FISCAL DEFICIT AND ECONOMIC PERFORMANCE IN NIGERIA

ABODUNRIN IDOWU ABIODUN *
Department of Economics, Olabisi Onabanjo University, Ago-Iwoye, Nigeria
idnoble06@yahoo.com, +2348055815965

OMITOGUN OLAWUNMI
Department of Economics, Olabisi Onabanjo University, Ago-Iwoye, Nigeria
omitogun.olawunmi@oouagoiwoye.edu.ng, +2348033511139

ONANUGA ABAYOMI TOYIN
Department of Economics, Olabisi Onabanjo University, Ago-Iwoye, Nigeria
onanuga.toyin@oouagoiwoye.edu.ng, +2348033519370

ABSTRACT
Despite several efforts to improve economic performance, Nigeria continues to face significant challenges, including high fiscal deficits and sluggish economic growth. While extensive empirical research has analysed the effect of fiscal deficit on economic growth, limited studies have specifically investigated their nuanced effects on Nigeria's economic performance. This study examined the effects of fiscal deficit on Nigeria's economic performance from 1987 to 2022. Fiscal deficit is incorporated as the independent variables, while interest rate, inflation rate and gross fixed capital formation are included as control variable. Economic performance is measured using GDP growth rate. Preliminary analysis shows that the unit root results indicate variables were integrated at orders zero and one, with none integrated at order two, making the series suitable for (ARDL) estimation approach. The ARDL analysis conducted at a 5% level of significance revealed that in the short-run the current year's fiscal deficit (β= 0.0004, t= 0.9262) had a positive but insignificant effect on economic performance. However, fiscal deficits from one and two years prior had positive and significant effects. In the long-run, fiscal deficit (β=-1.0001, t=-1.8600) exhibited a negative but insignificant effect on economic performance. Diagnostic residual tests confirmed that the model's residuals were normally distributed and appropriately specified. The study concluded that the fiscal deficit has a negative and insignificant effect on Nigeria's economic performance. It is recommended that the government should not focus solely on fiscal deficits to improve economic performance, but also consider other macroeconomic variables.

KEY WORDS: Fiscal Deficit, Economic Performance, Nigeria.
JEL Classification: H62, O47, O35

1. INTRODUCTION
The goal of many nations is to achieve stable growth that enhances economic performance. However, this goal often remains unattainable due to fiscal inadequacies, particularly in developing countries. Fiscal imbalance is especially critical in resource-rich nations like Nigeria which experiences significant fiscal uncertainty (Oyinlola & Alimi, 2019). The search for alternative financing sources has highlighted the issue of fiscal deficit, which reflects the gap between government spending and the sum of revenue receipts and non-debts capital receipts. Fiscal deficit represents the total borrowed funds required by the government to meet its expenditure fully. Fiscal deficit serves as a powerful demand management tool employed by policymakers to stimulate economic demand, increase productivity, promote price stability, reduce poverty, and foster public and private investment (OECD, 2017).

However, these objectives remain largely unrealised in Nigeria. A key reason for this shortfall is the ineffective application of macroeconomic tools, particularly fiscal policy in promoting

growth and development (IMF, 2020). This ineffectiveness has led to rising inflation and declining in real incomes, making national economic management increasingly challenging as the economy contends with revenue and expenditure volatility. Consequently, Nigeria has experienced significant macroeconomic imbalances, with inflation accelerating to double digit levels (IMF, 2023). The government's engagement in deficit financing aims to enhance growth potential, yet it has resulted in accumulating internal and external debt. Nigeria's fiscal deficits have consistently grown, except for briefs surpluses in 1995 and 1996. Between 1981-1999, the deficit averaged -2.73 per cent to -3.65 per cent of GDP, rising to -5.25 per cent in 1999. From 2003-2006, the deficit declined to -1.5 per cent, -1.0 per cent, -0.7 per cent, and -0.3 per cent respectively. The deficit fluctuated between 2010 and 2022 reaching -4.68 per cent in 2022 (CBN, 2023).

