
IMPACT OF BUDGET DEFICIT FINANCING ON ECONOMIC GROWTH IN NIGERIA (1981–2019)

Oniore Jonathan Ojarikre.

¹Department of Economics, Faculty of Social Sciences, Bingham University, Karu, Nigeria

^{*1}Mobile: 234- 080-6898-6291 e-mail: jonathanoniore@gmail.com

Adamu John

²Department of Accounting, Faculty of Administration Nasarawa State University, Keffi, Nigeria

Abstract

Despite the Nigerian government's various fiscal policy measures aimed at managing public expenditure, the expected results in terms of inclusive economic growth have remained elusive, as the majority of the citizens live in abject poverty, with an embarrassingly high rate of unemployment, macroeconomic instability, and general insecurity. The study therefore examined the impact of budget deficit finance on Nigerian economy growth. The Autoregressive Distributed Lag (ARDL) testing approach to co-integration was the main tool of analysis in this study. The co-integration test revealed the co-integration of the variables and that the Error Correction Model is signed negatively and highly significant statistically at one percent, as anticipated. The estimated Error correction model showed that budget deficit and exchange rate are the key drivers of economic growth in the short-run. Similarly, only budget deficit appears to spur economic growth in the long-run. Further findings revealed that budget deficit financing is an important source of economic growth to the country during the study period; as it positively affects economic growth in Nigeria. The study therefore recommended that the Federal Government should checkmate the level of deficits spending and boost the country's productive capacity, facilitate a favourable investment climate through appropriate monetary policy transmission channels like interest rate spread. Also, the Federal Government should encourage exchange-rate regimes that attract domestic and foreign investment, create jobs and promote exports from non-oil, as well as revitalize industries that operate far below their capacity.

Keywords: Economic Growth, RGDP, Fiscal Deficit Financing, Interest Rate Spread, Exchange Rate, Government Spending and ARDL Model.

JEL Codes: O40, N47, H62, H70 and C50

1. Introduction

The financial financing of the budget deficit is an extremely dynamic process, meaning that the budget deficit financing process in the past ten years might not be the same as it was 30 years ago, given the contradictory results of current studies on the usefulness of budget deficit funding as an instrument to foster growth and economic development. In this regard, there are three distinct theoretical perspectives. According to neoclassical theory, fiscal deficits have a negative impact on economic development, while Keynesian economists argue that deficit spending is necessary to use

underutilized resources. Ricardian equivalence, in contrast to these two hypotheses, claims that there is no connection between budget deficit financing and economic development. However, the Nigerian economy's expanding budget deficit is of great concern, having increased from 3,902.10 million in 1981 to 8,254.30 million in 1986, 15,134.70 million in 1989, and 133,389.30 million and 301,401.60 million in 1998 and 2002, respectively (CBN, 2012). As of 2003-2006, government budget deficits witnessed a moderate decline from ₦202,724.70 million in 2003, ₦172,601.30

million in 2004, ₦161,406.30 million in 2005 and ₦101,397.50 million in 2006 (CBN, 2012). Nigeria's budget deficits rise consistently from ₦1.56trillion in 2015 to ₦2.79trillion in 2019 and ₦2.8trillion in 2020 respectively. In 2021, however, the budget deficits climbed to a staggering 5.60 trillion dollars. On the other hand, Nigeria's GDP expanded by an average annual rate of 7 percent from 2000 to 2014. The gross domestic product (GDP) growth rate, on the other hand, fell to 2.7 percent in 2015. The decline in crude oil prices in 2014-2016 is linked to the severe decline in GDP growth rate. Nigeria's GDP shrank by 1.6 percent in 2016, plunging the country into its first recession in 25 years (World Bank, 2019). In 2018, growth averaged 1.9 percent, remained consistent at 2 percent in the first half of 2019, and is expected to be between 2.9 and 2.5 percent in 2020. (AfDB, 2020 & IMF, 2020). The International Monetary Fund (IMF) as a result of the new coronavirus (COVID-19) outbreak lowered its Nigerian GDP prediction for 2020 to 2% from 2.5 percent previously expected. The Nigerian economy is anticipated to increase by 1.5% in 2021 and 2.9% in 2022 on the basis of the expected rebound in crude oil prices and production.

