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## **Fiscal Deficit and Macroeconomic Performance in Nigeria**

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### **Abstract**

This study assessed the impact of fiscal deficit on key measures of macroeconomic performance in Nigeria. Specifically, it examined the impact of fiscal deficit on unemployment rate, and GDP growth rate. The study used time series annual data from 1991 to 2022 collected from Central Bank of Nigeria statistical bulletin and World Bank development indicators. With the aid of the ARDL techniques the objectives of the study was achieved. Findings revealed that there was a long run relationship between fiscal deficit and measures of macroeconomic performance. The ARDL result indicates that Fiscal Deficit (FD) had positive and significant effect on economic growth in both the long and short run. Fiscal deficit was, however, negatively related to unemployment rate. Fiscal Deficit (FD) had negative and significant impact on unemployment rate in the long run, but had no significant impact in the short run. The study, therefore, indicates that over the reviewed period, expansionary budgetary pursuits of the Nigerian government through Fiscal Deficit financing translated to economic growth and reduced unemployment rate. Therefore, it is recommended that fiscal deficit policy could be pursued by government provided that public funds are continuously channeled towards expenditures that support sustained economic growth and reduced unemployment.

**Keywords:** Deficit Financing, Unemployment, Growth and Macroeconomic Performance

### **INTRODUCTION**

Economies around the world from time to time experience shortfalls in their income when compared to their spending, meaning that their current expenditures exceeds their current revenues. This situation is referred to as Fiscal deficit. In carryout its fundamental role of providing public goods and services as well as transferring of income from one group to another, improving the welfare of the poor, making payments to pensioners, among other responsibilities, governments often have the need to spend beyond the revenues accruable to them within a given fiscal year. Under this type of circumstance, governments have to resort to borrowing either locally (domestic debt) or from international lending organizations (foreign debt) to make up for

the shortfall. The borrowed funds are often channeled towards specific budget items under capital and/or recurrent expenditure subheads.

According to data from the CBN statistical bulletin (2021), Nigeria's expenditure surpassed her revenue since 2007 signifying that Nigeria has been financing its expenditure through taxes and debt (Ekpo, 2022). Moreover, the peculiarity of Nigeria's deficits financing is that a large percentage of budgetary spending in Nigeria is usually channeled towards items under recurrent expenditure rather than capital expenditure. This is evident as shown in figure 1 below, which is a graph of federal government's total recurrent expenditure and total capital expenditure from the year 2000 to the year 2022.

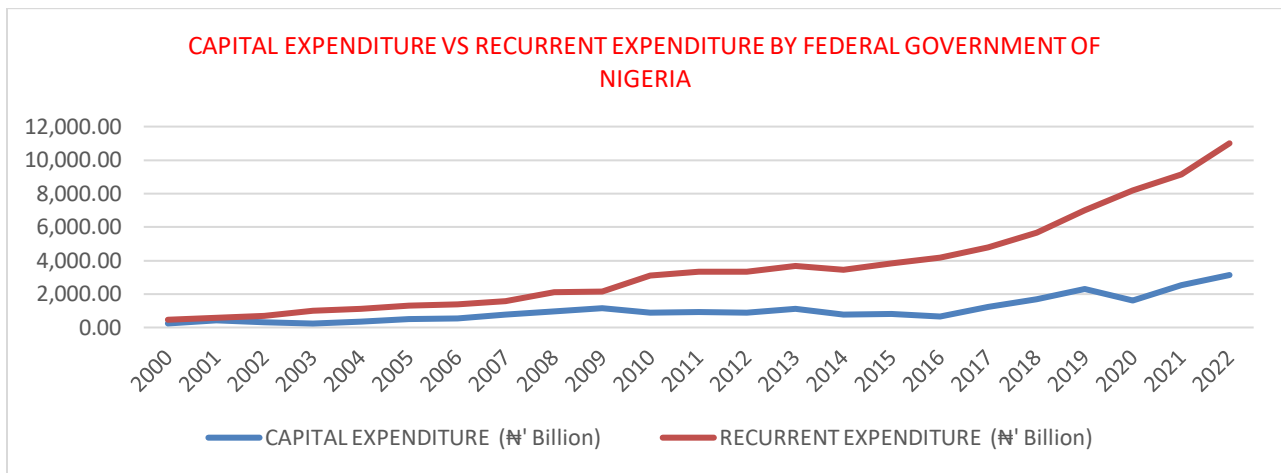


Figure 1: Capital Expenditure Vs Recurrent expenditure in Nigeria

Source: CBN Statistical Bulletin 2023

The graph above clearly showed that while capital expenditure figures have been consistently low and with very slow growth rate, the recurrent expenditure figures were high and growing at a galloping rate. This raises the question as to whether this financing structure is sustainable and whether it indeed contributes positively towards economic stimulation and the achievement of desired macroeconomic objectives like growth in real GDP and reduction in unemployment rate. Generally, deficit financing is a key fiscal policy tool often aimed at stimulating production, improving the purchasing power of economic agents, increasing per capita income, and maintaining acceptable level of employment. However, it is believed that, there is need for the fiscal deficit itself to grow or expand, albeit, at a slow and constant rate in order to avert the consequences of coming under a heavy debt burden. Nonetheless, the reality in Nigeria is completely different as data clearly show that fiscal deficit figures are currently growing at a high and fast rate year on year, growing steadily from a moderate N47.4 billion in 2008 to a staggering figure of N7.12 trillion in 2021 (Ekpo, 2022). The fiscal deficit figures in Nigeria from 2007 to 2021 is shown in figure 2 below.

