DEFICIT FINANCING ASYMMETRY AND NIGERIA’S ECONOMIC GROWTH: A NONLINEAR AUTOREGRESSIVE DISTRIBUTED LAG APPROACH

Mohammed, I.D.\textsuperscript{1}  
Sule, Abubakar\textsuperscript{2}  
\textsuperscript{1}Monetary Policy Department, Central Bank of Nigeria (CBN), Abuja, Nigeria.  
Email: drchernandez@yahoo.com  
Tel: (+234) 08039030970  
\textsuperscript{2}Department of Economics, Kogi State University, Anyigba-Nigeria.  
Email: salma07@yahoo.com  
Tel: (+234) 08094682556  
(\(+\) Corresponding author)

ABSTRACT

This study examine deficit financing asymmetry and Nigeria’s economic growth using time series quarterly data covering the period of 2000 to 2019. The study is hinged on Keynesian, Monetary Neo-Liberal theoretical postulations to ascertain the asymmetry and significance relationship between deficits financing and Nigerian economy. The study applied Non-Linear Autoregressive Distributed Lag (NARDL) technique. The estimated NARDL model reveals that both positive and negative deficits financing innovation reduces economy growth; however, the impact of negative deficit financing innovation is greater than the positive innovation. In addition, the Nigerian economy is also driven by weak institutions and low level of savings culture, which is evidence in negative signs of both coefficients of savings and quality institution. This study therefore lend support for fiscal governance through review of laws that made the existing institutions and further strengthen in line with global best practice to guide and monitor the implementation of deficit financing in investment-oriented projects that can translates to better standard of living of the citizenry.

Contribution/Originality: This study examined deficit financing asymmetry and Nigeria’s economic growth using time series quarterly data covering the period of 2000 to 2019. This study uses NARDL model against other techniques in the reviewed empirical works and the findings reveals that both positive and negative deficits financing innovation reduces economy growth. In addition, the Nigerian economy is also driven by weak institutions and low level of savings culture, which is evidence in negative signs of both coefficients of savings and quality institution.

1. INTRODUCTION

At the global level, there pro and con voices raised against stimulating the public investments in order to overcome the effects of the economic downturn and this diverse opinion is not new, and has as pawns John Maynard Keynes, the artisan of public investments during the crisis for stimulating the consumption (Kaplanoglou & Rapanos, 2013). Keynes who is a demand-side analysis stressed the need for increase in government outlay even beyond current revenue (that is deficit financing), especially during depression as witnessed during the Great Depression of 1929 to 1932, and more recently, the 2008 Global Financial and Economic Crisis. Deficit financing to the Keynesians is an important tool to achieve a desired level of aggregate demand consistent with full employment and further implies an economic situation where present revenue is insufficient to match government present outlay. To Ubi and Inyang (2018) fiscal deficit simply refers to actions taken by government with a view to
controlling government expenditure and income in order to achieve some predetermined macro-economic objectives while CBN (2016) sees it as shortage of income that results when spending exceeds income over a particular period of time. Study such as Dritsaki (2013) did demonstrate the possibility of borrowed funds to have positive or negative effect though this depend the area of allocation. There is also burden impose on the fiscal situation of the country in borrowed funds, in terms of maintaining the borrowed funds by way of charges/interest rate on the principal amount. However, it could have a negative impact when it is employed for private and public consumption. To this end, increase in public expenditure through borrowing should not be central government priority rather the effects that are intended to be achieved must be taken into consideration, and this aspect is often overlooked (Mihaiu, 2011; Mihaiu. & Opreana, 2013).

Theoretically, it is expected that if the marginal product of capital should be higher than the world interest rate for developing countries, then these countries would benefit from external borrowing, this views is supported by Keynesian economists (Dritsaki, 2013). To Keynes, advocates for deficit financing to effect a transition from mass unemployment to near full employment. Contrarily, Monetary theory pioneered by Friedman (1963) opined that increasing deficit financing leads to increases in money supply in turn to increases in inflation (Sargent & Wallace, 1981) and this has serious implication on the economic growth. Some empirical results such as Biza, Kapingura, and Tsegaye (2015); Arjomand, Emami, and Salimi (2016) support the positive impact of deficit financing to growth while others such as Ahmad (2013); Velnampy and Achchuthan (2013) align with negative effect of fiscal deficit on economic growth. The need for deficit financing put forward in dual gap theory arises from the deficiency/low savings and foreign exchange earnings (Chenery & Strout, 1966) with adverse effect on investment. Thus, the developing countries like Nigeria often constraint with limited resources to invest in all sectors. This is evidence as Nigeria savings mobilization and tax revenue to GDP ratio stood at 15.69% and 5% of GDP which is far from the international benchmark of 30% and 15% of GDP in 2018. Therefore, deficit financing remains one option to fill the saving-investment gap to break the ‘vicious circle of poverty’.

