Impact of Deficit Financing on Economic Stability in Nigeria: Analysis of Economic Growth

Eze, Onyekachi Ricahrd¹ and Festus O. Ogiji²

Abstract

Nigeria has been financing budget deficit overtime but their implications on economic stability have not been fully ascertained. This study sought to investigate the implications of deficit financing on economic stability in Nigeria between 1970-2013. The study adopted regression analysis. The study revealed that External Source of Deficit Financing (EXP), Non-banking Public Source of Deficit Financing (NBPF) and Exchange Rate has significant and positive implications on Economic Stability proxy for Gross Domestic Product (GDP), while Ways and Means Source of Deficit Financing (WM), Banking System Source of Deficit Financing (BSF) and Interest Rate (INTR) has negative implications on economic stability in Nigeria. The implication is that government deficit financing through External Source of Deficit Financing (EXP) and Non-banking Public Source of Deficit Financing (NBPF) will maintain economic stability while government deficit financing through Banking System Source of Deficit Financing (BSF) and Ways and Means Source of Deficit Financing (WM) will reduce economic growth thereby causing instability in the economy. We, therefore, recommend that deficit financing in Nigeria should be focused on the productive sectors of the economy. This is because deficit financing has merely resulted in economic instability indicating that sound policies are needed to achieve economic stability in Nigeria.

JEL classification numbers: G01, G16, G17, E65, E580
Keywords: Deficit Financing, Economic Stability, Economic Growth, Ways and Means, Banking System.

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1 Introduction

Economic stability is a term that has been in focus for the past several years mainly because of the economic downturn experienced globally in the recent past. Economic stability measures the worth or strength and competitiveness of a country with other countries and it plays a very important role in making policies. Countries formulate economic policy with the aim of stabilizing the economy, among others. The achievement of economic stability is the duty of government in any economic system, irrespective of its political arrangement. Private sector operators are concerned about economic stability because it impacts on their performance. Mordi (2006) states that maintaining relative stability is crucial for both internal and external balance and hence, growth in an economy. Economic stability refers to an economy that experiences constant growth and low inflation.

Gbosi (2002) cited in Ojong and Hycent (2013) defines economic stability as the achievement of price stability, maintaining full employment and achieving sustained economic growth. This means that economic stability is desirable because it encourages economic growth rate that brings prosperity and employment. Shane (2014) opines that economic stability in the economy of a region or country shows no wide fluctuations in key measures of economic performance, such as gross domestic product. This means that stable economies demonstrate modest growth in gross domestic product (GDP) and jobs while holding inflation to a minimum. Government economic policies strive for stable economic growth rate and prices, while economists rely on multiple measures (national income, consumption, inflation, investment, international trade and international finance) for gauging the amount of stability. Maintaining economic stability is partly a matter of avoiding economic and financial crises, low savings in economic activities, stable inflation and excessive volatility in exchange rates. In other words, economic instability can increase uncertainty, discourage investment, impede economic growth and reduce living standards (Geoff, 2009).

Meanwhile, the value of deficits as a percentage of Gross Domestic Product (GDP) declined to -0.1 percent in 1999. The share of deficits in total GDP has been declining from -2.0 percent in 2003 to -1.1 percent in 2005 and -0.6 percent in 2006. Nigeria recorded budget deficit equal to 1.80 percent of the country’s GDP in 2013 (Nigerian Budget Office, 2014). The Nigerian government budget averaged 2.10 percent of the GDP from 2006 up till 2013, reaching an all-high 4.60 percent of GDP in 2008 and also recorded low of -6.6 percent of GDP in 2009 (Nigerian Budget Office, 2014). This is necessary because economic stability is refers to the absence of excessive fluctuations in the macroeconomy and an economy is considered economically stable when there is constant growth in the economy.

