Effectiveness of Deficit Financing in Stimulating Gross Domestic Output: Insights from the Nigerian Economy (1970 - 2014)

By

[1]Ezema, Benedict Ibekwe [2*]Nwokoye, Ebele Stella and [3]Akpan, Ekemini Sunday

[1]*Accountant General's Office, Enugu State Treasury House, State Secretariat Enugu State Nigeria*

[2&3]*Department of Economics, Nnamdi Azikiwe University Awka, Anambra State Nigeria*

*es.nwokoye@unizik.edu.ng

ABSTRACT

A lot of studies have been conducted in the Nigerian economy on deficit financing but there exist contrasting views as to whether deficit financing stimulate economic growth or not. This study employed the ordinary least square technique (OLS) to examine the effectiveness of deficit financing in stimulating economic growth in Nigeria and also tested for causality using the granger causality pair wise test. The variables employed were real GDP as the dependent variable while deficit financing, the current account balance, foreign private investments, and savings were the explanatory variables. The granger causality test result indicates a unidirectional causality flow from GDP to deficit financing, to current account balance, foreign private investment and savings. The empirical findings also revealed that deficit financing has a positive but not significant impact on real GDP, which is in line with the Ricardian Equivalence Theory. Therefore, deficit financing had no impact on economic growth in Nigeria for the period under review. The study recommends that deficit financing, should only be adopted for financing long-term capital project. Foreign private investment should be promoted and policies aimed at savings mobilization should be enacted by the government.

Keywords: Current account balance, Deficit financing, Economic growth

INTRODUCTION

Faced with the need to finance rising public expenditure and to achieve macroeconomic goals, governments all over the world resort to deficit financing as an alternative means to eliminate income expenditure gap in the budget. Deficit financing is an approach to money management that involves spending more money than is collected during the same financial period, sometimes, referred to as a budget deficit. It is also the borrowing undertaken by government to make up for the revenue shortfall. This financing method when used properly helps to launch a chain of events that ultimately enhance the financial condition rather than simply creating debt that may not be repaid. One most common importance of deficit financing is that, it helps in stimulating the economy in times of recession such as the Great Depression of 1929 -1932 and most recently, the 2008 Global Financial and Economic Crisis.

In Nigeria, rapid and sustained output growth of the domestic economy has since the political independence in 1960 been of paramount importance to successive governments in the country. This thus, necessitated the interventions

of the government in the economy through the provision of the required huge capital outlay necessary for large-scale production in heavy industries and for the provision of other infrastructure. The oil boom of the early 1970s when Nigeria earned unprecedented amount of foreign exchange from the export of crude oil made government intervention possible (Sikkam, 1998). Government thus grew rapidly with a similar growth in the bureaucracy. Nevertheless, the oil glut that followed meant that government revenues declined significantly (Akor, 2001). As governments were reluctant in reducing the bloated expenditures that had resulted during the oil boom, this forced them to seek alternative means of financing their expenditure. Government thus resorted to borrowing.

The current state of our mono product economy-oil dominance in foreign exchange earnings and in government revenues has remained far too long. A sharp fall in oil revenue receipts will result in a fall in the federal government retained earnings putting the external sector under pressure; the resultant effect is an overall balance of payment deficit. This will lead to the depreciation of the naira and a rapid depletion of official external reserves

The government expenditure needs had remained on the increase and has aggravated the economy's debt profile from both domestic and foreign sources prior to the debt cancellation, the country received in 2005 (Kwanashie, Ajilima & Garba, 1998, Oluba, 2008, Dalyop, 2010).

Government in Nigeria had financed their fiscal deficits largely through monetary expansion. Through the ways and means advances, the Central Bank of Nigeria for most of the years between 1980 and 1990 and from 1991 consistently up to 2003 absorbed the greater proportion of the Nigerian public debt, followed by commercial banks and the non-bank public (Adedipe, 2004). Additionally, financing of fiscal deficit came from foreign borrowing through bilateral and multilateral agreements between Nigeria and other advanced economies as well as international organizations like the International Monetary Fund and the World Bank.