Despite its adoption of fiscal deficit policies, Nigeria continues to underperform, characterized by high unemployment rates, significant poverty incidence, high inflation rates, low investment levels, an unfavourable balance of payments, and consequently, a low growth rate. The country has yet to harness the benefits of fiscal deficits as evidenced by persistent infrastructural deficits and reliance on imported intermediate inputs. Additionally, low human capital development and a high poverty rate 43 per cent in 2022 (World Bank, 2023) further underscore the urgency of fiscal deficit challenges.

Given the rapid increase in government debt and debt service payments, alongside lower economic growth and rising poverty, coupled with conflicting results between theoretical expectations and empirical findings. This article focuses primarily on examining the relationship between fiscal deficits and economic performance in Nigeria from 1987 to 2022. Following the introduction which constitutes Section One, the remaining Section are structured in the following ways, Section Two, literature reviews, Section Three constitutes Methodology, Section Four, presents the results and discussion and Section Five is the conclusion and recommendations..

2 LITERATURE REVIEW

2.1 Theoretical Literature

The relationship between fiscal deficit and economic performance is explained by two theories, the Keynesian theory and Solow growth theory. Keynes (1936) posits that effective demand, which specifies that the expansion of overall effective demand should contribute to economic growth, is a major component of the Keynesian model. Keynes created a theory to explain fluctuation in the level of economic activity using economic values such as national income, consumption, savings and investment. He demonstrated how lower income results in lower spending, savings and investment during recession and increases in unemployment. Thus, government should step in by enacting fiscal policy measures such as tax cuts or increases in government expenditure in a situation where there is no market leverage to enhance the aggregate demand for restarting commercial activities in the economy. In Keynes' view, The Great Depression could be ended by boosting the economy through lower interest rates and government spending on infrastructure, Government sends a message to commercial banks to lower the interest rates at which they lend money to clients by lowering the Central Bank's lending to them. Government spending on infrastructure boosts the economy's revenue through generating business possibilities, jobs and demand. Rise in aggregate demand is the key prerequisite for balanced economic growth according to Keynesian growth theories. Investment is seen as the primary driver of economic expansion that boosts revenue (the multiplier effect) or amplifies the impact of the accelerator alongside income growth.

A contribution to the theory of Economic Development, published in 1956, provided an overview of Solow's theory. Robert Solow starts off with the supposition that aggregate demand and supply must be equal in order for the economic system to be in equilibrium. According to his theory, the production function of Cobb-Douglas, which expresses the functional relationship between production volumes on the one hand and the factors used and their combinations on the other, is used to determine aggregate supply. Investments, the labour force, and technical advancement are three drivers of economic growth that might be connected, according to Solow's thesis.

The hypothesis demonstrates that a significant element in determining the degree of capital intensity is the savings rate. A higher rate of savings results in a larger stock of capital (ie increase in investments), and consequently a higher rate of output. According to Solow's thesis, one of the causes of ongoing economic development in an environment of economic stability is population expansion. Yet, this result is a decrease in the capital stock per worker if population expansion is not matched by an increase in investments. Solow's hypothesis explains why nations with higher rates of population increase have lower capital-labour ratios and, consequently, poorer incomes.

Technical advancement comes in third for economic growth after investments and an increase in employment. It should be highlighted that in neoclassical theory, technical advancement refers to qualitative improvements in production, such as raising worker education levels, improving organisational structures, expanding production scales, and so on, rather than the substitution of human labour by machines. It is important to note that R. Solow, out of all contemporaries, was the first economist to develop a deeper and more comprehensive understanding of the economic efficiency of production as a largely independent driver of economic expansion and a tangible source of social progress in the last quarter of the 20th century. According to Solow's theory, the only prerequisite for ongoing improvement in living standards as expressed by per capita income is technical advancement. Moreover, Solow created a "golden rule of accumulation" formula that identifies the ideal amount of capital intensity. Many norms of saving are consistent with an equilibrated economic growth, but the best norm is the one that allows for the highest level of consumption while maintaining economic growth. Instead of using the maximum amount of capital possible as in previous methods, the highest consumption is decided by the capital's ideal size and cost-effectiveness-capital productivity per unit of product. Consequently, the Robert Solow theory emphasizes technological advancement as the sole foundation for sustainable expansion of welfare and enables you to choose the best growth option that maximizes consumption.