2 Review of Related Literature

2.1 Concept and Nature of Deficit Financing

The issue of deficit financing has been in focus among scholars because whenever there is budget deficit in any country, what comes to the mind of experts in finance is the remedy for financing such budget deficit so as to obliterates the negative effects on the economy. Financing represents government’s sources of remedying deficit or utilizing surplus.
Deficit financing arises each time the government has budget deficit. However, for the economy to grow as planned in a budget, shortfall of revenue resulting from excess expenditure has to be financed by raising fund from other sources available to the government. Deficit financing can be seen as the practice of seeking to stimulate a nation's economy by increasing government expenditures beyond revenue sources (CBN, 2012). This means that deficit financing can be defined to mean financing undertaken by a corporation or government to make up for a shortfall in revenue. Government or corporation may undertake deficit financing in order to provide an economic stimulus. When government expenditure tends to exceed public income, the government may resort to deficit financing to meet the deficit in the budget. Keynes theory recognizes the idea of deficit financing as a compensatory spending meant to solve the problem of unemployment and depression. Modern economists prescribe deficit financing for developmental purposes. Nwaotka (2004) defines deficit financing as a planned excess expenditure over income, dictated by government policy or creating fund to finance deficit by borrowing whether from internal or external sources, which must be repaid with interest within a specific period of time. Deficit financing is defined in finance as government spending in excess of revenues which is financed by borrowing. Keynesian economist’s theory states that deficit is financed in order to increase economic activity and reduce unemployment in a nation. Stiglitz (2005) sees deficit financing as a situation in which the federal government's excess fund of outlays over receipt of revenue for a given period is financed by borrowed funds from the public. Deficit financing can also be seen as the sale of debt securities in order to finance expenditures that are in excess of income. This method of financing can also be seen as non-banking public source of financing. Generally, deficit financing is applied to government finance because income, represented by tax revenues and fees, is often unavailable to pay expenses. As with monetizing the debt, deficit financing puts upward pressure on interest rates because government debt securities compete with private securities for limited capital (Smriti, 2010).

2.2 Sources of Financing Fiscal Deficit

Government all over the world always look out for different options to financing its fiscal deficit. The main two sources are:

1. **Borrowings:** Fiscal deficit can be met by borrowings from the internal sources (public, commercial banks, etc.) or the external sources (foreign governments, international organisations, etc.).

2. **Ways and Means:** This implies printing of new currency by the apex bank. Government may borrow from Central Bank of Nigeria (CBN) against its securities to meet the fiscal deficit. Central Bank of Nigeria (CBN) issues new currency for the purpose of financing its fiscal deficit. This involves deficit financing. Borrowings are considered as a better source as they do not increase the money supply which is regarded as the main cause of inflation. On the other hand, the use of Ways and Means may lead to inflationary trends in the economy due to more money supply.

2.3 Concept and Nature of Economic Stability

Economic stability refers to an absence of excessive fluctuations in the macroeconomy. An economy with fairly constant output growth and low and stable inflation would be
considered economically stable. Economic stability is a term that has been in focus for the past several years mainly because of the economic downturn experienced globally in the recent past. Many share markets plunged and business plummeted, giving rise to one of the worst economic crises experienced by the present generation. Many lost their jobs and some saw their savings evaporate at a rapid pace. Thus, this brings out the important question, how important the economic stability is, as having an unstable economy can pave way to an economic crisis each time the global markets see a downward trend (Pandula, 2012).

2.4 Economic Stability Variables or Measures

In any economic system like ours, there is always the need for undertaking very useful measures aimed at determining the stability of the economy. Due to the nature of this research work, economic stability is proxy as gross domestic product (GDP), inflation rate and unemployment rate in Nigeria. This is because economic stability refers to an economy that experiences constant output growth, low or stable inflation rate and maintaining full employment by maintaining low unemployment. However, no one variable can measure the stability of the economy. The variables or measures are explained below:

2.5 Gross Domestic Product (RGDP)

In this work, gross domestic product (RGDP) will be proxied as one of the exogenous variables to measure economic stability. This is because economic stability measures the sustainability of economic growth of a country. It refers as to the market or money value of all goods and services produced in a country at a particular period of time. Gross Domestic Product (GDP) measures the economic size of a country. It also measures how fast the nation economy is growing. It is an important indicator or measure of economic stability. Abu and Achebugulu (2012) notes that gross domestic product (GDP) variation in Nigeria is used to measure the level of economic stability in the country. Hassan and Okorafor (2013) opines that gross domestic product is one of the measures of economic stability in Nigeria because economic stability refers to an economy that witness constant growth in the economy. Therefore, to calculate the GDP, one only needs to add together the various components of the economy that are a measure of all the goods and services produced.

