



The Impact of Fiscal Deficits on Economic Growth in Nigeria

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Abstract

The study investigates the impact of fiscal deficits on economic growth in Nigeria in 1970 – 2009. Budget deficit arises from fiscal operations of the government. Technically, a deficit would arise whenever expenditure surpasses revenues. In Nigeria, huge fiscal deficits had been recorded over the some years. To what extent have these impacted economic growth in Nigeria? In considering this question, this paper posits that the inter play of other variables such as broad money supply along with fiscal deficits may give a better understanding of the budget deficit situation in Nigeria. The ordinary least square was carried out on the data to test the type of relationship between the variables whether positive or negative and to find out if the variables are significant or not. The finding, show that fiscal deficits positively affects economic growth in Nigeria and money supply is significant in explaining economic growth (GDP) variation in Nigeria. It is therefore recommended that government spending should be more in productive sectors of the economy and adequate monetary policy should be geared towards balancing the role money supply plays to both budget deficits and inflation.

Key words: Fiscal deficits; Economic growth; Government spending and budget deficits

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INTRODUCTION

Governments, whether military or civilian belief that one way of solving social problems is by increasing government spending. 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. Technically, a deficit would arise whenever expenditure surpasses revenues.

The growth and persistence of fiscal deficits in both the industrialized and developing countries in some years have brought the issue of fiscal deficits into sharp focus. The issues surrounding fiscal deficits are certainly not new, but economic development of the past decade has re-kindled the interest in fiscal policy issues. In the advanced countries, the growth of United States Federal deficits provided the impetus for a reassessment of the effect of fiscal deficits on economic activities. For instance, the U.S budget deficit increased from US \$74 billion in 1980 to US \$221 billion in 1986 (Yurtseve, 1995).

In particular, the last three decades witnessed continuous deficits in government fiscal operations in developing countries. In Ghana, there was evidence of continuous deterioration of government fiscal position. From a surplus of 4% of GDP in 1972, the government recorded a deficit of about 7% of GDP in 1999. Apart from the period between 1981 and 1989 when there was remarkable fiscal discipline, the government budget was consistently in deficit in the 1990s. On average, the deficits was more than 5% of GDP in 1992 (Ewaihide et'al, 2002).

In India, the 1980s saw a sharp increase in the fiscal deficits of the central and state governments from 6% in 1970 to 8% on the average. However, economic reforms help fiscal deficits and the combined fiscal deficits fell

to 6.3% of GDP in 1996 – 1997. In 2008-2009, it started rising again to 8.9% and 10.2% in 2009-2010 (Kumar and Soumya, 2010).

Another striking case is that of South Africa. The country consistently experienced budget deficits between 1980-1999. For instance, it rose from 2.2% of GDP in 1980 to 8.9% in 1993. However, it declined to 4.7% in 1999. According to Egwaihide et'al (2002) in their study in African countries; Guinea-Bissau recorded the highest level of budget deficits: 22.6% of GDP in 1980, 28.4% in 1985 and 10% in 1999.

In Nigeria, huge fiscal deficits had been recorded over some years. It was N93.1 million in 1960, rising to N473.1 million in 1970, N1975.2 million in 1980, N22116.7 million in 1990 before falling to N6752.6 million in 1995. It rose to N103,777.3 million in 2000 and in 2003, it was N202,724.7 million (CBN, various years).

Nigeria public expenditure accounts for over 20 percent of the Gross Domestic Product (GDP) (Adubi and Obioma 1999). Nigerian government was able to sustain these high levels of public expenditure in the 1970s and late 1980s because of the windfall gains from petroleum products which it enjoyed during the period. However, the enthusiasm which prompted the massive intervention of federal government in the 1970s began to fade in the 1980s when falling commodity prices in the world market resulted in drastic reduction in government earnings. The steady growth and several other socio-economic objectives of government could not be achieved also because government expenditure was channeled into projects that were neither properly conceived nor properly managed.

The decline in government earnings (from N2815.2 million in 1978 to N2031.6 million in 1979 and from N3949.5 million in 1982 to N2922.0 million in 1984 from non-oil revenue (CBN, 1994) and limited domestic savings narrowed the revenue base for financing public sector operations. The resort to borrowing for financing large government budgetary deficits led to, and even compounded, such macroeconomic problems as excessive debt burden (both domestic and foreign); high inflationary pressures; exchange rate overvaluation; and external imbalance. Public sector borrowing from the domestic credit market also tended to crowd out private sector investments (Adubi and Obioma, 1999).