2.2 Empirical Review

The relationship between fiscal deficits and economic performance has long been debated, and empirical findings remain inconclusive. Some studies indicate a positive link, consistent with the Keynesian theory, which argues that fiscal deficits can stimulate economic growth by driving demand and investment. This view is supported by several studies in Nigeria and other emerging economies (Emmanuel & Kenneth, 2019; Nwaeze, 2019; Shamsideen & Abisoye, 2020; Aworinde, 2020; Ekpo et al., 2023; Udo et al., 2024), suggesting that fiscal deficits ,when financed by external borrowing or targeted domestic funding, can catalyze growth through productive spending. These studies generally find that fiscal deficits positively impact growth when there are high returns on government expenditures, particularly in context where economies are constrained by limited private investment and other structural challenges.

In contrast, other studies report a negative relationship between fiscal deficits and economic growth, particularly in cases where deficits are largely financed through excessive borrowing,

leading to inflationary pressures and crowding out private investment (Ogunsakin & Sanya, 2015; Michael, 2016; Walid, 2020; LeThanh, 2020). For example, Walid's (2020) study on Bangladesh and LeThanh's (2020) research on Vietnam show that fiscal deficits negatively affect economic performance by increasing inflation and creating economic instability. These findings align with the classical economic argument that fiscal deficits, particularly when financed by monetization, can lead to adverse economic outcomes, such as high inflation and lower private investment.

Furthermore, some studies report no significant relationship between fiscal deficit and economic growth, often due to the context-specific nature of fiscal impacts, methodological differences, or structural factors that moderate the effect of deficits (Euchye Tan, 2009; Ramzen et al., 2018; Momodu & Monogbe, 2017; Rom & Di Nath, 2023). For instance, Euche Tan (2009) found no direct relationship in their study, suggesting that the role of fiscal deficits may depend on additional structural and economic conditions, such as the efficiency of government spending, the size of the deficit relative to GDP, and the presence of fiscal stability.

The reviewed literature illustrates that the fiscal deficit-growth nexus is complex and influenced by multiple factors, including economic structure, policy context, financing methods, and external economic conditions. Regional and country–specific studies (e.g., on Nigeria , WAMZ, MENA countries, and Southeast European transition economies) underscore that fiscal deficits can either enhance or hinder growth, depending on the interplay between the structure of fiscal policy, economic openness, inflation, and external debt dynamics. Studies like Amritkant's (2019) comparative analysis of China and India highlight how the impact of fiscal deficits may differ significantly even among rapidly growing economies, emphasizing that the relationship between fiscal deficits and growth is not one -size-fits-all.

2.3 Gaps in Literature and value Addition

Based on the reviewed literature and the objective this study seeks to achieve, it aims to address gaps in existing global reviews. To the best of my knowledge, there is a paucity of studies, mixed findings, and inconclusive arguments regarding the effect of fiscal deficit on economic performance in Nigeria. This study improves on previous research by extending the scope and modifying existing theories to capture the most recent issues from 1987 to 2022.

3 METHODOLOGY

3.1 Theoretical Framework

The theoretical framework for this study is grounded in the modified Solow growth model (Solow, 1956) and incorporating fiscal deficit as key variable influencing economic performance.

Solow growth theory opines that economic growth is the output of the product of accumulation of physical capital and labour force expansion in addition to the exogenous variables of technological input. The theory shows that aggregate demand and supply must be equal in order for the economic system to be in equilibrium. According to the theory, the production function of Cobb-Douglas is used to express functional relationship between production volume and the factors used and their combinations on the other, is used to determine aggregate supply. Investments, the labour force, and technical advancement are three drivers of economic growth that might be connected.