![GDP Chart](GDP.png)

Figure 1: Nigeria Gross Domestic Product (GDP) from 1970 to 2013

Source: Author’s Computation 2015
Looking at the figure 1 above, it shows the trend of economic growth in Nigeria for 44 years starting from 1970 to 2013. In the overall period, the economic growth trend maintained upward growth and a little fluctuation during the period under review. It shows how inefficient budget deficit financing affect economic stability and it was used based on the existing literature and theories.

2.6 Theoretical Framework

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

2.6.1 Keynesian Economic Theory

Keynesian Economic Theory was developed by British Economist John Maynard Keynes (1936) and was used by Ali (2014); Bakare, Adesanya and Bolarinwa, (2014); Muhhammad, Sofia, Syed and Abbas, (2014); Okelo, Momanyi, Lucas and Alia, (2013); Okoro, (2013); Ojong and Hycenth (2013) in their studies. Keynesian theory states that public expenditures can contribute positively to economic growth by increasing government consumption through increase in employment, profitability and investment. The theory also states that government can reverse economic downturns by borrowing money from the private sector and returning the money to private sector through various spending. This theory believes that active government intervention in the market place through deficit financing was the only method for ensuring growth and stability by ensuring efficiency in resources allocation, regulation of markets, stabilization of the economy and harmonization of social conflicts. Keynes states that in the short run, economic growth through economic stability is strongly influenced by total spending in the economy. This theory regards the economy as being inherently unstable and required active government intervention through spending to achieve economic stability. Parkim (1990) opines that Keynesian assign a low degree of importance to monetary policy and high degree of importance to fiscal policy. Bowden (1982) in Ojong and Hycenth (2013) states that Keynesian economics believes that our ability to understand what determines the level of spending will help us to know what determine the level of employment, production of output and income in the economy. Keho (2010) states that budget deficit has a positive effect on macroeconomic activity and thereby stimulating savings and capital formation. Deficit financing whether through domestic resources or foreign borrowings involves the absorption of real resources by the public sector that otherwise would be available to the private sector (Okelo, Momanyi, Lucas and Alia, 2013). Keynesian theory stimulates the economy, reduces unemployment and makes households feel wealthier using government spending (Usher, 1998). In another view, Okpanachi and Abimiku (2007) opine that budget deficit stimulates economic activities in the short run by making households feel wealthier and hence, raising total private and public consumption expenditure. This means that Keynesian theory causes money demand to rise and interest rate will also increase which will make investment to decline. Keynesian economists often argue that private sector decisions sometimes lead to inefficient
macroeconomic outcomes which require active policy responses by the public sector, in particular, monetary policy actions by the Central Bank of Nigeria and fiscal policy actions by the federal Ministry of Finance, in order to stabilize output over the economy.

2.7 Empirical Review

Iyoha (2000) investigated the impact of external debt on economic growth in sub-Saharan African countries using simulation approach. It was observed that external debt variables has significant impact on economic growth in sub-Saharan African countries and that debt stock reduction would have significantly increased investment and growth performance. The study concludes that mounting external debt depresses investment through both a disincentive effect and a crowding out effect.

Adam and Bevan (2001) investigated the relationship between fiscal deficit and growth for 45 developing countries using co-integration model and threshold. It was found that there is significant relationship between fiscal deficit and growth in developing countries and that there is evidence of interaction effect between debt stocks exacerbating the adverse consequence of high deficit.