Despite government efforts to devise policy measures targeted at reducing the budget deficit, the deficit has persisted in the nation's economy, having a negative impact on key macroeconomic factors and inclusive economic growth have remained elusive. However, empirical data on the economic growth effects of budget deficits are mixed. In certain research, the budget-fiscal deficit and economic growth are connected favorably, others show a negative link. For example, from 1970 to 2012, the short-term relationship between Indian budget deficiency and economic development was investigated by Mohanty (2012). In the long run, the analysis discovered a negative and significant link between budget deficits and economic growth. In the short term, the relationship between budgetary and economic deficits is

rejected. In a panel regression analysis, Adam & Bevan (2005) examined the relationship between fiscal deficit and growth for 45 countries for the period from 1970 to 1999. Budget variables from the government and other control variables were used in the analysis. They discovered an intriguing outcome. Deficits below or equivalent to 1.5% of GDP have proved to increase growth, whereas deficits above that threshold have been demonstrated to be detrimental to growth. Similarly, Nigerian interest in the consequences of the budget/fiscal deficit on economic growth reflects that of the rest of the world. As such, various studies examining the relationship have also been conducted on the effects of the funding of the budget deficit on economic growth in Nigeria remains inconclusive (see (see Soludo 1998, Audu, 2012, Ojong & Owui, 2013; Ezeabasili, Tsegba & Ezi-Herbert, 2012; Rana & Wahid, 2016; Mohammed & Sule, 2020; Kryeziu & Hoxha, 2021; and Yusuf & Abolaji, 2021). This is consequently a key research subject and is why this study being carried out. Furthermore, various studies have questioned what genuinely influences deficit spending, primarily from industrialized economies to their counterparts in emerging and developing economies, as evidenced by the reviewed literature. The studies, on the other hand, were primarily concerned with economic, political, and institutional, as well as demographic variables. As a result, this study adds to the literature by altering the variables used, as well as the frequency of data, the time period covered, and the technique utilized, among other aspects, in order to empirically analyze the impact on Nigerian economic growth of budget deficit finance. This helps to validate previous findings or the identification of new study topics.

2. Literature Review

2.1. Conceptual Review

2.1.1. Concept of Budget Deficit Financing

Budget deficit financing can be defined as the practice of raising government expenditures beyond revenue sources in order to stimulate a country's economy (CBN, 2012). This means that deficit financing can be described as money provided by a company or government to cover a revenue shortfall. In order to provide an economic stimulus, the government or a corporation may engage in deficit financing. The financing of deficit can also be defined as the sale of debt securities to cover expenses above income. This type of funding is also known as a nonbanking public source of capital.

2.1.2. Economic Growth

Whether or not they have studied economics, almost everyone is familiar with the term "economic growth." Most people who use the term have a vague idea of what it means, but it has a more nuanced and concise meaning for economists. Economic growth, according to economists, is the steady increase in National Income (NI), or total output of all country-generated products and services. The ability of an economy to produce goods and services from one period to the next is increased.

2.3. Theoretical Literature

Some popular theory of budget deficit financing government expenditure includes: Classical Economists' Hypothesis, Keynesians School of Thought or Theory and the Richardian Equivalence Theory. However, this study was predicated on the Keynesians propositions that government engagement in economic activity can help stimulate long-term growth by assuring resource allocation efficiency, market regulation, economic stabilization, and social dispute resolution (Keynes, 1936).

2.3.1. Classical Economists' Hypothesis

The classical economists are an English school of economic theory that began with Adam Smith in the late 18th century and

culminated in the writings of David Ricardo (1772-1823) and John Stuart Mill in the early 19th century (1806-1873). According to traditional economists, inherently bureaucratic and inefficient, government operations prevent rather than encourage growth government operations. As a result, the empirical question of supporting or hampering growth by government fiscal policies seems unanswered. According to economic theory, taxation regime's structure can be harmful or helpful to growth as a way of increasing a government's revenue base. Investment incentives can retard economic growth as a result of a regime that distorts private agents', while it can improve resource allocated efficiency and encourage growth through a system that encourages private operators to internalize externalities. Excessive consumption spending at the expense of investment, in a similar vein to the nature of government expenditure, is likely to stifle growth. While government spending may crowd out private sector output (the crowding out effect), it also has the potential to boost productivity in the private sector (the externality or public good effect). The net effect of the overwhelming government spending on aggregate output is clearly dependent with regard to the respective marginal public and private sector productivities. The greater the inefficiency and the lower the level of output, the higher the level of government spending. A huge budget deficit has a significant impact on national savings and may drive private investment away (IMF, 2015).

