The Impact Of Budget Deficits On Macro-Economic Variables In The Nigerian Economy (1981 – 2012)

Prof. B. O. Osuka
Department Of Banking & Finance
Imo State University, Owerri, Nigeria.
AND
Achinihu Joy Chioma
School Of Post Graduate Studies
Imo State University, Owerrr, Nigeria.

Abstract

This study examined the impact of budget deficits on macro-economic variables in the Nigerian economy for theperiod 1981-2012. This study sought 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) methods for finding out the presence of unit root in all variables and found that they are stationary at first differencing; they are 1(1). We also used Johansen Cointegration test to check for the cointegration of the variables and found that the variables in the study are all cointegrated of order one showing the presence of long-run relationship between budget deficits and our selected macro-economic variables (GDP, interest rate, nominal exchange rate and inflation rate). The Granger Causality results reveal that there is a uni-directional Granger-causality between Budget deficits and GDP with GDP granger causing budget deficit. However, the test for causality showed that there exists no causality between deficits and interest rate, budget deficits and inflation and budget deficit and nominal exchange rate. We thereby concluded that budget deficits exert significant impact on the macro-economic performance of the Nigerian economy. The study recommend that since budget deficits could crowd-in investment through its reducing effects in interest rate, but emphasis should be placed on capital goods expenditure to make it have positive effect on GDP and thereby contribute to economic growth and development.

1. Introduction

1.1 Background Of The Study

Fiscal policy refers to that part of government policy concerning the raising of revenue through taxation and other means and deciding on the level and pattern of expenditure for the purpose of influencing economic activities. This means that fiscal policy deals with taxation, public borrowing, public expenditure and other revenues aimed at influencing economic activities for the achievement of certain desirable macro-economic goals (Anyanwu, 1993). Fiscal policy also aims at the use of government budget to influence economic activities which could be deficit, surplus or balanced. It is deficit when government expenditure outweighs its revenue. Governments' world over often engage in massive investment activities (fiscal deficit) which is believed will not only enhance the development of the domestic economy but also situate the economy on the path of sustainable growth.

Deficit fiscal operations involves the pursuit of fiscal deficit policy which is intended to stimulate the economy through the injection of 'free money' from the central bank of Nigeria or borrowing from financial institutions or from the non banking public. This has the effect of increasing aggregate spending or demand for goods and services by the public and private sector of the economy. By extension employment and output are leveraged in the short, medium and long run.

The relationship between budget deficits and macroeconomic variables such as Gross Domestic Product, interest rates, trade deficit, exchange rate, among others represents one of the most widely debated topics among economists and policy makers in both developed and developing countries (Saleh, 2003). This relationship can either be negative or positive.

In premchard (1984) budget deficit implies an increase in the supply of government bonds. In order to improve the attractiveness of these bonds the government offers them at a lower price, which leads to higher interest rates. The increase in interest rates discourages the issue of private bonds, private investment and private spending. In turn, this contributes to the financial crowding out of the private sector. Miller (1983) argued that government deficit spending is a primary cause of inflation. These studies have supported the proposition that the Central Bank will be obliged to monetize the deficit either now or in later periods. Such monetization results in an increase in the money supply and the rate of inflation.

Aschauer (1989) argued that higher investment may raise the marginal productivity of private capital and thereby crowd-in private investment. He further noted that public capital, infrastructure capital such as highways, water systems and airports are likely to bear a complimentary relationship with private capital. It is also argued that an increase in the budget deficit would induce upward pressure on interest rate causing capital inflows and an appreciation of the exchange rate that will increase the current account deficit.

However, Barro (1989) is of the view that budget deficits have no positive or negative relationship with macroeconomic variables. In his model known as the "Ricardian Equivalence Hypothesis" (REH), he states that shifts between taxes and budget deficits do not matter for the real interest rate, the quantity of investment, or the current account balance. He argues that the value of the new debt (deficits) is simply perceived as the present value of the future tax liabilities. This means that the government deficits are not viewed as net wealth, and as a result money demand would not be affected. Consequently, interest rates and other macro-economic variables remain unchanged as well.

1.2 Statement Of The Problem

It is important to note that budget deficits have many implications for the macro economy. However, this will depend on the level of employment. In a situation of full employment, excessive deficit will bring about macro economic imbalances. Here, large and persistent fiscal deficits usually contribute to macro economic instability. It will adversely affect output growth and raise inflationary pressures in the economy. This is because it increases the reserve base of commercial and merchant banks thereby creating excess liquidity in the financial system. Also, deficits bring about a reduction of loanable funds that are available to the private sector. Specifically, it will crowd out private investment in the real sector, private savings, result to low growth and intensive inflationary pressures, current account deficits, real exchange rate appreciation and external debt crisis if the debt is unsustainable. However, in a situation of less than full employment, budget deficits could contribute to growth as a result of the idle capacities that are being employed in the economy. If the deficits are channeled into investment in productive activities such as capital goods, training or new technology, the

economy might grow faster than the burden of the debt. This is because the investment will lead to long term growth. Therefore, deficits could lead to the achievement of macroeconomic stability and growth. This condition holds if the size of the overall deficit is about 3 percent of the gross Domestic Product GDP. Gbosi, (2004).

Available evidence shows that over the years under review (1981-2012), see **Appendix 1**, Nigeria's fiscal operations have resulted in persistent overall deficit. It recorded thirty years of deficits. Deficits are meant to accelerate economic activities during depression through induced aggregate demand. Despite the fact that Nigeria has been operating deficits for these periods and also found itself in a situation of less than full employment, her economy has been in distress, the opposite view of the essence of deficits occur. There were obvious fall in the standard of living of the citizens, decline in the growth of the economy, persistent unfavorable balance of payment, increased public debt; local and foreign, continued depletion of the public reserve, little or no savings, decline in exports, increased inflationary pressure, continuous dependence on external economies etc; all these are indicators of negative growth. Its impact on these macro-economic variables has been unfavourable. One then wonders whether budget deficits no longer stimulate economic growth. Do we believe the Keynesian economists that it crowds-in private investments through its impact on macro-economic variables or the neoclassical economists that it crowds-out private investments through its impact on interest rate and other variables, or even the Ricardian economist that it has no positive or negative impact on aggregate demand? Which side to belong is what this work is meant to address.

1.3 Objectives Of Study

This study seeks to find out the impact of budget deficits fiscal operations of the Nigerian government on its macro-economic aggregates namely, the long-run relationship between budget deficit and macro-economic variables like exchange rate, interest rate, GDP and inflation rate.

1.4 Research Question

Does budget deficit have any impact on macro-economic performance of Nigerian economy?

1.5 Research Hypothesis

H0: Budget deficits have no significant impact on macro-economic performance of Nigerian economy.
H1: Budget deficits exert significant impact on macro economic performance of Nigerian economy.