To address the deficiencies in public expenditure management in Nigeria, government introduced a wide range of policy and institutional reforms, particularly in mid 1986 when the Structural Adjustment Programme (SAP) was adopted. Some of these reforms were aimed at restructuring the public sector with a view to promoting efficiency in the use of public sector, investment. Yet, there are a sign of economic crisis as the country is still facing great difficulties in programming and management of public expenditure. The difficulty of timely adjustment

in public expenditure levels to changes in resource profiles of government is still posing a serious problem to fiscal policy planning and management in Nigeria even though many public enterprises and corporations that constitute a burden on government budget have been privatized. The need for adequate public expenditure programming and management has, therefore, become paramount, particularly at this period when various arms of government and even the private sector are experiencing severe financial constraints. Consequently, the objectives of this paper are to:

- (i) To investigate the impact of fiscal deficits on economic growth in Nigeria.
- (ii) Derive some policy suggestions according to the findings.

Therefore, in line with the above objectives the following hypotheses are presented.

H0: Fiscal deficits have no significant impact on economic growth in Nigeria.

H1: Fiscal deficits have significant impact on economic growth in Nigeria.

The results of this study will provide information and understanding as well as direct fiscal management of the Nigerian economy.

Thus, section one provides introduction to the study while section two presents the literature review. Section three discusses the method used for the study while section four deals with presentation and analysis of results. Section five deals with conclusion and recommendations.

1. LITERATURE REVIEW

Fiscal deficit is generally defined in terms of loan financing and drawing down of cash balances. Nwogugu (2005). It connotes the difference between the budget receipts and budget expenditures financed by withdrawal of cash balances and borrowing from public. Fiscal deficit simply refers to the excess of the public sector's spending over its revenue, (World Bank, 2005). According to Jhigan (2002) the phrase deficit financing is used to mean any public expenditure that is in excess of current revenues. In advanced countries, deficit financing is used to describe the financing of a deliberately created gap between public revenue and public expenditure or a budgetary deficit. The term deficit financing is used to denote the direct addition to gross national expenditure through budget deficits whether the deficits are on the revenue or capital account. The essence of such a policy lies in the government spending in excess of revenue it receives in the form of taxes, earnings of state enterprises, loans from the public deposits and funds and then miscellaneous sources.

In general, economic growth means percentage increase in Gross Domestic Product (GDP) on year-to-year basis. In real sense of the term, economic growth means a sustained increase in per capita national output or

net national product over a long period of time (Dwuvedi, 2009).

According to (Black, 2002), an increase in an economic variable, normally persisting over successive periods. The variable concerned may be real or nominal, and may be measured in absolute or per capita terms. Economic growth is related to a quantitative sustained increase in the country's per capita output or income accompanied by expansion in its labour force, consumption, capita and volume of trade (Jhingan, 2008).

A number of studies have been conducted to investigate the relationship between fiscal deficits and economic growth and development.

Nyong and Odubekan (2002) in their study using ordinary least squares estimation procedure, showed that monetary financing of deficits leads to an increase in the money supply which affects inflation. The increase in inflation generates instability in the macro economy and hence poor economic growth due to the negative signal it sends to the investors and savers.

In his study (Keho, 2010), used time-series data to investigate the casual relationship between budget deficit and economic growth in the member countries of the West African and Monetary union. He made use of Granger casualty test and the empirical evidence showed mixed results. In three cases, he did not find any casualty between budget deficit and growth. In the remaining four countries, deficits have adverse effect on economic growth.

Loizides and Vamvoukas (2005) employed the trivariate causality test to examine the relationship between government spending and economic growth, using data set on Greece, United Kingdom and Ireland. The authors found that government expenditure granger causes economic growth for in all the countries they studied. The finding was true for Ireland and the United Kingdom both in the long and short-run. The results also indicated that economic growth granger causes public expenditure for Greece and United Kingdom, when inflation is included. Erkin (1988) examined the relationship between government deficit financing and economic growth, by proposing a new framework for New Zealand. The empirical results showed that higher government spending does not hurt consumption, but instead raises private investment which in turn accelerates economic growth.

As Ball and Mankiw (1995) noted, running public fiscal deficits typically reduces national savings, and lower national savings, in turn, leads to reduced investment and reduced net exports. Investment is curtailed because a drop in national savings restricts the supply of loanable funds, forcing interest rates higher. In the long run, the fall in investment lowers the capital stock, reducing productive capacity and output. The crowding out of investment and capital also lowers productivity growth and hence real wages.