Because in future every worker has less money to work with, low investment hurts future productivity. Higher interest rates contribute to the crowding out, as enterprises seeking to borrow for investment projects fight for a limited pool of available money. You are offering the interest rate you are ready to pay. The increased interest rate deters certain businesses from pursuing their investment plans, resulting in a decrease in investment

and, as a result, growth (Pechman, 2004). Furthermore, government deficits reduce the pool of savings accessible to private sector borrowers, limiting private capital formation and so “crowding out” private capital development. There is certain to be a drop in overall capital formation when deficits are not used for investment. One of the most essential characteristics of government is that it is unaffected by interest rates. It is not affected by interest rates by government borrowing. That is why the government will borrow anything that it needs to finance its deficit regardless of the interest rate, because government budget deficits are always financed. Deficits reduce the cash available for the formation of private capital. In the face of increased returns, companies are more discriminating and reducing investment in their project selection, which leads to a shrinking impact and a reduction in capital formation below the socially best level. The negative consequences of government expenditure on the private sector may outweigh its positive impacts on growth (Blinder & Solow, 1975).

Classical economists think that a government stimulus funded by domestic debt will enhance government investment at the expense of private investment. In domestic borrowing, interest rates will rise, which will lead to a fall in consumption and private investment. This is the well-known “crowding-out” argument used to justify government budget cuts. Mass government borrowed expenditures can have a 'crowd-out' impact while the proponent of the budget deficit sees the other side of the coin. They deny the idea of "population," recognizing that there is also an inverting effect, even if the pull out is conceivable on financial markets. The crowding in theory" asserts that government expenditure will enhance aggregate demand. As the economy grows, the private sector must increase production, and enterprises believe expanding their capacity to meet the increasing demand of their customers is beneficial. More output necessitates the

investment of extra capital. According to some economists, the false assumption is that the saving flow of the economy is set in the crowding out argument. If government deficits are successful in boosting output, they can generate more revenue and hence greater savings, which both government and business will borrow more.

On the other hand, externality effect of government spending boosts growth through increased productivity in the private sector. In this situation, a greater expenditure level could lead to a high rate of growth. The stock of public infrastructure (or the amount of services it provides) has been highlighted as a productive input in current Endogenous Growth Research. Budget policy is another wide fiscal variable that could have implications for growth, in the sense that level of public revenues in relation to expenditure, namely the balance of the budget can have separate growth effects from those associated with the absolute level of taxation or public expenditure. Stability impacts are one way of affecting budget shortfalls. Another type concerns a potential behavioural response from the private sector as a result of such disequilibrium. If the private sector considers fiscal deficits (including debt funded) to be taxes deferred alone, it can decide to increase its savings to compensate for public dissipation and therefore create a level of unchanging national saves. Alternatively, fiscal deficits could not react to private sector savings, leading to low domestic savings and a slowdown in GDP.

2.3.2. Keynesians School of Thought or Theory

Keynes's statements in the General Theory of Work, Interest and Money were released in 1936 and provided the theoretical support for the study. Keynes maintained that government participation in economic activity can help stimulate long-term growth by assuring resource allocation efficiency, market regulation, economic stabilization, and social dispute resolution (Keynes, 1936). The public sector absorbs

real resources which the private sector would otherwise be available to finance whatever deficit levels in taxation or borrowing (the absorption of domestic resources will be delayed, of course, if foreign borrowings or unemployed resources are available). This absorption would increase overall efficiency from a merely static allocative standpoint if societal return (benefit) exceeds private opportunity costs of governmental expenditure.

Furthermore, government spending is a significant component of Aggregate Demand (AD) in the economy, according to Keynesian economics. When AD falls short (as it does during recessions), the government can raise spending, which will boost AD and hence stimulate the economy. This government-led strategy worked successfully to boost output, employment, and income in the United States throughout the 1929–1933 Great Depression and the latest 2007–2009 Great Recession. Several other countries have used the similar strategy to increase AD and economic growth through the years.