Nigeria's government budget deficit has witnessed increase in the past decades. For instance, from 1981, deficits increased from N3.9billion to N8.3billion in 1986 and it further increased to N15.1billion in 1989. From 1990, the rising trend of budget deficit continued except in 1995 and 1996 when the budget witnessed or registered a surplus of N1billion and N32billion respectively. In 1998, the overall deficit jumped to N133.4billion and in 2002, it increased up to N301.4billion. Starting from 2003, government budget deficit declined from N202.7billiom to N172.6billion, N161.4billion and N101.3billion in 2003, 2004, 2005 and 2006 respectively. Another increase was witnessed from 2007 at N117.2billion to N1,153.5billion in 2013 (CBN, 2014). Table I depicts the trend of deficit financing in Nigeria from 1970 to 2013.

Figure I   DEFICIT FINANCING (1970-2013)
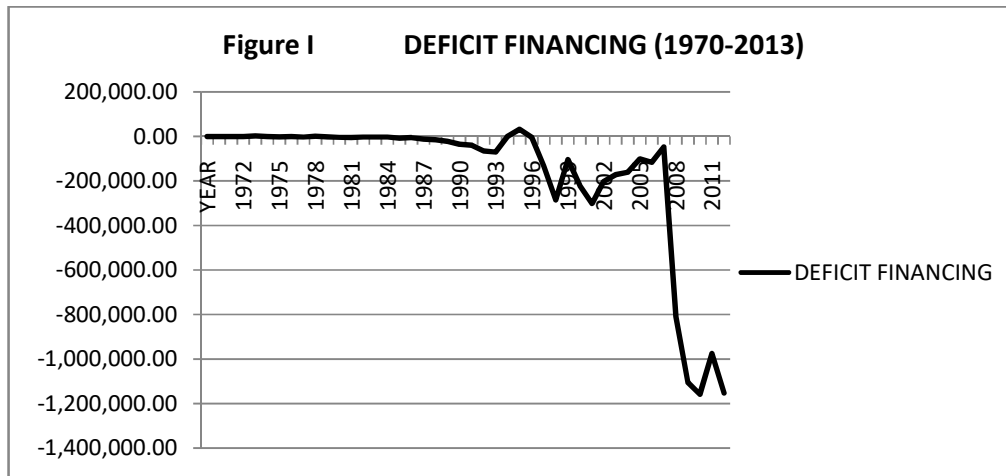
Source: Researcher' calculation using E-views

More so, statistics show that the percentage of deficit-GDP ratio after the Paris Club deal, dropped to as low as 0.20% in 2008, but is steadily on the rise to about 3.80% in 2010 (CBN Statistical Bulletin, 2010). Nigeria's Minister of Finance at the 2012 budget briefing puts the nation's total debt at US$44 billion, giving the break down as US$5.9 billion external debt and N5.56 trillion, domestic debt. She stated that although the nation's external debt profile was not bad as to cause panic the rising domestic debt portfolio was getting uncomfortable (Ndubisi, 2012). According to the Debt Management Office, a hefty 85% of Nigeria's public borrowing comes from the domestic market while only 15% represents external debt (Oniha, 2011). The domestic debt profile rose from N2.7 trillions in 2006 to N4.55 trillions in 2010 representing a 66.98% increase, while the total debt stock was at N3.18 trillions in 2006, N4.56 trillion in 2007 and N5.34 trillion in 2010, representing 64.97% change from 2006 to 2010 (CBN

Statistical Bulletin, 2010). The policy of fiscal deficit has however posed serious challenges to the Nigerian economy concerning its effectiveness and justification on growth.

Deficit financing - a situation where current expenditure exceeds current expected income - has become a recurring feature of public sector financing in Nigeria and these has become a major cause of concern to many economist on the effect of this policy in stimulating economic growth in Nigeria. However, there are contrasting views in the empirical literature on the impact of deficit financing on economic growth (Paiko, 2012; Dalyop, 2010; Adofu & Abula, 2010; Bogunjoko, 2004). These studies concluded that deficit financing retard growth in Nigeria, while others concluded that deficit financing has a positive impact on growth (Sevitenyi; 2012; Liu, Hsu & Younis, 2008; Osuka & Achinihu, 2014).

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The objective of this paper is to find out if deficit financing has actually been significantly effective in stimulating Nigeria's gross domestic investment. This study hypothesized that deficit financing significantly impacts on Nigeria's output level via its gross domestic product. The period covered in the study was from 1970 – 2014. In addition, this study adopted the national income model in a bid to capture the level and rate of growth of the economy, trade, consumption, investment and policy formulation.

The rest of the sections in this work include: conceptual and theoretical review, empirical review of related literature, research methodology, data presentation and analyses; discussion of findings, conclusion and recommendations.