Another basic impediments to economic progress in developing country like Nigeria is in the uncertainty and manipulation in the judicial system, corruption, bribery, ill-defined property rights and the existence of inefficient institutions cause those countries to be risky and unattractive (Birdsall, 2007; Bosu, Bates, & Hoeffler, 2006; Luiz, 2009; Sule, 2020). Kaplanoglu and Rapanos (2013) further allude that weak domestic institutional budget framework emerges as the main reason for weak fiscal performance. This is essential as IEG World Bank (2014) revealed that good public procurement practices are a major determinant of the effectiveness of public expenditure. In other to make economic progress, Nigeria established Independent Corrupt Practices Commission (ICPC) in 2000, Economic and Financial Crimes Commission (EFCC) in 2004, Fiscal Responsibility Commission (FRC) in 2007, National Public Procurement Act, 2007. Unfortunately, report reveals that revealed that there are about 4000 uncompleted or abandoned public projects all over Nigeria (Ewa, 2013) and the reason is not farfetched especially regarding weak institutions to drive fiscal policy(s) implementation.

Global benchmark say that public debt is sustainable if the budget deficit does not exceed 3% of GDP and indebtedness not exceeding 60% of GDP (World Bank, 2019). Nigerian economy rising fiscal deficit is worrisome from ₦285.10billion in 1999 to ₦1.56trillion in 2015 and whopping figure of ₦2.79trillion in 2019. World Bank’s allude that, increase in fiscal deficit is a peculiar phenomenon in emerging and developing economies, especially given the growing demand for infrastructural facilities and other essential goods and services. On the other hand, Nigerian economy has witnessed an upward trajectory in economic growth on average of 6.7% for the period of 2000 to 2015 and further witnessed contraction in 2016 by -1.6% on the account of fall in crude oil price. In 2017, it witnessed appreciation by 0.7% and this has remained on a positive trajectory at 1.91% and 2.27% in 2018 and 2019 respectively (National Bureau of Statistics, 2019). Based on European convergence criteria, Nigeria the ratio of government deficit relative to gross domestic product (GDP) at market prices, stood at 5.57% in 1999 but since then (2000 to 2016; 2018 & 2019), it hovers around less than 3% except 2017 where it stood at 3.17% (National...
In terms of total indebtedness to GDP, it stood at a higher threshold of 63.54% in 1999 and ever since then, it has been moving on a downward trend reaching the lowest figure in 2008 at 7.26% before it started rising again with the figure at 16.07% in 2019.

The above trends on deficit financing relative to GDP in Nigeria is an indication that the current borrowing status might not really be deleterious to the economy but the worrisome aspect is its impact on the economic fundamentals that translates to better standard of living. Within the period of the study (1999 to 2019), socio-economic indicators such, national poverty incidence average 58.36%, national unemployment rate average 18.15% while income inequality represented by gini-coefficient average 45.57% respectively. These indicators are not a good sign of an economy aspiring to be among the 20 largest economies in the nearest future especially given the continuous rise in budgetary expenditure, in addition to deficit financing rising year-in-year-out. Against this backdrop, this paper examine deficit financing on Nigerian economy. We empirically test the hypothesis that deficit financing have had an asymmetric and significant influence on Nigeria’s economic growth. In other to achieve the stated objective, this study applied a single case study on Nigeria and the choice of Nigeria is based mainly on its growing public deficits, weak institutions, infrastructural deficit and as well as data availability. Since the stationarity of variables are a combination of I(0) & I(1), the study adapted the Non-linear ARDL (NARDL) approach of Shin, Yu, and Greenwood-Nimmo (2014) to test whether economic growth respond to government’s deficit financing covering the period of 2000 to 2019 using quarterly data.

The remainder of this study is organized as follows. In section 2, the study presents the empirical literature. Section 3, presents the methodology employed, the results obtained from the estimation of the model and discussed. Section 4, concludes with policy remarks that follow suit.