Anyanwu (1997), by his calculation of simple correlation between fiscal deficits and other major macroeconom-

ic variables, shows that there is a high negative correlation between fiscal deficits on the one hand and GDP, GDP growth rate, per capita GDP, exchange ratio of naira to the US dollar, Gross Capital Formation, Private consumption and domestic savings, on the other hand. There is a negative but weak correlation with inflation as well as weak positive correlation with Gross Domestic Investment and Gross Domestic Investment-GDP ratio.

According to Murty and Soumya (2007) deficit financing provides stimulus to economic growth by financing investment, employment and output in the economy. When government resorts to deficit financing for development, large sums are invested in basic heavy industries with long gestation period and economic and social overheads. This leads to immediate rise in monetary incomes while production of consumption goods cannot be increased immediately with the results that prices go up. However, it helps rapid formation for economic growth and development. Kumar and Soumya (2010) tried to quantify the relationship between GDP growth and fiscal deficits taken as percentage of GDP estimated a simple regression equation. The result yielded a negative correlation, though a weak one, between GDP growth and fiscal deficit as a percentage of GDP. However, the longrun relationship between fiscal deficit and GDP, using the logarithm of both to avoid non-stationary problem, was surprisingly a positive one.

Barro (1991) examined 98 countries during the period 1960-1985 and reported a negative relationship between output growth rate and the share of government consumption expenditures. When the share of public investment was considered, however Barro (1991) found positive but statistically insignificant relationship between public investment and the growth rate.

Nurudeen and Usman (2009) used the co-integration and error correction methods to analyze the relationship between government expenditure and economic growth in Nigeria. The results showed that government total capital expenditure and total recurrent expenditures have negative effect on economic growth.

The study conducted by Olowononi (2006) showed that fiscal deficits had negative impacts on most macro economic variables. The results showed that fiscal deficits had increasingly caused inflation in Nigeria. The fiscal deficits were negatively related to unemployment, meaning that the results confirmed the prescription of economic theory that rising fiscal deficits leads to reduced unemployment. It was also discovered that there is negative relationship between fiscal deficits and gross capital formation and private investment in Nigeria.

Ozatay (2005). Budget deficits lead to instability in the economy through the expectations about how the deficits will be financed. If the private sector is assumed to expect the government will monetize the deficit and therefore lead to inflation, these expectations will lead to inflation

even though the authorities do not monetize the deficit. The real sector will suffer from the crowding-effect of budget deficits, leading to reduced output growth. This will put prices up, resulting in inflation.

Guess and Koford (1984) used the Granger causality test to find the causal relationship between budget deficits and inflation, GNP, and private investment using annual data for seventeen OECD countries for the period 1949-1981. They concluded that budget deficits do not cause changes in these variables.

Ghali (1997) investigated the relationship between government spending and economic growth in Saudi Arabia using annual data over the period 1960-1996. The conclusion of this study found no consistent evidence that changes in government spending have an impact on per capita real output growth. Ghali and Al-Shamsi (1997) utilized Co-integration and Grangers causality to investigate the effects of fiscal policy on economic growth for small of il producing economy of the United Arab Emirates over the period 1973-1995. The study provides evidence that government investment has a positive effect on economic growth, whereas the effect of government consumption is insignificant.

Bahmani (1999) investigated the longrun relationship between U.S Federal real budget deficits and real fixed investment using quarterly data over the 1947-1992 periods. The empirical results indicated that real budget have crowded in real investment, supporting the Keynesians who argue for the expansionary effects of budget deficits, by raising the level of domestic economic activity, crowd- in private investment.

According to Kelly (1997) public investment and social expenditures may promote economic expansion by reducing social conflict and hence, creating a climate conducive for investment in human and physical capital. He also contends that social expenditures enhance growth by fostering welfare and productivity improvements. Kelly (1997) continue to argue that the complementarity of public and private action is likely to be important in developing nations where such factors as severe income disparity, asset concentration, disparate nature of production in the agricultural and industrial sectors and fragmented financial markets which characterize most developing countries, may warrant substantial public investment programmes. In such instances, public investment is likely to be a central determinant of successful private sector activity and economic growth e.g. (infrastructure capital, social expenditures).