CONCEPTUAL AND THEORETICAL REVIEW

Government deficit spending is a central point of controversy in economics, with prominent economists holding differing views. The mainstream economics position is that, deficit spending is desirable and necessary as part of countercyclical fiscal policy. Nevertheless, there should not be a structural deficit: run deficits during recessions to compensate for the shortfall in aggregate demand, but run surpluses in boom times so that there is no net deficit over an economic cycle, i.e., only run cyclical deficits. This is derived from Keynesian economics, and it gained acceptance (especially in the Anglo-Saxon world) during the period between the Great Depression in the 1930s and post-World War Two in the 1950s (Yergin & Stanislaw, 1998). This

position is attacked from both sides – advocates of sound finance argue that deficit spending is always a bad policy, while some Post-Keynesian economists, particularly Chartalists, argue that deficit spending is necessary, and not only for fiscal stimulus.

There are three major arguments regarding the effectiveness of fiscal deficit in stimulating economic growth and these include the Keynesian theory, the Monetarist theory and the Ricardian Equivalence theory.

(a) The Keynesian Theory

Keynes developed a theory, which suggested that active fiscal policy could be effective in managing the economy. Rather than seeing unbalanced government budget as wrong, Keynes advocates what had been called counter cyclical fiscal policies. That is, policies that acted against the tide of the business cycle: deficit spending when a nation's economy suffers from recession or when recovery is long been delayed and unemployment is persistently high and the suppression of inflation in boom times by either increasing taxes or cutting back on government outlays. He argued that government should solve problems in the short run rather than waiting for market forces to do it in the long run, because *in the long run, we would all dead* (Keynes, 1924).

Keynes theory explained that private investment could be crowded in as fiscal stimulus raises the market for business output, raising cash flow and profitability, spurring business optimism. This accelerated effect meant that government

and business could be complements rather than substitutes in this situation. Furthermore, government outlays need not always be wasteful: government investment in public goods that will not be provided by profit seekers will encourage the private sector growth. That is, government spending on such things as basic research, public health, education and infrastructure could help the long-term growth of potential output (Yergin & Stanislaw, 1998). Keynesian economics, according to Okpanachi & Abimiku (2007) in Dalyop (2010) teaches that an increase in government spending enhances domestic output. Deficit spending by the government stimulates the economy in the short-run by making households feel wealthier thus rising total private and public consumption expenditure. Through the resulting increase taken together demand, budget deficit has a positive effect on macroeconomic activity, thereby stimulating savings and capital formation (Chakraborty & Charkraborty, 2006).

Following John Maynard Keynes, many economists recommend deficit spending to moderate or end a recession, especially a severe one. Keynes intended government to play a much larger role in the economy. His vision was one of a reformed and managed capitalism, that is, capitalism saved from both socialism and from itself. He talked about a somewhat comprehensive socialization of investment and the state taking over greater responsibility for directly organizing investment (Yergin & Stanislaw, 1998). Moreover, fiscal policies will enable a wise manager to stabilize the economy without resorting to actual control.

(b) The Monetarist Theory

There was debate between Monetarist and Keynesians in the 1960s over the role of government in stabilizing the economy. Both Monetarist and Keynesians are in agreement over the fact that issues such as business cycles, unemployment, inflation are caused by inadequate demand, and need to be addressed, but they had fundamentally different perspectives on the capacity of the economy to find its own equilibrium and as a consequence the degree of government intervention that is required to create equilibrium. Keynesians emphasized the use of discretional fiscal policy and monetary policy while monetarists argued the primacy of monetary policy, and that it should be rules-based (Abel & Bernanke, 2005). The debate was largely resolved in the 1980s. Since then, economists have largely agreed that Central banks should bear the primary responsibility for stabilizing the economy, and that monetary policy should largely follow the Taylor rule – which many economists credit with the Great Moderation (Bernanke, 2004)

Government deficit financed by domestic debt, to the monetarist, constitute merely a transfer of resources from the private sector to the public sector with little or no effect on output. However, since in the view of the monetarist, the private sector is more efficient than the government, such a transfer could have a negative effect on output. To the contrary, however, the monetarists argue that increased government expenditure financed by monetary expansion has a strong stimulation effect on the economy, and as such, raises aggregate demand

(Okpanachi & Abimiku, 2007; Daylop, 2010). An increase in government expenditure financed through bonds raises interest rates, which leads to a crowding-out of private investments. The increased supply of bonds has a negative influence on investment as the growth of interest rates contributes to a substantial decrease in investment demand (Chakraborty & Chakraborty, 2006; Krajewski & Mackiewicz, 2007; Daylop, 2010).