1.6 Scope Of The Study

This study covers budget deficits as it relates to few selected macro-economic aggregates in Nigeria. These selected macro-economic aggregates include: exchange rate, interest rate, inflation rate and GDP. The study covers the period 1981-2012.

1.7 Organization Of The Study

This study is divided into five sections. The first section is the introduction. In section two, relevant theoretical and empirical literatures are reviewed.

Section three is the methodology. The model used is stated. The sources of the data and their description, the estimation procedure are all stated. Section four shows the presentation, analysis and interpretation of results. The fifth section is the concluding part of the work, the summary of findings and policy recommendations.

2. Literature Review

2.1. Review Of Concepts And Theories

Fiscal policy is an economic guide that determines and directs government's revenue and expenditure for the purpose of achieving some specific social and economic objectives, Okereke et al (2009). CBN (1994) defined fiscal policy as referring to the discretional changes in the level, composition and timing of government expenditures and revenues. It sees Fiscal policy as an effective instrument of policy which can be used to increase employment opportunities or attain full employment, bring about price stability, promote economic growth and development, achieve equity in income redistribution, achieve satisfactory or favourable balance of payments, achieve stable exchange rate and increase the rate of investment.

There are two main approaches to fiscal policy – the countercyclical and compensatory approaches. Under the countercyclical approach, the government is assigned the role of varying its tax and expenditure policies with the objective of moderating fluctuations in income and employment over the economic cycle. Here, the government is required to unbalance its budget during deflationary and inflationary periods. That is, to increase its expenditures and cut taxes when private spending declines to depression levels and raise taxes and cut its expenditure during prosperity or inflationary periods. The proponents of this approach (wiseman and peacock, 1961) subscribe to a balanced – budget philosophy but are reconciled to the logic of a cyclically rather than annually balanced budget since with the proper management of government's budget, the depression deficit will be offset by the prosperity surplus.

The proponents of compensatory fiscal policy on the other hand opine that given the future prospects of secular stagnation and/or secular inflation, deficit financing and surplus financing become a long-run imperative. Thus, if inflation is a continuing problem, long-run surplus financing will be necessary. On the other hand, if persistent deflationary tendencies develop, long-run deficit financing will be required. This is sometimes referred to as functional finance, originally due to lerner (1944) in Anyanwu (1993). The argument here is that the government budget should be used as the major instrument for achievement of macroeconomic objectives and that budgetary changes should be as often as desired and in whatever magnitude desired. Thus, here, the institutional aspects of taxation are subordinated to the compensatory interest since the purpose of taxation according to the proponents is never to raise money but to leave less in the hands of the tax payer.

Fiscal policy techniques include balanced budget, unbalanced budget, and qualitative changes in the tax system. In this sense, fiscal policy instruments or tools are broadly classified into two: automatic or built-in fiscal stabilizers, and discretionary fiscal stabilizers.

Automatic fiscal stabilizers or "passive" fiscal policy are among the most interesting tools in the government anticyclical kit or those ingenious devices that help to bring the economy back to an even keel without any deliberate action on the part of anyone. These are designed to function in a countercyclical fashion to improve the performance of the economy, without the necessity of the ad hoc adjustments in response to an immediate macroeconomic problem. With a given tax and expenditure structure, changes in total output and income result in automatic changes in tax yields, and in certain out lays, the first changing in the same direction as income and the latter in the opposite direction. Automatic fiscal stabilizers aid recovery by reducing cumulative deterioration in economic outlook that would otherwise take place and facilitate the forces of recovery contributing to an early upswing. They are very useful when the economy contracts but are a mixed blessing

when it expands. That is, when business conditions recover from a recession, the tax system automatically cuts the growth in private spendable incomes, and hence the expansion tends to proceed more slowly, though when the recovery is strong, automatic stabilizers help to curb the inflationary pressure. In addition, the larger the government expenditures and tax receipts are in relation to the total level of economic activity, the stronger is the impact of the automatic fiscal stabilizers, Omoruyi (1988) The reverse is also true. Automatic fiscal stabilizers include personal income tax, company income tax, unemployment programmes, and farm price supports.

On the other hand, a discretionary or 'active' fiscal policy measure refers to a direct budgetary change responding in ad hoc fashion to a presently recognized macroeconomic problem. That is, discretionary fiscal policy measures are those actions which have to be designed by a legislative or executive action in order to deal with the problem at hand. Their effectiveness is impaired by inaccurate economic forecast as well as lack of promptness on the part of the legislature to enact discretionary measures and the time lag it takes the executive to put them into effect. Thus, discretionary measures require speed of decision and effect and can be successful if temporary and reversible fiscal changes for stabilization purposes are distinguished from permanent and structural changes. Discretionary fiscal policy tools include deliberate changes in tax rates, tax bases and government spending. It is also noteworthy that the recent resurgence of *supply-side economics* has put forward that an across the board reduction in tax rates would spur unprecedented growth, reduce inflation painlessly, increase tax revenue (since it would unleash an enormously depressed supply of effort), and stimulate a spectacular rise in personal saving, Mbanefo and Anyanwu (1990).

The long inside lag in discretionary fiscal policy has partly convinced some economists that the government should get out of the stabilization business altogether. These persons advocate replacing reliance on discretionary policies with a set of rules that would hold the fiscal environment stable. It has, therefore, become customary to relate fiscal instruments to specific norms, rules or guidelines for government to follow.

A continuum of various fiscal policy rules are annually balanced budget norm (100% control orientation), cyclically balanced budget norm, high employment budget norm and functional finance norm or 100% goal norm.

The annually balanced budget norm is based on the notion that a balanced budget indicates fiscal responsibility for government, households and business segments of the private sector. However, during periods of economic recession or boom, the rule, if literally applied, tends to be more perverse in its effects on the economy. Institutional impediments such as lobbying from pressure groups could prevent its realization.

A compromise rule, the cyclically balanced budget norm, advocates budget balance over the course of a complete business cycle rather than in a particular fiscal year. Therefore, tax revenues and expenditures would be equal over the course of the cycle-whether measured from 'peak to peak' or from 'trough to trough'. The policy prescription here calls for the government to apply a surplus budget at the time of a cyclical peak in order to restrain the pressures of demand (monetary) inflation, and to establish a deficit budget to expand the economy under conditions of cyclical recession or depression.

Another compromise rule, the high-employment budget norm (or budget balance at high-level income and employment), states that decisions made regarding taxes and public expenditure should always be made on the assumption that the high-level income and employment are to be maintained, and that balance between the two sides of the account should be present. It attempts to combine the stabilization features of budget balance with the stabilization features of functional finance through the employment of the built-in stabilizers, which automatically tend to produce deficits in recession and surpluses in booms. In other words, the recommendation here is that tax rates should be set only to balance the budget, but also provide a surplus budget for debt retirement at agreed high employment and national income. Once these rates are set, they should be left alone unless there are some major changes in tax rates, except under conditions of major national emergency.