Brauninger (2002) examined the interaction of budget deficit, public debt and endogenous growth in Spain using co-integration analysis. It was revealed that if the ratio of deficit fixed by government is below a critical level, then there are two steady states where capital and public debt grow at the same constant rate and an increase in the deficit ratio will reduce the growth rates of gross domestic product (GDP). This means that if the deficit ratio exceeds the critical level, then there is no steady state of economy.

Pattillo, Helene and Luca (2002) used growth accounting model to investigate the effect of external debt on economic growth in a group of 61 developing countries. The study observed that doubling the average level of 61 developing countries external debt reduced the growth of the country's economy. The results obtained confirm the debt overhang because they found that beyond the debt-to-export ratio of 160-170 percent and debt-to-GDP ratio of 35-40 percent in nominal value, the debt overhang led to negative economic growth.

Clements, Rina, Benedict and Toan (2003) used modified growth model to investigate the impact of debt burden hypothesis on economic growth. The study found that a six point debt service reduction in percentage of GDP will increase the investment rate from 0.75 to one point and the growth to two points. They concluded that if half of the debt service were cancelled without a rise in the budget deficit, growth will increase by 0.5 percent per annum.

With the use of non-parametric methodology in an economy, Adeboye (2003) examined the long run relationship between budget deficit and economic growth incorporating savings and investment. He grouped 64 developing countries, Nigeria inclusive into A, B, and C based on their level of interest rate. The study indicates that crowding out effect of budget deficit on private investment in Nigeria's economy has significance impact on the economic growth output, the level of employment, the standard of living. The study recommends that the government should put adequate measures in place to reduces its recurrent expenditure and increase its capital expenditure in order to encourage and make conducive environment for private investment to grow which will help the level of income growth in short and long run.

Okoye and Akenbor (2010) examined the impact of deficit financing on socio-economic activities in Nigeria from 1997 to 2007 using pearson product moment correlation co-
Impact of Deficit Financing on Economic Stability in Nigeria

Efficient to test the significance of the relationship between deficit financing, economic and social community service. The study found that deficit financing has a positive and significant impact on economic activities in Nigeria.

Taiwo and Agbatogun (2011) used unit root test, co-integration test and error correction model to investigate the implications of government spending on economic growth in Nigeria spanning from 1980 to 2009. It was found that total capital expenditure, inflation rate, degree of openness and current government revenue are the most significant variables that help to improve or boost growth in Nigerian economy. It was recommended that future spending on capital and recurrent must be managed well with adequate manipulation of other macroeconomic variables so as to ensure steady growth in the economy.

Vincent, Ioraver and Wilson (2012) investigated the relationship between fiscal deficit and economic growth in Nigeria using modeling technique that incorporates co-integration and structural analysis at 5% (0.05) level of significance from 1970 to 2006. The study with the help of co-integration techniques indicates that fiscal deficit affects economic growth negatively, that there is one percent increase in fiscal deficit which is capable of diminishing economic growth by about 0.023 percent and there is a strong negative relationship between government consumption expenditure and economic growth.

Onyeiwu (2012) investigated the relationship between domestic debt and the growth of Nigeria economy. Parsimonious model, error correction model and ordinary least square (OLS) were used for analysis. He employed gross domestic product as dependent variable while foreign exchange rate, credit to private sector, budget deficit, money supply domestic debt. It was found that the domestic debt holding of government is far above a healthy threshold of 35 percent of bank deposits the average over the period. This means that the level of bank deposit is presenting evidence of crowding out private investments. The study also indicates that the level of domestic debt in Nigeria has negative effect on economic growth. The study recommends that Nigeria government should maintain a debt - bank deposit ratio below 35 percent and resort to increase in the use of tax revenue to finance its project and should not involve in any project that private sector can handle while providing enabling environment for private sector investment to operate.

Osuji and Ozurumba (2013) investigated the impact of external debt financing on economic development in Nigeria using stationarity test, co-integration test and vector error correction model. The study shows that London debt financing possessed positive impact on economic growth while Paris Club debt and Promissory Note were inversely related to economic development in Nigeria. The study recommended that debt services should be cancelled to encourage survival of SMEs in Nigeria.