(c) The Ricardian Equivalence Theory

Starting from the classical school of thought which postulated that fiscal deficit incessantly financed by debt crowds out private investment and by extension lowering the level of economic growth. A central tenet of the classical view, known as Say's law, states, "supply creates its own demand". Say's Law could be interpreted in two ways. First, the claim that the total value of output is equal to the sum of income earned in production is a result of a national income accounting identity, and is therefore indisputable. A second and stronger claim, however, that the "costs of output are always covered in the aggregate by the sale-proceeds resulting from demand" depends on how consumption and saving are linked to production and investment.

The Neoclassical school of thought emerged challenging the position of the Keynesian school of thought on the possible effects of fiscal deficits on economic activities on the premise that the former school ignores the significance of how fiscal deficits is financed on the effect of this policy variable on macroeconomic performance (Omitogun, 2007). One of the labels

attached to the Neoclassical argument is the Ricardian equivalence, which states consumers foresee that tax cut today paid for by deficit and borrowing, will lead to a tax increase in the future. In anticipation of the future tax increase, consumers save rather than spend the income from tax cut. If the Ricardian equivalence holds, therefore, then reduction of fiscal deficit will not affect the level of consumption or balance of payments in the economy and the basis for deficit reduction, as part of stabilization programmes, no longer exists (Tchokote, 2001).

Barro (1974) in Dalyop (2010) stated that the Ricardian equivalence implies that taxpayers do not view government bonds as net wealth; hence, its acquisition by individuals does not alter their consumption behavior. Thus, Gray & Stone (2005) conclude that correspondingly, the effects of government spending in a closed economy will be invariant to tax versus bond financing. Fiscal deficit therefore simply represents a transfer of expenditure resources from the private to the public sector and variation in budget deficit is neutral to economic activity (Chakraborty & Chaktaborty, 2006).

Budget deficit according to the Ricardian equivalence theory, also has no effect on private investment. Accordingly, a reduction in taxes does not trigger growth of consumption and hence does not have any expansionary effect, as households tend to increase savings in anticipation of higher taxes in the future, which are necessary to redeem the debt (Barro, 1974 in Krajewski & Mackiewicz, 2007; Okpanachi & Abimiku, 2007; Dalyop 2010). Similarly, the Ricardian equivalence theory holds that debt

or tax financed government deficit do not have any effect on the trade balance and the real exchange rate and hence the absence of a relationship between budget deficit and current account deficit (Barro, 1989 in Neaime, 2008; Okpanachi & Abimiku, 2007; Dalyop, 2010).

Ekpo (1994), contended that the role of the public sector should be limited to the continuous creation of an enabling environment to allow and enhance private sector – induced development. Aigbokhan (1996) opined that federal government spending if employed efficiently could boost private investment and promote economic growth. Ogiogio (1996), however, notes that the economy does not have the productive capacity to support growth in the absence of new (government) investment. In particular it was agreed that government expenditure was necessary for the maintenance of existing infrastructure and the implementation of policies / projects in the economic and social sectors of the economy.

According to Bamidele & Englama (1998), deficit financing is a veritable tool in macroeconomic management provided it is efficiently financed and productively utilized on projects and programmes that could be self-sustaining. However excessive and prolong deficit financing through the creation of high powered money negates the attainment of macroeconomic stability which may in turn curtail the level of desired investment in an economy and thereby stifle growth.

EMPIRICAL LITERATURE EVIEW

Some empirical studies have been conducted on the extent to which deficit financing is effective in stimulating economic activities. These literature include the work of Olayiwola (n.d.) who studied the relationship between budget deficit and Nigeria's economic development challenges within the context of ECOWAS convergence criteria and analyzed the implication of budget deficit on socio-economic development challenges of Nigeria using a system dynamic method consisting of T 21 model of Nigeria customized to carry out the calibration and the simulation exercises. The study finds that Nigeria's PCM T 21 model performs fairly well in replicating the actual data in the year 1990 to 2008. It also shows that budget deficit is an expansionary fiscal policy instrument and it will lead to increase in real GDP. It can also be used to enhance socio-economic development as it will lead to increase in life expectancy as well as reduction in population living below poverty line and unemployment rate.