In the review of related concepts and theories on the relationship between deficit fiscal operations (Budget deficits) and macroeconomic performance, one finds three distinct schools of thought. These are the neoclassical, Keynesian, and Ricardian schools, each providing different paradigms. Bernhein (1989) provides a brief summary of the three paradigms.

2.1.1 The Neoclassical School

The neoclassical school proposes an adverse relationship between fiscal deficits and macroeconomic variables. They argue that fiscal deficits leads to higher interest rates, discourages the issue of private bonds, private investments and private spending, increases inflation level, and cause a similar increase in the current account deficits and finally slows the growth rate of the economy through resources crowding out. The Neoclassical school considers individuals planning their consumption over their entire cycle. By shifting taxes to future generations, fiscal deficits increase current consumption. By assuming full employment of resources the neoclassical school argues that increased consumption implies a decrease in savings. Interest rate must rise to bring equilibrium in the Capital markets. Higher interest rates, in turn, result in a decline in private investment, domestic production and an increase in the aggregate price level. Furthermore, Yellen (1989) argues that in standard Neoclassical Macroeconomic models, if resources are fully employed, so that output is fixed, higher current consumption implies an equal and offsetting reduction in other forms of spending. Thus, investment and/or net exports must be "fully crowding out". It is worth noting that it is important to distinguish between "financial" crowding out and "resource" crowding out which occurs when the government competes with the private sector in purchasing certain resources (skilled labour, raw materials and so on). When the government sector expands, the private sector will contract because of the increase in prices on these resources due to an excess demand by the government, hence this leads to a fall in investment and consumption by the private sector. Thus the government sector's expansion crowds out the private sector. It is worth noting here as well that resource crowding out is an important issue to take into account especially in developing countries where resources are scarce even sometimes to the private sector, so any excess demand for these resources by the government will severely impinge on private sector productivity.

2.1.2 The Keynesian School

The Keynesian economists propose a positive relationship between budget deficits and macroeconomic variables. They argue that usually budget deficits result in an increase in domestic production, increases aggregate demand, increases savings and private investment at any given level of interest rate. The Keynesian absorptive theory suggests that an increase in the budget deficits would induce domestic absorption and thus, import expansion, causing current account deficit. In the Mundell-Fleming framework, an increase in the budget deficit would induce an upward pressure on interest rate, causing capital inflows and an appreciation of the exchange rate that will increase the current account balance.
The Keynesians provide a counter argument to the crowd-out effect by making reference to the expansionary effects of budget deficits. They argue that usually budget deficits result in an increase in domestic production, which makes private investors more optimistic about the future course of the economy resulting in them investing more. This is known as the "crowding-in" effect. It is worth noting here that the traditional Keynesian view differs from the standard neoclassical paradigm in two fundamental ways. First, it permits the possibility that some economic resources are unemployed. Second, it presupposes the existence of a large number of liquidity-constrained individuals. This second assumption guarantees that aggregate consumption is very sensitive to changes in disposable income. Many traditional Keynesians argue that deficits need not crowd out

private investment. Eisner (1989) suggests that increased aggregate demand enhances the profitability of private investments and leads to a higher level of investment at any given rate of interest. Hence deficits may stimulate aggregate savings and investment, despite the fact that they raise interest rates. He concludes that "evidence is thus that deficits have not crowded-out investment. There has rather been crowding-in". Heng (1997) utilized an overlapping-generations (OLG) model to provide a theoretical framework to analyze the "crowding-in" issue of private capital by public capital. He shows that public capital crowds-in private capital through two channels, namely, via its impact on the marginal productivity of labour and savings, and via (gross) complementarity/substitutability between public and private capital.

2.1.3 The Ricardian School

Finally, there is another contrary approach advanced by Barro (1989) known as the Ricardian Equivalence Hypothesis (REH). Ricardian equivalence, or the Barro-Ricardo equivalence proposition, is an economic theory which suggests that government budget deficits do not affect the total level of demand in an economy. In simple terms, the theory can be described as follows. Governments may either finance their spending by taxing current taxpayers, or they may borrow money. However, they must eventually repay this borrowing by raising taxes above what they would otherwise have been in future. The choice is therefore between "tax now" and "tax later". Suppose that the government finances some extra spending through deficits - i.e. tax later, Ricardo argued that although taxpayers would have more money now, they would realize that they would have to pay higher tax in future and therefore save the extra money in order to pay the future tax. The extra saving by consumers would exactly offset the extra spending by government, so overall demand would remain unchanged. Ricardian Equivalence suggests that government attempts to influence demand using fiscal policy will prove fruitless. He argues that an increase in budget deficits, due to an increase in government spending, must be paid for either now or later, with total present value of receipts fixed by the total present value of spending. Thus, a cut in today's taxes must be matched by an increase in future taxes, leaving real interest rates, and thus private investment, and the current account balance, exchange rate and domestic production unchanged. Therefore, budget deficits do not crowd-in nor crowd out macroeconomic variables. In his view, no positive or negative relationship exist.

In all, there exists a consensus in the literature that an adequate and effective macroeconomic policy is critical to any successful development process aimed at achieving high employment, sustainable economic growth, price stability, long – viability of the balance of payments and external equilibrium. Because of the fact that the development of World economy particularly in the developing part, is an on-going process, majority of governments World over often engage in massive investment activities (fiscal deficit) which they believe will not only enhance the development of the domestic economy but also situate the economy on the path of sustainable growth and Nigeria is not an exception. This is because, increases in public expenditure if efficiently utilized could translate into improved infrastructural developments and consequently enhance general welfare and also put the economy on the path of growth.

The bone of contention, however, on the use of this type of fiscal policy (i.e. expansionary fiscal policy) is how the proposed increase in public expenditure over its revenue should be financed. The two contending options have been money printing and borrowing. Money printing is an exclusive right of relevant monetary authority (usually the Central Bank) which involves raising money supply to match demand in the economy. However, where the rate of increase in money supply (usually called Seignorage rate) rises above the rate of growth of economic activity, and given a stable demand function for base money, inflation will result (Ndung'u, 1995). Furthermore, Easterly and Fischer (1990) argue that where governments print money to cover budget deficits, it is unlikely that rapid money supply growth takes place without fiscal imbalances.

The second contending option of deficit financing is borrowing. The use of borrowing (from both domestic economy and foreign countries) particularly since the World War II has been an inevitable and veritable source of macroeconomic financing most especially in such situations where domestic resources are inadequate to put the economy on the path of sustainable economic growth and development. However, borrowing which may result in debt crisis may lead to high real interest rates in the domestic economy and crowd out private sector investments (Easterly and Schmidt, 1990, 1993;Ndung'u,1995).