Ojong and Hycenth (2013) examined the effect of budget deficit financing on the development of the Nigerian economy using ordinary least square (OLS) regression techniques. It was found that there is a significant relationship between economic growth and government expenditure and there is no significant relationship between government revenue and economic growth in Nigeria. The study recommends that the government should maintain a high level of transparency in governance so as to bring to the barest minimum the level of deficit financing. Okoro (2013) used granger causality and vector auto regression (VAR) techniques to test the hypothesis that deficit financing affects trade balance in Nigeria between 1980 to 2008. It was found that through short run dynamics result; there is positive relationship between deficit financing and trade balance (surplus). While the long run result posits that an increase in deficit financing diminishes trade
deficit in Nigeria. This means that deficit financing is an available instrument for
government to improve trade in the short run and in the long run, deficit financing could
be used to reduce trade deficit in Nigeria if properly managed by government.
Akinmulegun (2014) in a study of deficit financing and its effect on economic growth in
Nigeria employing the econometric technique of Vector Auto Regression (VAR) Model.
The relevance variables used are as follows: real gross domestic product (RGDP), the
gross capital formation (GCF), the real interest rate (RINTR), inflation rate (INFR) and
budget deficit. It was discovered that deficit financing has not contributed significantly to
economic growth in Nigeria. This is because of the negative impact of deficit financing on
economic growth during the period under review. The study recommends that
政府 should reduce unnecessary public spending, ensure greater budget discipline
and adopt a financial structural transformation that can help to reduce wastage in public
spending.

3 Methodology

This study made use of the Ex-post facto research design. Onwumere (2009) states that
ex-post facto design is the type of research involving events that have already taken place.
The data already exist as no attempt would be made to control or manipulate relevant
independent variable. It aims at determining and measuring the relationship between one
variable and another or the implications of one variable on another. We applied sets of
regression estimation techniques to resolve the four hypotheses stated while time series
analysis were be utilized to examine the magnitude and significance of the relationship
among the research variables. This study covered sources of deficit financing for the
period under review (1970-2013) and its implications on economic stability in Nigeria.
Annual secondary data of the variables were used and they include deficit financing
variables (external source of deficit financing, ways and means sources of deficit
financing, banking system source of deficit financing, non-banking public source of
deficit financing, exchange rate and interest rate) and economic stability variables (gross
domestic product (RGDP)).

Based on the above, the models for our study are therefore estimated as follows:

\[ Y_t = \beta_0 + \beta_1X_{t1} + \mu_t \] (1)

However, the linear function of the above notation is hereby modified and estimated as
follows;

\[ Y_t = \beta_0 + \beta_1X_{t1} + \ldots + \beta_nX_{tn} + \mu_t \] (2)

Transforming the above structural econometric models to regression models, we have:

\[ RGDP_t = \beta_0 + \beta_1EXF_t + \beta_2WM_t + \beta_3BSF_t + \beta_4NBPF_t + \beta_5INTR_t + \beta_6EXR_t + \mu_t \] (3)

Where;

\( Y_t \) = Dependent Variables (Gross Domestic Product (RGDP)); \( X_{t1} \) = External Source of
Deficit Financing (EXF) (explanatory variable); \( X_{t2} \) = Ways and Means Source of Deficit
Financing (WM) (explanatory variable); \( X_{t3} \) = Banking System Source of Deficit
Impact of Deficit Financing on Economic Stability in Nigeria

Financing (BSF) (explanatory variable); \(X_{t4} = \) Non-Banking Public deficit Financing (NBPF) (explanatory variable); \(X_{t5} = \) Interest Rate (INT) (control variable) and \(X_{t6} = \) Exchange Rate (EXR) (control variable). \(t = \) Time series (Annual) values. \(\mu_t = \) Error or disturbance term.