Bogunjoko (2004) examined the growth performance in Nigeria. He adopted a linear equation of the production function as suggested by Ram (1989) and adopted by Aigbokhan (1996). In order to complement the single equation model and account for the interdependency of expenditure and growth in Nigeria, a vector autoregressive model of three variables namely real output, federal government expenditure and state government expenditure, was employed. Based on the Ram – type production function, the empirical results show that

while the externality of the alternative expenditure (i.e. federal and state) is positive, the overall impact of the expenditure is growth retarding. This finding complements the argument that federal and state expenditures are made without due reference to the absorptive capacity of the economy. His VAR model shows that, inter – temporally, the response of real output to state and federal expenditures is weak in the short run.

Olugbenga & Owoye (2007) investigated the relationship 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. In addition, they also observed unidirectional causality from government expenditure to growth for 16 out of the countries, thus supporting the Keynesian hypothesis. However, causality runs from economic growth to government expenditure in 10 out of the counties, confirming the Wayner's law. The study found that the existence of feedback relationship between government expenditure and economic growth for four countries.

Omitogun & Ayinla (2007) examined empirically the contribution of fiscal policy in the achievement of sustainable economic growth in Nigeria. Using the Solow growth model estimated with the use of Ordinary Least Square method, the study found that fiscal policy has not been effective in the area of promoting sustainable economic growth in Nigeria. Although, the finding seems invalidating the Keynesian postulation of the need for an active policy to stimulate economic

activities, factors such as policy inconsistencies, high level of corruption, wasteful spending, poor policy implementation and lack of feedback mechanism for implemented policies evident in Nigeria which are indeed capable of hampering the effectiveness of fiscal policy have made it impossible to come up with such a conclusion. To put the Nigerian economy, therefore, along the path of sustainable growth and development, the government must put a stop to the incessant unproductive foreign borrowing, wasteful spending and uncontrolled money supply and embark upon specific policies aimed at achieving increased and sustainable productivity in all sectors of the economy.

Dalyop (2010) studied the impact of fiscal deficit on the growth of domestic output in Nigeria from 1982-2008. The study employed both theoretical and empirical approaches to determine the effectiveness of fiscal deficit in expanding the level of economic activities in Nigeria came with the conclusion that the Nigerian economy is both monetarist and Ricardian and therefore concluded that a statistical insignificant and negative relationship existed between fiscal deficit and economic growth in Nigeria. Adofu & Abula (2010) examined the study examines the relationship between domestic debt and economic growth in Nigeria, using OLS technique and the time series data from 1986-2005. The result showed that domestic debt has affected the growth of the economy negatively.

Oladipo & Akinbobola (2011) studied the causal relationship between budget

deficit and inflation in Nigeria using the granger causality pair wise test with secondary data from 1970 -2005. The result showed that there was no causal relationship from inflation to budget deficit while the causal relationship from budget deficit to inflation was significant. This implies that a unidirectional causality from budget deficit to inflation exist in Nigeria. Furthermore, the result showed that budget deficit affects inflation directly and indirectly through fluctuations in exchange rate in the Nigerian economy.

Sevitenyi (2012) studied the relationship and the direction of causality between government expenditure and economic growth in Nigeria using time series data 1961 to 2009. The study employed the co-integration and the Toda-Yamamoto granger causality test and the result supports the Keynesian hypothesis implying that government expenditure promotes growth in Nigeria.

Osuka & Achinihu (2014) examined the impact of budget deficits on macro-economic variables in the Nigerian economy for the period 1981-2012 to find out if there is a long-run relationship between budget deficits and other macro-economic variables in Nigeria. The study used the Augmented Dickey-Fuller (ADF) method, Johansen Cointegration and the Granger Causality and concluded that budget deficits exert significant impact on the macro-economic performance of the Nigerian economy and could crowd-in investment through its reducing effects in interest rate, thereby contribute to economic growth and development.

3. RESEARCH METHOD AND PROCEDURES

This paper used the ordinary least square (OLS) estimation technique to analyze the effectiveness of deficit financing on economic growth in Nigeria. The framework for the study has its basis on the Keynesian model, which states that deficit financing accelerates economic growth. Primarily, we test the stationary of the variables using Augmented Dickey Fuller (ADF) test. Then, we test co-integration of the variables using Johansen method and determine the granger causality directions.