2.2. Review Of Empirical Studies

Differing opinions have indeed continued to emerge on how fiscal policy can affect economic activities. The genesis of these controversies has been traced to the theoretical exposition of the different schools of thought namely: the Classical; the Keynesian; and the Neo classical schools of thought (Tchokote, 2001). To the Classical school of thought, fiscal deficits incessantly financed by debt crowds-out private investment and by extension lowering the level of economic growth. As summarized by Tchokote (2001): "The classical economists believe that debt issued by the public has no effect on the private sector savings. To them, a deficit financed by increasing the supply of securities, *ceteris paribus* reduces its price and raises real interest rates and this crowds out private investment. In sum, excessive deficit can lead to poor economic performance."

In contrast, the Keynesian school of thought postulates a positive relationship between deficit financing and investment and consequently on economic growth. This school of thought sees fiscal policy as a tool of overcoming fluctuations in the economy. As put by Tchokote (2001) "This school regards deficit financing as an important tool to achieve a level of aggregate demand consistent with full employment. When debt is used to finance government expenditures, consumers' income will be increased. Given that resources are not fully utilized, crowding-out of private investment by high interest rates would not occur."

The position of the Keynesian school of thought on the possible effects of fiscal deficits on economic activities has been challenged by the Neo classical school of thought on the premise that the former school ignores the significance of how fiscal deficits are financed on the effect of this policy variable on macroeconomic performance. The Neoclassical school postulates that the manner in which deficits are financed is capable of influencing the level of consumption and investment and by extension affect economic growth.

One of the labels attached to the Neoclassical argument is the Ricardian equivalence, which states that consumers foresee 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, 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).

In addition to the controversies among the different schools of thought on the possible linkage between fiscal policy and economic growth, efforts have also been made by researchers to authenticate or refute the arguments of these prominent schools of thought.

Ndung'u (1995) attempts to establish whether there is a 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. Using multivariate Granger Non-Causality tests, it was found that, at least in the case of the Kenyan economy, budget deficits affect monetary base growth. It was also found that there are both direct and indirect links between money printing and the rate of inflation. It was, therefore, concluded that budget deficits affect growth in the monetary base, money printing affects the rate of interest and hence the rate of inflation. Also, excess money printing affects the rate of inflation.

Phillips (1997) critically analyses the Nigerian fiscal policy between 1960 and 1997 with a view to suggesting workable ways for the effective implementation of Vision 2010. He observes that budget deficits have been an abiding feature in Nigeria for decades. He notes that expect for the period 1971 to 1974, and 1979, there has been an overall deficit in the federal Government budgets each year during the period he studied. The chronic budget deficits and their financing largely by borrowing, he asserts, have resulted in excessive money supply, worsened inflationary pressures, and complicated macroeconomic instability, resulting in negative impact on external balance, investment, employment and growth. He, however, contends that fiscal policy will be an effective tool for moving Nigeria towards the desired state in 2010 only if it is substantially cured of the chronic budget deficit syndrome it has suffered for decades.

Egwaikhide (1998) appraises the implication of Nigeria budget deficit profile for inflation and the current account balance. Evidence indicates that fiscal indiscipline in terms of lack of control over expenditure is the major determinant of budget deficit in Nigeria, while its mode of financing has aggravated inflation in the country. Most importantly, it is revealed that budget deficit correlates highly with current account deficit, implying that external disequilibrium is partly attributable to endogenous factors.

Folorunsho and Abiola (2000) examined the long-run determinants of inflation in Nigeria between 1970 and 1998, using the econometric methods of cointegration and error correction mechanism. They found that inflation in Nigeria could be caused by the level of income, money supply, and public sector balance. The results also indicate that in the long-run, exchange rate, money supply, income and fiscal balance determine the inflation spiral in Nigeria. The study, therefore, concludes that a reduction in fiscal deficits, an increase in domestic production and a stable exchange rate should be pursued as means of controlling inflation in Nigeria.

Dwyer (1982) studied the relationship between budget-deficits and macroeconomic performance of US using Vector Auto regressive model (VAR) for the period 1952-1978. He found no evidence that larger government deficits increase prices, spending, interest rates, or the money stock.

Al-khedir (1996) studied the relationship between budget deficits and macroeconomic performance of the G-7 countries for the period of 1964-1993 using Vector Auto Regressive model. He found out that budget deficits led to higher short-term interest rates in the seven countries. However, the deficits did not manifest any impact on the long-term interest rates. The trade balance was worsened by the budget deficit and economic growth improved in all seven countries.

Nwodo (2001) analyzed the long-run effect of budget deficit on economic growth of Nigeria for the first half of the 1990s. The main findings were that budget deficit did matter, but only to the extent it contributed to the money growth and if not checked, induces inflation, hence, leading to a distorted economy. As most of the budget imbalance was being monetized during that period, it is no surprise that independent influence of the budget deficit on the GDP growth was not found.

According to Omoka and Oruka (2010), who employed Pair Wise Granger causality Test in an attempt to offer evidence on the causal long term relationship between budget deficit, money growth and inflation in Nigeria, considering the broadest definition of money supply, found that money supply causes budget deficit which means that the level of money supply in the Nigerian economy will determine whether there has been or there will be budget deficits. Inflation and budget deficit revealed a bilateral or feedback causality proving that the changes that occur in inflation could be explained by its own lag and also the lag values of budget deficit and in the same vein, changes that occur in budget deficits are explained by its lagged values and the lagged values of inflation. The implication of their findings is that both budget deficit and inflation could be caused by money supply meaning that they are both monetary phenomena.

According to Ben (2010), larger budget deficit has adverse effect on the economy because it tends to reduce national savings, which in turn reduces domestic investment and increases borrowing from aboard. Besides, a

low level of national savings raises inflation and domestic interest rates and 'crowds out' private sector investment. The reduction in investment in turn affects employment as firms or business reduces their demand for labour and other factor inputs. All of these reduce national output, which in turn lead to trade deficits and reduction in the overall well-being of the people.

Obi and Abu (2009), explains that fiscal deficits and government debt have positive impact on interest rates, but inflation and international trade were found to have negative effect on interest rates. In their study using vector autoregressive model and covering a period of 1985-2006 suggested that deficit financing leads to a huge debt stock and tends to crowd out private sector investment, reducing the access of investors to adequate funds, thereby raising interest (and/or lending) rates. The rise in interest rate reduces investment demand and output of goods and services. These in turn reduce national income as well as employment rate, and the overall welfare of the people would decline. Thus, government should make efforts to reduce unnecessary spending because experience has shown that a large proportion of government expenditures have been channelled to unproductive ventures.