2.3.3. Ricardian Equivalence Theory

The Ricardian equivalence theorem attributes the concept that taxation and public borrowing are equivalent modes of financing public expenditure to English economist David Ricardo (1772–1823). This viewpoint is based on the expectation that the government will repay its debt at some point in the future. The Ricardian Equivalence's strongest thesis is that the economy cannot support the budgetary deficit. If the agents are rational, they will understand that greater deficits represent future taxes of a present value equal to the value of the deficit. As a result, it will act as though deficits did not exist, causing the stimulus to be overlooked by consumers and investors.

The most influential development theory of the twentieth century is Rostow's Stages of Growth model. He looked at the economic growth history (the USA and Western

Europe) in the developed countries and a number of stages have been recognized. Every country must go through five phases of development as it progresses from its beginning state at the advanced level (Traditional Society) (The Age of High Mass Consumption). Government infrastructure and social capital are essential to offer investment and growth for the private sector. As a result, governments should act as a stimulant of general economic growth in key sectors of the economy.

In general, the relationship between growth and fiscal deficits revolves around three major issues: the government's excessive domestic borrowing, which crowds out private sector investment and raises interest rates; the accumulation of public debts; and the fear that the government will resort to money printing or seigniorage, resulting in inflation taxation (Odhiambo, Momanyi, Othuon & Fredrick, 2013). Three channels are used to create these effects: First, huge budget deficits may cause financial markets to raise real interest rates, reducing investment and growth. Second, high deficits may raise interest rate risk premiums, notably the inflation and default risk premiums. Risk premiums associated with high interest rates may deter domestic investment. Third, the high tax burden on the future could be shown by large budget deficits, which may detract from current total expenditure, and thus privately owned investment.

2.4. Empirical Issues

Kryeziu and Hoxha (2021) used a panel data model to examine the impact of deficits on economic development in Eurozone countries from 1995 to 2015, with a total of 257 observations. The study used the least-squares regression method using a multivariate linear regression model. The study's findings revealed that the variable deficit to GDP ratio is statistically significant with a positive sign, and that its expansion has a favorable impact on economic growth. In terms of policy

recommendations, it is suggested that the level of high and long-term deficits be controlled for the countries studied because this situation, with a persistently high fiscal deficit, could harm economic growth and create imbalances in other macroeconomic variables, especially now, given the deteriorating situation as a result of the Covid-19 Pandemic. However, study findings are subject to the usual caveats about cross-country regression studies. This is a major limitation of the study.

Using the ARDL bounds test, Yusuf and Abolaji (2021) looked at the impact of Nigeria's budget deficit on growth. The findings found that gross domestic savings, interest rates, budget deficits are all associated substantially with long-term economic growth, but economic growth has only beneficial effects on budget and gross domestic savings in the short term. The study revealed that Nigeria's budget deficit has a significant impact on the economic growth of the country. This means that in Nigeria the Keynesian hypothesis is correct. The study concluded, therefore, that higher gross domestic savings will lead to higher gross domestic investment, leading to greater growth. In order to gain sufficient investment resources, the interest rate is essential to stimulate savings. As a result, the nation's productivity will rise in the long run. However, the study lacks good theoretical foundations as there is justification for control variables used; as econometric methodology adopted can't be relied upon.

Gyasi (2020) used the boundaries test (ARDL) methodology to cointegration to investigate the long and short term correlations between macroeconomic variables, fiscal deficit, and economic development in Morocco. The findings revealed that the Moroccan economy's budget deficit has a long-term impact on economic growth, since the equilibrium adjustment was shown to be relatively swift. According to the report, the Government should boost and monitor tax

collections and enhance the indirect tax-to-direct tax ratio. The tax base of the economy should be broadened. While strengthening price stability in the economy, the government should limit its spending. The growth framework used is weak: the independent variables included do not coincide with the conventional persuasion of what basically determines growth.

Mohammed and Sule (2020) used time series quarterly data from 2000 to 2019 to investigate the relationship between deficit funding asymmetry and Nigerian economic growth. The analysis is based on Keynesian, monetary neoliberal theoretical postulations, asymmetry and linkages of importance between deficit funding and the Nigerian economy. The Non-Linear Autoregressive Distributed Lag (NARDL) approach was used in this investigation. According to the calculated NARDL model, Innovation funding both positive and negative deficits hinder economic growth; yet innovation is financed by a negative deficit has a bigger impact than positive deficit financing innovation. Furthermore, Poor institutions and a lack of savings culture are driving the Nigerian economy, as evidenced by the negative signals of both savings and quality institution coefficients. As a result, the study lends support for fiscal governance by reviewing laws that strengthen existing institutions in accordance with international best practices to guide and monitor the implementation of deficit financing in investment-based projects that can result in higher living standards for citizens. The study suffered from weak growth framework and no robustness checks are offered.