4 Results

4.1 Unit Root Test

Aliyu (2001) states that it has been in practice among researchers that macroeconomic data are characterized by a stochastic trend and if untreated, the statistical behaviour of the estimators is influenced by such trend. This means that it has become conventional rule to examine stationarity of the chosen variables in econometric studies like ours to obtain a reliable result. Ajab and Audu (2006) opine that the outcome of working with non-stationary variables leads to spurious regression results from which further reference or result may be meaningless. This test tries to examine the property of the variables. It is used to check for the presence of a unit root. This test is carried out using the Augmented Dickey-Fuller (ADF). This is the first test carried out in the co-integration analysis and is known as the pre co-integration test. The results of the unit-root tests are presented below:

<table>
<thead>
<tr>
<th>Series</th>
<th>ADF Test Statistic</th>
<th>1% Critical Value</th>
<th>5% Critical Value</th>
<th>10% Critical Value</th>
<th>Order of Integration</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>-7.829767</td>
<td>-3.605593</td>
<td>-2.938987</td>
<td>-2.606857</td>
<td>1(1) Stationary @ 1%, 5% &amp; 10%</td>
<td></td>
</tr>
<tr>
<td>EXF</td>
<td>-7.713802</td>
<td>-3.600987</td>
<td>-2.935001</td>
<td>-2.605836</td>
<td>1(1) Stationary @ 1%, 5% &amp; 10%</td>
<td></td>
</tr>
<tr>
<td>WM</td>
<td>-9.3202253</td>
<td>-3.600987</td>
<td>-2.935001</td>
<td>-2.605836</td>
<td>1(1) Stationary @ 1%, 5% &amp; 10%</td>
<td></td>
</tr>
<tr>
<td>BSF</td>
<td>-9.556234</td>
<td>-3.600987</td>
<td>-2.935001</td>
<td>-2.605836</td>
<td>1(1) Stationary @ 1%, 5% &amp; 10%</td>
<td></td>
</tr>
<tr>
<td>NBPF</td>
<td>-8.917943</td>
<td>-3.610453</td>
<td>-2.938987</td>
<td>-2.607932</td>
<td>1(1) Stationary @ 1%, 5% &amp; 10%</td>
<td></td>
</tr>
<tr>
<td>INTR</td>
<td>-8.378742</td>
<td>-3.596616</td>
<td>-2.933158</td>
<td>-2.604867</td>
<td>1(1) Stationary @ 1%, 5% &amp; 10%</td>
<td></td>
</tr>
<tr>
<td>EXR</td>
<td>-6.024103</td>
<td>-3.596616</td>
<td>-2.933158</td>
<td>-2.604867</td>
<td>1(1) Stationary @ 1%, 5% &amp; 10%</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s Calculation 2015 (Extracted from E-View 7.0 output)

The a priori expectation when using the Augmented Dickey-Fuller (ADF) test is that a variable is stationary when the value of the Augmented Dickey-Fuller (ADF) test statistic is greater than the critical value at 1%, 5%, and 10%. All of the variables used met this a priori expectation at first difference. The above empirical ADF test in tables 1 shows that the variables (GDP, EXF, WM, BSF, NBPF, INRATE and EXR) are integrated of order one (1) both with intercept and trend and intercept. They are integrated of the same order; 1(1).
4.2 Co-integration Test

Having confirmed that the variables (GDP, EXF, WM, BSF, NBPF, INRATE and EXR) were stationary at their first difference 1(1) which denoted that the variables are of the same order of integration, the next thing is to determine the number of long run equilibrium relationships of co-integrating vectors among the variables. The variables can therefore be said to have reliable long-run relationship among them with dependent variable coefficient of co-integration of 0.944974 (Eigen value) and 354.5571 (Trace Statistic) in Table 2. The result for Johansen co-integration test for the series; GDP, EXF, WM, BSF, NBPF, INRATE and EXR are presented in Table 2 below.