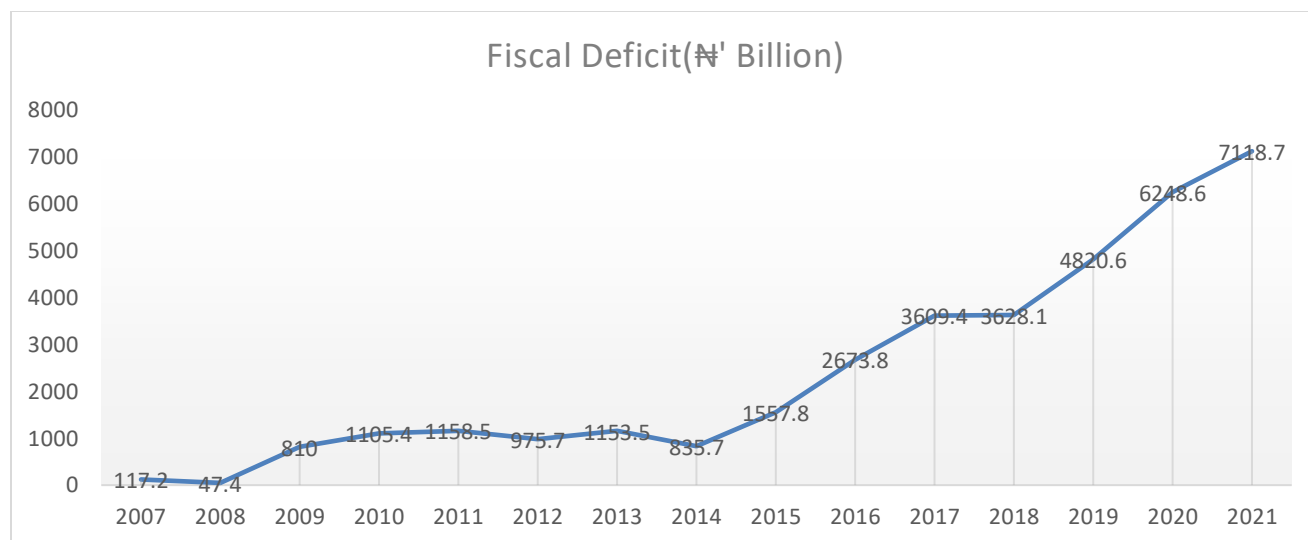


Figure 2: Fiscal Deficit figures in Nigeria from 2007 to 2021

**Sources:** CBN Statistical Bulletin and Ekpo, 2022

It is often assumed that when fiscal deficit persists for an extended period of time, it can have negative impacts on a country's economy such as high unsustainable debts, high inflation, poor investment performance, and poor growth that may result from continuous borrowings (Ezeabasili, Mojekwu, and Herbert, 2012).

The persistent sharp rise in fiscal deficit in Nigeria in recent times calls for concern. The problem is further compounded by the fact that a much greater percentage of the money borrowed by government is channeled towards recurrent expenditure such that while recurrent expenditure figures are high and rising, capital expenditure figures are low and stagnated. The foregoing makes it imperative to really investigate whether and to what extent the borrowing by federal government of Nigeria has been impacting the overall macroeconomic performance of the country over the period given this spending pattern it has adopted over the years. Therefore, the broad objective of this study is to investigate if there exists a relationship between fiscal deficit and key macroeconomic performance measures/variables, while the specific objectives are: (i) to estimate the magnitude and significance of the effects of fiscal deficit on economic growth and unemployment rate (ii) to investigate if there exists a long run relationship between fiscal deficit and the macroeconomic performance indicators.

A study of this nature is important in many folds. Firstly, classical economics has linked deficit financing with increasing rate of inflation. The problem of increasing rate of inflation is compounded by the fact that more people are vying for the bundle of goods and services to increase tomorrow while earning the same real wage income, given the same set of prices as at today. A great deal of evidence suggests that inflation is detrimental to economic growth. Specifically, the interest in understanding, whether and how fiscal deficit affect inflation and, by extension economic growth, across countries is very beneficial, not only to the Nigeria economy but also to all economies of the world. Secondly, the persistent poor performance of the Nigerian economy as captured by the growth rate of real Gross Domestic Product (GDP) in the presence of high fiscal financing as well as the persistent increase in the rate of unemployment provides

another key justification for this study. Therefore, there is need to assess the effect of fiscal deficit on the Nigerian economy.

