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Fiscal Policy Measures and Unemployment Rates in Nigeria (1986-2024)

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Abstract

Unemployment remains one of the most pressing socio-economic challenges in Nigeria despite substantial government spending, debt financing, and revenue mobilization. This study investigates the impact of government capital expenditure, recurrent expenditure, external debt servicing, and revenue on unemployment in Nigeria. Secondary data covering relevant periods were sourced from the Central Bank of Nigeria (CBN) statistical bulletin and World Bank databases. The study employed the Dynamic Ordinary Least Squares (DOLS) estimation technique to establish both short- and long-run relationships among the variables. The results reveal that capital expenditure, recurrent expenditure, and debt service obligations do not have a statistically significant effect on reducing unemployment. This suggests that the allocation of funds and the management of government expenditure are inefficient in translating into meaningful job creation. Conversely, government revenue exhibits a significant negative relationship with unemployment, indicating that effective revenue generation and proper utilization of fiscal resources play a crucial role in addressing unemployment. The findings highlight the need for fiscal reforms that prioritize efficiency, accountability, and employment-driven investments. Based on these results, the study recommends strengthening project monitoring mechanisms for capital spending, linking recurrent expenditure to productivity and skill development, aligning external borrowing with employment-generating projects, and broadening revenue sources beyond oil while ensuring fiscal transparency. Overall, the study recommended that Federal Ministry of Finance, Budget and National Planning, in collaboration with the Budget Office and Infrastructure Concession Regulatory Commission (ICRC) should strengthen project monitoring and evaluation frameworks to ensure capital projects are completed on time, transparent, and employment-oriented, particularly in infrastructure, housing, and agriculture.

Keywords: *Capital expenditure, Recurrent expenditure, Debt service, Revenue, Unemployment, Nigeria, DOLS.*

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Background to the Study

Nigeria's unemployment challenge sits within a shifting global labour market. Although the ILO reports that global unemployment and youth joblessness have eased from pandemic peaks, large disparities persist especially for young people in developing regions (ILO, 2024; ILOSTAT, 2024). These global headwinds intersect with domestic frictions in Nigeria oil-price volatility, weak non-oil diversification, and governance constraints producing stubborn labour-market slack despite repeated policy efforts (Federal Government of Nigeria, 2017). Official data underscore the strain: Nigeria's unemployment rate rose to 27.1% in Q2-2020 amid COVID-19 disruptions, with widespread underemployment compounding welfare losses (National Bureau of Statistics [NBS], 2020).

Many countries, including Germany, Singapore, and Denmark, have implemented successful strategies to reduce unemployment by combining active labor market policies with flexible economic frameworks. These nations prioritize investment in education and training to address the skills gap and ensure the workforce is adaptable to changing economic needs. Their approaches often feature strong social safety nets, which provide a foundation for retraining and job transition, rather than just providing passive financial aid.

For example, Germany's "Hartz Reforms" in the early 2000s focused on reducing long-term unemployment by cutting benefits and making it easier for people to re-enter the workforce, even in part-time "mini-jobs." Denmark is a prime example of "flexicurity," a model that combines a flexible labor market (making it easy for companies to hire and fire) with a strong social safety net and robust active labor market policies like job counseling and retraining. Singapore has a similar focus, using government subsidies and wage support schemes to help companies retain workers during economic downturns and investing heavily in upskilling programs like the "Skills Future" initiative to prepare its population for jobs of the future

Against this backdrop, fiscal policy is repeatedly positioned as a core lever for job creation through capital outlays, wage and operations spending, debt-financed buffers and servicing burdens, and the composition and buoyancy of public revenues. Yet the employment record of flagship initiatives has been mixed. Earlier reform blueprints such as the National Economic Empowerment and Development Strategy (NEEDS) aimed to tackle structural unemployment but faced implementation gaps (Central Bank of Nigeria [CBN], 2004). The Subsidy Reinvestment and Empowerment Programme (SURE-P) sought to recycle fuel-subsidy savings into jobs and skills; evaluations show localised gains but limited national, durable reductions in unemployment (Timothy *et al.*, 2024). Entrepreneur-support schemes, notably YouWiN!, generated firm-level job creation among winners, yet scale and persistence constraints curbed economy-wide effects (World Bank, 2017). Similarly, the N-Power component of the National Social Investment Programme boosted short-term placements and skills but exhibited heterogeneous employment impacts across states and cohorts (Maduabuchi, 2023). More recently, the Economic Recovery and Growth Plan (ERGP, 2017–2020) targeted inclusive growth and jobs; independent reviews judge employment outcomes as below ambition amid macro shocks and revenue fragility (Development Research and Projects Centre, 2023).

