Impact of Deficit Financing Sources on Unemployment in Nigeria: A Dynamic Autoregressive approach

Iortyer A. Dominic and **Okoro E. Shuaibu**
Department of Economics, Federal University Lokoja

Idoko Ele- Ojo
Department of Economics, Salem University, Lokoja

Abstract
The study examined how deficit finance sources affect the amount of unemployment in Nigeria using an Autoregressive Distributed Lag technique from 1986 to 2022. The main aim of the study was to identify sources of deficit finance and their impact on unemployment in Nigeria. The particular aims are to analyze the immediate and long-term effects of external debt and domestic debt on unemployment in Nigeria. I analyze the effects of inflation and real economic growth on unemployment in Nigeria. The study employed the Autoregressive Distributed Lag (ARDL) model estimate technique. The study found that government deficit financing sources, including external debt and domestic debt, had significant effects, both positive and negative, on the unemployment rate in Nigeria during the study period, both in the short term and long term. The report advised that government at all levels in the country should uphold fiscal discipline to effectively use government budget deficit funding sources to enhance economic growth and minimize unemployment.

Keywords: Deficit financing, Unemployment, External debt and Domestic debt.

1.0 Introduction

Budget deficit financing is a strategy used to get funds to address a deficit resulting from expenditures exceeding the revenue collected. Budget deficit financing is the method used by the government to address a shortage in its budget. A budget deficit happens when a government's expenditures surpass its revenue. Governments frequently use this method to accomplish macroeconomic objectives in an economy. (Maji &Achegbulu, 2017).

In Nigeria, deficit financing refers to the practice of boosting government expenditure above revenue levels in order to promote the economy. Nevertheless, this method presents issues such as increased inflation, displacing private sector investments, declining GDP growth, and worsening unemployment caused by growing domestic and external debt, along with government taxation. (Barro, 2020).

Deficit financing is necessary for the government to fund the national budget and manage the economy in achieving important macroeconomic goals such as economic growth and reducing unemployment, among others (Najid, 2022). Deficit financing is essential for the government to finance the national budget and manage the economy to achieve key macroeconomic objectives such as reducing unemployment, controlling inflation, achieving balance of payments, ensuring price stability, increasing capital formation, promoting economic growth, and enhancing the standard of living of citizens, among other goals (Timothy & Jacob, 2018).

Deficit financing is a strategy recommended by Keynesian economics to address the difference between government spending exceeding government receipts. Government has utilized various sources of deficit financing such as domestic debt (treasury bills and treasury bonds), external debt (multilateral and bilateral debt), oil revenue, non-oil revenue, and external reserves to achieve macroeconomic goals like sustainable economic growth, reduced unemployment, and inflation rates (Kemi & Dayo, 2020).

Despite the increased use of various sources of budget deficit financing by the government in Nigeria, the economy continues to struggle with a growing unemployment rate and other internal issues. The Nigerian government established the Fiscal Responsibility Commission in 2007 and the Medium Term Expenditure Framework (MTEF) in 2020 to improve fiscal prudence and reduce the gap between government expenditure and revenue to tackle unemployment. The government intervened by enhancing institutional quality policy framework to sustain a stable macroeconomic environment.

Research from 1986 to 2020 shows that despite the Nigerian government's fiscal intervention, the country's fiscal operations have consistently resulted in an overall budget deficit. Nigeria had fiscal deficits in 33 of the 35 years studied. Financing budget deficits through enhanced aggregate demand was meant to boost economic activity. Nigeria has a 35-year history of financing budget deficits. The country is currently facing economic distress characterized by low economic growth, high unemployment and inflation rates, rising state debt, depletion of external reserves, strong reliance on oil revenue, and changes in oil prices and exchange rates. There is a discussion about whether budget deficit financing has exacerbated or mitigated the macroeconomic challenges in the Nigerian economy.

Previous research, such as Antwi, Zhao, and Mills (2013) and Wosowei (2013), mainly investigates the cause-and-effect connection between budget deficit and overall economic performance, with minimal attention given to the causal connection between budget deficit funding and the performance of individual macroeconomic indicators. The study seeks to evaluate the influence of budget deficit financing on the performance of particular macroeconomic indicators in Nigeria.

Previous studies, such Nwanna and Nkiruka (2019) and Nwaeke and Korgbeelo (2016), used government budget deficit financing sources such as domestic debt, external debt, external reserve, and oil revenue. Most previous studies did not separate domestic debt and external debt into categories such as treasury bills, treasury bonds, multilateral debt, and bilateral debt. Previous studies did not take into account non-oil earnings as a means of financing deficits in the economy. Therefore, it is necessary to address the deficiencies in existing research.

Prior research conducted by Adewole (2022), Osuka and Chioma (2014), Mawejje (2014), Nkalu (2015), Brima and Mansaray-Pearce (2015), and Ezema and Orji (2015) examined the influence of budget deficits on macro-economic sustainability rather than on the sources of budget deficit financing and their impact on unemployment rates. This study aims to analyze sources of deficit finance and their impact on unemployment in Nigeria to improve the existing knowledge.

