

An Investigation of Causal Relationship Between Fiscal Deficits, Economic Growth and Money Supply in Nigeria (1970-2009)

UNE ENQUETE DE LA RELATION CAUSALE ENTRE LE DEFICIT BUDGETAIRE, LA CROISSANCE ECONOMIQUE ET LA MASSE MONETAIRE AU NIGERIA (1970-2009)

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Abstract

This study posits to investigate the relationship between fiscal deficits, economic growth and money supply in Nigeria. In Nigeria, huge fiscal deficits had been recorded over some years. What has been the nature of the relationship between fiscal deficits, economic growth and money supply in Nigeria? To answer this question, Granger causality test was conducted to see whether fiscal deficits granger cause economic growth and money supply or economic growth and money supply granger cause fiscal deficits. The results show that fiscal deficits granger causes economic growth and broad money supply in Nigeria. This implies that fiscal deficits positively affect economic growth and money supply in Nigeria. It is therefore recommended that fiscal deficits should be undertaken with efficient and well-executed plan for economic development. Furthermore, fiscal and monetary policies should be coordinated in such a way that both the public or private sector of the economy should not be handicapped due to shortage of finance and at the same time, inflation is checked in the economy.

Key words: Fiscal deficits; Economic growth; Money supply; Public expenditure; Public revenue; Granger causality

Résumé

Cette étude est dans le but d'étudier la relation entre les

déficits budgétaires, la croissance économique et la masse monétaire au Nigéria. Au Nigeria, d'énormes déficits budgétaires ont été enregistrés en quelques années. Quelle a été la nature de la relation entre les déficits budgétaires, la croissance économique et la masse monétaire au Nigéria? Pour répondre à cette question, le test de causalité de Granger a été mené afin de voir si les déficits budgétaires granger provoquer la croissance économique et l'offre de l'argent ou la croissance économique et l'offre de monnaie granger provoquer des déficits budgétaires. Les résultats montrent que l'exercice granger déficits provoque la croissance économique et de l'offre monétaire au sens large du Nigeria. Cela implique que les déficits budgétaires influer positivement sur la croissance économique et l'offre de monnaie au Nigeria. Il est donc recommandé que les déficits budgétaires devraient être entrepris au plan efficace et bien exécutée pour le développement économique. En outre, les politiques budgétaires et monétaires doivent être coordonnés de manière à ce que le secteur public ou privé de l'économie ne devrait pas être handicapé en raison d'un manque de finances et dans le même temps, l'inflation est vérifiée dans l'économie.

Mots clés: Déficits budgétaires; La Croissance économique; La masse monétaire; Les dépenses publiques; Les recettes publiques; La Causalité de Granger

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INTRODUCTION

Government as an agent of the people requires revenue

to provide education, employment, adequate health services, infrastructure 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. 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 the economic development of the past decade has rekindled the interest in fiscal policy issues.

Recurring and rising budget deficits have been a dominant feature of fiscal operations in Nigeria since the second half of the 1970s. The impact of fiscal deficits on economic activity has been one of the subjects of longstanding debate in macroeconomics. Due to expansionary fiscal policies prompted by the favorable oil prices in the international market, expenditure rising faster than revenue, deficits grew from an average of 5.0 percent of GDP in 1983-86 to 10.3 percent in 1991-94 before declining to 4.9 percent in 1999-2002 (CBN, 2003). The deficit problem has remained persistent because of government's inability to reduce the level of expenditure to sustainable levels. However, a reasonable amount of budget deficit normally not exceeding 4 percent of Gross Domestic Product (GDP) is not considered to be inimical to the overall process of economic growth and development of any country (Egwaikhide, 2005). Economists also agreed on the fact that a reasonable percentage of budget deficits even when it is higher than 4 percent will not constitute a burden so long as it is utilized for productive activities and it is financed in a non-inflationary manner.