Okah, Chukwu and Ananwude (2019) examined the effect of deficit financing on economic growth in Nigeria from 1987 to 2017. Vector Autoregressive. According to the findings, deficit financing has a favorable but minor impact on Nigerian economic growth. According to the research, the government should diversify its income and, in its monetary and fiscal

actions, amongst other things, show a high level of transparency. However, no theory-consistent growth framework is applied and recommendations offered are not specific.

For the period 1991–1992 to 2013–2014, Bhoir and Dayre (2015) examined the impact of India's economic growth deficit. Using Ordinary Least Squares approach, these researchers discovered that the two variables have no meaningful connection. The Government of India should instead concentrate on indicators of human development such as health, education and development of infrastructure, in order to boost human capital and physical capital productivity, hence accelerating economic growth. However, no theory-consistent growth framework is applied and study recommendations were not specific but general in nature. No diagnostics checking is offered and the R-squared is very low.

Mohanty (2012) examined the short and long run relationship between fiscal deficit and economic growth in India from 1970 to 2012. The analysis found that budget deficits were linked to economic growth in a negative and significant manner. The connection between budget deficits and economic growth will be neglected in the near future. Data demonstrated that fiscal deficit after reform has a greater negative impact on economic growth than the pre-reform fiscal deficit. However, the primary limitation of this study is that there have been contradicting results about the impact of fiscal deficit on economic.

Brauninger (2002) examined the interaction of budget deficit, public debt and endogenous growth in Spain using co-integration analysis. It was discovered that if the government's deficit ratio below a critical threshold there are two stable states, which increase capital and government debt at the same constant pace, and which limit GDP growth rates by raising the deficit ratio (GDP). This means that if the deficit ratio crosses a certain threshold, the economy is no longer in a stable condition. However,

there is no evidence of any particular debt threshold above which medium-term growth prospects are compromised (IMF, 2014).

Adam and Bevan (2005) investigated the relationship between fiscal deficit and growth for 45 developing countries using co-integration model and threshold. It was observed that the relationship between fiscal deficit and growth exists in emerging countries, and there is evidence of an interaction between the debt inventories that increases the negative effects of big deficits. However, study findings are subject to the usual caveats about cross-country regression studies.

3. Methodology

3.1. Model Specification and Data

After looking at the theoretical underpinnings of the fiscal deficit and economic growth nexus, this part is aimed at building a model which links up the various variables recognized in the context of fiscal deficit and economic growth as significant determinants. For this purpose, the model that will be adapted for this study is predicated on the Keynesians propositions that government engagement in economic activity can help stimulate long-term growth by assuring resource allocation efficiency, market regulation, economic stabilization, and social dispute resolution (Keynes, 1936) and a modified model of Mohanty (2012). The preferred model is represented as equation 3.1 below:

$$INRGDP = \alpha_0 + \alpha_1 INBD + \alpha_2 INIRS + \alpha_3 INEXR + \mu \quad (3.1)$$

Where:

RGDP = gross domestic product as measure of economic growth;

BD = Federal government deficit defined as retaining income below the total expenditure;

IRS = Interest rate spread

EXR = Exchange rate;

μ = other variables not explicitly included in the model.

In: Natural logarithm, $\beta_0 =$ intercept or autonomous parameter estimate and $\alpha_1 \dots \alpha_3 =$ Budget deficit financing and economic growth Parameter estimate. In Nigeria. All variables are logarithmically expressed. Furthermore, all coefficients will be positive. Secondary data gathered from the CBN, NBS was employed in the study. The period 1981 to 2019 is covered.

3.2. Estimation Technique

This study utilized the following approaches to study the relationship between the dependent variable and the explanatory variables.