1.1 Objectives of the Study

The study intends to examine how deficit funding sources affect the unemployment rate in Nigeria, focusing specifically on;

Analyze the immediate and prolonged effects of external debt and domestic debt on unemployment in Nigeria. Also, examine the short-term and long-term influence of overall economic performance (RGDP) and inflation on unemployment in Nigeria.

2.0 Literature Review

2.1 Theoretical Review

The Ricardian and the dual gap theories are considered as related theories that best captured the subject Mather under discourse and are reviewed accordingly.

2.1.1 The Ricardian Theory

The Ricardian hypothesis suggests that deficits merely delay the imposition of taxes. Barro (1989) presented the Ricardian Equivalence Hypothesis (REH) as a different viewpoint. Ricardian equivalence, commonly known as the Barro-Ricardo Equivalence argument, is an economic theory stating that government budget deficits have no impact on total demand in a country. David Ricardo, a 19th-century economist, first proposed it. Put simply, the hypothesis can be summarized as follows. Governments can fund their expenditures through taxation or borrowing. Nevertheless, they are

obligated to settle this debt by increasing taxes beyond their initial projections in the future. The issue is whether to impose taxes immediately or defer them to a later time.

Increased government spending through deficits implies that taxes may be raised in the future. Ricardo argued that people, even if they currently have more funds, would expect higher future taxes and hence choose to hold onto the extra money to offset the upcoming tax hike. The consumers' extra savings would exactly offset the extra government spending, leading to no overall change in total demand. Budget shortfalls do not affect macroeconomic indices, leading to a neutral correlation.

2.1.2 Dual Gap Theory

The dual gap theory is a component of the endogenous growth model. Chenery and Strout introduced the dual gap theory in 1966. According to the hypothesis, developing countries require external finances, such foreign loans, due to inadequate domestic savings to boost investment and maintain economic growth.

2.1.3 Empirical Review

Adebowale (2022) examined the correlation between budget deficit and economic growth in Nigeria from 1981 to 2018 with a nonlinear ARDL model created by Shin (2014). The results reveal discrepancies in the relationship between the given variables across short and long-term durations. The analysis demonstrates that budget deficits have a detrimental impact on economic growth in both the short and long term, highlighting a previously overlooked non-linear connection. The government needs to monitor budget implementation and ensure budgetary discipline at all government levels and parastatals to achieve the intended results in both the short and long run. Oluwole, Solawon, and Odueke (2020) examined how budget deficits affected economic growth in Nigeria from 1981 to 2018. The study used secondary data sourced from the Central Bank of Nigeria Statistical Bulletin (2018). The study analyzed budget deficit, inflation, money supply, total government debt, and per capita income as variables. The Autoregressive Distributed Lag technique was utilized to examine the connections among the variables. The ARDL coefficient indicated that the budget deficit as a percentage of gross domestic product and inflation rate had a substantial adverse effect on per capita income in both the short and long run. The study shows that a rise in budget deficit is associated with a decline in economic advancement, as evidenced by per capita income. Various tactics used to finance the deficit resulted in inflation. The research suggested that the government monitor the growth rate of the money supply to address deficit financing issues caused by inflation's negative impact on economic growth. The recommendation is to implement efficient resource management approaches by removing inefficiencies and reducing corruption in government organizations.

Ricardian equivalence, commonly known as the Barro-Ricardo Equivalence argument, is an economic theory stating that government budget deficits have no impact on total demand in a nation. David Ricardo, a 19th-century economist, first proposed it. Put simply, the hypothesis can be summarized as follows. Governments can fund their expenditures through taxation or borrowing. Nevertheless, they are required to settle this debt by increasing taxes beyond their initial projections in the future. The issue is whether to impose taxes immediately or defer them to a later time.

In 2020, Sunday and Philomena examined how federal government deficits affected macroeconomic indices in Nigeria. The study employed the Auto-Regressive Distributed Lag (ARDL) technique to determine a substantial long-term connection between fiscal deficit and chosen macroeconomic variables in Nigeria. In the short term, the research revealed that the federal government deficit did not have a notable impact on external reserves in Nigeria. Analysis revealed that federal government deficits did not have a significant effect on inflation in Nigeria over the period studied. An increase in the fiscal deficit is believed to boost overall demand and production while leading to a decrease in long-term inflation. The present interest rate can increase to reestablish balance in the securities market. An analysis on the association between federal government deficits and lending rates in Nigeria revealed a significant relationship, indicating that fiscal deficits impede private sector

credit through a crowding out effect. Moreover, investment could have been misdirected and output decreased due to alterations in the real exchange rates linked to fiscal policy decisions. This study highlights the importance of fiscal deficit in the Nigerian economy.