2. LITERATURE REVIEW

The above discussion presents the interaction between deficit financing asymmetry and economic growth in Nigeria. Empirical review is essential to recognize the actual change and proportion of economic growth from the effects of deficit financing. There are quite a good number of studies on this subject matter. The following are some of the empirical studies based on their estimation technique and results.

From the empirical studies reviewed, there are mixed views regarding the interaction between deficit financing and economic growth. The inconclusive in the results might be attributable to differences in the analytical technique, variable usage/combination, domain and timeframe. This present study revisits the issue surrounding the presence of deficit financing asymmetry in Nigeria with specific focus on economic growth proxied by industrial production index effect of deficit financing.

3. DISCUSSION AND METHODOLOGY

3.1. Sources of Data

The quarterly data for the years 2000–2019 has been used for our investigation. Industrial Production Index (IPI) is the dependent variable, which measure the general economic activities usually on quarterly and yearly basis. Deficit financing is the major explanatory variable with the inclusion of the variables of tax revenue (REV), savings (SAV) and institutional quality proxied by contract intensive money (CIM) as control variables. CIM is broad money supply minus currency in circulation divide by broad money supply and positively related to income, growth and investment and is use as an indicator of institutional quality (Ubi. & Udah, 2014); (Clague, Keefer, Knack, & Olson, 1999). IPI, DEF, REV, SAV and CIM are all taken from Central Bank of Nigeria Statistical Bulletin respectively.
| Author                    | Country                  | Objective                                                                 | Method of Study                                                                 | Findings                                                                 |
|---------------------------|--------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Rasasbeh and Alzoub (2019)| Jordan                   | Investigate the impact of deficit financing on economic stability         | Vector Error Correction Model 2005–2017                                         | Findings reveal that external borrowing and domestic bank financing exert inverse effect on economic stability |
| Ifeanyi and Umeh (2019)   | Nigeria                  | examine the effect of deficit financing on Nigeria’s economic growth       | Johanson Cointegration Test - 1981–2016                                         | deficit financing via external debt has a significant negative effect while domestic debt has a positive effect on economic growth |
| Okah, Chukwu, and Ananwude (2019) | Nigeria               | examined the effect of deficit financing on economic growth               | Vector Autoregressive 1987 to 2017                                               | Study revealed that deficit financing has positive but insignificant effect on economic growth |
| Tung (2018)               | Vietnam                  | The effect of fiscal deficit on economic growth in an emerging economy: Evidence from | Error Correction Model (VECM) on the quarterly data of 2005–2016                 | Fiscal deficit had harmful effects on economic growth in both short and long run |
| Ali, Mandara, and Ibrahim (2018) | Nigeria              | examined the impact of Deficit Financing on Economic Growth               | ARDL Technique- 1981 to 2016                                                      | Deficit financing had significantly impacted on the output growth         |
| Ubi and Inyang (2018)     | Nigeria                  | appraised fiscal deficit and its implication on Nigeria’s economic development | Exploratory Data Analysis 1980 to 2016.                                           | Fiscal deficit has contributed positively to economic growth              |
| Hussain and Haque (2017)  | Bangladesh               | Examine fiscal deficit (FD) and its impact on economic growth (GDPGR)     | Vector Error Correction Model using data from Bangladesh Bureau of Statistics (BBS) and World Bank 1993–1994 to 2015–2016 | Based on data from BBS, result reveal positive and significant relationship between FD and GDPGR, while World Bank data reveal negative result between FD and GDPGR |
| Nwaeze (2017)             | Nigeria                  | examines empirically the relationship between fiscal deficits and macroeconomic stability | VAR estimation methods 1970 to 2016                                               | Fiscal deficits have significant negative impact on macroeconomic stability vis-a-vis inflation and exchange rates |
| Navaratnam and Mayandy (2016) | South Asian             | examine the impact of fiscal deficit on economic growth                   | Cointegration and Granger causality test to 1980–2014.                           | Fiscal deficit exert negative effect on the economies of South Asian countries except Nepal with positive effect |
| Slimani (2016)            | 40 Developing Countries focusing on Morocco | Investigate fiscal policy and economic growth                              | Panel Regression                                                                  | Findings show that fiscal deficit above the global threshold will likely impact negatively to the economy |
| Khandelwal (2015)         | India                    | Impact of Energy Consumption, GDP & Fiscal Deficit on Public Health Expenditure in India | An ARDL Bounds Testing Approach                                                   | reveal the presence of long run causal relationship between fiscal deficit and GDP |
| Nayab (2015)              | Pakistan                 | Examines the impact of budget deficit on economic growth                   | Cointegration technique, VAR Granger causality test and Vector Error Correction model 1976–2007 | Finding reveals positive effect and significant relationship between budget deficit on economic growth |
| Dritsaki (2013)           | Greece                   | Causal Nexus Between Economic Growth, Exports and Government Debt: The case of Greece. | Vector Error Correction Model (VECM) and Granger Causality | The longrun results show that there is a unidirectional Granger causality that runs from economic growth to government debt |
3.2. Model Specification