The rest of the paper is organized as follows. Section 2 presents an overview of the theories on fiscal deficit as well as a survey of related empirical literature, with a focus on the gap to be addressed. Section 3 lays out the methodology, section 4 analyses the relevant data sets and interprets the results of the analysis, while section 5 concludes the paper with some policy recommendations.

## **LITERATURE REVIEW**

### **Conceptual Literature**

#### **Fiscal Deficit**

Fiscal deficit as a concept was developed by the Keynesian school of economics and argues that government intervention is necessary when the government cannot balance tax revenues and public spending. It is the difference between a government's total revenue and total expenditure in a fiscal year. According to Aero and Ogundipe (2018), "it arises from government's expansionary fiscal policy that leads to revenue falling short of expenditure in a given fiscal year". It can also be referred to as a gap in government's budget which arises in a fiscal year when the government's total expenditure exceeds its total expected receipt. When the government spends more than it receives, a fiscal deficit occurs leading to borrowing. Fiscal Deficit is not necessarily bad for the economy, it is an integral part of fiscal policy and it is typically financed by borrowing from the country's central bank or by raising funds in the capital markets through the issuance of various instruments such as Treasury bills and bonds.

#### **Macroeconomic Performance:**

Macroeconomic performance is a measure of how well a country is meeting its goals or economic objectives. It focuses on changes in economic output, inflation, interest and foreign exchange rates, and the balance of payments. According to Ferreira (2021), macroeconomic performance can be represented by real gross domestic product (GDP), inflation, unemployment rate, current account, and net international investment position. The performance of the economy is very important. The indicators listed above are thus very useful in the assessment of how well a country is doing in reaching key objectives of government policy. Changes in any of these variables or measures have an overbearing effect on the direction of fiscal policy. In this study macroeconomic performance is proxied by gross domestic product and unemployment rate.

#### **Theoretical Literature**

The Neoclassical, Keynesian, and Ricardian schools of thought on deficit finance are the three main schools of thought in this area. The classical deficit theory states that while a budget deficit (fiscal deficit) increases current consumption, it is balanced out by a decrease in investment. According to Perry (2014), if consumption rises, savings must inevitably decline. Interest rates rise when savings decline, which ultimately discourages investment. So, when the budget deficit results in higher interest rates and decreased investment, crowding-out happens (Robertson, 1934). In other words, government borrowing crowds out private businesses by

increasing the interest rate and making it more expensive for businesses to borrow money. The loanable funds market, according to the classical economics, would balance savings and investment and maintain full employment or a near approximation of it if permitted to operate on its own. If that was the case, there would be no need for government deficit spending, which they considered to be ineffective due to the crowding out effect, which suggested that deficit spending diverts money from investment to government consumption. Because of this, classical economists were generally against government deficit spending.

### **The Keynesian School**

Keynesian postulates differ from the conventional Classical paradigm. The Keynesian School of economics postulates a favourable correlation between budget deficits and macroeconomic factors. According to their argument, budget deficits often boost domestic production, aggregate demand, savings, and private investment at any given interest rate. According to the Keynesian absorptive theory, rising budget deficits would lead to increased domestic consumption and consequent import growth, which would result in a current account deficit. According to the Mundell-Fleming framework, a rise in the budget deficit would push interest rates higher, bringing in capital and increasing the value of the currency, which would increase the current account balance. They contend that, typically, budget deficits increase domestic production, which raises private investors' expectations for the future course of the economy and encourages them to increase their investments. This is known as the “crowding-in” effect.

Politically, reducing the budget deficit of government is quite difficult. According to the conventional Keynesian hypothesis, if government is successful in lowering the deficit, a recession may occur. Budget deficit is not totally bad, despite its evil reputation. According to McDermott and Wescott (1996), the good news regarding the budget deficit is that it shows that the government is making purchases, paying employees' pay checks, and making transfers to its needy residents. This increases economic activity and helps to inject money into the economy. Thus, even when the government is trying to balance the budget with good intentions, a sudden break will result in decreased corporate inventories, job losses, and a sharp decrease in the flow of money.

### **The Ricardian School**

The primary argument for the Ricardian observation is that fiscal deficit essentially delays taxes. This is because rational agents typically assume that the present discounted value of taxes is a function of actual government expenditure rather than the timing of taxes. According to Bernheim (1989), this foresight gives rise to the “Say's Law” for deficits: bond demand will always increase to meet government borrowing. Tax timing cannot influence a person's purchasing choices because it has no impact on his or her lifetime budget constraints. Therefore, both short-term and long-term budget deficits have no discernible effects. This logic, however, does not depend on full employment of resources.

### **Empirical Literature**

Obinabo and Agu (2018) investigated the effect of fiscal deficit on selected macroeconomic variables in Nigeria employing various econometric techniques such as unit root test, Johansen co-integration, ordinary least square and granger causality on time series data from 1986-2018. The results of their analysis indicates that Fiscal Deficit (FD) had positive and no significant effect on Gross Domestic Product (GDP), Fiscal Deficit (FD) had negative and no significant impact on Money Supply (MS), Fiscal Deficit (FD) had negative and no significant relationship with Inflation Rate (INFR).