Model Specification:

In examining the effectiveness of deficit financing for stimulating economic growth in Nigeria, the national income model was adopted to achieve the objective of examining how effective is deficit financing on real GDP in Nigeria and to examine the direct effect of deficit financing on the exchange rate in Nigeria. The national identity model is in the form:

$$Y = C + I + G + (X - M)$$

where Y is GDP, **C** is household consumption expenditures / personal consumption expenditures, **I** is gross private domestic investment, **G** is government consumption and gross investment expenditures, **X** is gross exports of goods and services and **M** is gross imports of goods and services.

The specification of the growth model routed in the national income model and

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mirrors the work of Dalyop (2010). Therefore, in other to achieve the objective of this the study, a linear regression model having the growth rate of the Real GDP as the dependent variable, and deficit financing, the current account balance, foreign private investments, and savings as the explanatory variables is stated below:

$$RGDP_t = f(DF_t, CAB_t, FPI_t, S_t) \tag{1}$$

where RGDP is real gross domestic product, DF is deficit financing, CAB is current account balance, FPI is foreign private investment and S is savings. This is expressed in a linear equation as

$$RGDP_t = a_0 + a_1 DF_t + a_2 CAB_t + a_3 FPI_t + a_4 S_t + U_t \tag{2}$$

a_0 is the intercept and, a_1, a_2, a_3, a_4 are the coefficients of the regression equation, t is time and U is the error term; a_2, a_3 and a_4 are all expected to have positive values while the of a_1 is indeterminate.

4. RESULT PRESENTATION, ANALYSES AND DISCUSSION OF FINDINGS

Table I: Unit Root test

Variables	DF	ADF critical values	T statistics	P values	Order of interpretation
GDP	5%	-3.5279	-14.94497	0.000	1(1)
DF	5%	-3.5279	-18.0474	0.000	1(1)
CAB	5%	-3.5279	-8.80203	0.000	1(1)
FPI	5%	-3.5279	-14.9449	0.000	1(1)
SAVINGS	5%	-3.5279	-10.21971	0.000	1(1)

1(1) --- significance at 1st difference
1(2) --- significance at 2nd difference
Sources: Researchers' calculation using E-views

The result on Table I show that none of the variables was stationary at level. However, all the variables: GDP, deficit financing, current account balance, foreign private investment and savings became stationary after first difference thereby indicating the existence of co-integrating relationship in the model.

Co-integration Test

Table 2 Johansen co-integration result

Eigenvalue	Likelihood Ratio	5 Percent Critical Value	1 Percent Critical Value	Hypothesized No. of CE(s)	
0.871499	189.684	68.52	76.07	None **	
0.860254	109.663	47.21	54.46	At most 1 **	
0.407337	32.91391	29.68	35.65	At most 2 *	
0.261935	12.51189	15.41	20.04	At most 3	
0.016949	0.666673	3.76	6.65	At most 4	

Note: *(**) denotes rejection of the hypothesis at 5%(1%) significance level
 L.R. test indicates 3 cointegrating equation(s) at 5% significance level

Sources: Researchers' calculation using E-views

The result of the co-integration on Table II indicates the existence of three co-integrating relationship in the equation at 5% significance level, which confirms the existence of long run relationship among the exogenous and dependent variables in the model.

Table 3 Ordinary Least Square Result

REGRESSION ANALYSIS
Dependent Variable: GDP
Method: Least Squares
Date: 16/03/16   Time: 06:38
Sample: 1970 2014
Included observations: 45
Newey-West HAC Standard Errors & Covariance (lag truncation=3)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DF	0.017302	0.123477	0.140121	0.8893
CAB	-0.001306	0.024595	-0.0531	0.9579
FPI	1.01122	0.388635	2.601981	0.0134
SAVINGS	0.032037	0.020295	1.578568	0.1232
C	71492.54	18223.18	3.923166	0.0004
R-squared	0.665269	F-statistic		17.88723
Adjusted R-squared	0.628076	Prob(F-statistic)		0
Durbin-Watson stat	2.457599			

Sources: Researchers' calculation using E-views

From Table 3, the regression result shows that at 5% level of significance only the coefficient of foreign private investment (FPI) is statistically significant. However, the result of the model is statistically significant at 5% level of significance given the F value; this reveals the absence of serial correlation. The result further reveals that all variables except one, CAB, maintained right direction of sign. In

general, the descriptive statistics for this model (R^2, F-statistics and DW test) are within acceptable bounds and the result of the diagnostic tests indicate the existence of some minute degree of

negative-correlation and conditional heteroscedasticity as value of DW test is slightly above 2, hence the errors are normally distributed.