In Nigeria, fiscal deficits started to become an important macroeconomic problem from the mid 1980s specifically with the introduction of the Structural Adjustment Programme in 1986. For example, the deficit rose from about ₦8.8 billion in 1986 to ₦22.1 billion in 1990 before rising sharply to ₦107.2 billion in 1993 (CBN, 1994). By 1994, overall deficit of the federal government had declined to ₦70.8 billion which was equivalent to about 8 percent of GDP. In the context of the implications of fiscal deficits on the Nigerian economy, it is not very much the size of the deficits that is a problem, but the impact and the mode of its financing. Furthermore, in Nigeria, federal government deficits were financed largely by Central Bank, which had an expansionary impact on base money. Monetary financing caused inflation rate to rise above 50 percent in 1989, 1993 and 1994. It peaked at 72.8 percent in 1994. The high levels of inflation resulting from the monetary financing of the deficit also affected other areas of the economy. For instance, in an effort to

limit inflation and ensure sound financial system, the monetary authorities adopted tight money policy which affected price level and exchange rates that discouraged some desirable kinds of investments. The result was macroeconomic instability which was reflected in the high rate of inflation, growth of money supply relative to GDP, declining growth and rising unemployment.

It is general expectation that fiscal deficits intends to promote economic growth and development. Unfortunately, the divergent scenario is obtainable in Nigeria. This is because despite the deficit financing strategy adopted overtime, poverty in Nigeria is still very high. For instance in absolute number, poor in Nigeria increased from 18 million in 1980 to 67 million in 1999 and about 80 million in 2004 (Muo, 2007). In percentage terms, it moved from 43% in 1992 to 66% in 1997 and at least 70% in 2002 (World Bank, 2005). In a related development, infrastructural decay is still prominent and the growth rate has not been encouraging. The electricity supply has been epileptic with low power generation. For instance, between 1999 and 2007, supply of electricity has not kept pace with demand. The generation of electricity has been oscillating within the range of 1700 megawatts and 3500 mega watts in a country where estimated generation demand is put at 10,000 megawatts per day (Makoju, 2007).

As regards economic growth in Nigeria, using real Gross Domestic Product (GDP), it has not been a good development. For instance, real GDP grew at average rate of 8.2% in the period 1970 and 1975. Between 1975 and 1980 the realized growth rate was only 5% per annum, and between 1981 and 1985, GDP declined at an annual rate of 2.0% (Ajayi, 2007). Furthermore, between 2001 and 2007, the growth did not enter double digit with the exception of 2003 which was about 10.7%. These were 2.7 in 2001, 1.5 in 2002, 10.7 in 2003, 6.0 in 2004, 6.9 in 2005, 5.2 in 2006 and 6.4 in 2007 (IMF, 2006). Growth is necessary for poverty reduction and only countries that grow can be able to reduce poverty. If we use such indices as GDP, poverty rate and daily megawatts of electricity supply and demand, Nigeria has not done well despite deficit financing.

The factors behind the unsatisfactory performance in Nigeria can be explained within the purview of domestic and external factors. The external environment was characterized by fluctuations in the price of crude oil and losses in terms of trade. Also there was a rapid rise in the net resource outflow implicit in the large financial transfers associated with external debt repayments. The domestic factors are on the other hand concerned with macroeconomic policy failures and poor management of resources. There were also the existence of deep rooted development constraints, human capital development and inadequate infrastructure which have constituted major impediments to private sector development and the

supply response of the Nigerian economy. Furthermore, ethnic conflicts, political insecurity, poor governance and corruption have aggravated the Nigerian economic performance. This study is therefore meant to investigate the relationship between fiscal deficits, economic growth and money supply in Nigeria.

1. EDEFINITION OF CONCEPTS

Public Expenditure

Public expenditure refers to the expenses of government. In Nigeria it refers to the expenses by the Federal, State and Local Government. According to Bhatia (2008), public expenditure could also be defined as all the expenses which the government incurs for its own maintenance, for the society and the economy as a whole and helping other countries. Thus, public expenditure involves all the expenses which the public sector incurs for its maintenance, for the benefit of the economy, external bodies and other countries.

Public Revenue

Public revenue refers to all sort of income generated by the government from all sources considered as legal by the government. According to Anyanwu (1987), public revenue covers taxes along with interests and repayment, licenses and fees.

Fiscal Policy

According to Jhingan (2002), Fiscal policy means the use of taxation, public borrowing and public expenditure by government for purposes of stabilization. Okoh (2008) defines fiscal policy as the deliberate use of expenditure and taxation powers by government to influence the level of economic activities in the society. The government uses its budget powers to determine the level of national output. Iyoha (2002) defines fiscal policy as the use of changes in government expenditures and changes in taxes to influence the level of key economic aggregates like national product, the general price level and the balance of payments. According to Anyanwu (1997), 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.