Ubi and Inyang (2018) evaluated fiscal deficit and its impact on Nigeria's economic development from 1980 to 2016 using descriptive approach. Using various specified development metrics, including per capita income, GDP, unemployment, inflation, and balance of payments (BOP), the study evaluated the budget deficit. It was shown that Nigeria's fiscal deficit had a positive and significant impact on the growth of per capita income, economic growth, and Balance of Payments. Unemployment and inflation rates did not decline within the research period despite the fiscal deficit.

Nwaeze (2017) conducted an empirical study on the relationship between the budget deficit and macroeconomic stability from 1970 to 2016 in Nigeria. Secondary sources, including the CBN statistical bulletin, provided the data for the empirical analysis. In order to examine the data, the study used descriptive statistics, the unit root test, co-integration, and VAR estimation techniques. The results of the variance decomposition show that the main shocks causing the fluctuation in the exchange rate in Nigeria are the interest rate, total fiscal deficits, and the extent of fiscal deficits supported by domestic borrowing. According to the study's findings, fiscal deficits significantly and negatively affect macroeconomic stability in relation to inflation and currency rates.

Sanya and Abiola (2015) used a co-integration and error correction model to assess the effect of the budget deficit on the growth rate of the Nigerian economy. The time series nature of the data is first examined. The unit root test's conclusion made it abundantly evident that the variables were integrated of the same order at the initial difference. The findings of the multivariate co-integration test also show that there are, at most, two co-integrating vectors as such there exist a long run relationship between both variables.

Aslam (2016) used annual time series data from 1959 to 2013 to examine the dynamic relationship between Sri Lanka's fiscal deficit and economic growth. The Sri Lankan budget deficit was employed as an independent variable and the country's gross domestic product at constant prices as a dependent variable to test the objective. The exports earnings, exchange rate, inflation rate was employed in the study. The Johansen co-integration technique and Vector Error Correction Model were employed to test the long and short-run dynamic relationship between the fiscal deficit and the economic growth of Sri Lanka.

Umeora and Ikeora (2016) looked into how Nigeria's fiscal shortfalls affected the country's money supply. Inflation was included in the model and data from CBN Statistical Bulletin provided the data set for the study from 1970 through 2014. The Error Correction Model (ECM) and Pairwise Granger Causality were used as the analysis technique. According to the

regression results, government fiscal deficits have a significant and negative effect on money supply, while inflation has no significant effect on money supply or fiscal deficits. According to Pairwise Granger Causality, money supply granger causes fiscal deficits.

Murwirapachena et al. (2013) used The Vector Error Correction Model (VECM) to analyze the determinants of South Africa's budget deficit from 1980 to 2010. Their findings demonstrated that fluctuations in fiscal deficits over the research period were explained by foreign reserves, foreign debt, unemployment, economic growth, and government investment. Wosowei (2013) investigated the relationship between fiscal deficit and macroeconomic aggregates of inflation rate and money supply using the OLS technique, the study revealed that government expenditure stimulates economic growth. In other words, government should increase money supply to boost economic activity. Ezeabasili et al (2012) examined the impact of fiscal deficit on economic growth, Real GDP, inflation, money supply and interest rate. Using Unit root test, cointegration test and OLS they find that fiscal deficit impacts negatively on economic growth, with an adjustment lag in the system.

Imobighe (2012) examined the relationship between budget deficit and inflation. Using OLS as the analytical tool in his study, he found out that fiscal deficit and credit to the federal government are not significant in explaining the rate of inflation in Nigeria. He suggested that budget deficit causes inflation and that government should checkmate its spending activities. Oladipo and Akinbobola (2011) used the Granger causality pair-wise test to determine the causal relationship between Nigeria's budget deficit and inflation. In Nigeria, the study discovered that there is no direct relationship between inflation and budget deficit, but just between budget deficit and exchange rate. This implies that the Nigerian economy's budget deficit affects inflation via exchange rate volatility.

### **Gap in the Literature**

Generally, literatures and the empirical evidences on fiscal deficit and macroeconomic performance differ across countries, and even within countries because of the use of different methodologies for the same country data. Equally apparent is the fact that most of the studies concentrated on threshold analysis (Onwioduokit 2016), others focused on specific measures, Oladipo and Akinbobola (2011), Ozurumba (2012). Imobighe (2012) examined the relationship between budget deficit and inflation. Ezeabasili et al (2012), Ojong and Owui (2013) focused specifically on the relationship between budget deficit and growth. This study extends the literature in this area by employing an aggregated approach of ARDL to examine the impact of fiscal deficit on key indicators of macroeconomic performance (GDPGR and Unemployment rate)

### **RESEARCH METHODOLOGY**

In other to examine the impact of fiscal deficit on macroeconomic performance, the quantitative research technique based on ex-post facto and correlational research design was adopted for the study. Fiscal deficit, GDP growth rate, unemployment rate and other exogenous variables covering the period: 1991-2021 were sourced from the publications of the Central Bank of Nigeria, National Bureau of Statistics and WDI (2022).