3.2.1. Nonstationarity and Stationarity Tests

The Augmented Dickey-Fuller (ADF) is applied in order to check the integrating properties of the investigated variables. The null hypothesis for ADF is $H_0: \rho = 0$ while the alternative is $H_1: \sigma^2 > 0$. Z-test is then used for this hypothesis testing in ADF.

3.2.2. NARDL Bounds Test Approach

Following ARDL model, the NARDL approach is as follows:

$$\ln IPI_t = \alpha_o + \delta_1 \ln DEF_t + \delta_2 \ln REV_t + \delta_3 \ln AGS_t + \delta_4 \ln CIM_t + \varepsilon_t$$

Where $\ln$ denotes the natural logarithms of the variables, and the variables as defined earlier. Based on the studies by Bae and De Jong (2007); Apergis (2015) and the recent study by Usman and Elsalih (2018) we specify the nonlinear ARDL by disintegrating the independent variables into their positive and negative sums as follows:

$$z^+_t = \sum_{j=1}^{r} \Delta z^+_j = \sum_{j=1}^{r} \max(\Delta z_j , 0) \text{ and } z^-_t = \sum_{j=1}^{r} \Delta z^-_j = \sum_{j=1}^{r} \min(\Delta z_j , 0)$$

Where $z_t$ represents $\ln Y_t$, $\Delta z^+_t$ and $\Delta z^-_t$ are perhaps the sum of the positive and negative shocks in government’s deficit financing. The presence of the short-run symmetry ($\beta^+ = \beta^-)$ and long-run symmetry ($\gamma^+ = \gamma^-$) for all the variables is ascertained by using bounds test and statistical significance. The lag order of the dependent and independent variables is represented by $p$ and $q$ respectively. To examine the long-run asymmetric cointegration among the variables, Shin et al. (2014) proposed two operational tests, which include the bounds testing procedure of Pesaran, Shin, and Smith (2001) through a modified F-statistic (F_{ESS}) with $H_0: \gamma = \gamma^+ = \gamma^- = 0$. The second test is the t-statistic ($t_{BED}$) proposed by Banerjee et al. (1998). The cointegration test is conducted using the level variables. If the computed statistic is greater than the upper bound critical value, the $H_0$ is rejected, which indicates the existence of a long-run relationship among variables.

The modeling of this study stems from theoretical postulations by Keynes who supported deficit financing to augment domestic resources towards stimulating demand in the economy and that of Classicals economists with contrary opinion. In addition, this study took cue from the empirical work of Tung (2018) who examine the effect of fiscal deficit on economic growth in an emerging economy: evidence from Vietnam using Error Correction Model. From the theoretical postulations and empirical studies of inclusive stand of the impact of fiscal deficit to economy prompt this study to adopt the framework of Nonlinear ARDL as advanced by Shin et al. (2014) to examine this negative-positive effect of fiscal deficit on economic growth in Nigeria and this model is provided in Equation 3:
\[ \Delta IPI_t = \alpha_0 + \gamma IPI_{t-1} + \gamma_1 \ln DEF_{t-1} + \gamma_2 \ln DEF_{t-1} + \sum_{i=1}^{q} \alpha_i \Delta \ln IPI_{t-i} + \sum_{i=0}^{q} \alpha_i \Delta \ln DEF_{t-i} + \sum_{i=0}^{q} \alpha_i \Delta \ln REV_{t-i} + \sum_{i=0}^{q} \alpha_i \Delta \ln SAV_{t-i} + \sum_{i=0}^{q} \alpha_i \Delta \ln CIM_{t-i} + \mu_i \]  

(3)

Where \( \alpha_i \) represents the short-run coefficients and \( \gamma_i \) represents the long-run coefficients respectively. The first part of Equation 3 estimates the long-run coefficients while the second part estimates the short-run coefficients. Specifically, the positive and negative long-run asymmetric coefficients are computed based on \( L_m^+ = -\gamma^+/\beta \) and \( L_m^- = -\gamma^-/\beta \), while the positive and negative short-run coefficients are given as \( \sum_{i=0}^{q} \alpha_i \Delta \ln Y_{t-i} \) and \( \sum_{i=0}^{q} \alpha_i \Delta \ln Y_{t-i} \).