These experiences motivate a tighter macro-fiscal lens on unemployment. Empirical work in Nigeria often finds that well-allocated capital spending is associated with lower unemployment, while rigid recurrent outlays and rising debt-service ratios may crowd out job-rich investment; meanwhile, unstable non-oil revenues limit countercyclical space (Ebi & Ibe, 2019; Oseni & Oyelade, 2023). Accordingly, this study examines how fiscal policy measures capital expenditure, recurrent expenditure, debt service on external debt, and government revenue shape Nigeria's unemployment rate over 1986–2024.

H_{01}: Capital expenditure of government has no significant impact on unemployment rate in Nigeria.

H_{02}: Recurrent expenditure of government has no significant impact on unemployment rate in Nigeria.

H_{03}: Debt service on external debt has no significant impact on unemployment rate in Nigeria.

H_{04}: Revenue of government has no significant impact on unemployment rate in Nigeria.

Literature Review

Conceptual Review

Unemployment Rate

The unemployment rate is one of the most widely used indicators of labor market performance, measuring the proportion of individuals in the labor force who are willing and able to work but are unable to find employment. According to the International Labour Organization (ILO, 2020), the unemployment rate is defined as the share of the labor force that is jobless, available for work, and actively seeking employment. Similarly, Mankiw (2019) emphasized that the unemployment rate reflects labor underutilization and serves as a critical indicator of economic distress, as high unemployment often corresponds with reduced aggregate demand and slower growth. Todaro and Smith (2020) described the unemployment rate as the percentage of the labor force that cannot secure jobs despite being willing to work at prevailing wage levels, highlighting its particular impact on developing countries where structural unemployment is widespread. In addition, Blanchard and Johnson (2017) defined it as the fraction of workers without jobs but actively looking for one, noting that it fluctuates with business cycles and policy interventions. Krugman and Wells (2018) also viewed the unemployment rate as the ratio of unemployed individuals to the total labor force, stressing its role as a barometer for both economic stability and social welfare. Taken together, these perspectives underscore that the unemployment rate is not merely a statistical construct but a reflection of economic efficiency, labor market health, and the capacity of governments to generate sustainable employment opportunities.

Capital Expenditure of Government

Capital expenditure of government refers to spending on long-term assets and infrastructure that enhance productive capacity and stimulate economic growth. According to Ochieka (2025), government capital expenditure encompasses investments in machinery, education, and infrastructure designed to modernize industries and create employment opportunities. Similarly, Oseni and Oyelade (2023) defined capital expenditure as public spending on fixed

assets such as roads, schools, and energy systems, which reduce unemployment and foster sustainable development. Akhmad *et al.* (2022) further highlighted that capital expenditure promotes private investment by improving the investment climate, thereby contributing to poverty reduction and inclusive growth. Obisike *et al.* (2020) emphasized that capital expenditure on social services—particularly education and healthcare—has potential to reduce unemployment, though inefficiencies in fund utilization often undermine its effectiveness. In the same vein, Ebi and Ibe (2019) defined capital expenditure as government spending on durable projects and infrastructure, noting that its misallocation to non-productive sectors can paradoxically worsen unemployment.

Moreover, Nwamuo (2022) underscored the dual role of capital expenditure in directly creating jobs and indirectly enhancing productivity through better infrastructure and services. Collectively, these definitions show that capital expenditure is distinct from recurrent expenditure, as it is directed toward asset creation and economic capacity building rather than short-term consumption. Thus, capital expenditure of government can be broadly understood as long-term investments in physical and social infrastructure aimed at stimulating economic development, employment generation, and improved welfare outcomes.

Recurrent Expenditure of Government

Recurrent expenditure of government refers to regular and ongoing spending on the day-to-day running of government operations, excluding capital projects. According to Obisike *et al.* (2020), recurrent expenditure covers salaries, wages, pensions, interest payments, and administrative costs necessary to maintain government services. Similarly, Ebi and Ibe (2019) described recurrent expenditure as consumption-oriented outlays that do not directly create assets but ensure the continuity of government functions. Ojong *et al.* (2016) stressed that recurrent expenditure is critical for the stability of public institutions since it finances education, health, defense, and governance, but excessive allocation reduces resources available for capital investments. In the same vein, Oseni and Oyelade (2023) argued that while recurrent expenditure supports social welfare and public sector operations, its dominance in budgets often undermines long-term growth by crowding out productive investments.