On the whole, from the empirical studies presented in this section, there are similarities and dissimilarities between the studies dealing with the impact of fiscal deficits on economic development, investment and economic growth. Some of them focus either on cross-section or static analysis and used the same estimation technique. For example, Kelly (1997), Bahmani (1999) and Barro (1991) estimated their economic model by using OLS

method. Their studies showed a positive relationship between fiscal deficits and economic growth.

However, other studies suggest different conclusions. Sarker (2006), Ghali (1998), Olowononi (2006), Nurudeen and Usman (2009), Barro (1991) among others found support for a negative relationship between fiscal deficits and some macroeconomic variables.

With the divergent estimation techniques and results from different studies on the assessment of the impact of fiscal deficits on economic growth in view, the pertinent question is that whether the persistent deficits have significant impact on economic growth in Nigeria between (1970-2009).

2. METHODOLOGY

This section deals with model specification and estimation technique. The data for this study are obtained mainly from secondary sources, particularly from Central Bank of Nigeria (CBN) Publications. This study made use of ordinary least square technique in estimating the impact of fiscal deficits on economic growth in Nigeria from 1970 to 2009. This was done by obtaining the numerical estimates of the coefficients in the equation. The ordinary least square technique is chosen because its computational procedure is fairly simple and it is also an essential component of most other estimation techniques.

The model is thus specified $GDP = F(GBD, m_2)$ 2.1

Where GDP = Gross Domestic Product

GBD = Government Budget Deficits

M2 = Broad Money Supply

The function can also be represented in a linear econometric format thus

$GDP = b_0 + b_1 gbd + b_2 m_2 + U_{it}$ 2.2

b_1 and b_2 = coefficient of the respective attached variables.

3. PRESENTATION AND ANALYSIS OF RESULTS

Equation 2.2 was estimated using econometrics E-view (version 4.0) and the results are presented below for the effect of government budget deficits and broad money supply on economic growth proxy by Gross Domestic Product (GDP).

$GDP = 324 + 0.748 GBD + 0.963 m_2$ 3.1

$t = (6.43) (3.313) (2.924)$

$R^2 = 0.98 R^{-2} = 0.77$

f -statistic = 522.47 D-W = 2.11

The overall fit shows a very high relationship between economic growth and the explanatory variables. It shows that about 98% of the variation in economic growth proxy by GDP is explained by the variations in the independent variables. Since the f -statistics is very high (522.47), it shows that the data fits into the model and at least one of the coefficient or parameters of the model is non – zero.

However, the co-efficient of government budget deficits is correctly positively signed. That is, when government budget deficit is increased by one percent, economic growth would increase by 7.5% and the variable is statistically significant at 0.05%

Money supply is correctly signed and highly significant in explaining economic growth (GDP) variation in Nigeria. Therefore, money supply is highly significant at 0.05%. It can be said from the result that money supply is a major determinant of economic growth in Nigeria. The Durbin-Watson Statistic is 2.11. This result indicates the non-presence of serial correlation between the variables since the value of D-w falls within the acceptance region.

CONCLUSION AND RECOMMENDATIONS

The study attempts to investigate the impact of Nigeria's fiscal deficits on economic growth considering the broad definition of money supply. Regression analysis through the OLS was conducted. The results shows that fiscal deficits and broad money supply are positively related, meaning that any increase in fiscal deficits and broad money supply would lead to an increase in economic growth in Nigeria.

In view of the findings, the following policy recommendations would be relevant to the government and the monetary authorities.

The government should expand its spending particularly on projects and or programmes that would have direct impact in the society. The government spending should be more in productive sectors of the economy such as the industrial and agricultural sectors and less emphasis should be given to areas like services among others.

The increase in the supply of money could well help to cushion the extent of budget deficits found in the economy whereas the same might still lead to or cause inflation to increase. Therefore, adequate monetary policy should be geared towards balancing the role money supply plays to both budget deficits and inflation. Expansionary money supply increases the supply of loanable funds available through the banking system, causing interest rate to fall. With lower interest rates, aggregate expenditures on investment and interest-sensitive consumption goods usually increase, causing real GDP to rise. The monetary authorities should make monetary policy demand-driven.

REFERENCES

Adubi, J.T. and Obioma, E.C. (1999). *Public Expenditure Management in Nigeria*. NCEMA, Ibadan, Nigeria.
Anyanwu, John C. (1997). *Nigerian Public Finance*. Onitsha, Nigeria: Joanee Educational Publishers Ltd.
Ball, L. and Mankiw N. (1995). Relative Price Changes as Aggregate Supply Shocks. *Quarterly Journal of Economics*.
Barro, R. (1991). Economic Growth in Cross-Section Countries. *The Quarterly Journal of Economics*.