4. RESULTS

Table 2: Descriptive Statistics.

| Variable | Mean     | Std. Dev. | N_Stad. Dev. | Skewness | Kurtosis | Jarque-Bera | Probability |
|----------|----------|-----------|--------------|----------|----------|-------------|-------------|
| IPI      | 108.33   | 11.37     | 0.10         | 0.09     | 1.63     | 6.39        | 0.04        |
| DEF      | 1106.27  | 1194.33   | 0.47         | 0.01     | 1.91     | 3.98        | 0.14        |
| REV      | 6627.19  | 3144.38   | 0.84         | 0.50     | 2.04     | 6.48        | 0.04        |
| SAV      | 6473.28  | 5462.02   | 0.84         | -0.64    | 1.94     | 9.18        | 0.01        |
| CIM      | 0.83     | 0.08      | 0.09         | -0.64    | 1.94     | 9.18        | 0.01        |

Table 2 above holds the numerical features of the nominal and average variables used in this study. The results show an average growth of 108.33 percent, \( \Delta \) 1106 billion, \( \Delta \) 6627 billion for the series of IPI, DEF and REV while the average growth of the SAV and CIM stood at \( \Delta \) 473 billion and 0.83 percent within the period of 2000 to 2019 respectively. For uniformity of the series given their different units of measure, the obtains new standard deviations value, which indicates low volatility for variables IPI, REV, SAV and CIM exception of DEF, which exhibit moderate fluctuation. As for the distribution of the skewness, the series is roughly equal given the closeness to zero for the variables of IPI, REV, SAV and CIM exception of the series of DEF, which is highly proportional. However, all the series display platykurtic distribution given their kurtosis values of less than three. The Jarque-Bera statistic implying that the series is normally distributed given the validity of the signs of some of the series.

Table 3: Summary of unit root test results.

| Augmented Dickey and Fuller (1979); Dickey and Fuller (1981) Test | Level (Trend) | Level (Trend & Intercept) | 1st Diff. (Trend) | 1st Diff. (Trend & Intercept) |
|-------------------------------------------------------------------|---------------|---------------------------|-------------------|-------------------------------|
| LIPI                                                              | -0.366157     | -4.738048**               | -10.68317***      | -10.59960***                  |
| LDEF                                                              | -1.744862     | -3.998328**               | -8.150759***      | -8.095453***                  |
| LREV                                                              | -1.499804     | -2.048458                 | -3.479730**       | -3.473845**                   |
| LSAV                                                              | -1.619558     | -0.979912                 | -4.223090***      | -4.479822***                  |
| CIM                                                               | -1.762424     | -1.297179                 | -3.032420**       | -4.921279***                  |

Notes: ***, ** and * denote 1%, 5% and 10% significance levels respectively.

Table 3 above is the result of the unit root test. The unit root test decision rule state that, the ADF statistic should be at least greater than any of the critical values at 1%, 5%, and 10% respectively. Fundamentally, the study carried out a data diagnostic test using a unit root test to ascertain the order of integration of the series. The Augmented Dickey-Fuller was employ and Table 3 holds that some of the results and variables became stationary
at both level and first difference \([\text{that is, I(0) and I(1)}]\). Hence, the study proceeds with the Non-linear ARDL bound approach to test for the presence of cointegrating associations among the non-stationary series. The lag selection criteria for ARDL test are based on 1, 2, 2, 2, 2 and 2, thus gave rise to the result of the bounds test non-linear ARDL presented in Table 4 below.

| Model | Critical value | Lower bound | Upper bound |
|-------|----------------|-------------|-------------|
| F(LIPI/LDEF(NEG), LDEF(POS), LREV, LSAV, CIM) | 1%           | 3.06        | 4.15        |
|       | 5%            | 2.39        | 3.36        |
|       | 10%           | 2.08        | 3.00        |
| F-Statistics |                | 26.87540    |             |
| Critical values from Narayan (2005) |                |             |             |

Table 4 above holds the bounds test. The result reveal that the f-statistic stood at 26.87 Non-Linear ARDL, is greater than the critical values at 1%, 5% and 10% respectively. This implies that there exists correlation among the variables under consideration. Given the presence of correlation amongst the variables, long-run relationship can be estimated.