Nwamuo (2022) explained that recurrent expenditure includes subsidies, transfers, and other non-investment expenses, which, though vital for social stability, may not stimulate economic growth if mismanaged. Similarly, Afonso and Jalles (2019) noted that recurrent expenditure in developing countries often rises due to population growth and rising debt obligations, thereby constraining fiscal sustainability. Collectively, these perspectives reveal that recurrent expenditure plays a stabilizing role by sustaining government operations and providing essential services. However, unlike capital expenditure, it does not directly generate productive assets, meaning its impact on economic growth and employment depends on efficiency, size, and prioritization within the fiscal structure.

Debt Service on External Debt

Debt service on external debt refers to the payments required to meet interest and principal obligations on loans borrowed from foreign creditors. According to the World Bank's data glossary, total external debt service includes "principal repayments and interest actually paid in currency, goods, or services on long-term debt, interest paid on short-term debt, and repayments (repurchases and charges) to the IMF". The International Monetary Fund (IMF) clarifies in its *Guide for Compilers and Users* that external debt service involves the scheduled settlement of these obligations and should align with international statistical standards. Furthermore, Anyanwu, Nnamocha, and Naakuu (2022) demonstrated in their empirical study on Nigeria that external debt service, when channeled efficiently, can positively influence real GDP, though it requires disciplined repayment strategies.

Another academic perspective comes from Samson Aladejare and Musa (2022), who applied the ARDL model to show that poorly structured debt servicing can constrain economic sustainability, particularly in low-income nations. Additionally, the IMF's 1988 External Debt: Definition, Statistical Coverage and Methodology underscores that external debt service comprises mandatory contractual payments that are not contingent liabilities. In relation to unemployment, high external debt service drains fiscal resources that could otherwise be allocated toward job-creating sectors such as infrastructure, education, and health. As more of the government's revenue is diverted toward servicing foreign loans, less funding remains for investments that stimulate employment, thereby potentially increasing unemployment rates in indebted economies.

Revenue of Government

Government revenue refers to the funds that governments collect from various sources to finance public services, infrastructure, and administrative functions. The International Monetary Fund (IMF, 2014) defined revenue as increases in net worth resulting from transactions such as taxes, property income, sales of goods and services, and transfers received. Echoing this, the Organization for Economic Co-operation and Development (OECD, 2023) stated that governments collect revenue primarily to finance public goods and fulfill redistributive roles. Similarly, Eurostat describes government revenue as comprising taxes on production and imports, social contributions, property income, and transfers—reflecting comprehensive public income streams (Eurostat, 2025). The World Bank (2025) added that tax revenue typically includes compulsory, unrequited payments to government, such as taxes on income, goods, services, and other compulsory contributions. Furthermore, Quickonomics (2024) offered a more applied definition: government revenue includes proceeds from taxation, fees, fines, licenses, and profits from state-owned enterprises, essential for economic stability and growth. Collectively, these definitions indicate that government revenue extends beyond taxes to include income from public assets, fees, and transfers. While taxation remains the primary source, diverse streams such as property income, service charges, and grants play crucial roles in sustaining government operations. In relation to unemployment, adequate government revenue is essential for funding job-creating programs, infrastructure projects, and social services. Insufficient or unstable revenue limits a government's ability to invest in labor-intensive sectors, potentially exacerbating unemployment and impeding inclusive economic recovery.

Empirical Review

Ochieka (2025) investigated the impact of government capital expenditure on unemployment in Nigeria between 1990 and 2023. Using the Augmented Dickey-Fuller test, ARDL bounds testing, and the ARDL model, along with post-estimation diagnostics, the study found that machinery expenditure reduced unemployment while education expenditure increased it due to a mismatch with labour market demands. Similarly, Abbas, Abbas, and Munir (2024) examined unemployment determinants in 26 developing countries between 2010 and 2021, applying panel data estimation techniques such as pooled OLS, fixed effects, and random effects. Their findings showed that external debt significantly raised unemployment, whereas GDP growth lowered it, highlighting the importance of growth elasticity of employment. In the Nigerian context, Buzugbe *et al.* (2024) analyzed the effect of petroleum profit tax, companies' income tax, value-added tax, gas income tax, and stamp duties on unemployment from 1986 to 2022. Using the ARDL model and an unrestricted error correction term, the results showed that petroleum profit tax, VAT, and gas income tax increased unemployment in the long run, while short-run responses varied across tax categories. Adding to evidence on expenditure, Oseni and Oyelade (2023) studied capital expenditure and unemployment in Nigeria between 1981 and 2020, using descriptive statistics, correlation analysis, unit root tests, Johansen co-integration, and an error correction model. Their results indicated that capital expenditure and gross capital formation reduced unemployment, while labour force growth and GDP unexpectedly raised it. Looking at a regional perspective, Akhmad *et al.* (2022) examined South Sulawesi Province in Indonesia between 2009 and 2018, applying simultaneous equation econometric models. The study found that private investment reduced poverty, capital expenditure encouraged investment, and population growth heightened poverty, with simulations confirming the positive role of regional government expenditure in reducing unemployment and poverty.