Bahmani, O. M. (1999). The Federal Budget Deficits Crowd Out or Crowd in Private Investment? *Journal of Policy Modeling*, 21(5), 633-640.
Black, J. (2002). *Dictionary of Economics*. Oxford University Press.
CBN (1994). Annual Report and Statement of Accounts.
Erkin, B. (1988). Government Expenditure and Economic Growth: Reflection on Professor Rams Approach, A New Framework and Some Evidence from New Zealand Time-Series Data. *Kei Economic Studies*.
Ghali, Khalifa H. (1997). Government Spending and Economic Growth in Saudi Arabia. *Journal of Development Economics*, 22(2).
Guess, G. and Koford, K. (1984). Inflation, Recession and the Federal Budget Deficit (or, Blaming Economic Problems on a Statistical Mirage). *Policy Sciences*, 17.
Jhingan, M.L. (2002). *The Economics of Development and Planning*. New Delhi: Vrinda Publications Ltd.
Keho, Y. (2010). Budget Deficits and Economic Growth: Causality Evidence and Political Implications for WAEMU Countries. *European Journal of Economics, Financial and Administrative Sciences*.
Kelly, T. (1997). Public Expenditure and Growth. *Journal of Development Studies*, 34(1).
Kevin, G. and Tullock, G. (1989). An Empirical/Analysis of Cross-National Economic Growth, 1951-80. *Journal of Monetary Economics Washington, DC*.
Komain, M. and Brahmasrene T. (2007). The Relationship Between Government Expenditures and Economic Growth in Thailand. *Journal of Economics and Economic Education Research*.
Kumur, R. and Soumya, A. (2010). Fiscal Policy Issues for India After the Global Financial Crisis (2008-2010). *Asian Development Bank Institute Working Paper 249*, Tokyo.
Liu Chih, H.L., HSU .C. and M. Younis (2008). The Association Between Government Expenditure and Economic Growth: The Granger Causality Test of the U.S Data, 1974-2002. *Journal of Public Budgeting, Accounting and Financial Management*.
Loizides, J. and Vamvoukas; G. (2005). Government Expenditure and Economic Growth: Evidence from Trivariate Causality Testing. *Journal of Applied Economics*, viii(1), Allens University of Economics and Business.
Mankin N.G., Rommer D. and Weil D. (1992). Contribution to the Empirics of Economic Growth. *Quarterly Journal of Economics*.
Murty, K.N. and Soumya A. (2007). Effects of Public Investment on Growth and Poverty. *Economic and Political Weekly*, XLII (1).
Nurudeen, A. and Usman A. (2009). Government and Economic Growth in Nigeria, 1970-2008: A Disaggregated Analysis. *Journal of Economics and Allied Fields*. Department of Economics, University of Abuja.
Nyong, Michael O. and Odubekun, F. (2002). The Macroeconomic Effects of Monetary Financing of Fiscal Deficits in Nigeria. *West Africa Journal of Monetary and Economic Integration*, Second Half.

- Olowononi, Godwin, D. (2006). The Effects of Fiscal Deficits on the Nigeria Economy. *Journal of Economic and Social Research*. Destiny ventures, Makurdi, Benue State.
- Oluranti, S.K. Hussein, J. and Hiley, M. (1999). *Fiscal Policy Planning and Management in Nigeria*. NCEMA, Ibadan, Nigeria.
- Ozatay, F. (2005). Sustainability of Fiscal Deficits, Monetary Policy and Inflation Stabilization: The case of Turkey. *Journal of Policy Modeling*, 19(6).
- Ram, R. (1986). Government Size and Economic Growth: A New Framework and Some Evidence from Cross-Section and Time-Series Data. *American Economic Review*.
- Ranjan, K.D. and Sharma C. (2008). Government Expenditures and Economic Growth: Evidence from India. The ICFAI, *University Journal of Public Finance*.
- Solow, R.M. (1956). A Contribution of the Theory of Economic Growth. *Quarterly Journal of Economics*.
- Swan, T.W. (1956). Economic Growth and Capital Accumulation. *Economic Record*.
- World Bank. (2005). *Reaching the Poor: What Works, What doesn't*. World Bank Publication.
- Wu, J. (1998). Are Budget Deficits Too Large? The Evidence from Taiwan. *Journal of Asian Economics*, 9(3).