Nwanna and Nkiruka (2019) examined the effects of deficit finance on economic growth in Nigeria. The study used secondary data from the CBN statistical bulletin to analyze important issues from 1981 to 2016. The analysis utilized the Augmented Dickey Fuller (ADF) unit root test, Johanson Co-integration test, and normality test. Analysis showed that utilizing foreign debt to fund deficits has a notable adverse impact on Nigeria's economic growth. Domestic debt positively influences Nigeria's economic growth, whereas debt service has a minimal impact on the country's economic growth. The report suggested that the Government establish monitoring teams to supervise the efficient implementation of the budget and the proper utilization of borrowed funds in order to decrease corruption, inefficiencies, and mismanagement. These teams would ensure that individuals are held accountable for all government expenditures.

George Kiping (2019) explored the relationship between budget deficits and economic growth in Kenya. The study used yearly time series data from 1963 to 2007. The analysis considered factors like the current account of the balance of payments, private consumption, private investments, money supply, treasury bill rates, and real GDP. The study provided data in favor of the Mundell-Fleming model and Vector Autoregressions (VARs). The investigation revealed that shortcomings in the budgeting process led to budget deficits. Budget deficits arise from economic expansion, revenue variability, government expenditure management, and government economic intervention. The impulse response functions (IRFs) show that budget deficits significantly affect private consumption, private investments, money supply (M3), treasury bills rate, current account, and real GDP.

Dang and Pam (2018) examined the causal relationship between budget deficits and unemployment in Nigeria. The study utilized secondary data. The data was acquired from the Central Bank of Nigeria Statistical Bulletin. The study employed Endogenouslag models, namely an unconstrained vector autoregressive (VAR) model and a restricted autoregressive (vector error correction) model, to examine the direct and long-lasting causal relationship between budget deficits and unemployment in Nigeria. The study's hypotheses on short-term and long-term causation are analyzed using Wald statistics and coefficients of error correction term. The research indicates a unidirectional short-term causal relationship between budget deficits and unemployment in Nigeria, with the influence flowing from budget deficits to unemployment. In Nigeria, there is a bidirectional long-term causal relationship between the ratio of budget deficit to GDP and unemployment. The report recommended focusing on the long-term effects of budget deficits on future generations while establishing budgets, especially considering the postponed payments for deficit financing. This method can stimulate continuous economic growth and decrease unemployment rates.

Ayogueze and Anidiobu (2017) analyzed the impact of government budget deficits on the unemployment rate in Nigeria between 1986 and 2015. The annual time series data were obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin covering several years and the National Bureau of Statistics (NBS). The study employed an ex-post facto research design because the existing data could not be manipulated for the researcher's advantage. The variables were calculated utilizing the Ordinary Least Squares (OLS) econometric method. The study revealed that the government budget deficit had a favorable impact on the unemployment rate in Nigeria over the research period, but this impact was not statistically significant. The study suggested adopting expansionary fiscal policies to accelerate economic development. It is crucial to implement a well-crafted policy mix that focuses on enhancing infrastructure such as energy generation to increase national productivity and stimulate job creation for unemployed Nigerians.

Obayori (2016) examined the influence of fiscal policy on the unemployment rate by analyzing Nigeria's yearly data from 1980 to 2013. The study aims to investigate the relationship between government capital and recurrent expenditure and the unemployment rate in Nigeria by utilizing co-integration and error correction model (ECM) as analytical techniques. The ADF pre-test verified that

the variables were stationary at various levels. The Johansen-Juselius co-integration test detected a co-integrating relationship between the variables. Analysis in Nigeria throughout the stipulated period found that Government Capital and Recurrent Expenditure had a statistically significant negative impact on unemployment, according per ECM analysis. The results indicated a significant and persistent relationship between fiscal policy and unemployment, as evidenced by the sign and statistical significance of the ECM coefficient. The study found that fiscal policy successfully decreased the unemployment rate in Nigeria.

Abubakar (2016) analyzed the effects of fiscal policy shocks on output and unemployment rate in Nigeria by employing the Structural Vector Autoregression (SVAR) methodology on annual data from 1981 to 2015, based on Keynesian principles. According to the Augmented Dickey-Fuller (ADF) test, all variables were determined to be integrated of order one. The Johansen Co-integration test confirmed the existence of a long-term relationship among the variables. The SVAR model results showed that a public expenditure shock had a sustained beneficial impact on output. A study found that a rapid rise in revenue has a beneficial impact on output, albeit it is not as substantial as the impact of a quick increase in public expenditure. The abrupt rise in revenue briefly exacerbated unemployment. Richard and Chinedu (2015) studied how deficit funding impacts the unemployment rate in Nigeria. The study employed an ex-post facto research design. The data was collected from several sources such as the Central Bank of Nigeria Statistical Bulletin, Federal Office of Statistics, and World Bank Handbook of Statistics, covering a 44-year period from 1970 to 2013. The study verified the enduring correlation between unemployment (UNP) and several explanatory factors such as external source of deficit financing (EXF), ways and means source of deficit financing (WM), banking system source of deficit financing (BSF), non-banking public source of deficit financing (NBPF), interest rate (INTR), and exchange rate (EXR). An analysis indicates that external deficit financing (EXF), ways and means deficit financing (WM), and interest rate (INTR) have a slight and adverse effect on economic stability in Nigeria via influencing unemployment rates. Banking system deficit financing (BSF), non-banking public deficit financing (NBPF), and exchange rate (EXR) significantly contribute to economic stability in Nigeria, with the exception of non-banking system financing, which has a little impact. The analysis revealed a strong correlation between deficit financing and the unemployment rate, emphasizing the need to implement effective strategies to improve economic stability in Nigeria by lowering unemployment rates.