## Model specification

This study is anchored on the Keynesian view of fiscal deficit, with the model drawn from that of Obinabo and Agu (2018) with little modifications to suit the objectives of the study.

The models used in this study are stated as follows;

$$GDPGR = f(FD, INF, UNEM, K, EXR) \quad 3.1$$

$$UNEM = f(FD, INF, GDPGR, K, INTR) \quad 3.2$$

The generalized ARDL Regression Model is specified as:

$$Y_t = a_1 Y_{t-1} + \dots + a_j Y_{t-j} + \beta_0 X_t + \beta_k X_{t-k} + e_t \quad 3.3$$

Where j, k refers to the number of lags. Consequently, the ARDL Specification for the impact of fiscal deficit on macroeconomic performance (GDPGR and Unemployment) is given as:

$$\Delta GDPGR_t = \alpha_i + \beta_1 GDPGR_{t-1} + \beta_2 FD_{t-1} + \beta_3 INF_{t-1} + \beta_4 UNEM + \beta_5 K_{t-1} + \beta_6 EXR_{t-1} + \epsilon_{it} \quad 3.4$$

$$\Delta UNEM_t = \alpha_i + \beta_1 UNEM_{t-1} + \beta_2 FD_{t-1} + \beta_3 INF_{t-1} + \beta_4 GDPGR + \beta_5 K_{t-1} + \beta_6 INTR_{t-1} + \epsilon_{it} \quad 3.5$$

Since the bounds test indicated that there is co-integration among the variables, the error correction form of model 3.4 is given as:

$$\Delta GDPGR = \delta + \sum_{i=1}^k \alpha_1 \Delta GDPGR_{t-i} + \sum_{i=1}^k \alpha_2 \Delta FD_{t-i} + \sum_{i=1}^k \alpha_3 \Delta INF_{t-i} + \sum_{i=1}^k \alpha_4 \Delta UNEM_{t-i} + \sum_{i=1}^k \alpha_5 \Delta K_{t-i} + \sum_{i=1}^k \alpha_6 \Delta EXR_{t-i} + ECT_{t-1} + e_t$$

The error correction form of model 3.5 is given as:

$$\Delta UNEM = \delta + \sum_{i=1}^k \alpha_1 \Delta UNEM_{t-i} + \sum_{i=1}^k \alpha_2 \Delta FD_{t-i} + \sum_{i=1}^k \alpha_3 \Delta INF_{t-i} + \sum_{i=1}^k \alpha_4 \Delta GDPGR_{t-i} + \sum_{i=1}^k \alpha_5 \Delta K_{t-i} + \sum_{i=1}^k \alpha_6 \Delta INTR_{t-i} + ECT_{t-1} + e_t$$

GDP denotes GDP growth rate, FD denotes Fiscal Deficit, INF is the Inflation Rate, UNEM denotes unemployment rate and EXR denotes exchange rate, Lab and K denotes labour and capital respectively. Where  $\alpha_1 - \alpha_7$  are short run coefficients,  $\beta_1 - \beta_6$  captures long run relationships,  $\delta$  represents the intercept or constant,  $\mu$  is the error term and  $\Delta$  represents the difference operator.

Where;

FD                      Fiscal Deficit  
GDPGR:                Real GDP growth rate

UNEM	Unemployment rate
EXR	Exchange Rate
INF	Inflation rate
INTR	Interest rate
K	Capital
$\mu$ :	Error Term
$\theta_0$	= Constant parameter/Intercept
$\theta_1$ - $\theta_4$	= Coefficients of independent variables

### Apriori Expectation

The ‘apriori expectation’ of the research outcome is that fiscal deficit is expected to have a positive relationship on measures of macroeconomic growth, drawing from Keynesian’s perspective and a negative relationship with Unemployment rate.

### Nature and Sources of Data

Data used for this study are time series and cross-sectional data covering a period of (1991 – 2022). The data are obtained from the World Bank development index (2022) and CBN statistical bulletin (2022)

### Analytical Techniques

The ARDL model is the analytical technique employed in this investigation. The study first investigated the time series properties of the data by using the Augmented Dickey–Fuller (ADF) and the Phillip-Perron (PP). Cointegration Test was used to ascertain whether the parameter estimates of the economic relationship or model are theoretically meaningful and statistically satisfactory in the long run. The Bound test technique developed by Pesaran, Shin and Smith (2001) known as the Autoregressive Distributed Lag (ARDL) bound test was applied. The calculated F-statistic of the bound test was compared with two sets of critical values to motivate our decision.

## RESULTS

To estimate the model of the study, the unit root test was considered. This is done because the outcome of working with non-stationary variables leads to spurious regression results from which further reference or result may be meaningless according to Gujarati and Porter (2009). To avoid this, the Augmented Dickey-Fuller (ADF) unit root test was carried out.