In Nigeria, Enueshike *et al.* (2021) analyzed the effects of corporate tax, VAT, and customs and excise duties on unemployment between 1994 and 2020. Employing co-integration and an error correction model, the study revealed that corporate tax and VAT increased unemployment, while customs and excise duties reduced it, leading to recommendations for lowering tax burdens to stimulate employment. Similarly, Nwamuo (2022) applied the ARDL bounds test, ARDL model, and ECM to Nigerian data from 1991 to 2020. The study showed that capital expenditure lowered unemployment in the short run, while recurrent expenditure and credit to the private sector raised it. In the long run, only capital expenditure significantly reduced unemployment. Shifting focus to financial stability, Elia *et al.* (2021) investigated Lebanese Alpha banks between 2009 and 2018, using regression analysis and the Altman Z"-score model. The study revealed that unemployment, government expenditure, debt service, and real interest rates increased banks' financial distress, underscoring the systemic risks tied to macroeconomic instability. Relatedly, Obisike *et al.* (2020) assessed Nigeria's social expenditure between 1981 and 2016 using OLS regression. Results showed that recurrent expenditure did not significantly affect unemployment, while capital expenditure did, but overall inefficiencies meant social spending failed to meaningfully reduce unemployment. On the debt dimension, Iwuoha (2020) explored public debt and unemployment in Nigeria using time series data from 1981 to 2019, applying a Vector Error Correction Model. The findings

confirmed an inverse long-run relationship but revealed that public debt had little impact in reducing unemployment, mainly due to corruption undermining the effectiveness of borrowed funds. Similarly, Cahyadin and Ratwianingsih (2020) examined external debt, exchange rate, and unemployment in four ASEAN countries between 1980 and 2017 using ARDL-ECM and Granger causality tests. Results showed causal linkages, particularly in Indonesia, where external debt and exchange rate fluctuations directly influenced unemployment. In Nigeria, Ebi and Ibe (2019) analyzed government expenditure and unemployment from 1981 to 2017 using unit root and co-integration tests. Their findings showed recurrent expenditure reduced unemployment, while capital expenditure increased it, suggesting misallocation of resources. Expanding to Asia, Nguyen (2018) studied Vietnam between 1987 and 2016 using a VECM framework. The results revealed that external debt lowered GDP and raised unemployment, while GDP growth reduced unemployment, stressing the importance of fiscal and monetary discipline. Finally, Nduka and Achugbu (2016) investigated Nigeria's revenue, output, unemployment, and development between 1981 and 2014 using an error correction model. Results confirmed Okun's law, showing unemployment negatively related to economic development, while revenue and output reinforced each other in a bilateral relationship.

Theoretical Framework

This study adopts the Keynesian Employment Theory as its guiding framework in examining the link between fiscal policy measures and unemployment rates in Nigeria. Keynes (1936) argued that unemployment is largely caused by insufficient aggregate demand in the economy. He emphasized that in periods of economic downturn, private investment alone is inadequate to sustain full employment. Thus, government intervention through fiscal policy becomes necessary to stimulate demand, production, and job creation. Within this framework, government expenditure on infrastructure, health, and education increases aggregate demand, prompting firms to expand output and employ more workers. Similarly, tax reductions raise disposable income, which boosts consumption and encourages businesses to increase supply, thereby reducing unemployment. In Nigeria, where unemployment persists despite periods of growth, Keynesian theory suggests that expansionary fiscal policy could play a central role in bridging the employment gap.