The features of time series data were first and foremost examined to determine the order in which variables are integrated and, above all, to prevent misanalysis of regression. The study utilized the

Augmented Dickey-Fuller (ADF) for a unit root check of the regression variables since the serial correlation is compared. In this decision rule, we should dismiss the null hypothesis if the estimated ADF is more than the critical level at a level of 5%, and infer that the time series is not stationary. The study employed Autoregressive Distributed Lag (ARDL) bounds testing approach to co-integration proposed by Pesaran, Shin and Smith (2001). The ARDL model effectively avoids problems resulting from non-stationary time series data, allows capturing the data generating process by using sufficient numbers of lags (diminishing endogeneity) and most importantly for this study, the ARDL approach provides vigorous results for a small sample size of cointegration analysis (Gujarati, 2004). The augmented ARDL model provided by Pesaran et al (2001) is given as:

$$\Delta Y_t = \alpha_0 + \alpha_1 Y_{t-1} + \alpha_2 X_{t-1} + \sum_{i=1}^i \beta_{1i} \Delta Y_{t-i} + \sum_{i=0}^j \beta_{2i} \Delta X_{t-i} + \epsilon_t \text{-----} (3.2)$$

In the ARDL model framework, the study provided policy variables as follows:

$$\Delta INRGDP_t = \alpha_0 + \sum_{i=1}^m \alpha_{1i} INRGDP_{t-i} + \sum_{j=0}^n \alpha_{2j} \Delta BD_{t-j} + \sum_{k=0}^o \alpha_{3k} \Delta INIRS_{t-k} + \sum_{l=0}^p \alpha_{4l} \Delta INEXR_{t-l} + \alpha_5 INRGDP_{t-1} + \alpha_6 BD_{t-1} + \alpha_7 INIRS_{t-1} + \alpha_8 INEXR_{t-1} + \mu_t \text{-----} (3.3)$$

Section 3.3 (i.e.: $\alpha_1, \alpha_2, \alpha_3,$ and α_4) explores the short-term dynamic relationship, while Section 2 (i.e.: $\alpha_5, \alpha_6, \alpha_7,$ and α_8) studies the long-term relationship between financial growth and fiscal deficits. Finally, the series error correction is as follows:

$$\Delta INRGDP_t = \alpha_0 + \sum_{i=1}^m \alpha_{1i} \Delta INRGDP_{t-i} + \sum_{j=0}^n \alpha_{2j} \Delta BD_{t-j} + \sum_{k=0}^o \alpha_{3k} \Delta INIRS_{t-k} + \sum_{l=0}^p \alpha_{4l} \Delta INEXR_{t-l} + ECT_{t-1} + \epsilon_t \text{--} (3.4)$$

Where;

ECT_{t-1} = lagged Error correction term. The ECT records the process of the output evolution through which agents respond to the previous period of prediction errors.

4. Data Analysis

First of all, in the table below is the summary of the ADF results;

Table 1: ADF Test Results (Trend and Intercept)

Variables	ADF	Critical Values	Order of Integration
RGDP	-5.729	- 4.219*	I(0)
BD	- 13.847	- 4.227*	I(1)
IRS	- 10.748	- 4.227*	I(1)
EXR	-6.729	- 4.235*	I(1)

Note: * Indicate stationary at the 1% level.

Source: Researcher's Computations, E-views 9.5.

The ADF result, presented in Table 1, shows that the variables are stationary at first difference, with the exception of the RGDP and BD variables, which are stationary at level. Since all variables were deemed to be stationary, at both the level and at the first difference (that is to say at the order 1(I) and 1(0)), the co-integration testing was safe to use and continued; as all variables met the requirement of the ARDL-bound testing approach that each of the models is stationary at the level or at the

first difference, the application and operation were safe.

4.1. Co-integration Analysis

The next goal of the study is to establish a long-term relationship between the variables and the sequence of integration. A long-term cointegration between the financing of the budget deficit and economic growth is then assessed using the ADRL-bound testing approach. Table 2 shows the outcome of the cointegration test.

Table 2: Result of ARDL Bounds Test for Cointegration

Null Hypothesis: No Long-run Relationships Exist		
Test Statistic	Value	K
F-Statistic	6.267294	3
Critical Value Bounds		
Significance	Lower Bound	Upper Bound
5%	3.23	4.35

Source: Researcher's Computations (2021).