Table 4   Granger causality result

Pairwise Granger Causality Tests
Date: 01/23/14   Time: 23:48
Sample: 1970 2012
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Probability
DF does not Granger Cause GDP	41	1.29417	0.28729
GDP does not Granger Cause DF		4.46166	0.01903
CAB does not Granger Cause GDP	41	0.25995	0.77261
GDP does not Granger Cause CAB		3.56752	0.03922
S does not Granger Cause GDP	41	0.80595	0.45501
GDP does not Granger Cause S		6.12986	0.00533
CAB does not Granger Cause DF	41	3.28799	0.0495
DF does not Granger Cause CAB		5.69071	0.00738
FPI does not Granger Cause CAB	41	9.63993	0.00048
CAB does not Granger Cause FPI		21.2004	1.10E-06
S does not Granger Cause CAB	41	6.04606	0.00567
CAB does not Granger Cause S		19.3007	2.50E-06

Source: Researchers' calculation using E-views

Tables 4 shows the results of Granger causality test, to find the unidirectional or bidirectional influence of the variables on growth at the optimum lag length of k=2 in the model. From the table, it can be deduced that the significant results are as follows: GDP does not granger cause either of deficit financing, current account balance or savings, and neither deficit financing, foreign private investment nor savings granger causes current account balance in Nigeria for the period under study.

Discussion of Findings

The result from the OLS and the granger causality test indicate that deficit financing has no significant effect on GDP at 5% level of significance. The result of the regression shows that deficit financing had a positive but insignificant impact on the growth of the real GDP, which is contrary to Keynesian theory and the Monetarists' theory, but in conformity to the Ricardian equivalent, which holds that deficit financing has no significant effect on economic growth. A look at the OLS result shows that the coefficient of deficit with a probability of 0.8893 (which is larger than

0.5 significant level).

In line with this finding, the graph below of GDP and DF from 1970 to 2014, further reveals that GDP is not responding to the spiking of the DF

rather it maintains a relatively steady growth rate independent of the activities of the deficit financing.

**Figure 2: GDP and Deficit Financing from 1970 – 2013**
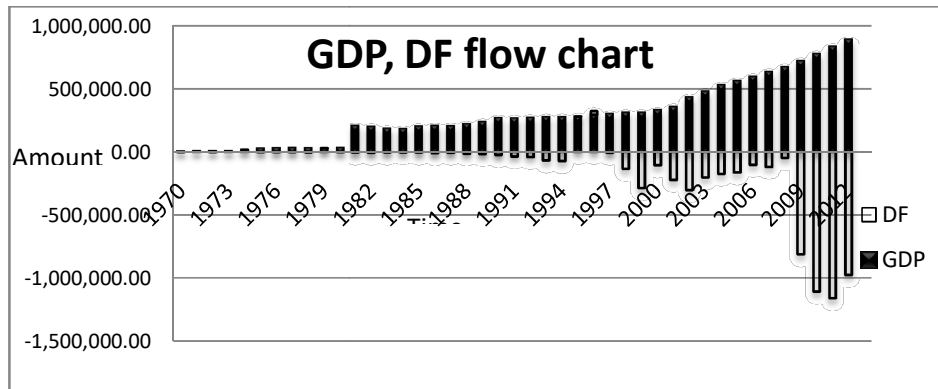
Source: Researchers' calculation using E-views

However, in line with expectations gross national savings has a positive impact on GDP, but has an insignificant influence on the real GDP. Current account balance (CAB) has a negative sign in contrast to expectation and contributes insignificantly to the growth of gross domestic product (GDP). From the bar chart below of net export of goods and services in Nigeria from 1990 to 2013, Nigeria is a major exporter of oil and imports virtually all her needs including oil. Another point to observe from the chart is that the net export of goods is positive over the same period explaining, deficit financing was mostly not as a result of trade deficit.