The Solow (1956) was adopted for a number of reasons. First, the Solow model is easy to extend and estimate. Also, there is no convincing evidence that endogenous growth models, with increasing returns empirically perform better than the Solow model (Jones, 1995; Korcherlakota & Yi, 1996; Parente, 2001; Solow, 2000). However, according to Solow model, output is a function of labour (L) and capital (K) with constant returns to scale. The rate of

capital accumulation in the long–run is higher than that of the short-run, the marginal efficiency of capital approaches zero and the growth rate is subsequently determined by technical progress and growth in labour force. A measure for human capital is included in the augumented Solow growth model as an additional determinant of growth.
The original Solow growth model was specified as;

$$Y_t = K_t^{\alpha}(A_t L_t)^{1-\alpha} \quad (3.1)$$

The human capital augumented version by Mankiw et al. (1992) was specified as;

$$Y_t = K_t^{\alpha} H_t^{\beta}(A_t L_t)^{1-\alpha-\beta}$$

(3.2)

Where: $0 < \propto < 1$, Y is output, $\alpha =$ elasticity of capital with respect to output, L is Labour, H is the stock of human capital and A represents the total factor productivity.
It should be noted that the A term indicates not just technology, but comprises other factors including resource endowment, climate, institutions and so on, which may differ across countries (Mankiw et al., 1992)

Since the focus of this study is centered on how fiscal deficit variable affect economic performance. Fiscal deficit was also included into equation (3.2) guided by economic theories. Specifically, the Keynesian theory of fiscal deficit which advocates for increased government spending and decreasing tax rates to stimulate aggregate demand in recession. He also believes that active government intervention in the market place through deficit financing was the only method for ensuring growth and stability.

It is thus assumed that fiscal deficit affect output growth through the total factor productivity. A as a function of Fiscal deficit (FD)

$$A = A_O e^{FD}$$

(3.3)
By substituting equation (3.3) into (3.2) and taking the natural logarithm of both sides, it becomes

$$Y_t = \alpha_O \, InK_t + \beta InH_t + (1-\alpha-\beta)\, InL_t + FD \quad (3.4)$$

Where FD represents fiscal deficit, while other variables remain as earlier defined.

3.2 Model Specification

Based on the review of the literature, Autoregressive Distributed Lag (ARDL) have been popular used to analyse the relationship between fiscal variables and output (GDP), with the inclusion of non-fiscal variables (Rants & Walid, 2017; Maryna & Tetiana, 2021; LeThanh, 2022).

In accounting for the effect of fiscal deficit on economic performance in Nigeria. The study adapted the model used by (LeThanh, 2022). However, this model is informed by the theoretical framework as in (3.4).

The functional form of the model is restated as follows;

$$Y_t = \alpha_O \, InK_t + \beta InH_t + (1-\alpha-\beta)\, InL_t + FD$$

(3.5) Where; Y = GDP growth rate

FD= Fiscal Deficit

The other variables are as previously defined in equation (3.2)

Specifying the equation (3.5) in a linear form the model is presented as follows,

$$Y_t = \alpha_O \, InK_t + \beta InH_t + (1-\alpha-\beta) \, InL_t + FD + \varepsilon_t \quad (3.6)$$

Where α_0 is the constant parameter, α_1 = parameter estimate, and ε_t = Error term in the model. Gross domestic product growth rate was used to measure economic performance, fiscal deficit was an independent variable.

However, interest rate (INT), inflation rate (INF) and Gross fixed capital formation (GFCF) are essential macroeconomic variables are included as control variables in the model. Its inclusion indicated how important it is to the positive performance of the Nigerian economy.

Thus, the model is re-specified in equation (3.7) such that;

$$Y_t = \alpha_0 + \alpha_1 FD_t + \alpha_2 INTR_t + \alpha_3 INFt + \alpha_4 GFCFt + \varepsilon_t \quad (3.7)$$

Where, $\alpha_1 - - - - \alpha_4$ are the parameter estimates.

We transformed the equation (3.7) into the log model as re-specified below;

$$Y_t = \alpha_0 + \alpha_1 \, FDt + \alpha_2 INTR_t + \alpha_3 INFt + \alpha_4 InGFCFt + \varepsilon_t \quad (3.8)$$

3.3 Estimation Techniques

The variables of the study were first examined for the existence of unit root by using Augmented Dickey Fuller test. Furthermore, a co-integration test was carried out to examine the long-run and short-run relationship between the series and finally the diagnostic test was conducted to assess modeling residuals about with estimation.