The test results demonstrate that the F-statistic at 5 per cent is higher than the critical value of both the lower and upper bound. Therefore, at the 5% significance level the zero hypothesis of a not long term link is rejected. Thus the variables can be concluded that they are co-integrated.

4.2. Error Correction Model Analysis

In light of the cointegration of the dependent variable with the regressors, the study estimates the error correction and the long-term models. Table 3 presents the outcomes of the estimates.

Table 3 Results of Estimation of Error Correction Model

Dependent Variable: LOG(RGDP)			
Selected Model: ARDL(ARDL(1, 0, 0, 1))			
Cointegrating Form (ECM)			
Variable	Coefficient	t-Statistic	Prob
DLOG(BD)	0.019	0.275	0.79
DLOG(IRS)	-0.263	-0.948	0.35
DLOG(EXR)	0.403	1.064	0.29
ECM(-1)	-0.752*	-4.861	0.00
Long Run Coefficients			
C	0.296	0.122	0.90
LOG(BD)	0.026	0.276	0.78
LOG(IRS)	-0.350	-0.929	0.36
LOG(EXR)	-0.640	-1.529	0.14

Note: *, ** indicate significance at 1 percent.

Source: Researcher's Computations (2021).

Budget deficit and exchange rate are the major drivers or determinants of economic development in the short run, according to the predicted Error correction model. In the long run, however, only a budget deficit appears to stimulate economic growth.

4.3. Discussion of Findings

The estimated Error correction model revealed that budget deficit financing positively affects economic growth over the period of study, though not significant. Thus a change in budget deficit financing of one percent translates in a short-term economic growth shift of 0.019 percent. This demonstrates that budget deficit spending in recent years is a major source of economic growth for the country. The long-run effect of budget deficit spending on economic growth is positive but not significant. The result is in line with theoretical prediction; as the Keynesians theory posited that deficit spending has a multiplier effect on national output. The study findings suggest that government must checkmate the level of deficits in order to maintain effective economic control and promote country's long-term economic growth.

Interest rate spread is observed to be negatively related to economic growth both

in the short and long run. The short run finding is not theoretically predictable. By implication, interest rate spread as control policy variable is not a major driver of economic growth during the study period.

In the short run, however, the exchange rate is positively associated with economic growth, but in the long term, it is negatively associated.

The Error Correction Model negative sign and statistically significant, as expected, at one percent level. Another sign is that the dependent variable and the regressors have a long-term relationship. The coefficient's absolute value ranges from 0 to 1, indicating that around 75% short-run (long-run) balance divergence is rectified annually to maintain the balance.

5. Conclusion

The study examined the impact of Nigeria's 39-year budget deficit finance on economic growth using the Autoregressive Distributed Lag (ARDL) bounds testing method. According to the co-integration test results, the F statistics is greater than the critical values of both lower and upper limits at the 5% significance level. The null hypothesis of no long-term association is therefore rejected at the 5 percent

significant level. As a result, variables can be assumed to be cointegrated. Budget deficit and exchange rate are the major drivers of economic growth in the short run, according to the estimated Error correction model. In the long run, however, only budget deficit appears to stimulate economic growth. Budget deficit financing, in particular, is a major source of economic growth for the country during the research period, as it has a favorable impact on Nigeria's economic growth. The Error Correction Model is signed negatively and statistically significant at the predicted level of 1%.

6. Recommendations

There are three recommendations proffered based on the findings of the three policy variables adopted as follows:

1. The Federal Government should checkmate the level of deficits spending and boost the country's productive capacity; since deficit spending is positively related to economic growth both in the short run and long run.
2. From study findings, interest rate spread as control policy variable is not a major driver of economic growth either in the short run and long run. Hence, the study recommends that the government should facilitate a favourable investment climate through appropriate monetary policy transmission channels like interest rate spread.
3. Furthermore, from the study findings, exchange rate is positively related to economic growth in the short run and negatively in long run. Therefore, it is recommended that exchange rate regimes that will attract both domestic and foreign investments, create jobs, promote non-oil export and revive industries that are currently operating far below installed capacity be formulated and implemented by the Central Bank of Nigeria.

References

Adam, C. S; & Bevan, D. L. (2005). Fiscal Deficits and Growth in Developing

countries. *Journal of Public Economics*, 89, 571-597.

AfDB (2020). African economic outlook. Abidjan, Cote d'Ivoire.