As a mono-product economy, Nigeria remains susceptible to the movements in international crude oil prices as her economy depends on crude oil as her major source of income. The negative effect of CAB on GDP suggests leakages from the economy, thus retarding growth. A look at the nation's capital and financial account below suggest that there exist deficits in the capital account in most of the years, which means money is flowing out the country, and it suggests the nation is increasing its ownership of foreign assets. However, in the wacky world of international economics, a capital account deficit is often balanced by a current account surplus, which is generally considered a desirable situation.

Figure 3: Net Export of Goods and Services in Nigeria from 1990 – 2013
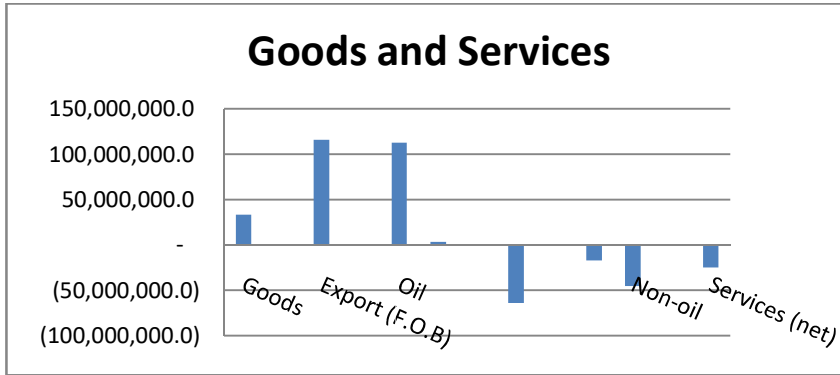
Source: Researchers' calculation using E-views

Figure 4: Summary of Capital and Financial Account
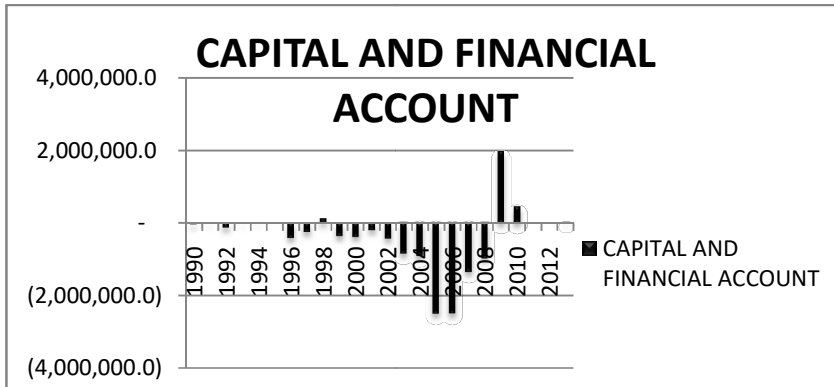
Source: Researchers' calculation using E-views

In the granger causality test result, Deficit Financing (DF), current account balance (CAB), Foreign Private Investment (FPI) and savings do not Granger cause GDP, rather there flow a unidirectional causality from GDP to DF, CAB, FPI and savings. There is also a unidirectional causality relationship from FPI to savings at 5% level of significant. In addition, the inability to reject that DF does not Granger cause GDP at 5% level of significance confirms the Ricardian argument that deficit spending does not have any significant effect on GDP. Thus this study rejects the research hypotheses and accepts the null hypothesis that deficit financing has no significant effect on the Nigerian economy for the period 1970 to 2014. We conclude that deficit financing in Nigeria is Ricardian, meaning that it has no significant effect on the economy.

5. CONCLUSION AND POLICY RECOMMENDATIONS

Is deficit financing a useful weapon in Nigeria? Deficit financing is a delicate fiscal weapon for stimulating economic development. This study adopted the OLS technique to examine the effectiveness of deficit financing for stimulating economic growth in Nigeria for the period 1970 to 2014. Based on the findings of this report, deficit financing in Nigeria is Ricardian, meaning it has no significant effect on the economy. Thus, under reviewed period reviewed, deficit financing is not a useful weapon for stimulating economic growth in Nigeria. Based on the findings of this research which have been stated above and the implications emanating, we therefore proffer the following matching recommendations put down for urgent policy action:

1. To optimally realize growth in the economy, deficit financing is not the appropriate tool for economic growth except the funds realized for deficit financing will be invested in long-term capital project.
2. Effort should be made by the government towards attracting large foreign private investment to the country in order to enhance the country's the real GDP.
3. In addition, effort should be made to mobilize desired gross national savings, which would be big enough to attract desired direct foreign investment that will complement domestic savings towards raising growth that will raise real GDP.

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