Eze and Nwambeke (2015) analyzed the influence of deficit funding on the unemployment rate in Nigeria through an error correction model. The study employed an ex-post facto design. Data gathered from 1970 to 2013, totaling 44 years, was acquired from the Central Bank of Nigeria Statistical Bulletin, National Bureau of Statistics, and World Bank Handbook of Statistics. The study analyzed the relationship between the unemployment rate and other factors such as deficit funding sources, banking system source of deficit financing (BSDF), non-banking public source of deficit financing, interest rate, and currency rate. External deficit funding, methods and means deficit financing, and interest rate negatively impacted economic stability, although their effect on the unemployment rate in Nigeria was not statistically significant. Deficit financing in the banking sector, deficit financing by the non-banking public, and currency exchange rates significantly contributed to economic stability in Nigeria. Non-banking system funding had a negligible effect.

Ebipre and Maclean (2020) examined the relationship between deficit financing and price level changes in Nigeria. The Central Bank of Nigeria's annual statistical bulletin contains information on budget deficit, private sector loans, money supply, consumer price index, and gross domestic product (GDP) for the years 1981 to 2015. Time series econometric approaches were used to study the relationship. Deficit financing by itself cannot influence inflation in Nigeria. The collective influence of money supply, private sector lending, and deficit finance could result in substantial repercussions that may induce inflation in Nigeria. The report recommended that government attempts to stabilize the economy should be thorough and consider all elements that could influence the general price level.

In 2020, Sunday, Bereh, and Gopar examined the correlation between budget deficit and macroeconomic indicators such as inflation rate, interest rates, and exchange rates in Nigeria. The research utilized historical longitudinal data from the CBN Statistical Bulletin, the National Bureau of Statistics (NBS), and publications spanning from 1981 to 2015. The data were analyzed with Vector Auto-Regression (VAR) Model. All variables, excluding inflation rates, exhibited stationarity after being differenced once. Inflation rates stabilized at certain levels. No cointegration was detected in the variables examined. No Granger causality was observed between the variables, save for a unidirectional causation from exchange rates to deficit financing to the real GDP ratio, with no feedback impact. The research advised the government to consider the impact of currency rates on budget deficit financing in Nigeria when making decisions on deficit budgeting for economic growth.

Joseph and Uma (2013) conducted an empirical study on the relationship between inflation rate and budget deficit in Nigeria using the error correction model (VECM) from 1970 to 2010. The study revealed that a budget deficit has a substantial and positive effect on the inflation rate over an extended period. Increased inflation is linked to a higher budget deficit, in accordance with Keynesian economic theory. The researcher suggests utilizing a suitable combination of monetary and fiscal policies.

Previous research conducted by Oluwole, Solawon, and Odueke (2020), Chukwu, Otiwu, and Okere (2020), Sunday and Philomena (2020), Nwanna and Nkiruka (2019), and Nwaeke and Korgbeelo (2016) investigated several sources of budget deficit financing such as domestic debt, external debt, external reserves, and oil revenue. Prior studies did not differentiate between domestic debt and external debt, nor did they categorize them into treasury bills, treasury bonds, multilateral debt, and bilateral debt. Previous research often overlooked non-oil revenues when analyzing how economic deficits are funded. This study was started to rectify the deficiencies identified in prior research.

Prior research conducted by various authors has examined the influence of budget deficits on macroeconomic factors. However, there has been a lack of emphasis on the origins of budget deficit funding and their consequences on specific macroeconomic measures. This study seeks to examine the impact of budget deficit financing on certain macroeconomic indicators in Nigeria, including economic growth, unemployment rate, and inflation rate.

3.0 Methodology

3.1 Model Specification

This study follows the model used by Andohol (2013), Nwanna and Nkiruka (2019), which includes Real Gross Domestic Product, domestic debt, and external debt. This study adjusts the model to include unemployment as the dependent variable, and uses external debt and domestic debt as proxies for deficit financing. The modification included the inflation rate as one of the independent variables.

The model of this study is represented in a generic way as follows:

$$Y = f(X, Z) \quad \text{..... (1)}$$

The econometric form is:

$$Y_t = \alpha + \beta_1 \sum_{i=1}^{2} \text{Xi} + \beta_2 \sum_{i=1}^{2} Zi + \mu_t \quad \text{..... (2)}$$

Where;
Y is the dependent variable
X is the vector of policy variables
Z is a vector of control variables
The model
UNPRt = F(RGDPG,INFR, EDT,DDT) ----------..----------(1)

$$UNPRt = \partial \Delta UNPRt - 1$$Type equation here.