Mamodouh (2000) analysed the relationship between budget deficit and trade deficit in petroleum economy, by taking the case of Saudi Arabia as an example. Using annual time series data covering the period of 1970-1999, he analyzed the theoretical framework based on the two hypotheses; the Ricardian equivalence neglects any relationship between the two deficits and the Keynesian proposition confirms the existence of a positive relationship between them. Because of the special characters of the petroleum economy, they tried to argue that any of the two hypotheses is not valid in their economy. Considering the important role of oil revenue of the components of trade accounts and the public budget, they expected a positive relationship among budget deficit and trade deficit, but the direction of the causality is reversed, trade deficits causes' budget deficit. From their findings, if the government would like to reduce trade and budget deficits, the government must begin by reducing trade deficit. Since the trade deficit depends on oil prices, the government has to diversity the sources of national income. Also, when the oil revenue becomes less important in domestic income, the structural economic transformation may reverse the causality direction between the deficits, and the Keynesian proposition will be more valid.

Yaya (2010) employed the Granger-causality test using a sample of seven West African countries namely; Benin, Burkian Faso, Cote d' Ivoire, Mali, Niger, Senegal and Togo to examine the causal relationship between budget deficits and economic growth in these countries over a period of 26 years and found out that in three cases, there was no causality between budget deficits and economic growth. The above findings indicate a two-way causality in three countries, deficits having adverse effects on growth. Overall, these results give support to the WAEMU budgetary rule aiming at restricting the size of budget deficit as a prerequisite for sustainable growth and real convergence. In four other countries, there was causality evidence between budget deficit and economic growth implying that deficits retard economic growth rate. These findings have two main implications. First, they lend support to the control of budget deficits within the West African Economic and Monetary Union countries in order to increase domestic savings and finance economic growth. Second, evidence of causality running from economic growth to deficit makes difficult the control of the size of the budget deficit as to depend on the aggregate economic health. In periods of recession, revenues are expected to decrease, generating fiscal imbalance. In periods of expansion, revenues increases which leads to reduction in the size of deficit.

The World Bank (1993) opined that in economies where financial markets are not repressed, higher deficits financed by domestic debt increases real interest rates when external borrowing is not possible. However, if financial markets are integrated with world capital markets, higher domestic borrowing results in international capital inflows and high foreign debt. Thus, the impact on domestic real interest rates will not be much. Moreover, in countries where the financial markets are repressed (that is interest rate control, compulsory public

debt placements and controls on external capital flows), given a fixed nominal interest rates, fiscal deficits raises inflation resulting in a repressed (even negative) real interest rates.

This work seeks to study the impact of Budget Deficit on macro-economic variables in the Nigerian economy for the period 1981 to 2012. Using Ordinary Least Square method and employing the Johansen Cointegration and Granger causality tests we will be able to find out at the end of this work whether budget deficit has any significant impact on macroeconomic variables in Nigeria.

3. Research Methodology

Because we are interested in finding out whether a long-run relationship exists between budget deficits and macroeconomic variables, we employed the Johansen Cointegration and Granger causality testss.

3.1 Model Specification

The following four macroeconomic variables are used as regressors to estimate the relationship between budget deficits and economic performance of Nigeria and used the functional model :-

BD = F(GDP, INT, NER, INF)..... Eqn (1)

Where

BD= Budget deficits defined as federal government retained revenue minus total expenditure

F= Functional notation

GDP: Gross Domestic Product at Basic Prices

INT= Interest rates i.e. Monetary policy Rates

NER= Nominal Exchange Rates

INF: Inflation Rates

Our parametric model on the relationship between Budget Deficits and our selected macroeconomic variables in the form

$$\mathbf{y = \alpha_0 + \alpha_1 x_1 + \alpha_2 x_2 + \alpha_3 x_3 + \alpha_4 x_4 + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots (2)}$$

is stated below:

$$\mathbf{BD_t = \alpha_0 + \alpha_1 GDP_t + \alpha_2 INT_t + \alpha_3 NER_t + \alpha_4 INF_t \ldots\ldots\ldots\ldots (3)}$$

Apriori signs are $\alpha_1 > 0, \alpha_2 < 0, \alpha_3 < 0, \alpha_4 < 0$. This is deduced from the apriori expectation below.

3.2 Approri Expectation

By the rule of thumb and assuming every other thing remains equal/constant, since Nigeria is at the level below full employment given the rate of unemployment and low standard of living with increased number of its citizens living below the poverty line, Fiscal Deficit is expected apriori to bring about increased money supply (if financed through external debt and printing more currency) and when supply outweighs demand, cost of fund (interest rate) will go down bringing about an inverse relationship between interest rate and fiscal deficit. This will make more funds available for investment and more investment bringing about increase in Gross domestic Product (positive relationship between GDP and BD). And as more goods are produced and quality enhanced, export will be boosted and/or import reduced bringing about reduction in demand for foreign goods and foreign exchange and increase in demand for local goods and local currency leading to appreciation in the value of local currency (indicating inverse relationship between BD and NER). This increase in production making more goods available will bring about decrease in general price level indicating an inverse relationship

between BD and INF. In the case of Fiscal Deficit financed through domestic Borrowing, this will be the case when through domestic borrowing government mops up excess liquidity and funds in the hands of other economic units by borrowing from them and subsequently channel the funds to productive uses (Ezirim et al, 2014).

3.2 Estimation Procedure:

Having stated above that the researcher is using Cointegration as the econometric technique, the researcher also used the Econometric view (E-view 7.0) software in running this regression because of its wide acceptance in the economic world. The various tests that ought to be carried out in this study include:

(1) Unit Root tests: To test for a unit root in the series, we employ the Augmented Dickey-Fuller tests (ADF test) to test for the stationarity of our data at level and at differences. The model for the test is stated below.

$$y_t = \mu + py_{t-1} + \varepsilon_t \quad \text{.....} \quad (4)$$

Where μ and p are parameters and εt is assumed to be white noise, y is a stationary series if -1< p < 1. If p =1, y is a nonstationary series; if the process is started at some point, the variance of y increases steadily with time and goes to infinity. If the absolute value of p is greater than one, the series is explosive. Therefore, the hypothesis of a stationary series can be evaluated by testing whether the absolute value of p is strictly less than one. The simple unit root test described above is valid because the series is an AR(1) process. If the series is correlated at higher order lags, the assumption of white noise disturbances is violated. The DF tests take the unit root as the null hypothesis H_0: p =1. Since explosive series do not make much economic sense, the null hypothesis is tested against the one-sided alternative H_1 : p <1. The null hypothesis of a unit root is rejected against the one-sided alternative if the t-statistic is less than the critical value.