### Unit Root Test Results

Table 1: Augmented Dickey-Fuller test

Variables	Level	Diff	95% critical level	Order of co-
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				integration
FD	0.187692	-5.056726	-3.580623	1(1)
GDPGR	-2.809890	-7.434742	-3.574244	1(1)
INF	-2.661450	-5.220338	-3.574244	1(1)
EXR	-0.306272	-4.253022	-3.568379	1(1)
K	-9.018594	-	-3.568379	1(0)
UNEM	-0.249113	-5.080939	-3.574244	1(1)
INTR	-3.254765	-7.546873	-3.568379	1(1)

**Source:** Computed by the author using E-views 9

After testing for stationarity, the variables were found to be stationary at first difference at 5% level of significance as shown in Table 1, except for capital (k) which was stationary at level thus the results from the estimation of the model are likely to be unbiased and consistent.

### Bounds Test for Cointegration

As shown in Table 2, the calculated F-statistic value of 4.31 exceeds the upper bound critical value of 2.62 and lower bound critical value of 3.79 at 5% level; meaning that there exist a long run relationship among the variables.

Table 2: Bounds Test Result for GDPGR Model

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	4.315810	10%	2.26	3.35
K	5	5%	2.62	3.79
		2.5%	2.96	4.18
		1%	3.41	4.68

**Source:** CBN Statistical Bulletin 2023 and Computed by Author using Eviews 9

### Results of the ARDL Model: GDPGR Model

The ARDL results for GDPGR model is shown in Table 3. The result indicated that Fiscal deficit is positively signed and significant in the short run cointegrating form. The result also indicated that Inflation, exchange rate and unemployment rate have had negative impact on economic growth in Nigeria. The positive relationship between fiscal deficit and GDPGR, points to the fact that deficit financing is propelling growth in Nigeria.

Table 3: ARDL short run and Long- Run Model: GDPGR

Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(FD)	0.007134	0.003188	2.237909	0.0374
D(INF)	-0.092752	0.038892	-2.384851	0.0277
D(K)	-0.104592	0.057770	-1.810494	0.0861

D(K(-1))	0.104399	0.054810	1.904755	0.0721
D(UNEM)	-0.124791	0.710214	-0.175709	0.8624
D(EXR)	-0.034163	0.033521	-1.019141	0.3209
CointEq(-1)	-0.824451	0.165135	-4.992598	0.0001
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
FD	0.008653	0.004034	2.145040	0.0451
INF	-0.112501	0.045925	-2.449675	0.0242
K	-0.416997	0.201825	-2.066130	0.0527
UNEM	-2.009398	0.721382	-2.785482	0.0118
EXR	0.032276	0.014801	2.180619	0.0420
C	13.955335	2.495529	5.592134	0.0000
R-squared	0.737914			
Adjusted R-squared	0.599974			
Durbin-Watson stat	2.208121			
F-statistic	5.349527			
Prob(F-statistic)	0.000864			

**Source:** CBN Statistical Bulletin 2023 and Computed by Author using Eviews 9

In the long run result, fiscal deficit had significant positive impact on GDP growth rate in the long run as the P-value is shown to be less than 0.05 level. The coefficients of inflation rate capital and unemployment rate were all negatively related to GDPGR. This finding contradicts that of Obinabo and Agu (2018) since there exists significant relationship between fiscal deficit and economic growth in Nigeria. The implication of this finding is that an increase in unemployment rate signals low productivity and low confidence on the economy. The inverse relationship between inflation rate and growth can be interpreted to mean that as inflation rate rises, the level of growth reduces significantly. However, the current galloping rate of inflation in Nigeria can be however attributed to a multiplicity of factors (monetary policy mis-alignment, insecurity, dollar scarcity, price inflation occasioned by removal of subsidy on petroleum products, etc.) and not necessarily the pass-through of fiscal deficit.

### Bounds Test for Cointegration (Unemployment Model)

Table 4 revealed that there exist a long run relationship among the variables, as the F-Statistics value exceeded the upper and lower bound respectively.

Table 4: Bounds Test Result for Long-run Relationship in the ARDL Model

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	4.186404	10%	2.26	3.35
K	5	5%	2.62	3.79

2.5%	2.96	4.18
1%	3.41	4.68

**Source:** CBN Statistical Bulletin 2023 and Computed by Author using Eviews 9

Table 5 represents the ARDL result for unemployment rate model. The result indicated that Fiscal deficit is negatively signed with negligible impact on unemployment rate. The result indicated that Inflation and unemployment rates are negatively related conforming to the Phillips curve postulation.