3.1.1 The ARDL Forms of the Model

The ARDL models is specified as follows:

$$\Delta UNPR_t = a_0 + \sum_{i=1}^{o1} a_{1i}\Delta UNPR_{t-i} + \sum_{i=0}^{p1} a_{2i}\Delta RGDP_{t-i} + \sum_{i=0}^{q1} a_{3i}\Delta INFR_{t-i} + \sum_{i=0}^{r1} a_{4i}\Delta EDT_{t-i} + \sum_{i=0}^{s1} a_{5i}\Delta DDT_{t-i} + \delta(UNPR - c - b_1 RGDPG - b_2 INFR_{t-1} - b_3 EDT_{t-1} - b_4 DDT_{t-1}) + e_t \quad (3)$$

RGDPG represents real gross domestic product growth, UNPR stands for unemployment rate, INFR indicates inflation rate, EDT represents foreign debt as a percentage of GDP, and DDT represents domestic debt as a percentage of GDP. Δ is a first difference operator. a and b are the short-run and long-run parametersto be estimated. e_{t1} is the error term.

3.1.3 Pre-Estimation Test

Table 1: Descriptive Statistic Results

	RGDPG	*UNPR*	*INFR*	*EDT*	*DDT*
Mean	4.126253	4.149162	19.42647	21.52129	11.77477
Median	4.195924	3.931000	12.87658	13.30789	10.89591
Maximum	15.32916	5.999000	72.83550	60.97077	23.27342
Minimum	-2.035119	3.700000	5.388008	1.263155	5.831763
Std. Dev.	3.906827	0.623136	17.32921	20.59430	4.345691
Skewness	0.564059	2.018518	1.764587	0.624716	1.010807
Kurtosis	3.383852	5.825468	4.837096	1.922419	3.484112
Jarque-Bera	2.189154	37.43308*	24.40456*	4.196815	6.661983**
Probability	0.334681	0.000000	0.000005	0.122652	0.035758
Sum	152.6714	153.5190	718.7793	796.2876	435.6664
Sum Sq. Dev.	549.4787	13.97874	10810.85	15268.51	679.8611
Observations	37	37	37	37	37

Source: Researcher's Computation using E-views 12 2024

NB: *, ** and *** imply significance at 1%, 5% and 10% respectively.

The descriptive statistics of the variables are presented in table.1. The result shows that RGDPG has a mean of 4.13%, and ranges between -2.04% and 15.33% over the scope of the data. UNPR has a mean of 4.15%, with a range of 3.7% and 5.99%. The mean of INFR is 19.43%, with a range of 5.39% and 72.84%. The mean of external debt (EDT) and Domestic debt (DDT) are 21.52% and 11.77% respectively. The standard deviation of RGDPG, UNPR, INFR, EDT, and DDT, are 3.9, 0.6, 17.3, 20.6 and 4,3 respectively. While the Jarque-Bera test for normality suggest that RGDPG, EDT are normality distributed at 5% level of significance, UNPR, INFR and DDT are not normally distributed at 5% level of significance. All the variables except EDT with a Kurtosis value of less than 3 indicatingPlatykurtic), while the rest variables are Leptokurtic, with Kurtosis above 3. These results therefore suggest that there are fewer outliers among the variables and since the variables were not normally distributed, this necessitated the need to carryout unit root test for stationarity.

Table 2: Correlation Matrix

	RGDPG	*UNPR*	*INFR*	*EDT*	*DDT*
RGDPG	1	-	-	-	-
UNPR	-0.405689	1	-	-	-
INFR	-0.307174	-0.057945	1	-	-
EDT	-0.002202	-0.237762	0.426570	1	-
DDT	-0.426521	-0.022546	0.570313	0.750712	1

Source: Researcher's Computation using E-views 12

Table 2 displays the correlation matrix indicating that the majority of variables exhibit strong linearity with collinearity levels below 0.5, except for the INFR-DDT and EDT-DDT matrices. Most variables show minor correlations, except for those with correlation coefficients of 0.5 and higher, which are considered strongly associated. Therefore, the matrices RGDPG-UNPR, RGDPG-INFR, RGDPG-EDT, RGDPG-DDT, UNPR-INFR, UNPR-EDT, UNPR-DDT, and INR-EDT exhibit low correlation and are not interrelated during financial crises. This indicates that the matrix does not present a risk to the outcomes of this investigation.