(2) Cointegration tests: To investigate the existence of a long run relationship between budget deficits and other variables, we explore the existence of a long run relationship among the variables in our model. If the variables that we are using in the study are found to be cointegrated, it will provide statistical evidence for the existence of a long run relationship. We employ the maximum-likelihood test procedure established by Johansen (1991) and Juselius (1990).

$$Y_t = A_1y_{t-1} +\ldots+ A_py_{t-p} + ß\ x_t + \varepsilon_t \quad \text{.....} \quad (5)$$

Where yt is a k-vector of non-stationary I(1) variables, xt is a d vector of deterministic variables, and εt is a vector of innovations. Granger's representation theorem asserts that if the coefficient matrix Π has reduced rank r

$$H*1\ (\Gamma): \Pi y_{t-1} + ß\ x_t = \alpha(\beta_1\ y_{t-1} + P_0) \quad \text{.....} \quad (6)$$

(3) Granger causality test: Correlation does not necessarily imply causation in any meaningful sense of that word. The Granger (1969) approach to the question of whether x causes y is to see how much of the current y can be explained by past values of y and then to see whether adding lagged values of x can improve the explanation. Y is said to be Granger-caused by x if x helps in the prediction of y. It is important to note that the statement "x Granger causes y" does not imply that y is the effect or the result of x. Reviews runs bivariate regressions of the form:

$$y_t = \alpha_0 + \alpha_1\ y_{t-1} + \ldots + \alpha_c\ y_{t-c}\ \beta_1x_{t-1} +\ldots+ \beta_c\ x_{t-c} \quad \text{.....} \quad (7)$$

$$xt = \alpha_0 + \alpha_1\ x_{t-1} + \ldots + \alpha_c\ x_{t-c}\ \beta_1\ y_{t-1} +\ldots+ \beta_c\ y_{t-c} \quad \text{.....} \quad (8)$$

for all possible pairs of (x,y) series in the group. The reported F-statistics are the Wald statistics for the joint hypothesis $\beta_1 = \ldots = \beta_c = 0$. For each equation, the null hypothesis is therefore that x does not Granger-cause y

in the first regression and that y does not Granger-cause x in the second regression. If budget deficits share a long run relationship with other macroeconomic variables that we are studying, the next step is to examine causality, since if two or more variables are cointegrated; there is causality in at least one direction (Engel and Granger 1987). We then proceed to determine whether deficits Granger-cause GDP and other variables individually and vice versa.

4. Presentation, Analysis And Interpretation Of Results

4.1 Unit Root Tests

The results of the Augmented Dickey-Fuller (ADF) unit root tests of stationarity are presented below.

Table 4.1 Unit Root Tests Using Augmented Dickey-Fuller (ADF) methods

Variables	T-ADF at First Diff.	5% Critical Value	Order of Integration
BD	**-4.4221**	**-3.5683**	**1 (1)**
GDP	**-6.2917**	**-3.5683**	**1 (1)**
INF	**-5.3166**	**-3.5742**	**1 (1)**
INT	**-6.0702**	**-3.5742**	**1 (1)**
NER	**-5.2135**	**-3.5683**	**1 (1)**

NB: Maxlag=7.

The results in table 4.1 above shows that all the variables have been found to be stationary at first differencing at 5% level of significance, i.e. all the variables are integrated of order one. We therefore, proceed to Cointegration tests between the variables to detect any possible long-run equilibrium between the series.

4.2 COINTEGRATION TESTS

In table 4.2 below, the null hypothesis of no cointegrating vector can be rejected for all the variables used in the study (see table 4.2 below) and the empirical findings reinforce the conclusions about the presence of long-run relationship between budget deficits, GDP, interest rates, Exchange
rates and inflation rates.

Table 4.2 Johansen Cointegration Test

Date: 08/29/14 Time: 01:18
Sample (adjusted): 1983 2012
Included observations: 30 after adjustments
Trend assumption: Linear deterministic trend
Series: BD GDP INF INT NER
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.859316	117.6659	69.81889	0.0000

At most 1 *	0.691595	58.82879	47.85613	0.0034
At most 2	0.360123	23.53852	29.79707	0.2206
At most 3	0.286794	10.14412	15.49471	0.2698
At most 4	0.000153	0.004585	3.841466	0.9451

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

4.3 Granger Causality Results

Table 4.3. Pairwise Granger Causality Tests

Pairwise Granger Causality Tests
Date: 08/29/14 Time: 01:21
Sample: 1981 2012
Lags: 1

Null Hypothesis:	Obs	F-Statistic	Prob.
GDP does not Granger Cause BD	31	9.00456	0.0056
BD does not Granger Cause GDP		1.83139	0.1868
INF does not Granger Cause BD	31	0.66667	0.4211
BD does not Granger Cause INF		0.23330	0.6328
INT does not Granger Cause BD	31	1.62112	0.2134
BD does not Granger Cause INT		0.13137	0.7197
NER does not Granger Cause BD	31	1.43935	0.2403
BD does not Granger Cause NER		0.01435	0.9055
INF does not Granger Cause GDP	31	0.00643	0.9366
GDP does not Granger Cause INF		0.91324	0.3474
INT does not Granger Cause GDP	31	0.04126	0.8405
GDP does not Granger Cause INT		1.77201	0.1939
NER does not Granger Cause GDP	31	7.94082	0.0088
GDP does not Granger Cause NER		0.00705	0.9337
INT does not Granger Cause INF	31	0.58726	0.4499
INF does not Granger Cause INT		0.45538	0.5053
NER does not Granger Cause INF	31	1.00066	0.3257
INF does not Granger Cause NER		1.07326	0.3091

NER does not Granger Cause INT	31	1.44844	0.2389
INT does not Granger Cause NER		0.16468	0.6880

NOTE: F (V1, V2) = F (4, 31)
V1 = k-1 i.e. the number of parameters minus one
V2 = n-k i.e. the total number of observations minus the number of parameters
At 5% level of significance, with a 4 and 31 degrees of freedom for V1 and V2 respectively, reject the null hypotheses if the calculated F-values are greater than the tabulated F-values otherwise accept the null hypotheses.

In considering the relationship between BD and GDP, it was found that there is a unit-directional causality between Budget deficits and GDP, i.e. GDP Granger causes budget deficits and not vice versa. With the same level of significance, it was found that inflation does not Granger cause budget deficits and Budget deficits do not Granger cause inflation. Therefore, there is neither unit nor bi-directional causality between the two variables. The test for causality between interest rates and budget deficits showed that there exists no causality, neither unit nor bi-directional causality between the two variables. Therefore, interest rates and budget deficits do not granger cause each other. Also, there exists no causality between the nominal exchange rates and budget deficits. Therefore, nominal exchange rate does not Granger causes budget deficits and budget deficits do not Granger causes nominal exchange.