Table 5: Short and Long- Run ARDL Model analysis: UNEM

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(UNEM(-1))	0.301352	0.178591	1.687385	0.1063
D(FD)	-0.000431	0.000556	-0.775758	0.4465
D(GDPGR)	-0.065828	0.039757	-1.655776	0.1126
D(INTR)	0.015057	0.032942	0.457078	0.6523
D(K)	-0.000105	0.009549	-0.011023	0.9913
D(INF)	-0.005629	0.008898	-0.632548	0.5339
CointEq(-1)	-0.573342	0.116440	-4.923943	0.0001
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
FD	-0.003325	0.000820	-4.055690	0.0006
GDPGR	-0.114815	0.065416	-1.755168	0.0938
INTR	0.026262	0.057302	0.458308	0.6514
K	-0.000184	0.016656	-0.011022	0.9913
INF	-0.009817	0.015258	-0.643412	0.5269
C	4.194387	0.977414	4.291311	0.0003
R-squared	0.846892			
Adjusted R-	0.788565			

squared	
Durbin- Watson stat	2.120841
F-statistic	14.51974
Prob(F- statistic)	0.000001

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**Source:** *CBN Statistical Bulletin 2023 and Computed by Author using Eviews 9*

The long run result revealed a significant but inverse relationship between fiscal deficit and unemployment rate. The coefficients of inflation rate and unemployment rate are also negatively related but not significant. The result is an indication that deficit financing may have been the contributing factor to the decreasing rate of unemployment in Nigeria. This is because as fiscal deficit has been increasing, unemployment rate have been decreasing in Nigeria.

### Post Estimation Diagnostics

The diagnostic test which includes: serial Correlation test, Heteroskedasticity test, multicollinearity test and stability test for both models showed the absence of autocorrelation. The test results for GDPGR model are shown in tables 6 to 8 and figure 3 while the test results for UNEM model are shown in tables 9 to 11 and figure 4.

Table 6: Breusch-Godfrey Serial Correlation LM Test for GDPGR Model

F-statistic	0.282919	Prob. F(2,17)	0.7571
Obs*R-squared	0.966372	Prob. Chi-Square(2)	0.6168

**Source:** *CBN Statistical Bulletin 2023 and Computed by Author using Eviews 9*

Table 7: Heteroskedasticity Test: Breusch-Pagan-Godfrey for GDPGR Model

F-statistic	0.503081	Prob. F(10,19)	0.8671
Obs*R-squared	6.280449	Prob. Chi-Square(10)	0.7912
Scaled explained SS	6.938906	Prob. Chi-Square(10)	0.7312

**Source:** *CBN Statistical Bulletin 2023 and Computed by Author using Eviews 9*

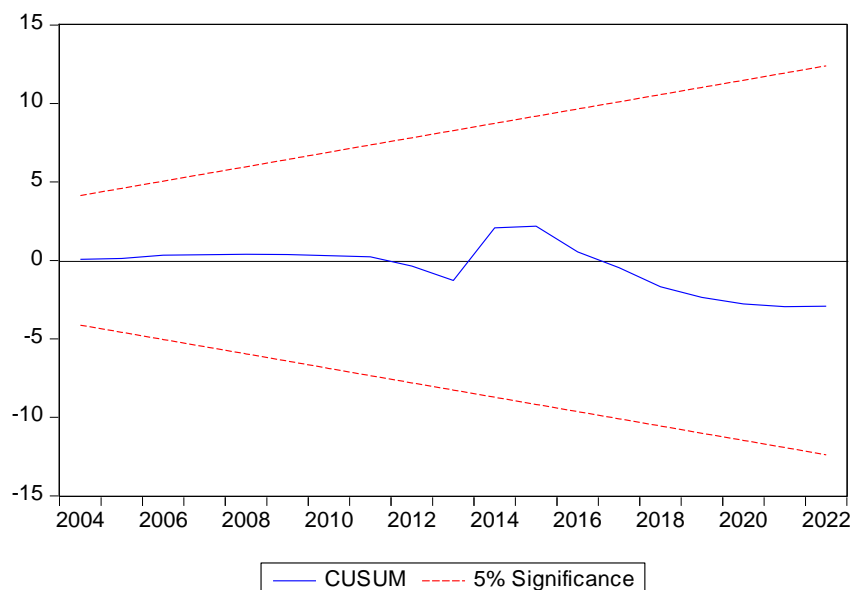


Figure 3: CUSUM Stability Test for GDPGR Model

**Source:** *CBN Statistical Bulletin 2023 and generated by Author using Eviews 9*

Table 8: Multicollinearity Test for GDPGR Model

	GDPGR	FD	INF	K	UNEM	EXR
GDPGR	1					
FD	0.310518	1				
INF	-0.40649	0.161972	1			
K	0.173089	0.213066	-0.11865	1		
UNEM	-0.40504	-0.58495	-0.0692	-0.0432	1	
EXR	-0.08149	-0.83611	-0.35959	-0.09088	0.68905	1

**Source:** *CBN Statistical Bulletin 2023 and Computed by Author using Eviews 9*

Table 9: Breusch-Godfrey Serial Correlation LM Test: for UNEM model

F-statistic	1.043643	Prob. F(2,19)	0.3715
Obs*R-squared	2.969495	Prob. Chi-Square(2)	0.2266