The Keynesian perspective also highlights the multiplier effect of fiscal spending. For example, investment in public works not only creates direct jobs but also generates secondary employment in related industries. This makes fiscal policy a powerful instrument for addressing structural unemployment in Nigeria. Therefore, this study anchors on Keynesian Employment Theory to justify that fiscal measures such as increased public spending, targeted subsidies, and progressive tax policies can significantly influence employment levels. By adopting this theoretical lens, the analysis provides insights into how Nigeria's fiscal strategies may be optimized to reduce unemployment and foster inclusive growth.

Methodology

Sources and Nature of Data

The research design for this study is ex-post facto research and the secondary annual time

series data from 1986 to 2024 was sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin, 2025 and World Bank Online Data Bank, 2025.

Model Specification

The study adopted and used Dynamic Ordinary Least Squares (DOLS). The foundation of the model was based on the theoretical framework of the study. Also, the initial model was adapted from the work of Obisike, N. E., Okoli, U. V., Onwuka, I. N., & Mba, S. E. (2020). Impact of government expenditure on unemployment in Nigeria: Evidence from social expenditure.:

UNEMP = f (REXPH, REXPE, CEXPEH) (2)

Where REXPH = recurrent expenditure on health, REXPE = recurrent expenditure on education,
CEXPEH = capital expenditure on health and education

Equation (2) is modified to align with the objective of this paper as;

$$UMT = f(CEG, REG, DSE, ROG) \quad (3)$$

The study established the explicit relationship between selected macroeconomic variables and the human capital development in Nigeria as stated in equation (2):

$$UMT_t = \lambda_0 + \lambda_1 CEG + \lambda_2 REG + \lambda_3 DSE + \lambda_4 ROG + \mu_t \quad (4)$$

From equation (3), UMT is Unemployment Rate, CEG is Capital Expenditure of Government, REG is Recurrent Expenditure of Government, DSE is Debt service on external debt, ROG is Revenue of Government in Nigeria. However, to establish the relationship and the impact of fiscal policy variables and unemployment in Nigeria using Dynamic Ordinary Least Squares (DOLS), equation (4) was formulated as:

$$UMT_t = \lambda_0 + \lambda_1 CEG + \lambda_2 REG + \lambda_3 DSE + \lambda_4 ROG + \sum_{i=1}^{m} \lambda_5^i \Delta CEG_t + \sum_{i=1}^{n} \lambda_6^i \Delta CEG_{t+i} + \sum_{i=1}^{o} \lambda_7^i \Delta CEG_{t-i} +$$
$$\sum_{i=1}^{p} \lambda_8^i \Delta_t REG + \sum_{i=1}^{q} \lambda_9^i \Delta REG_{t+i} + \sum_{i=1}^{r} \lambda_{10}^i \Delta REG_{t-i} + \sum_{i=1}^{s} \lambda_{11}^i \Delta DSE_t + \sum_{i=1}^{t} \lambda_{12}^i \Delta DSE_{t+i} + \sum_{i=1}^{u} \lambda_{13}^i \Delta DSE_{t-i} + \quad (4)$$
$$\sum_{i=1}^{v} \lambda_{14}^i \Delta ROG_t + \sum_{i=1}^{w} \lambda_{15}^i \Delta ROG_{t+i} + \sum_{i=1}^{x} \lambda_{16}^i \Delta ROG_{t-i} + \mu_t$$

Where UMT is Unemployment Rate, CEG is Capital Expenditure of Government, REG is Recurrent Expenditure of Government, DSE is Debt service on external debt, ROG is Revenue of Government in Nigeria. Also, λ_1 to λ_4 represent the long-run coefficients for each independent variable, indicating their impact on UMT in the long term.

$\sum_{i=1}^{m} \lambda_5^i \Delta CEG_t + \sum_{i=1}^{n} \lambda_6^i \Delta CEG_{t+i} + \sum_{i=1}^{o} \lambda_7^i \Delta CEG_{t-i}$ ..... are Short-run dynamics (first differences) which Includes contemporaneous changes, leads, and lags of the explanatory variables. μ_1 Captures other shocks not explained by the regressors

Equation 4 presents the Dynamic Ordinary Least Square (DOLS) which shows the current and lagged relationship between fiscal policy variables and unemployment in Nigeria.