4.4 Evaluation Of The Apriori Test:

Table 4.4. Regression result for BD = f(GDP INF INT NER)

Dependent Variable: BD
Method: Least Squares
Date: 08/29/14 Time: 01:14
Sample: 1981 2012
Included observations: 32

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP	-0.025516	0.005644	-4.520876	0.0001
INF	-217.8147	2124.875	-0.102507	0.9191
INT	-4227.467	9249.738	-0.457036	0.6513
NER	307.5049	1079.503	0.284858	0.7779
C	61079.08	122113.0	0.500185	0.6210

R-squared	0.739175	Mean dependent var	-192576.6
Adjusted R-squared	0.700535	S.D. dependent var	329831.8
S.E. of regression	180495.2	Akaike info criterion	27.18740
Sum squared resid	8.80E+11	Schwarz criterion	27.41642
Log likelihood	-429.9984	Hannan-Quinn criter.	27.26331
F-statistic	19.12947	Durbin-Watson stat	1.985094
Prob(F-statistic)	0.000000		

From our regression result in table 4.4 above, we have our estimated regression equation as:

BD = 61079.08 – 0.025516GDP - 217.81INF – 4227.47INT + 307.50NER…..Eqn (x)
(-4.5209) (-0.1025) (-0.4570) (0.2849)

NB: the t-values are in parentheses

The result above implies that there is a positive relationship between budget deficits and Nominal Exchange Rate but a negative influence on GDP, interest rate and inflation rate. The implication is that a unit increase in Budget Deficit decreases the GDP by 0.025516 units. The result also implies that a unit increase in interest rate and inflation rate decreases deficits by 4227.47 and 217.81 units respectively while a unit decrease in nominal Exchange rate increases deficits by 307.50. The result, however, supports the Keynesian School in the relationship between budget deficits and inflation rate /interest rate, agrees with the monetarist approach in deficit versus exchange rate and supports neither the Keynesian school nor the monetarist in the negative relationship it shows between budget deficit and GDP.

The Coefficient of Determination (R^2) of 0.73 (see table 4.4) shows that the independent variables included in the model explains 73% of the variations in the dependent variable. Therefore the model is a good fit to the relationship. The result has an F-statistic value of 19.13 with associated probability of less than 1% indicating that the joint statistical significance hypothesis of the model cannot be rejected. The evaluation of the contribution to significance of the model by each of the explanatory variables revealed that in the case of deficits versus inflation, interest rate and exchange rate we conclude that the relationship is insignificant while that of budget deficits and GDP is very significant.

The computed DW is 1.9851 showing no autocorrelation.

The researchers wish to use the F-Statistics to test the working hypothesis. This is aimed at finding out if budget deficit exerts significant impact on the whole regression plane. Since F-calculated (19.12947) has a probability of less than 1%, we reject H_0 and conclude that budget deficits exert significant impact on macroeconomic aggregates in Nigeria.

5. Summary, Conclusion And Recommendations

5.1 Summary

This study examined the long-run relationship between budget deficits and other macroeconomic variables in Nigeria. The results agree with the Keynesian theory that budget deficits crowd-in investment but rejects the claim that budget deficits increase interest rate which is a popular opinion held by both the Keynesian and the Neoclassical schools. In the empirical exercise, we have used the Augmented Dickey-Fuller (ADF) methods for finding out the presence of unit root in all the variables (budget deficit, GDP, interest rate, inflation and nominal exchange rate) and have found that they are non-stationary at level but stationary at first differencing {i.e. they are 1 (1)}. We have employed Johansen's Cointegration test to check for the cointegration of these variables. We found that the variables in the study are all cointegrated of order one, i.e. there is the presence of long-run relationship between budget deficits, GDP, interest rates, nominal exchange rates, and inflation rates. The Granger Causality results reveal that there is a uni-directional Granger-causality between Budget deficits and GDP with GDP granger causing budget deficit. However, the test for causality showed that there exists no causality between deficits and interest rate, budget deficits and inflation and budget deficit and nominal exchange rate. We thereby concluded that budget deficits exert significant impact on the macro-economic performance of the Nigerian economy. The study recommend that since budget deficits could crowd-in investment through its reducing effects in interest rate, but emphasis should be placed on capital goods

expenditure to make it have positive effect on GDP and thereby contribute to economic growth and development.

5.2 Conclusion

It is an established theory by the Keynesian school that deficits crowd-in investment through its influence on domestic production. By making reference to the expansionary effects of budget deficits, the Keynesian school of thought argue that usually budget deficits result in an increase in domestic production, which makes private investors more optimistic about the future course of the economy resulting in them investing more and therefore crowding-in investment. From our empirical analysis, budget deficit could crowd-in investment through its reducing effects in interest rate and thereby contribute to economic growth as long as emphasis is made on the provision of capital goods/capital expenditure. Also, our study reveals that there is a long run relationship between budget deficits and macroeconomic variables. We then conclude that budget deficits exert significant impact on macro economic performance in Nigeria.

5.3 Recommendations

Since one method of financing budget deficit is through borrowing from international financial institutions and the Central Bank, such borrowed money should be spent on capital expenditure such as building roads and dams, improving agricultural sector, etc. which will improve the standard of living of the people, and hence, their productivity. This will in turn, impact on the country's economic growth and development.

Also, since budget deficits have not helped to improve on the level of economic growth and development as should be the case, the government could try to employ balanced budgeting if possible

Finally, economists and policy makers should not focus on the level of budget deficit but on the source of financing it to ensure that economic growth and development in Nigeria is not retarded.

References

Ahmed, H. and Miller, S. M. 2000. Crowding-out and Crowding-in Effects of the Components of Government Expenditures. Contemporary Economic Policy, Vol. 18, No 1.

Al-Khedair, S. I. 1996. The Impact of Budget Deficits on the Key Macroeconomic Variables in Major Industrial Countries. Florida: Florida Atlantic University Press.

Anyanwu, J. C. 1993. Monetary Economics: Theory, Policy and Institutions. Onitsha: Hybrid publishers Ltd.

Aschauer, D. A. 1989. Is Public Expenditure Productive? Journal of Monetary Economics, Vol. 23.

Barro, R. 1989. The Ricardian Approach to Budget Deficits. Journal of Economic Perspective, Vol. 3.

Ben, O. and Abu, N. 2010. Do fiscal Deficits Raise Interest Rates in Nigeria? A Vector Auto regression Approach. Journal of Applied Quantitative method.

Bernheim, B. D. S1989. A Neoclassical Perspective on Budget Deficits. Journal of Economic Perspective, Vol.

Dywer, G. P. 1982, Inflation and Government deficits. Economic Inquiry Vol. XX.

Easterly, W. and Fischer, S. 1990. The Economic of Government Budget Constraint. The World Bank Observer, Vol. 5, No. 2.

Easterly, W. and Schmidt-Hebbel, K. 1991. The Macroeconomics of Public Sector Deficits: A Synthesis. The World Bank Working Paper Series. No. 775.

Egwaikhide, F.O. 1998. Budget Deficit and Macroeconomic Management in Nigeria. In Post – Structural Adjustment Programme. The Nigerian Journal of Economic and Social Studies, Vol. 38 Nos. 1, 2 and 3.