**Source:** *CBN Statistical Bulletin 2023 and Computed by Author using Eviews 9*

Table 10: Heteroskedasticity Test: Breusch-Pagan-Godfrey for UNEM model

F-statistic	2.222327	Prob. F(8,21)	0.0682
Obs*R-squared	13.75393	Prob. Chi-Square(8)	0.0884
Scaled explained SS	9.999732	Prob. Chi-Square(8)	0.2650

**Source:** *CBN Statistical Bulletin 2023 and Computed by Author using Eviews 9*

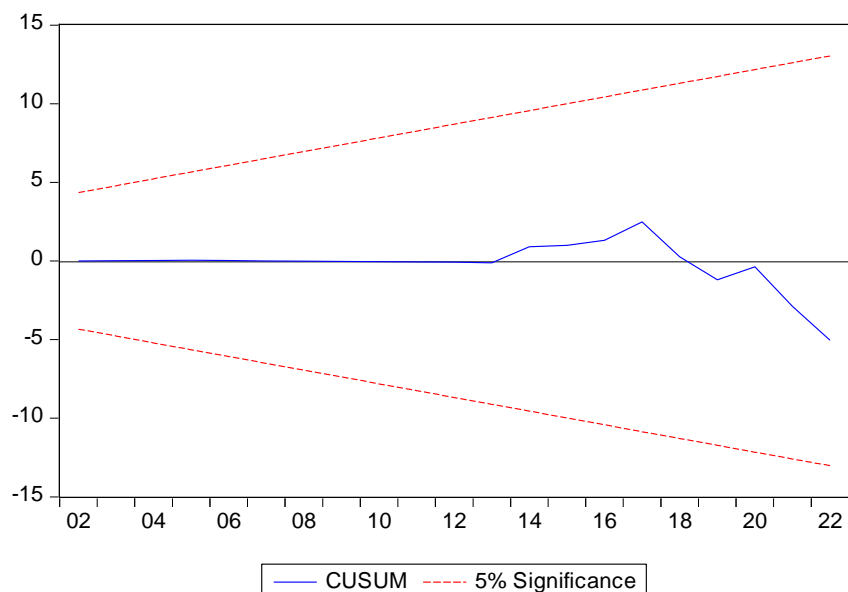


Figure 4: CUSUM stability test for UNEM model

Source: CBN Statistical Bulletin 2023 and generated by Author using Eviews 9

Table 11: Multicollinearity Test

	UNEM	FD	GDPGR	INTRK	INF	
UNEM	1					
FD	-0.58495	1				
GDPGR	-0.40504	0.310518	1			
INTR	0.062631	0.124032	-0.27775	1		
K	-0.0432	0.213066	0.173089	-0.12624	1	
INF	-0.0692	0.161972	-0.40649	0.399514	-0.11865	1

Source: CBN Statistical Bulletin 2023 and Computed by Author using Eviews 9

## Recommendations

Given the positive and significant relationships between fiscal deficit and GDP growth rate, which conforms with the apriori expectation, there should be significant effort and policy drive by the government to ensure that larger chunk of the borrowed funds is channeled more toward capital expenditure to increase the magnitude of impact. In the meantime, the research recommends that the government should set her priority right to ensure that fiscal financing through bonds and external borrowing be channeled on productive ventures, agricultural sector and infrastructural development as this will help in propelling the economy.

Since the ARDL analysis revealed that there is a significant negative relationship between unemployment rate and fiscal deficit in the long run, an indication that fiscal deficit helped in reducing unemployment, the government should continue to pursue this policy while ensuring that deficit financing is also complimented by excellent debt management, trade and monetary policy efforts. The government should also not rely on fiscal deficit financing as the

sole tool for fostering full employment as this may leave the country with huge and unsustainable debt burden; instead, this should be used in combination with other macroeconomic tools.

### **Summary and Conclusion**

The study captures the impact of fiscal deficit on the macroeconomic performance of Nigeria using secondary data covering the period 1991-2022, employing variables such as inflation rates, unemployment rates, growth rate of gross domestic product, fiscal deficit and capital stock. The objectives are to estimate the significance of fiscal deficit on economic growth, and to investigate if there exist a long run relationship between fiscal deficit and macroeconomic performance. The theoretical literature reviewed shows that the Neoclassical, Keynesian, and Ricardian schools of thought on deficit finance are the three main schools of thought.

Findings from this study using the Augmented Dickey Fuller (ADF) unit root test conducted on the variables revealed that all the variables were stationary at first differences except capital (K). The Bound test revealed that there is long-run relationship between the variables. The ARDL analysis revealed that there is a significant negative relationship between inflation and GDPGR in Nigeria. The result also shows that fiscal deficit had significant positive impact on GDPGR and inversely related unemployment rate in the long run. This clearly affirms the apriori expectation under Keynesian economics. The study shows that fiscal deficit contributes significantly to economic performance the long and short run respectively.

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