Table .3: Unit Root Test

Variable	*ADF At Level*			*ADF First Difference*			*Order of Integration*
	Constant	Constant & Trend	None	Constant	Constant & Trend	None	I(p)
RGDPG	-4.0120* (0.0037)	-3.9683** (0.0190)	-2.4088** (0.0174)	-	-	-	I(0)
UNPR	-1.7728 (0.3858)	0.8662 (0.9467)	0.2573 (0.7538)	-3.9836* (0.0048)	-4.3725* (0.0087)	-4.0859* (0.0002)	I(1)
INFR	-3.4793** (0.0146)	-4.5636* (0.0045)	-1.6891*** (0.0859)	-	-	-	I(0)
EDT	-1.2311 (0.6502)	-2.6129 (0.2772)	-1.0071 (0.2760)	-5.0033* (0.0002)	-4.8950* (0.0019)	-50318* (0.0000)	I(1)
DDT	-1.9426 (0.3098)	-2.2906 (0.4278)	-0.8884 (0.3242)	-4.9737* (0.0003)	-3.4515*** (0.0618)	-5.0366* (0.0000)	I(1)

Source: Researcher's Computation using E-views 12,

NB: *, ** and *** imply significance at 1%, 5% and 10% respectively. ADF is Augmented Dickey Fuller Unit Root Test. Values in parenthesis (…) indicate MacKinnon (1996) one-sided p-values

The unit root test findings in Table 3 attempt to determine the stationarity of the variables using the Augmented Dickey Fuller (ADF) Statistics. The ADF unit root test results in Table 3 display different degrees of integration for the variables. The Real Gross Domestic Product (RGDPG) and Inflation rate (INF) are stationary at a level, I(0), while foreign debt as a percentage of GDP (EDT), domestic debt as a percentage of GDP (DDT), and Unemployment rate (UNPR) show stationarity at first difference, I(1). The variables in the three models exhibited different orders of integration, with some being stationary at the level and others at the first difference. Therefore, recommending doing a cointegration test to determine the presence of a long-term relationship between the variables. When cointegration is present, the focus is on examining the short-term and long-term outcomes, particularly on the error correction term (the rate of adjustment) (Appendix II).

Table 4. Bound Cointegration Test

F-statistic	*Sig. Level*	*I(0)*	*I(1)*
13.7943*	10%	3.03	4.06
	5%	3.47	4.57
	1%	4.4	5.72

Source: Researcher's Computation using E-views 12
NB: *, ** and *** imply significance at 1%, 5% and 10% respectively.

Table 4 presents the results of the cointegration test, showing a mix of integration orders. The F-value of 13.79 surpasses the upper bound of the confidence interval, suggesting the presence of cointegration with a significance level of 1%. There is a long-term link among the factors.

Table 5. Long-Run and Short-Run Analysis

Variables	***Coefficient***	***t-stat.***	***Prob.***
Long-run			
C	2.2184*	4.2283	0.0022
UNPR(-1)	-0.7413*	-5.2335	0.0005
RGDPG	-0.2905*	-5.8736	0.0002
INFR	0.0761*	6.4027	0.0001
EDT	0.0868*	7.0806	0.0001
DDT	-0.3679*	-6.6839	0.0001
Short-run			
D(UNPR(-1))	-0.4145*	-3.7427	0.0046
D(RGDPG)	-0.0526*	-10.4663	0.0000
D(INFR)	0.0068**	2.3431	0.0438
D(EDT)	0.0095**	2.7341	0.0231
D(DDT)	-0.0060	-0.6747	0.5168
Ect(-1)	-0.7413*	-9.9813	0.0000

Source: Researcher's Computation using E-views 12, 2024
NB: *, ** and *** imply significance at 1%, 5% and 10% respectively..

Table 5 displays the long-term and short-term ARDL results for model 3. The Schwarz Criterion (SIC) is used to pick the lag length in an Autoregressive Distributed Lag (ARDL) model, resulting in an order with maximum lags for the variables of (4, 4, 4, 3, 3). The lag coefficient of the dependent variable (UNPR) is statistically significant at the 1% level and is negative over time. UNPR moves inversely by one unit for every one percent change in its one-period delay. Deficit finance components, including EDT and DDT, have diverse impacts on the unemployment rate (UNPR). UNPR will rise by 0.09% for every 1% increase in EDT and will decrease by 0.37% for every 1 percentage point increase in DDT, holding all other variables equal.Real GDP growth has a negative impact on UNPR, while the inflation rate has a positive impact on UNPR. An increase in Real Gross Domestic Product Growth (RGDPG) under ceteris paribus conditions will result in a 0.29 percent decrease in the Unemployment Rate (UNPR). A 1 percent rise in INFR results in a 0.08 percent increase in UNPR, assuming all other factors remain constant. This is a critical matter that requires resolution.

Conversely, UNPR has a harmful response to its postponement, RGDPG, and DDT in the short term. When the one-lag of UNPR, RGDPG, and DDT increases by 1 percent while keeping all other variables constant, UNPR will decrease by 0.42 percent, 0.05 percent, and 0.006 percent accordingly. The contrary is also true. INFR and EDT have a beneficial impact on UNPR. A 1 percent increase in INFR leads to a 0.007 percent increase in UNPR, while a 1 percent increase in EDT causes a 0.01 percent rise in UNPR. The error correction term (Ect) is a statistically significant negative value below one. The assertion implies that 74% of deviations from short-term equilibrium will be corrected in the long term.