The ADF test was used to determine whether a time series contains unit root and in thus non-stationary. Below is the equation for the ADF test.

$$\Delta Y_t = \beta_1 + \beta_{2t} + Y_{t-1} + \alpha_i \Sigma Y_{t-1} + \varepsilon_t \quad (3.9)$$

In the equation, Y_t is the variable of interest. Δ is the differencing operator, t is the time trend and ε is the white noise residual of zero mean and constant variables. $\beta_1, \beta_2, Y, \alpha_i \ldots . \alpha_m$ is a set of parameters to be estimated. Both the null and hypothesis in unit root tests are:

$H_o : Y = 0$ (Y_t is unit root/non-stationary)

$H_1 : Y \neq 0$ (Y_t is stationary)

The second stage involved conducting a co-integration test to examine the long-run and short-run relationship between the series. The (ARDL) model is a co-integration model used to ascertain the long-run co-integration among the variables used. The general ARDL is stated;

$$Y_{it} = \sum_{j=1}^{p} \alpha_{ij} \, Y_{i,\, t-j} + \sum_{j=0}^{p} \beta_1 \, X_{i,t-j} + Y_i + \Sigma_{it} \quad (3.10)$$

- Y_{it} represent the GDP growth rate. It is the dependent variable
- X_i, t – j is a $(k \alpha 1)$ vector of regressors
- α_{ij} is the coefficient of the lagged dependent variable
- β_{ij} are $(k \alpha 1)$ coefficient vector

Parameterization of ARDL Model into Error Correction Model

$$\Delta Y_{it} = \lambda_i (Y_{i,t-1} - \delta_i^1 X_{i,t-1}) + \sum_{j=1}^{p-1} Q_{ij} \Delta yi,\ t-j + \sum_{j=0}^{q} \mu_{ij} X_{i,t-j} + Y_i + \varepsilon_{it} \quad (3.11)$$

Where;

- λ_i is the speed of adjustment coefficient. It is expected to be negative and significant.
- δ_i^1 represent the vector coefficients of the long-run relationships
- $ECT_{t-1} = (Y_{i,\ t-1} - \delta_i^1 X_{i,t-1})$ represents the error correction term that results from the long-run equilibrium relationship.
- Q_{ij} and μ_{ij} are the short-run dynamic coefficients
- Δ is the first difference of the variables

This approach offers insights into both long-term and short-term relationships. Consequently, the study employed an ARDL (p, q, q, …q) model, which provides a long-run equation and a short-run error correction model.

- $Q_i = (1-\delta)$, group – specific of adjustment coefficient (expected that $Q_i < 0$)
- P and q are optimal lag orders
- Δ_i = Long–run relationship vector

  Q_{ij} = the coefficient of short-run dynamic

  ε_{ij} = is the error term

The study further evaluated the model assumptions and identify whether any observations have a large unjustifiable impact on the study, diagnostic tests are employed in econometrics. As a result, doing diagnostic testing of data series offers information of possible modeling approaches with data. It can therefore be used to assess modeling residuals about with estimation, acting the tests with the model sufficiency and test of the models coefficients (Baltagi, 2001).

Diagnostic tests for estimated coefficients, such as the particular case of testing for omitted and reluctant variables, provide details and assess limits on the estimated coefficients. Lastly, the stability tests via cu sum and cu sum of square to ascertain the stability of the parameter estimated of the variables in the study were conducted.

3.4 Data Sources and Measurements

This study used annual time series data spanning 35 years (1987-2022) for Nigeria, published by the Central Bank of Nigeria (CBN, 2023). Economic performance is measured with data on GDP growth rate in Nigeria for the period under observation. The fiscal deficit was measured using the different between total government expenditure and total revenue over the years. The consumer price index (CPI) was used as a proxy for inflation rate. The consumer price index reflects changes in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals such as yearly. Interest rate was measured using primary lending rate. Gross fixed capital formation was measured as total gross fixed capital formation (% of GDP).