Audu, N.P. (2012). The impact of fiscal policy on the Nigerian economy. *International Review of Social Sciences and Humanities*, 4(1), 142-150.

Brauninger, M. (2002). The budget deficit, public debt and endogenous growth. *Journal of Economics*, 63 (41).

Blanchard, O. J. (2008). *Crowding Out*. Palgrave: Palgrave Publishers.

Bhoir, R. B., & Dayre, S R. (2015). Does India's economic growth independent of fiscal deficit? *The Business & Management Review*, 5(4), 189-192.

Blinder, A.S., Solow, R.M. (1975). Does fiscal policy matter? *Journal of Public Economics* 2,319-337.

CBN (2012). *Economic and Financial Review* Volume 50/1 March 2012. 1.

Ezeabasili, V.N., Tsegba, I.N., Ezi-Herbert, W. (2012). Economic growth and fiscal deficits: Empirical evidence from Nigeria. *Economics and Finance Review*, 2(6), 85-96.

Gujarati, D.N. (2004) Basic Econometrics. 4th Edition, McGraw-Hill Companies.

Gyasi, G. (2020). The impact of fiscal deficit on economic growth: Using the bounds test approach in the case of Morocco. *United Nations Economic Commission for Africa, University of Energy and Natural Resources, Sunyani, Ghana*. Retrieved online at <https://mpr.aub.uni-muenchen.de/98925/> MPRA Paper No. 98925, posted 12 Mar 2020 01:38 UTC.

IMF (2020d). *Fiscal Monitor: Policies for the Recovery*. October. Washington, DC: International Monetary Fund.

IMF (2015). Fiscal Policy and Long-Term Growth. IMF Policy Paper. Washington, DC:

International Monetary Fund.

IMF (2014). Regional Economic Outlook, Sub-Saharan Africa, World Economic and Financial Surveys,

- International Monetary Fund (IMF), Washington D.C. (October).
- Keynes, J. M. (1936). *The General Theory of Employment, Interest and Money*, London and New York, Macmillan.
- Kryeziu, N; & Hoxha, E. (2021). Fiscal deficit and its effects on economic growth: Empirical evidence. *International Journal of Finance & Banking Studies*, 10 (1), 62-70.
- Mohammed, I. D; & Sule, A. (2020). Deficit financing asymmetry and Nigeria's economic growth: A Nonlinear Autoregressive Distributed Lag Approach. *The Economics and Finance Letters*, 7(2), 112-121.
- Mohanty, R. K. (2012). Fiscal deficit-economic growth nexus in India: A cointegration analysis. New Delhi: *Centre for Economic Studies & Planning*, School of Social Sciences Jawaharlal Nehru University.
- Odhiambo, S. O; Momanyi, G., Othuon, L; & Fredrick, O. A. (2013). The Relationship between fiscal deficits and economic growth in Kenya: An Empirical investigation. *Greener Journal of Social Sciences*, 3, 306–23.
- Ojong, C. M., & Owui, H. (2013). Effect of budget deficit financing on the development of the Nigerian economy. *European Journal of Business and Management*, 5(3), (2013), 61-84.
- Okah, J. O; Chukwu, K. O; & Ananwude, A. C. (2019). Deficit financing and economic growth in Nigeria: 1987-2017. *Asian Journal of Economics, Business and Accounting*, 12(1), 1-13.
- Pechman, J. A. (2004). The budget deficits: Does it matter? Paper Presented at the City Club of Cleveland (USA)
- Pesaran, M.H., Shin, Y., & Smith, R. J. (2001). Bounds testing approach to the analysis of level relationships. *Journal of Applied Econometrics*, 16(2001), 289-326.
- Rana, E. A; & Wahid, A. N. M. (2016). Fiscal deficit and economic growth in Bangladesh: A time-series analysis. *The American Economist*, 1–12.
- Soludo, C. C. (1998) Fiscal Deficit. Exchange rates and External balance: Evidence from Nigeria: *Africa Economy and Social Review*, 3(1-2).
- World Bank (2019). Nigeria economic report (No. 1). Washington, DC: World Bank.
- Yusuf, S. A; & Abolaji, A. (2021). The impact of budget deficit on economic in an emerging market: An application of the ARDL technique. *Asian Development Policy*, 8(4), 351-361.