Table 6: Post Estimation Test

Test	*Value*	*Prob.*
Normality (JB)	17.44865	0.000163
Heteroscedasticity (BPG F-Statistic)	0.669265	0.7913
Linearity (Reset F-Statistic)	4.251533	0.0721
Serial Correlation (BG F-Statistic)	4.644984	0.1176

Source: Researcher's Computation using E-views 12

Further diagnostic checks are performed on the estimate to verify its validity and reliability, which are shown to be reliable based on the results in Table 6. The nonsignificance of the F-statistic at the 5% level verifies the lack of autocorrelation, as indicated by the Breusch-Godfrey test for serial correlation. The Breusch, Pagan, and Godfrey (BPG) test indicates that the variance is homoscedastic. The RESET test for linearity verifies the stability and lack of specification errors in the models. The Jarque-Bera (JB) statistic indicates that the residuals of the model deviate from a normal distribution. Normality is preferred but not mandatory for several aspects of time series analysis. Therefore, it is recommended to select the appropriate ARDL model based on the mixed order of integration identified through unit root analysis for policy suggestions.

3.2 Discussion of Findings

The study concentrated on sources of deficit funding and unemployment behavior in Nigeria. The study employed an Autoregressive Distributed-Lag approach. Deficit financing components, external debt as a proportion of GDP, and domestic debt as a percentage of GDP have varying impacts on unemployment in Nigeria over both the long and short term. It is unsurprising that the influx of foreign debt, if utilized prudently, may enhance investment, employment, and eventually economic expansion. Domestic debt hinders private investment, resulting in reduced employment and economic growth. This finding is consistent with the research conducted by Okah, Chukwu, and Ananwude (2019), which showed that deficit financing positively influenced Nigeria's economic growth.

Deficit financing via foreign debt positively affected the unemployment rate in Nigeria over both the long-term and short-term. Utilizing deficit financing through domestic debt has a detrimental impact on the unemployment rate in Nigeria in both the short and long run. As external debt rises, investment grows, leading to higher employment and income. This discovery aligns with the research by Richard and Chinedu (2015), which showed that utilizing external sources for deficit financing has a beneficial impact on the unemployment rate in Nigeria. The study's results align with Ayogueze and Anidiobu's (2017) research, which showed that government budget deficit positively affected the unemployment rate in Nigeria.

3.3 Conclusion

Government budget deficit financing is necessary to enhance economic growth and employment in Nigerian. The positive influence of external debt on unemployment the short-run is an indication of the significance of credit in expanding productive capacity of an economy. The long-run result also suggested that external debt is capable of sustaining employment. However, the negative impact of domestic debt on unemployment g suggested crowding out of privately owned investments which are the engines of growth.

The negative relationship of external debt on unemployment rate in the long-run suggested mismanagement of the fund by the government. However, mopping-up money from the economy through domestic debt reduces demand and hence inflation rate drops. Therefore, in conclusion, government deficit financing sourcesinNigeria has positive and negative influence on unemployment.

3.4 Recommendations

The study's findings lead to the following policy suggestions.

i. Government deficit financing has a good impact on unemployment. Therefore, it is important to uphold a high level of fiscal discipline to ensure the optimal use of money. To achieve this, government budget deficit funding should be limited to economic stability purposes rather than political motives, and directed towards the productive sector of the economy to boost economic growth and decrease unemployment.
ii. Furthermore, inflation control measures that could address both demand and supply caused inflation should be regularly in place as a check to the spill-over effect of inflation on unemployment.

.

References

Abubakar, I. A. (2016). Economic growth imperative of foreign portfolio investment for Nigeria. *Noble International Journal of Economics and Financial Research*, 3(6), 71-77.

Adebowale, Y. A. & Falowo, J. U. (2022). Domestic Debt and the Growth of Nigerian economy. *Research Journal of Finance and Accounting*, 3(5), 45-56

Ayogueze, O. &Anidiobu D.A (2017). Fiscal deficits and Nigeria economic growth. *International Journal of Economics and Financial Issues*, 8(3), 296-306.

Andohol, J. (2013), The Primary link in the Keynesian Transmission Mechanism in Nigeria: An Empirical Investigation. *Journal of Economics and Social Research,* 5(1), 1 -18.

Anyawakoro, N.E. (2018). Effect of Budget on Trade Deficit in Pakistan: A Time Series Analysis. *Journal of Finance and Economics*, 2(5): 145-148.

Barro, R.J. (1989). Government spending, interest rates, prices and budgetdeficits in the United Kingdom, 1701-1918.*Journal of Monetary Economics*, 20, 221-247.

Brima A.M (2017) Budget defect and economic performance in Nigeria.*Saudi Journal of Business and Management Studies*. 2(3): 25-31.