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------|-------------|------------|-------------|-------|
| LDEF_P   | -0.072287   | 0.034010   | -2.122443   | 0.0377|
| LDEF_N   | -0.456686   | 0.133324   | -3.425371   | 0.0011|
| LREV     | 0.002398    | 0.053779   | 0.044583    | 0.9646|
| LSAV     | 0.086300    | 0.113238   | -0.766531   | 0.4464|
| CIM      | -1.440717   | 1.352365   | -1.063331   | 0.2910|
| C        | 12.16698    | 1.167905   | 10.41778    | 0.0000|
| ECM(-1)  | -0.076895   | 0.005345   | -14.38543   | 0.0000|

Table 5 above holds the estimated results of the long-term equations are mixed. The estimated NARDL model, both positive and negative deficit financing shocks reduces economy growth, which is in line with the findings of Kasasbeh and Alzoub (2019); Iféanyi and Umeh (2019); Tung (2018); Navaratnam and Mayandy (2016). But the impact of negative deficit financing innovation at 0.45unit is greater than the positive innovation at 0.07unit; indicating deficit is injurious to Nigerian economy and further aligns with monetary theory, who opposed to high deficit financing because of the likely insignificant effect. However, deficit financing matters because sometimes, it comes with technological spillover, technical and managerial capacity that can engender significantly in the economy. In addition, its impact depends on its usage on investment-oriented projects such as infrastructure, power, and the agriculture sector (Dritsaki, 2013).

From the result, a change in revenue would increase economy growth but statistically insignificant thus necessitating government borrowing from both domestic and external source to finance its annual budget. Savings lowers economic growth in estimated NARDL model but its effect is not significant, this is conform to the theoretical underpinning of Chenery and Strout (1966) of low savings in developing economies, thus need for foreign exchange inform of borrowing to augment domestic resources. Quality institution proxied by contract intensive money exerts negative effect and insignificant on Nigerian economy and confirm the existence of inefficient institutions in African countries (Birdsall, 2007; Luiz, 2009; Sule, 2020). This could be reasons for continuous advocacy by European Commission (International Monetary Fund, 2009; Kukk & Staehr, 2015; Raudla & Keel, 2018) for fiscal governance through quality institutions that can drive full implementation of resources.
5. CONCLUSION AND POLICY REMARK

5.1. Conclusion

This study on deficit financing asymmetry and Nigerian economy is motivated by theoretical divergence that deficit financing stimulate aggregate demand and causes inflation. This study is specific on Nigerian economy arising from steady rise in deficits financing occasioned by low inadequate revenue and low savings. In order to determine the path of this relationship, the study examined the validity of the effect of monetary financing to economy in Nigeria from 2000q1 to 2019q4, using Non-linear ARDL technique. The findings of the estimated long-run non-linear ARDL model, both positive and negative changes in monetary financing was found to have asymmetric (magnitude) and negative impact on Nigerian economy whilst the impact of negative deficit financing innovation is greater than the positive innovation. The relationship is statistically significant at 5% and 1%, for positive and negative shocks, respectively. The results of the non-linear ARDL established that deficit financing insulate economic growth in Nigeria, which supports (Cooper & Fisher, 1997) assertions that "deficit financing may stripe growth and development through inflation". In addition, the economy is also driven by weak institutions and low level of savings culture among Nigeria, which is evidence in negative signs of both coefficients.

5.2. Policy Remark

Falling from the above, it is evidence that Nigerian economy is still at the perennial stage that requires adequate resources to boost productivity, this is subject to the direction of resources. It is proven that what is required is fiscal authorities to monitor full implementation of resources both from domestic and external sources. This now reaffirms the continuous advocacy of fiscal governance framework.

Funding: This study received no specific financial support.
Competing Interests: The authors declare that they have no competing interests.
Acknowledgement: Both authors contributed equally to the conception and design of the study.