Variable Description, Measurements and Apriori Expectation

Table 1: Description of the Variables Used for the Model

Variable	Description/Measure	Type	Source	Apriori Expectation
UMT	Unemployment Rate (%)	Dependent	ILO, 2025	
CEG	Capital Expenditure of Government (₦ Billion)	Independent	CBN, 2025	$\beta_1 < 0$
REG	Recurrent Expenditure (₦ Billion)	Independent	CBN, 2025	$\beta_2 < 0$
DSE	Debt service on external debt (US$)	Independent	World Indicator Data, 2025	$\beta_3 < 0$
ROG	Revenue of Government (₦ Billion)	Independent	CBN, 2025	$\beta_4 < 0$

Source: Author Compilation, 2025

The a priori expectation is that $\beta_1, \beta_2, \beta_3$, and $\beta_4 < 0$ indicating a negative relationship between the dependent and independent variables, that is, increase in fiscal policies variables like Capital Expenditure of Government, Recurrent Expenditure, Debt service on external debt, Revenue of Government will lead to decrease in Unemployment Rate in Nigeria.

Method of Analysis

The Dynamic OLS (DOLS) model was used in the study, was suggested by Stock and Watson (1993) and the feedback in the co-integrating system was removed via the addition of lags and leads of the differenced values of the enplicative variables to the co-integrating regression so that the ensuing co-integrating equation error term is not only uncorrelated with the more recent innovations in the stochastic regressors, but that it is also not correlated with the entire series of the prior innovations in the stochastic regressors (DOLS is a great analysis tool with a wide range of applications of time series analysis and estimation of the long-run dynamics between variables when observing their dynamic nature and endogeneity.

Presentation and Interpretation of Results

Descriptive Analysis

Table 2: Descriptive Analysis

	UMT	CEG	REG	DSE	ROG
Mean	2.537410	861.4421	2826.919	3.18E+09	5163.753
Median	2.659000	519.5000	1321.300	2.12E+09	4844.592
Maximum	4.477000	4486.206	14287.56	9.37E+09	19251.09
Minimum	0.000000	6.372500	7.696900	5.99E+08	12.59580
Std. Dev.	1.117596	1035.855	3655.508	2.60E+09	5003.548
Skewness	-1.123557	1.839255	1.568955	1.138748	0.752114
Kurtosis	4.252068	6.045848	4.691146	2.939869	2.863059
Jarque-Bera	10.75294	37.06402	20.64798	8.434736	3.707368
Probability	0.004624	0.000000	0.000033	0.014737	0.156659
Sum	98.95900	33596.24	110249.9	1.24E+11	201386.4
Sum Sq. Dev.	47.46277	40773812	5.08E+08	2.57E+20	9.51E+08
Observations	39	39	39	39	39

Source: Researcher's Computation Using EViews-12 (2025)

The descriptive statistics in table 2 provides insight into the behavior of the study variables over the sample period. The unemployment rate (UMT) showed a mean value of 2.54 with a median of 2.66, indicating that unemployment has remained relatively low on average, though the presence of a minimum value of 0.00 suggests years of almost negligible unemployment, while the maximum of 4.48 reflects periods of higher joblessness. Capital expenditure of government (CEG) records a mean of 861.44 and a median of 519.50, implying that capital spending is generally skewed upward due to occasional spikes, as evidenced by the maximum value of 4,486.21. Similarly, recurrent expenditure of government (REG) shows a high mean (2,826.92) and a wide dispersion (standard deviation of 3,655.51), suggesting that recurrent spending is both substantial and volatile, with values ranging from as low as 7.70 to as high as 14,287.56. Debt service on external debt (DSE) presents the largest scale of magnitude, with an average of 3.18 billion and extreme variability across periods, reflecting government fiscal pressure in meeting external debt obligations. Finally, revenue of government (ROG) averages 5,163.75, closely aligned with the median of 4,844.59, indicating a relatively balanced distribution despite occasional high revenue outcomes, as shown by the maximum of 19,251.09.

The skewness values reveal that UMT is negatively skewed (-1.12), suggesting that more unemployment data points fall above the mean, while all other variables (CEG, REG, DSE, ROG) are positively skewed, indicating the presence of large values pulling the distribution to the right. This aligns with the observation that expenditure and revenue variables experience irregular spikes, a common feature in public finance. Jarque-Bera statistics further show that most variables deviate from normality at conventional significance levels, except for government revenue (ROG), which exhibits a probability value of 0.157, suggesting an approximately normal distribution. In terms of kurtosis, unemployment rate (4.25), capital

expenditure (6.05), and recurrent expenditure (4.69) are leptokurtic, meaning their distributions are more peaked with fatter tails than the normal distribution, reflecting a higher likelihood of extreme values. This suggests that unemployment and government spending patterns are prone to sudden shocks or policy-induced fluctuations. Debt service (2.94) and government revenue (2.86), on the other hand, are mesokurtic, being close to the benchmark value of 3, which indicates distributions similar to the normal curve with moderate variability and fewer outliers compared to the others. Overall, the kurtosis results highlight that government expenditure and unemployment exhibit higher volatility and risk of outliers, while debt servicing and revenue remain relatively stable over the period.