Fiscal Deficits

It is generally defined in terms of loan financing and drawing down of cash balances. It connotes the difference between the budget receipts and budget expenditures financed by withdrawal of cash balances and borrowing from the public. Fiscal deficit simply refers to the excess of the public sector's spending over its revenue (World Bank 1988). According to Jhingan (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.

Economic Growth

In general, economic growth means percentage increase in Gross Domestic Product (GDP) or Gross Product (GNP) 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 (Dwivedi, 2009).

According to Black (2002), economic growth is 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, capital and volume of trade (Jhingan, 2002).

2. THEORETICAL FRAMEWORK

In the pre-Keynesian era, a tradition of balanced budget which prevailed for many years helped in reining on the spending tendencies of government and invariably keeping expenditures within the revenue limits imposed by the size of collectible taxes.

However, this norm ceased among many governments following the American depression of 1930s in which John Maynard Keynes (1936) alluded in his *Magnum Opus* to the problems of under spending or under consumption as underlying the prevailing unemployment problem then. Subsequently, the under consumption notion dominated the thinking among many mainstream economists up to the 1970s. The under spending or demand-side thinking argues that unemployment is a consequences of inadequate demand for goods and services, and if the spending level increases employers of labour will hire more workers. Keynes therefore, advocated for the running of budget deficits by increasing government spending and/or reducing taxes, and by so doing adduced that the market solution would be ineffective because the price mechanism and wages that have to respond to the existence of unemployment do not adjust with sufficient speed or effectively.

According to Oluba (2008), in line with Keynes reasoning, contrary to the norm which prevailed before his under spending and deficit budgeting solution, economic depression will most likely continue for a

very long time unless government spending financed by budget deficit were increased sufficiently. The Keynesian doctrine of deficit spending was sufficient justification for governments to spend beyond the means of their respective countries without the hitherto existing discipline of balanced budgets.

3. EMPIRICAL LITERATURE

A number of studies have been conducted to investigate the relationship between fiscal deficits, economic growth and money supply. Nyong and Odubejan (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. Thus, an increase in monetary financing of the deficit by 10%, which leads to an increase in inflation by 5%, may give rise to 0.0072% fall in economic growth, all things being equal.

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 causality test and the empirical evidence showed mixed results. In three cases, he did not find any causality between budget deficit and growth. In the remaining four countries deficits have adverse effect on economic growth. Bevan and Adam (2001) examined the relationship between fiscal deficits and growth for a panel of 45 developing countries. The study found evidence of a threshold effect at a level of the deficit around 1.5% of Gross Domestic Product (GDP). While there appeared to be a growth payoff to reducing deficits to this level, this effect disappeared or reversed itself for further fiscal contraction.

According to Oluba (2008), fiscal deficits no matter how it is financed divert valuable and investable resources from the productive needs of economic agents and wants of the public. It devours domestic savings and mischannels the resources which ordinarily should have been deployed in private enterprise. With deficits there always would be the price of higher interest rates to pay. This also invariably means less investment, lower productivity and eventually a drop in living standards.

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.

Liu Chih-Hung et al (2008) examined the relationship between GDP and government spending for the US data during the period 1947-2002. The causality results revealed that government spending causes growth of GDP. On the other hand, growth of GDP does not cause expansion of government spending. Koman and Brahmasrene (2007) examined the association between government expenditures and economic growth in Thailand by employing granger causality test. The results revealed that government expenditure and economic growth are not co-integrated. Moreover the results indicated a unidirectional relationship, as causality runs from government expenditure to growth. The results also illustrated a significant positive effect on government spending on economic growth.

In India, Ranjan and Sharma (2008) examined the effect of government development spending on economic growth during the period 1950-2007. They discovered a significant positive impact of government expenditure on economic growth. They reported the existence of co-integration among the variables. Ram (1986) studied the linkages between government expenditure and economic growth for a group of 115 countries during the period 1950-1980. He used both cross-section and time series data in his analysis and confirmed a positive influence of government expenditure on economic growth.

Anyanwu (1997) by his calculation of simple correlation between fiscal deficits and other major macroeconomic 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 capital formation for economic growth and development.

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 a positive but statistically insignificant relationship between public investment and the growth rate.

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.

According to Jhingan (2002) deficit financing can be used for the development of economic and social overheads such as construction of roads, railways, power projects, schools, hospitals, etc. By providing socially useful capital, deficit financing is able to break bottlenecks and structural rigidities and thereby increasing productivity.