4 RESULTS AND DISCUSSION OF FINDINGS

4.1 Descriptive Statistics Result

The collected data were subjected to descriptive statistical analysis in order to meet the study's objective and the results are shown as follows:

Table 4.1 Summary of Descriptive Statistics

Variable	GDP-rate	INT	INF	GFCF	FD
Mean	4.2764	18.5988	19.8073	29.7586	-2583.588
Maximum	15.3292	31.6500	72.8353	30.0689	32.0494
Minimum	-2.0351	11.4831	5.2880	29.3660	-21593.04
Std.Dev	3.8450	3.9307	17.4173	0.1707	5473.270
Skewness	0.4792	1.0428	1.7359	-0.2043	-2.3167
Kurtosis	3.4933	4.9434	4.7109	2.4211	-7.0800
Jarque-bera	1.7440	12.1893*	22.4706*	0.7532	57.1711*
Probability of J-B	0.4183	0.0023	0.0000	0.6862	0.0000

Note: *, and ** indicates significant level at 1 per cent and 5 per cent respectively.
Source: Authors' compilation (2024).

Table 4.1 contains the descriptive statistic results. The study found that the mean estimator determines the average data point. Every value in the data set is factored into the mean's calculation, which is crucial characteristic. Mean estimator provides actual average moment of the data. The above shows that fiscal deficit (FD) has 2582.5880, interest rate (INT) of 18.5988, inflation rate (INF) of 19.8073, gross fixed capital formation of 29.7506. GDP growth rate (GDP_rate) has the lowest mean value of 4.2764. The value of the standard deviations revealed fluctuation of the study variables from the mean. Fiscal deficit (FD) is more volatile because it has the highest standard deviation (5473.2700). Gross fixed capital formation (GFCF) is less variable with lowest standard deviation (0.1707). A low standard deviation implies that most of the numbers are very close to the mean such as interest rate (INT), GDP growth rate (GDP_rate) and inflation rate (INF) are close to the sample mean. Also, the Jarque-Bera statistics showed that GDP growth rate (GDP_rate), gross fixed capital formation have probability values greater than 0.05. This means that their Jarque-Bera statistics are not statistically significant at 5 per cent level, which indicates that these variables are normally distributed. However, the remaining variables have their probability values of Jarque–Bera less than 0.05. This means that their Jarque–Bera statistics are statistically at 5 per cent level, suggesting that their distributions do not follow a normal distribution

4.2 Correlation Analysis

Table 4.2 Matrix of Correlation Coefficients

Variables	GDP_rate	FD	INT	INF	LOG(GFCF)
GDP_rate	1.000				
FD	0.4709	1.000			
IQ	-0.7240	-0.2917			
INT	0.5962	0.6983	1.000		
INF	-0.1340	-0.2392	-0.2229	1.000	
LOG(GFCF)	-0.5393	-0.5660	-0.239	-0.5365	1.000

Source: Authors' compilation (2024).

Table 4.2 contains the correlation analysis result of the study variables. All pair-wise correlation coefficients were less than 0.8 which excluded any multicollinearity issues. This suggests that there are no significant multicollinearity between any two variables of the study because correlation coefficient among them are (< 0.8), the indicated threshold for multicollinearity. Inflation rate (INF) has the lowest correlation coefficient of -0.1340, indicating a negative and very weak link between the two independent variables.

4.3 Unit Root Test

The study employed the Augmented Dickey Fuller (ADF) test to ascertain the stationarity properties of the variables. Table 4.3 showed that all variables are stationary at levels, $1_{(0)}$, except fiscal deficit which was stationary at first difference, $1_{(1)}$, the series are combination of $1_{(0)}$ and $1_{(1)}$.

Table 4.3 Unit Root Tests

ADF				
Variable	**Level**	**Ist diff**	**5% critical value**	**Decision**
GDP_rate	-3.9347* (0.0045)	N/A	-1.9504	I_0
(FD)	5.0705	-3.4453* (0.0011)	-1.9510	I_1
INT	-3.5172** (0.0544)	N/A	- 3.2124	I_0
INF	-3.5391** (0.0129)	N/A	-2.9511	I_0
LOG(GFCF)	-5.8826* (0.0001)	N/A	-3.5485	I_0

Note: *, and ** indicates significant level at 1 per cent and 5 per cent respectively.

Source: Authors' compilation (2024).

4.4 Bound Test of Co-integration

Table 4.4 Bound Test of Fiscal Deficit on Economic Performance

Test statistics	Value	Significance	$i_{(o)}$ Bound	$i_{(i)}$ Bound
F-statistic	5.9135	10%	2.2	3.09
K	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

Source: Authors' compilation (2024).