Table 2: Johansen Co-integration Result for the series: GDP, EXF, WM, BSF, NBPF, INTR and EXR (GDP = F (EXF, WM, BSF, NBPF, INTR and EXR)) using Trace Statistic

<table>
<thead>
<tr>
<th>Eigenvalue</th>
<th>Trace Statistic</th>
<th>0.05</th>
<th>Prob.***</th>
<th>Hypothesized</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.944974</td>
<td>354.5571</td>
<td>125.6154</td>
<td>0.0000</td>
<td>None*</td>
</tr>
<tr>
<td>0.903056</td>
<td>232.7595</td>
<td>95.75366</td>
<td>0.0000</td>
<td>At most 1 *</td>
</tr>
<tr>
<td>0.670109</td>
<td>134.7475</td>
<td>69.81889</td>
<td>0.0000</td>
<td>At most 2 *</td>
</tr>
<tr>
<td>0.537973</td>
<td>88.16981</td>
<td>47.85613</td>
<td>0.0000</td>
<td>At most 3 *</td>
</tr>
<tr>
<td>0.526756</td>
<td>55.74029</td>
<td>29.79707</td>
<td>0.0002</td>
<td>At most 4 *</td>
</tr>
<tr>
<td>0.416548</td>
<td>24.31826</td>
<td>15.49471</td>
<td>0.0018</td>
<td>At most 5 *</td>
</tr>
<tr>
<td>0.039416</td>
<td>1.688982</td>
<td>3.841466</td>
<td>0.1937</td>
<td>At most 6</td>
</tr>
</tbody>
</table>

Source: Author’s Calculation 2015 (Extracted from E-View 7.0 output)

(* *) denotes rejection of the hypothesis at 5% significance level. L.R test indicates 6 co-integrating equation(s) at 5% level of significance. Normalized Co-integrating Coefficients: 1 co-integrating Equation(s).

4.3 ECM of Equation 3 (GDP = F(EXF, WM, BSF, NBPF, INTR and EXR))

As noted, the ECM is meant to tie the short-run dynamics of the co-integrating equations to their long-run static dispositions. Below is the ECM test result for equation 6:

Table 3: Error Correction Model (ECM) Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>997866.8</td>
<td>1153399.</td>
<td>0.865153</td>
<td>0.3925</td>
</tr>
<tr>
<td>D(EXF)</td>
<td>129.9004</td>
<td>60.66542</td>
<td>2.141259</td>
<td>0.0389</td>
</tr>
<tr>
<td>D(WM)</td>
<td>-20.77980</td>
<td>10.35611</td>
<td>-2.006525</td>
<td>0.0522</td>
</tr>
<tr>
<td>D(BSF)</td>
<td>-6.275834</td>
<td>7.256290</td>
<td>-0.864882</td>
<td>0.3927</td>
</tr>
<tr>
<td>D(NBPF)</td>
<td>32.64542</td>
<td>4.085376</td>
<td>7.990798</td>
<td>0.0000</td>
</tr>
<tr>
<td>D(EXR)</td>
<td>101854.2</td>
<td>10817.15</td>
<td>9.415999</td>
<td>0.0000</td>
</tr>
<tr>
<td>D(INTR)</td>
<td>-141406.2</td>
<td>92673.85</td>
<td>-1.525848</td>
<td>0.1356</td>
</tr>
<tr>
<td>ECM (+1)</td>
<td>0.986759</td>
<td>0.524071</td>
<td>5.872836</td>
<td>0.0000</td>
</tr>
</tbody>
</table>
The figures from the ECM are quite revealing. That is to say that the coefficient estimates of the constant and explanatory variables have alternated their signs as against the long-run relationship found in the normalized co-integrating equation 1 (appendix). This shows exactly what is needed to be done in order to absolve the short-run dynamics of relationships. Again, the significance of ECM holds that a positive and statistically significant error correction model coefficient is a necessary condition for the variables to be co-integrated. In this case, the error correction coefficient is 0.986759. The positive sign of the coefficient satisfies one condition while the fact that 0.986759 is different from zero satisfies the second condition of statistical significance. The coefficient reveals that the speed of adjustment between the short-run and long-run realities of the co-integrating equations is 98.68% every year. Also, the computed $R^2$ value of 0.942366 which is the coefficient of multiple determinations, indicates that our model satisfies the requirements for goodness of fit. The value shows that 94.24% of the total variations in the Gross Domestic Product (GDP) are adequately explained by changes in external financing (EXF), ways and means (WM), banking system financing (BSF), non-banking public financing (NBPF), interest rate (INTR) and exchange rate (EXR).