REFERENCES

Ahmad, N. (2013). The role of budget deficit in the economic growth of Pakistan. Global Journal of Management and Business Research Economics and Commerce, 13(5), 1-4.
Ali, M. B., Mandara, B., & Ibrahim, M. A. (2018). Impact of deficit financing on economic growth in Nigeria. Global Journal of Management And Business Research, 18(3), 29-36.
Apergis, N. (2015). Asymmetric real exchange rate pass-through and poverty in China: Evidence from a nonlinear model. Applied Economics Letters, 22(12), 951-954. Available at: https://doi.org/10.1080/13504851.2014.990615.
Arjomand, M., Emami, K., & Salimi, F. (2016). Growth and productivity; the role of budget deficit in the MENA selected countries. Procedia Economics and Finance, 36(16), 345-352. Available at: https://doi.org/10.1016/s2212-5671(16)30046-6.
Bae, Y., & De Jong, R. M. (2007). Money demand function estimation by nonlinear cointegration. Journal of Applied Econometrics, 22(4), 767-793. Available at: https://doi.org/10.1002/jae.915.
Birdsall, N. (2007). Do no harm: Aid, weak institutions and the missing middle in Africa. Development Policy Review, 25(5), 575-598. Available at: https://doi.org/10.1111/j.1467-7679.2007.00886.x.
Biza, R. A., Kapingura, F. M., & Tsegaye, A. (2015). Do budget deficits crowd out private investment? An analysis of the South African economy. International Journal of Economic Policy in Emerging Economies, 8(1), 52-76. Available at: https://doi.org/10.1504/ijeppee.2015.068248.
CBN. (2016). Understanding monetary policy and financial concepts. Abuja: Monetary Policy Department, Central Bank of Nigeria.
Chenery, H., & Strout, A. M. (1966). Foreign assistance and economic development. The American Economic Review, 56(4), 679-733.
Clague, C., Keefer, P., Knack, S., & Olson, M. (1999). Contract-intensive money: Contract enforcement, property rights, and economic performance. *Journal of Economic Growth, 4*(2), 185-211.

Cooper, J. P., & Fisher, S. (1997). Stabilization policy and lags. *Journal of Political Economy, 81*(4), 847-877.

Dickey, D. A., & Fuller, W. A. (1979). Distribution of the estimators for autoregressive time series with a unit root. *Journal of the American Statistical Association, 74*(366a), 427-441. Available at: https://doi.org/10.1080/01621459.1979.10482531.

Dickey, D. A., & Fuller, W. A. (1981). Likelihood ratio statistics for autoregressive time series with a unit root. *Econometrica, 49*(4), 1057-1072. Available at: https://doi.org/10.2307/1912517.

Dritsaki, C. (2013). Causal nexus between economic growth, exports and government debt: The case of Greece. *Procedia Economics and Finance, 5*, 251-259. Available at: https://doi.org/10.1016/s2212-5671(13)00031-2.

Ewa, U. E. (2015). Root causes of project abandonment in tertiary institutions in Nigeria. *International Business Research, 8*(11), 149-159. Available at: https://doi.org/10.5539/ibr.v8n11p149.

Fosu, A., Bates, R., & Hoeffer, A. (2006). Institutions, governance and economic development in Africa: An overview. *Journal of African Economies, 15*(suppl_1), 1-9. Available at: https://doi.org/10.1093/jaes/ekj004.

Friedman, M. (1963). *Inflation: Causes and consequences*. New York, USA: Asia Publishing House.

Hussain, M. E., & Haque, M. (2017). Fiscal deficit and its impact on economic growth: Evidence from Bangladesh. *Economies, 5*(37), 1-19. Available at: https://doi.org/10.3390/economies5040037.

IEG World Bank. (2014). *The World Bank and public procurement - an independent evaluation: Building procurement capacity and systems* (Vol. 1). Washington D.C.: The World Bank Group.

Iféanyi, O. N., & Umeh, G. N. (2019). Deficit financing and economic growth: The Nigerian experience. *International Journal of Economics and Financial Management, 4*(1), 28-49.

International Monetary Fund. (2009). Deflation, economic growth, BOP. *Celebrating the Spirit of Small Enterprise*, 1–2.

Kaplanoglu, G., & Rapanos, V. T. (2013). Fiscal deficits and the role of fiscal governance: The case of Greece. *Economic Analysis and Policy, 43*(1), 5-27. Available at: https://doi.org/10.1016/s0313-5950(13)00001-4.

Kasasbeh, A. H., & Alzoub, M. (2019). The impact of deficit financing on economic stability: The case of Jordan. *Economic Review, 76*(5), 706-722. Available at: https://doi.org/10.32910/ep.70.5.2.

Khandelwal, V. (2015). Impact of energy consumption, GDP & Fiscal deficit on public health expenditure in India: An ARDL bounds testing approach. *Energy Procedia, 75*, 2658-2664. Available at: https://doi.org/10.1016/j.egypro.2015.07.652.