Correlation Matrix Results

Table 3: Correlation Matrix Results

Correlation Probability	UMT	CEG	REG	DSE	ROG
UMT	1.000000				

CEG	0.513062	1.000000			
	0.0008	-----			
REG	0.540611	0.974872	1.000000		
	0.0004	0.0000	-----		
DSE	0.386830	0.694718	0.713115	1.000000	
	0.0150	0.0000	0.0000	-----	
ROG	0.524371	0.896557	0.905795	0.569151	1.000000
	0.0006	0.0000	0.0000	0.0002	-----

Source: Author's Computation, using E-Views 12, (2025)

The correlation results in Table 3 reveal important insights into the relationship between unemployment and selected fiscal variables in Nigeria. The unemployment rate shows a positive and statistically significant correlation with capital expenditure (0.5131, p=0.0008), implying that increases in government capital spending have been accompanied by higher unemployment rates. This may be attributed to delays in project execution, mismanagement, or the weak absorptive capacity of the economy. Similarly, a positive and significant correlation exists between unemployment and recurrent expenditure (0.5406, p=0.0004), suggesting that recurrent spending, often directed toward salaries and administrative costs, does not translate into productive, job-creating investments. Debt servicing on external debt also shows a moderate positive correlation with unemployment (0.3868, p=0.0150), indicating that resources channeled into debt repayment may crowd out investments in employment-generating activities. Furthermore, government revenue has a positive and significant correlation with unemployment (0.5244, p=0.0006), a paradoxical outcome since higher revenues would typically be expected to reduce unemployment. This result may reflect issues such as poor fiscal management, leakages, or inadequate prioritization of revenue utilization. Overall, the results suggest that fiscal policy in Nigeria has not effectively translated into employment generation, as most fiscal variables are significantly and positively correlated with the unemployment rate.

Stationary Tests (Unit Root Tests)
This section reveals the unit root of each variables using the Augmented Dickey-Fuller (ADF) Test to check the stationarity at a 5 per cent level of significance.

Table 4: Unit Root Test Result

Variable	Augmented Dickey-Fuller (ADF) Test		
	ADF	@ 5%	Status
UMT	-5.671671	-2.943427	1(1)
CEG	-4.655157	-2.971853	1(1)
REG	-6.117080	-3.536601	1(1)
DSE	-6.467910	-2.943427	1(1)
ROG	-5.646718	-2.945842	1(1)

Source: Author's Computation Using EViews-12 (2025)

In Table 4, results of the stationary test of the variables employed in the present work were displayed, and the result showed that all of the variables were integrated at order one 1(1). It means that, they did not remain at the level until they were differenced once and they were integrated of order one 1(1). Considering the outcome, based on ADF tests and series of integration of the variables, there exists no long-run relationship among the economic variables. Consequently, the paper proceeded further to test the long-run relationship through testing the co-integration using Johansen co-integration test.

Co-integration Test Results
Engle-Granger residual-based co-integration test refers to two-step method of testing that happens to exist a long-term relationship of equilibrium between two non-stationary variables and more. The assumption of co-integration is that when two or more series are non-stationary through Schwarz according to the premise, then two or more series could be co-integrated. Nevertheless, when one writes a linear combination of them that is stationary, the series is called co-integrated. This indicates that in a long run, the variables move in the same direction implying a stable long-term relationship in spite of the deviations in the short run.

Table 5: Results of Engle and Granger (Residual Based) Co-integration Test

Variable	ADF Test Statistic	95% Critical ADF Value	Remarks
Residual	-3.830485	-2.948404	Co-integrated

Note: Significant at 5%
Source: Author's Computation Using EViews-12 (2025)

Table 5 presents the Engle and Granger (Residual Based) co-integration test, and the variable in question the residual of a long-run equilibrium equation using the variables in question has an Augmented Dickey-Fuller (ADF) test statistic of -3.830485. This is less than the given 95% critical ADF value of -2.948404 and it is significant at the 5 percent level. This correlates to a rejection of the null hypothesis of no co-integration and therefore, the research can only say

that the variables in the estimated equation are co-integrated. The implication of this finding is very radical to our interpretation of how the fiscal policy variables relate to the problem of unemployment in Nigeria. It implies that there indeed should exist a long-term equilibrium relationship between them, as in any imbalance between these variables in the short-run will be eliminated during the long-run. This is imperative to policymaking since it means that effect of fiscal policy variables and unemployment in Nigeria are not only temporary but have long-term implications that would ultimately result in reduced unemployment in Nigeria.