Central Bank of Nigeria (2020). *Economic and Financial Review*, Abuja, CBN

Chukwu, L.C, Otiwu, K. &Okere P.A. ACIB (2020) investigated the impact of budget deficit on macroeconomic variables of Nigeria. *International Journal of Science and Management Studies*, 3(4), 135-150.

Dang, D.Y & Pam, W.J (2018) evaluated the causal relationship between budget deficits and unemployment in Nigeria. *Journal of Economics Development*, 8(4), 45-67.

Ebipre, P. & Maclean, F. J. (2020). The relationship between deficit financing and changes in price level in Nigeria. *International Journal of Business & Law Research* 8(2), 21-26.

Eze O. R. & Nwanbeke F.O (2019) Impact of Deficit Financing on Economic Stability in Nigeria: Analysis of Economic Growth. *Journal of Applied Finance and Banking*, 6(1), 111-125.

Ezema, E.N.J &Orji, A. (2015) studied dynamics of budget deficit and macroeconomic fundamentals: Further Evidence from Nigeria. *International Journal of Academic Research in Business and Social Sciences*, 5(5), 31-42

Eze, O.R. (2019). Effect of Deficit Financing on Unemployment Rate inNigeria: An Error Correction Model. *International journal of small Business and Entrepreneurship Research*, 3(7), 28-246 (1993)

Fasoranti, M. M. & Amasoma, D. (2022). Analysis of the relationship between fiscal deficits and external sector performance in Nigeria. *Journal of Economics and Sustainable Development*, 4(11), 80-88.

Goerge, A. Dm & Kiping A, (2015) Monetary Policy and Macroeconomic Stability in Nigeria: Evidence from Error Correction Model. *Journal of Economics and Sustainable Development*. 4(6): 147-155

Jhinghan, M. L. (2011). *The economics of development and planning*. Delhi: Vrinda publications ltd.

Joseph, A. A. & Uma. M (2013) assessed the impact of deficit financing on economic Growth in Nigeria. *Global Journal of Management and Business Research*,18(3), 28-36.

Kemi, F. A. &Dayo, B. O. (2020). Unemployment and Economic Growth in Nigeria.*Journal of Economics and Sustainable Development*, 5(4): 138-144.

Keynes J.M (1936). *The General Theory of Employment, Interest and Money*. London and New York: Macmillan,

Maji, A. and Achegbulu, J. O. (2012). The impact of fiscal deficits on economic growth in Nigeria, *International Journal of Business and Management*, 4(2) 23-50

Mawejje, M. M. L. J. (2014) investigated the relationship between budget deficits and selected macroeconomic variables for the period 1999 to 2011 in Uganda. *Economic Policy Research Centre*, Kampala, Uganda

Najid, A. (2022). The role of budget deficit in the economic growth of Pakistan.*Global Journal of Management and Business Research Economics and Commerce*, 13(2) 1-5.

Nkalu .1. A. (2017) assessed the impact of government budget deficits on unemployment rate in Nigeria. *Journal of Economics and Finance,* 8(6), 18-26.

Nwambeke G.C (2020). Empirical analysis of the impact of fiscal policy on economic growth in Nigeria.*International journal of economics and finance*, 6(6), 1916-9728

Nwanna, I.O &Nkiruka, U. G. (2019) examined the effect of deficit finance on Nigeria economic growth. *International Journal of Economics and Financial Management*, 4(1) 28-49.

Nwanna, I. O. & Umeh, G. N. (2018) Deficit financingand economic growth: The Nigerianexperience. *International Journal of Economics and Financial Management*, 4(1):28-49.

Obayori O.O. (2016). Macroeconomic effects of budget deficitsinNigeria: A VAR-VECM approach. *International Research Journal of Finance and Economics*, 79(2), 78-84.

Osuk, T.O.&Chioma,ET (2014)examined the effect of deficit financing on economic growth of Nigeria. *Asian Journal of Economics, Business and Accounting*, 12(1): 1-13.

Oluwole, F.O., Solawon, M.D. &Odueke, H.A. (2020) investigated budget deficit and inflation on economic development in Nigeria. *Journal of Economics and Finance*, 11(3), 16-23.

Richard, E. O. & Chinedu, N. G. (2013). Effect of deficit financing on unemployment rate in Nigeria.*International Journal of Small Business and Entrepreneurship Research*,3(7), 28-46.

Sunday O. & Philomena (2020). Fiscal deficits and macroeconomic variables in Nigeria.*International Journal of Accounting Research*, 6(1), 1-13.

Sunday, R. U. Bereh, M. N., &Gopar, J.K (2020).Relationship between budget deficit and macroeconomic variables likeinterest rates, inflation rates and exchange rates in Nigeria.*Tax Academy Research Journal (TARJ)*, 1(1), 49-60.

Timothy V. C, & Jacob T.O (2018). The Effect of Federal Deficits and Debt on the Tax-Adjusted, Short-Term,Real Interest Rates, Economics Letters, 34(2), 169-73.