Furthermore, the joint influence of the explanatory variables on the dependent variable is statistically significant. This is also confirmed by the F-probability which is statistically zero. Equally, the Durbin Watson is 1.42 approximately. Using 5% level of significance, 6 explanatory variables and 44 observations, the tabulated Durbin Watson statistics for lower and upper limit are 1.261 and 1.722 respectively. Since the calculated Durbin Watson statistics is greater than the upper limit or the tabulated one, there is no evidence of the presence of the first order serial correlation or autocorrelation in the model. Finally, the results in table 3 above shows that External Source of Deficit Financing (EXF), Non-banking Public Source of Deficit Financing (NBPF) and Exchange Rate has significant and positive implications on Economic Stability proxy for Gross Domestic Product (GDP), while Ways and Means Source of Deficit Financing (WM), Banking System Source of Deficit Financing (BSF) and Interest Rate (INTR) has negative implications on economic stability in Nigeria. This means that government deficit financing through External Source of Deficit Financing (EXF) and Non-banking Public Source of Deficit Financing (NBPF) will maintain economic stability using gross domestic product as our dependent variable while government deficit financing through Banking System Source of Deficit Financing (BSF) and Ways and Means Source of Deficit Financing (WM) will reduce economic growth thereby causing instability in the economy. This is because government deficit financing through banking sector crowd out private borrowing or investment and private investment contribute up to 80 percent in economic growth and stability of any nation. Also, CBN lends money to the
federal government to finance its deficit which in turn injects liquidity into the economy. The result met the a priori expectation.

5 Conclusion and Recommendations

5.1 Conclusion

From the research findings, the study provide empirical evidence and conclude: that the level of external source of financing contributes positively and significantly to the economic stability in Nigeria; that deficit financing through ways and means will sustain the economic growth and increase the level of unemployment and reduce inflation rate; that deficit financing through banking system source of deficit financing in Nigeria is causing instability in the economy; and that non-banking public source of deficit financing has been relatively high over the years and has significant positive implications on economic stability in Nigeria.

Many authors from developed and developing countries see government budget deficit, unemployment rate, government expenditure, gross capital formation, inflation, interest rate and government tax revenue as the main determinant of deficit financing. But we found that low or stable inflation, low or reduction in unemployment and sustained economic growth are the main measures of economic stability in Nigeria. We also found that external source of deficit financing, ways and means source of deficit financing, banking system source of deficit financing and non-banking public source of deficit financing as the main sources of deficit financing in Nigeria.

In conclusion, deficit financing is positively related to economic stability indicating that sound policies are needed to achieve economic stability in Nigeria.

5.2 Recommendations

Based on our findings and conclusions from our study, the following recommendations were made and they include:

1. The positive impact of external financing (EXF) on economic stability implies that EXF in Nigeria is one of the factors affecting economic stability. Since an increasing level of EXF is an important source of deficit financing in Nigeria, external source of financing deficit should be contracted for economic stability reasons and not for political reasons and it should be properly channeled to productive sector of the economy that will enhance economic stability.

2. Since the result of deficit financing through ways and means source of deficit financing will sustain the economic growth and increase the level of unemployment and inflation rate by fueling inflation. This means that ways and means source of deficit financing can only achieve its full potential on economic stability if government can come up with laws and regulation and strengthen the existing ones so as to enhance economic stability in Nigeria through maintaining low inflation and unemployment rate.

3. The insignificant implications of banking system source of financing (BSF) on economic stability in Nigeria implies that deficit financing through banking system source will crowd out private investment thereby causing economic instability. There is need to strengthen policies that will reduce the level of financing budget deficit.
through banking sector (commercial banks and merchant banks) so as to maintain economic stability.

References