Table 4.4 presents the result of the Bounds test of the effect of fiscal deficit on economic performance in Nigeria. The result revealed that the lower and upper bound critical value are 2.56 and 3.49 respectively at 5% level of significance. The calculated F-value suggests the existence of a long-run effect among the variables since the test statistics of 5.9135 is above the upper bound or the critical value of a 5% level of significance. The result confirms that a long-run relation exists among the variables of the study.

Table 4.5 Short Run Result of Fiscal Deficit on Economic Performance

Variable	Coefficient	Std Error	t-statistics	Prob
D(FD)	0.0004	0.0004	0.9262	0.3681
D(FD(-1))	0.0009**	0.0005	1.9482	0.0692
D(FD(-2)	0.0013*	0.0005	2.9252	0.0099
D(INT)	0.4745**	0.2656	1.7869	0.0929
D(INT(-1))	-0.5285**	0.2143	-2.4665	0.0253
D(INF)	-0.2079*	0.0484	-4.2970	0.0006
D(INF(-1))	0.1592**	0.0503	3.1663	0.0060
DINF(-2))	0.0788	0.0477	1.6531	0.1178
D(INF(-3))	0.0776**	0.0440	1.8063	0.0897
ECT(-1)	-0.9123*	0.2066	-4.4163	0.0004

Note: *, and ** indicates significant level at 1 per cent and 5 per cent respectively.

Source: Authors' compilation (2024).

The estimated result presented in Table 4.5 suggests that the coefficient of fiscal deficit (FD) in the current year is (0.0004), implies a positive but insignificant effect on economic performance. However, the one-year and two-year lags of the fiscal deficit (FD) were both positive and significant. Having coefficient of (0.0009) and (0.0013) respectively. This implies that a 1% increase in one-year lag and two-year lag of fiscal deficit leads to an increase in economic performance (GDP_rate) in Nigeria (0.009) and (0.0013) percentage points respectively. These results are in line with *a priori* expectation and Keynesian theory which expects economic performance to increase as fiscal deficit (FD) increases. The positive and significant fiscal deficit could be attributed to prudent spending and fiscal discipline, in the lagged periods.

In the same vein, the coefficient interest rate (INT) of one year lag is (-05285) and significant. Also, Inflation rate (INF) has a coefficient value of (-0.2079) in the current year at 5% significance level, which implies that a rise in inflation rate (INF) of a 1% leads to a -0.2079 percentage point falling in economic performance (GDP_rate). This result deviates from the *a apriori* which expects economic performance (GDP_rate) to increase as inflation rate (INF) increases. The inflation rate (INF) coefficient for one-year lag and three-year lag are (0.1592), and (0.0776) respectively, indicating positive significant effect on economic performance. This conforms with the *a priori* expectation.

Additionally, the error correction coefficients (ECT-0.9123) are between the predicted range of 0 and 1 with ideal negativity. Specifically, the speedy of adjustment -0.9123 implies that around 91% of errors created in each period are automatically repaired by the economy in the following period and statistically significance at 1% level. This suggests that it will take 1.09 years for any divergence in the variable to reach equilibrium. These outcomes further substantiate the presence of a long-run effect among the variables of all the models at a space of adjustment of 1%,

Table 4.6 Long Run Result of Fiscal Deficit on Economic Performance

Variable	Coefficient	Std Error	t-statistics	Prob
FD	-0.0001	0.0002	-1.8600	0.4046
INT	0.5875	0.3428	1.7139	0.1000
INF	-0.3126*	0.0730	-4.3430	0.0002
LOG (GFCF)	-17.7020***	7.1467	-2.4780	0.0210

Note: *, and ** indicates significant level at 1 per cent and 5 per cent respectively.

Source: Authors' compilation (2024).

Table 4.6 revealed that the coefficient for the long-run fiscal deficit (FD) has a coefficient value of (-0.0001) but not significant. The insignificant effect of fiscal deficit suggests that deficit spending might not have been efficiently managed or utilized to enhance economic performance in Nigeria. Gross fixed capital formation (GFCF) has the coefficient of -17.702 and significant. However, inflation rate (INF) has the coefficients of -0.3126 and significant, this implies that increase inflation rate (INF) by a 1% leads to reduction of -0.3126 per cent in economic performance in Nigeria. The result of inflation rate deviates from the *a priori* expectation.