Engle, R. F. and Granger, C. W. J. 1987. Cointegration and Error Correction Representation: Estimation and Testing. Econometrica Vol. 55.

Eisner, R. 1989. Budget Deficits: Rhetoric and Reality. Journal of Economic Perspectives. Vol. 3.

Ezirim, C. B. and Arewa, A. 2014. Volatility spilling from Exchange Rate to Inflation: A Journey to Non-Linear Models. International Journal of Accounting, Finance and Economics Perspectives. Vol. 2. No. 2.

Folorunso, B. A and Abiola, A. G. 2000. The Long – run Determinants of inflation in Nigeria (1970 - 1998). The Nigerian Journal of Economic and Social Studies, Vol 42, Vol. 1.

Gbosi, A. and Omoke P. C. 2004. The Nigerian Economy and Current Problems. Abakaliki: Pack Publishers.

Heng, T. K. 1997. Public Capital and Crowding in. The Singapore Economic Review. Vol. 42. No. 2.

Johansen, S. 1991. Estimation and Hypothesis Testing of Cointegrating Vectors in Gaussian vector Autoregressive Models. Econometrica Vol. 59.

Lansin, D. 2001. Impact of Budget Deficit on Economic Performance. Nigerian Economic Survey.

Mamodouh, A.A. (2000), The Twin Deficits phenomenon in Petroleum Economy. Evidence from Saudi Arabia. King Saud University.

Mbanefo, G. F. and Anyanwu, J. C. (1990). Revenue Allocation And The New Nigerian Constitution. Quarterly Journal Of Administration, Vol. XXIV,No. 3.

Miller, P. 1983. Higher deficit Policies Lead to Higher Inflation. Quarterly Review, Federal Reserve Bank of Minneapolis.

Milton I. 2004. Macroeconomics: Theory and Policy. Benin City: Mindex Publishing.

Ndung'u, N. 1995. Government Budget Deficit and Inflation in Kenya. African Journal of Economic Policy. Vol. 2. No. 2.

Nwodo, D. 2000. The Long-run Effect of Budget Deficit on Economic Growth in Nigeria. Oxford University Press.

Okereke, E. J.; Sanni, T. A.; Anyanwu, G. I. and Ogunbiyi, S. 2009. Money & The Nigerian Financial System. Owerri: Jeso International.

Omoka, P. C. and Oruka, L. I. 2010. Budget Deficits, Money Supply and Inflation in Nigeria. European Journal of Economics, Finance and Administrative Sciences. Vol,19.

Omoruyi, S. E. (1988). The Fluctuation of Federal Government Expenditures: A Statistical Analysis. CBN Economic and Financial Review, Vol. 26, No. 2.

Philips, A. O. 1997. Nigerian Fiscal Policy (1960 -1997). Nigerian Institute of Social Economic Research (NISER), Monograph Series No. 17, Ibadan.

Premchard, A. 1984. Government Budgeting and Expenditure Controls: Theory and Practice. IMF Washington, D. C.

Saleh, A. S. 2003. The Budget Deficit and Economic Performance: A Survey. University of Wollongong, Economic Working Paper Series.

Tchokote, J. (2001). Macroeconomics of Fiscal Deficits in Cameroon. Being a Ph.D. Thesis Proposal presented to the Department of Economics, University of Ibadan, Ibadan – Nigeria.

Wiseman, J. and Peacock, A. T. 1961. The Growth of Public Expenditure in the United Kingdom. Princeton N. J.: Princeton University Press.

World Bank (1996): India: Five years of Stabilization and Reforms and the Challenges Ahead. The World Bank.

Yaya, K. 2010. Budget Deficit and Economic Growth: Causality Evidence and Policy Implications for WAEMU Countries. European Journal of Economic, Finance and Administration Sciences. Issue 18.

Yellen, J. L. (1989), Symposium on the Budget Deficit. Journal of Economic Perspectives. Vol. 3, No. 2.

Appendix 1

BUDGET DEFICITS AND SELECTED MACROECONOMIC AGGREGATES IN NIGERIA (1981 – 2012)

Years	Budget Deficit (Nm)	GDP (Nm)	Interest Rate (%)	Inflation Rate (%)	Exchange Rate N/US$1
1981	-3902.10	47619.66	6.00	20.90	0.61
1982	-6104.10	49069.28	8.00	7.70	0.67
1983	-3364.50	53107.38	8.00	23.20	0.72
1984	-2660.40	59622.53	10.00	39.60	0.76
1985	-3039.70	67908.55	10.00	5.50	0.89
1986	-8254.30	69146.99	10.00	5.40	2.02
1987	-5889.70	105222.84	12.75	10.20	4.02
1988	-12160.90	139085.30	12.75	38.30	4.54
1989	-15134.70	216797.54	18.50	40.90	7.39
1990	-22116.10	267549.99	18.50	7.50	8.04
1991	-35755.20	312139.74	14.50	13.00	9.91
1992	-39532.50	532613.83	17.50	44.50	17.30
1993	-65157.70	683869.79	26.00	57.20	22.05
1994	-70270.60	899863.22	13.50	57.00	21.89
1995	1000.00	1933211.55	13.50	72.80	21.89
1996	32049.40	2702719.13	13.50	29.30	21.89
1997	-5000.00	2801972.58	13.50	8.50	21.89
1998	-133389.30	2708430.86	14.31	10.00	21.89
1999	-285104.70	3194014.97	18.00	6.60	92.69
2000	-103777.30	4582127.29	13.50	6.90	102.11
2001	-221048.90	4725086.00	14.31	18.90	111.94
2002	-301401.60	6912381.25	19.00	12.90	120.97
2003	-202724.70	8487031.57	15.75	14.00	129.36
2004	-172601.30	11411066.91	15.00	15.00	133.5
2005	-161406.30	14572239.12	13.00	17.90	132.15
2006	-101397.50	18564594.73	12.25	8.20	128.65

2007	-117237.10	20657325.00	8.75	5.40	125.83
2008	-47378.50	24296329.25	9.81	11.60	118.57
2009	-810008.46	24794238.66	7.44	12.50	148.88
2010	-1105439.78	33984754.13	6.13	13.70	150.3
2011	-1158518.50	37409860.61	9.19	10.80	153.86
2012	-975724.00	40544099.94	12.00	12.20	157.50

SOURCE: CBN Statistical Bulletin

The Data utilized in this work is secondary Data. It is Time Series Data on Budget Deficits, GDP at Basic Prices, Interest Rate (Monetary Policy Rate), Nominal Exchange Rate and Inflation Rate. The data was collected over the period 1981-2012 from CBN Statistical Bulletin, Vol. 23, Dec.2012 with the Growth Rates of the different Data computed by the researcher