Kukk, M., & Staehr, K. (2015). Enhanced fiscal governance in the European Union: The fiscal compact. *Baltic Journal of European Studies, 5*(1), 73-92. Available at: https://doi.org/10.1515/bjes-2015-0006.

Luiz, J. M. (2009). Institutions and economic performance: Implications for African development. *Journal of International Development: The Journal of the Development Studies Association, 21*(1), 58-75. Available at: https://doi.org/10.1002/jid.1472.

Mihaiu, D. (2011). Public expenditures for development their role in overcoming the economic crisis and alignment of Romania to European Union requirements. *Studies in Business and Economics, 6*(1), 51-64.

Mihaiu, D. M., & Opreana, A. (2013). The analysis of the relationship between the level of the public expenditure for investments and de degree of development of the society in Romania. *Procedia Economics and Finance, 6*, 654-661. Available at: https://doi.org/10.1016/s2212-5671(13)00185-8.

Narayan, P. K. (2005). The saving and investment nexus for China: Evidence from cointegration tests. *Applied Economics, 37*(17), 1979-1990. Available at: https://doi.org/10.1080/00036840500278103.

National Bureau of Statistics. (2019). *Statistical bulletin*. Nigeria, Abuja: National Bureau of Statistics.

Navaratnam, R., & Mayandy, K. (2016). Causal nexus between fiscal deficit and economic growth: Empirical evidence from South Asia. *International Journal for Innovation Education and Research, 8*, 1-19.

Nayab, H. (2015). The relationship between budget deficit and economic growth of Pakistan. *Journal of Economics and Sustainable Development, 6*(11), 85-90.
Nwaeze, N. C. (2017). Fiscal deficit, financing options and macroeconomic stability in Nigeria: A disaggregated approach. *Greener Journal of Economics and Accountancy, 6*(2), 043-064. Available at: https://doi.org/10.15580/gjea.2017.2.090517121.

Okah, J., Chukwu, K. O., & Ananwude, A. (2019). Deficit financing and economic growth in Nigeria: 1987-2017. *Asian Journal of Economics, Business and Accounting, 12*(1), 1-13.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics, 16*(3), 289-326.

Raudla, R., & Keel, K. (2018). The effects of crises and EU fiscal governance reforms on the budgetary institutions of member states. Paper presented at the ECPR SGEU conference in Paris, 13-15 June 2018.

Sargent, T. J., & Wallace, N. (1981). Some unpleasant monetarist arithmetic. *Federal Reserve Bank of Minneapolis Quarterly Review, 5*(3), 1-17.

Shin, Y., Yu, B., & Greenwood-Nimmo, M. (2014). Modelling asymmetric cointegration and dynamic multipliers in an ARDL framework. In: Horrace, W. C., Sickles, R. C. (Eds), Festschrift in Honor of Peter Schmidt. New York: Springer Science and Business Media.

Slimani, S. (2016). Threshold effects of fiscal policy on economic activity in developing countries. *International Journal of Business and Social Research, 5*(3), 20-37.

Sule, A. (2020). Institutional quality and economic growth: Evidence from Nigeria. *African Journal of Economic Review, 8*(1), 48-64.

Tung, L. T. (2018). The effect of fiscal deficit on economic growth in an emerging economy: Evidence from Vietnam. *Journal of International Studies, 11*(3), 191-203.

Ubi, P., & Inyang, J. (2018). Fiscal deficit and Nigeria’s economic development. *International Journal of Economics, Commerce and Management, 6*(5), 137-150.

Ubi, P. S., & Udah, E. B. (2014). Corruption, institutional quality and economic performance in an emerging economy: Lessons from Nigeria. *British Journal of Economics, Management and Trade, 4*(1), 1708-1722.

Usman, O., & Elsalih, O. M. (2018). Testing the effects of real exchange rate pass-through to unemployment in Brazil. *Economies, 6*(49), 1-13. Available at: https://doi.org/10.3390/economies6030049.

Velnampy, T., & Achchuthan, S. (2013). Fiscal deficit and economic growth: A study in Sri Lankan economic perspective. *Developing Country Studies, 3*(3), 166-174.

World Bank. (2019). Fiscal rules for the Western Balkans. Macroeconomics, trade and investment global practice. Policy Research Working Paper No. 8990.

*Views and opinions expressed in this article are the views and opinions of the author(s), The Economics and Finance Letters shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.*