Diagnostic Tests of ARDL for Fiscal Deficit

In addition to the estimations, this study also conducted some diagnostic test such as the residual tests (which include the Jarque–Bera Normality test, serial correlation LM test and Breusch-Pagan-Godfrey Heteroskedasticity test) to assess the econometric properties of the data. From Table 4.7 the Jarque-Bera statistics of the Normality was not significant suggesting

that the residual of the regression estimate is normally distributed. Also, the F-statistics of both the serial correlation LM test and the Heteroskedasticity test were not significant confirming the absence of serial correlation and Heteroskedasticity problems in the residual of the regression estimate. The implication of these is that the regression model was appropriately estimated.

Table 4.7 Diagnostic Tests of Fiscal Deficit on Economic Performance

Tests	Value	Prob
Jarque-Bera Normality Test	0.6414	0.7256
Serial correlation LM Test	0.0077	0.9924
Breusch-Pagan-Godfrey Heteroskedasticity Test	0.2789	0.9798

Source: Authors' compilation (2024).

Stability Test

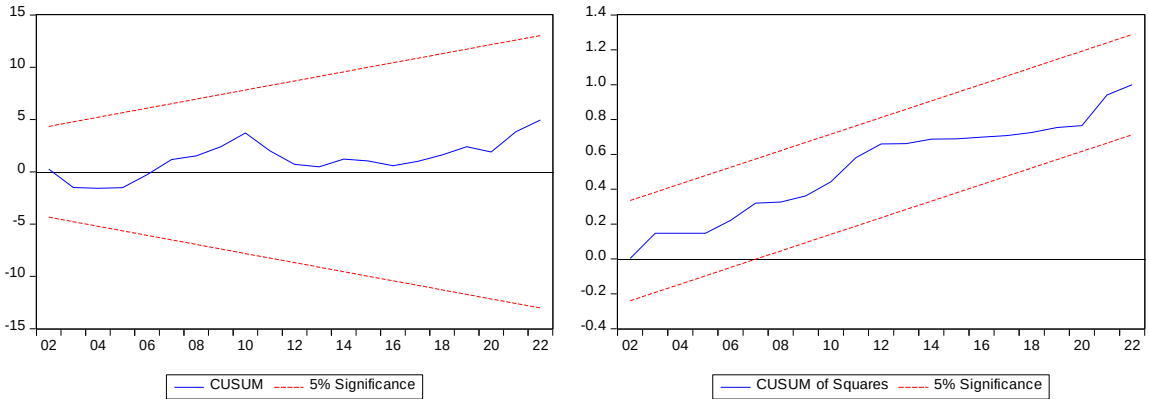

Figure 4.1: Stability Tests (CUSUM) test and (CUSUM) of squares test

The stability test conducted via CUSUM and CUSUM of squares tests in Figure 4.1 indicated that the parameters of the estimated model are within the 5% significant lines. The results suggest coefficient stability for both short-run and long-run. This further established that the estimated model was dynamically stable and the estimated results are reliable and satisfactory for policy inferences.

5.0 CONCLUSION AND RECOMMENDATIONS

The study examined the effect of fiscal deficit on Nigeria's economic performance. In the short-run, the current year's fiscal deficit positively but insignificantly affects economic performance. Fiscal deficits from the previous one and two years show a positive and significant effect. In the long-run, fiscal deficit negatively and insignificantly affects economic performance. The study concluded that fiscal deficit do not significantly influence Nigeria's economic performance, suggesting that other macroeconomic variables and external factors are more critical in driving the economy. Therefore, the study recommends that policymaker should not rely solely on reducing fiscal deficits to enhance economic performance, they should consider other macroeconomic variables and structural reform, such as the inflation rate, interest rate, and gross fixed capital formation. Inflation control will create a more stable environment that promotes economic performance, as businesses and households would be more willing to invest and spend if inflation is kept at manageable levels. Interest rate management should be aligned with inflation control and other macroeconomic objectives to foster sustainable economic performance. Gross fixed capital formation should be boosted

through both public and private sector investments, as this would positively affect Nigeria's economic performance.

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