Deficit financing is always expansionary in its effects. As development gains momentum, the rate of investment in the economy is accelerated which requires additional doses of the quantity of money at every stage with a continuous increase in investment, the total physical product is likely to be higher than before thereby necessitating a corresponding increase in supply of money for transaction purpose. In the event of an import surplus due to increasing foreign aid, demand for money will be greater. It is through deficit financing that the government can meet the increasing demand for money in all these cases (Jhingan, 2002). Thus a policy of deficit financing is an important and most fruitful instrument for capital formation in underdeveloped countries.

According to Kustepeli, *et al.* (2004) fiscal deficit alters the incentive mechanisms in the economy. As the conceptions and expectations of the economic agents differentiate due to deficits, markets will be faced with speculation and arbitrage possibilities which may affect the working of the financial markets adversely. In addition, budget deficits may direct economic policy makers to choose monetization. In such a case, the conduct of a sound monetary policy is extremely difficult, if not impossible, which consequently brings the problem of coordination of fiscal and monetary policies in focus (Ozatay, 1997). 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.

Gues 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 oil producing economy of the United Arab Emirates over the period 1973-1995. This 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 long run 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 deficits 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) continues 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).

Furthermore, public investment may increase current national output, which in turn stimulates higher private investment and higher growth. Public investment is likely to be a major private sector activity and economic growth. Therefore, higher public investment through fiscal deficits may raise the marginal productivity of private capital and, thereby, "crowd-in" private investment.

4. METHODOLOGY

This section deals with models specification and

estimation technique. The data for the study are obtained mainly from secondary sources, particularly from Central Bank of Nigeria.

Estimation Techniques

The empirical analysis is presented in two stages; Unit root and Granger causality test. Central to this framework of analysis is the examination of the variable in the econometric model for stationarity. Basically, the idea is to ascertain the order of integrations of the variables and the number of time the variables have to be differenced to arrive at stationarity. This enables us to avoid the problems of spurious or inconsistent regression that are associated with non-stationary time series models.

Stationarity Test

The study will utilize the Dicker-Fuller (DF) and Augmented Dicker-Fuller (ADF) regressions to perform the unit root tests for the variables, namely Gross Domestic Product (GDP) and Government Budget Deficit (GBD) and Broad Money Supply (m2). This is because the ADF allows for serial correlation in the error term. Here, the observations are firstly tested at levels. To know whether the data is stationary, the values of ADF statistics is compared with the Mackinnon critical values. If an ADF value is greater than Mackinnon critical values at choosing levels of significant, say 5% and then we will reject the null hypothesis of non-stationarity and conclude that the data is stationary. In other word, if the series is I (I), it is deemed to have a unit root or it follows a random walk process. This situation does not arise if its first difference is I (0). It is termed stationary. Naturally the ADF test is performed by testing $0 = 0$ against the one-sided alternative, $0 > 0$.

Following ADF tests, if all variables are I (I), the co-integration test is usually undertaken. The existence of the co-integrating relationship implies that the variables share mutual stochastic trend and are linked in a common long-run equilibrium. In this research work, test for co-integration will employ the Engle-granger co-integration test. This test is only valid when you are working with series that are known to be non-stationary. The test is undertaken by first running an OLS regression, saving the residuals and then running the ADF test on the residual to determine if it is stationary. The time series are said to be co-integrated if the residuals is it-self stationary. In effect the non-stationary I (I) series have cancelled each other out to produce a stationary I(0) residual.

Granger Causality Test

A common problem in economics is the determining whether changes in one variable are a cause of changes in another. This problem is brought to the fore in our analysis that there is a relationship between fiscal deficits, money supply and economic growth. But the causal link

could run in either direction.

The granger causality test to be used in this study is specified as follows:

$$GDP_t = GBD_{t-i} + GDP_{t-j} + M2_{t-k} + U_{it} \dots \dots \dots 3.1$$

$$GBD_t = GBD_{t-i} + GDP_{t-j} + M2_{t-k} + U_{2t} \dots \dots \dots 3.2$$

$$M2_t = GBD_{t-i} + GDP_{t-j} + M2_{t-k} + U_{3t} \dots \dots \dots 3.3$$

Where,

- GDP_t = gross domestic product at time t
- GBD_t = government budget deficits at time t
- M_{2t} = Broad money supply at time t
- And the parameters to be estimated are α_i , δ_j and δ_k

Notes:

Null hypothesis

1. GBD_t does not granger cause GDP_t
2. GDP_t does not granger cause GBD_t
3. GBD_t does not granger cause broad money supply (M₂)
4. Broad Money Supply (M₂) does not granger cause GBD_t
 - i. GBD → GDP
 - ii. GDP → GBD
 - iii. GBD → M₂
 - iv. M₂ → GBD

The statistics used to test the hypothesis is the F statistics. If the parameter $\alpha_i \neq 0$ but $\delta_j = 0$, then there is unidirectional causality from GBD to GDP. On the other hand, if the parameter $\alpha_i = 0$ but $\delta_j \neq 0$, then there is unidirectional causality from GDP to GBD. Furthermore, if the parameter $\delta_j \neq 0$ but $\delta_k = 0$, then there is unidirectional causality from GBD to M₂. On the other hand, if the parameter $\alpha_i = 0$ but $\delta_k \neq 0$, then there is unidirectional causality from M₂ to GBD. A bi-directional causality exists when $\alpha_i \neq 0$ and $\delta_j \neq 0$. If the computed F ratio is greater than the critical value, we reject the null hypothesis and if the values of F calculated are less than the critical value we accept the null hypothesis.

5. PRESENTATION AND ANALYSIS OF RESULTS

Unit Root Test

To apply any econometric techniques, the variables must be subjected to unit root test. This is to avoid misleading results. In performing the stationary test we used a maximum lag of 2, and included intercept. We use the augmented Dickey Fuller (ADF) test to find the existence of unit root in each of the time series. The result shows that all the variables were not stationary in levels but rather at first difference. This means that the variables are integrated at order one i.e. I (1) as indicated in tables 1 and 2 below.

Table 1
Unit Root Test (Levels)

	Gross domestic product	Government budget deficits	Broad money supply
Constant ADF test statistic	0.778977	-3.482840	-1.843455
Lag	1	1	1

Note: 1% (5%) critical value for ADF test with constant for GDP, GBD, M2 are - 3.6171 (-2.9422), -3.6228 (-2.9446), and -3.6171 (-29422) respectively.

Table 2
Unit Root Test (1st Difference)

	Gross domestic product	Government budget deficits	Broad money supply
Constant ADF test statistic	-4.130815	-5.604530	-5.182634
Lag	1	1	1

Note: 1% (5%) critical value for ADF test with constant for GDP, GBD, M2 are - 3.6228 (-2.9446), -3.6171 (-2.422), and -3.6228(-29446) respectively.

Granger Causality Test

Table 3
Pairwise Granger Causality Tests at Lag 4 (1970 – 2009)

Null hypothesis	Obs	F-Statistic	Probability
GBD does not Granger Cause GDP	36	0.77202	0.55294
GDP does not Granger Cause GBD		0.23887	0.91386
M2 does not Granger Cause GDP	36	1.67022	0.18592
GDP does not Granger Cause M2		0.81856	0.52465
M2 does not Granger Cause GBD	36	0.73149	0.57841
GBD does not Granger Cause M2		0.79941	0.53616

The model was estimated using lag four (4) for the variables. The granger causality results in the table suggest that the null hypotheses that government fiscal deficits (GBD) do not granger cause economic growth (GDP) is rejected, which indicates that causality runs from government fiscal deficits (GBD) to economic growth (GDP) because of the high F-Statistic and low probability value. Furthermore, null hypothesis that government fiscal deficits do not granger money supply (M2) is rejected which indicates that causality runs from government fiscal deficits to money supply. This is due to high F-Statistic and low probability value.

CONCLUSION AND RECOMMENDATIONS

This study investigates the causal relationship between fiscal deficits, economic growth and money supply in Nigeria. From the Granger causality test, there is causal relationship between fiscal deficits and economic growth in Nigeria. This means that causality runs from government fiscal deficits to economic growth. The result also shows that fiscal deficits granger causes money supply in Nigeria.

Deficit financing is a necessary and positive instrument to enhance economic growth in a country like Nigeria facing shortage of capital. However, it is necessary to emphasize that fiscal deficits should be undertaken with an efficient and well-executed plan for economic

development. To this end, government spending should be more on productive sectors of the economy. Together with deficit financing, government should adopt policies of physical controls such as price control and rationing. Furthermore, fiscal policy and monetary policy should be integrated in such a way that neither the public nor the private sectors is handicapped due to shortage of finance and at the same time, inflation is controlled in the economy.

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