of Deficit Financing (BSF) and Interest Rate (INTR) has negative implications on economic stability in Nigeria. The implication is that government deficit financing through External Source of Deficit Financing (EXF) and Non-banking Public Source of Deficit Financing (NBPF) will maintain economic stability while government deficit financing through Banking System Source of Deficit Financing (BSF) and Ways and Means Source of Deficit Financing (WM) will reduce economic growth thereby causing instability in the economy.

Conclusion

The empirical analysis carried out in section four reveals that deficit financing through bank credit and non-bank public are positively related to the real growth rate of Nigerian economy. The study further reveals that budget-financing option through “ways and means” is inversely related to the growth rate of Nigerian economy, these are statistically significant at 1% and 5%. External financing is not positively proportional to the growth rate of Nigerian economy but the result is not statistically significant. The result of external financing here is inconclusive. However, in choosing between domestic or foreign borrowing, the cost and risk associated to each financial options have to be weighed.

Recommendations

Based on the objectives and findings of the study, and with respect to external financing, the principal risks are those associated with interest rates, exchange rates, and rollovers. These risks have to be weighed, with particular attention to the foreign currency composition and other terms of foreign loans (maturity, grace period, floating interest rates). The government must also consider the medium- and long-term repercussions of a possible default on debt servicing.

1. The government should seek to borrow from domestic sources, even if it is at a higher cost, to foster the development of financial market, with the expectation that in the medium and long term the development of these markets will lower the cost of access to domestic financing for the economy as a whole.
2. Given the interdependence of the level of the budget deficit and the way it is financed, financial costs also establish an opportunity cost of expenditure. Thus, at the margin, debt sustainability analysis should induce a reassessment of the opportunity of government expenditure and of the level of taxation.
3. The Non-bank public participation in government budget financing is a right step in the right direction. With more citizen participating in the financing of public goods, the more they will have a sense of belonging and get considered as stakeholder, and the more they are more likely to safeguard such public goods knowing that should it collapses, their investments and return will be threatened.
4. Where it becomes necessary for government to borrow, the caps (should be in percentage of previous years revenue) should not be exceeded. Borrowing by government should be transitory, and only in extreme conditions. And the borrowed funds should be priced at market rates and repayment should be within the same fiscal year.

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