Dynamic OLS (DOLS) Regression Results

Table 6: Dynamic OLS (DOLS) Model Results

Dependent Variable: UMT				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
CEG	0.000156	0.002017	0.077335	0.9392
REG	0.000663	0.000694	0.956377	0.3516
DSE	1.84E-11	1.83E-10	0.100690	0.9209
ROG	-0.000583	0.000250	-2.333653	0.0314
C	0.409082	0.675371	0.605714	0.5523
@TREND	0.219005	0.064153	3.413816	0.0031
R-squared	0.740318			
Adjusted R-squared	0.495062			
F-statistics	14.67261			
Prob(F-statistic)	0.000543			
Durbin-Watson stat	2.073305			

Source: Author's Computation, using E-views 12, (2025)

The Dynamic OLS (DOLS) estimates in Table 6 provide evidence on the long-run determinants of unemployment in Nigeria. The coefficient of capital expenditure (CEG) is positive (0.000156) but statistically insignificant (p=0.9392), suggesting that government investment in infrastructure and capital projects has not had a meaningful impact on reducing unemployment. Similarly, recurrent expenditure (REG) shows a positive but insignificant effect (0.000663, p=0.3516), indicating that spending on wages, salaries, and administrative costs does not significantly influence unemployment dynamics in the long run. Debt service on external debt (DSE) also has a negligible and insignificant coefficient (1.84E-11, p=0.9209), implying that debt repayment obligations do not directly affect unemployment, possibly because such payments divert resources away from growth-enhancing activities without immediate employment consequences. Conversely, government revenue (ROG) exerts a negative and statistically significant influence on unemployment (-0.000583, p=0.0314), showing that higher government revenues are associated with reductions in unemployment. This suggests that effective mobilization and utilization of government income can contribute to job creation and economic stability. The trend variable is also positive and highly significant (0.2190, p=0.0031), reflecting a persistent upward trajectory in unemployment over the study period, despite government fiscal interventions.

The model's overall explanatory power is satisfactory, with an R-squared value of 0.74 and an adjusted R-squared of 0.50, indicating that nearly half of the variations in unemployment are explained by the included fiscal variables. The F-statistic (14.67, p=0.0005) confirms that the model is statistically significant as a whole. The Durbin-Watson statistic (2.07) suggests the absence of serious autocorrelation problems, supporting the reliability of the results. In summary, the DOLS results reveal that while government expenditure and debt servicing have not significantly influenced unemployment, government revenue plays a crucial role in reducing it. This highlights the need for Nigeria to strengthen revenue generation and ensure its effective allocation toward productive and employment-generating activities.

Furthermore, based on the DOLS probability values at the 5% significance level, the null hypotheses are evaluated as follows: For H_{01}, the probability value for capital expenditure of government (0.9392) is greater than 0.05, meaning we fail to reject the null hypothesis; thus, capital expenditure does not have a significant impact on the unemployment rate in Nigeria. For H_{02}, the probability value of recurrent expenditure (0.3516) is also greater than 0.05, so we fail to reject the null hypothesis, implying that recurrent expenditure has no significant effect on unemployment. Similarly, for H_{03}, debt service on external debt has a probability value of 0.9209, which is well above 0.05, leading to the acceptance of the null hypothesis that external debt service has no significant impact on unemployment. However, for H_{04}, the probability value of government revenue (0.0314) is less than 0.05, so we reject the null hypothesis. This indicates that government revenue has a statistically significant negative effect on unemployment in Nigeria at the 5% level of significance.

Post-Estimation Checks (DOLS Diagnostic Test)

The outcomes of the DOLS diagnostic tests recorded in Table 7 are vitally important to justify the strength and stability of the regression model used to determine whether macroeconomic indicators have significant effects on the per capita income in Nigeria. Such post estimation tests examine the wide range of assumptions that the DOLS regression model is based on to make sure that inferences about the model are statistically justified.

Table 7: Results of DOLS Diagnostic Checks

Tests		Outcomes	
		Coefficient	Probability
Breusch-Godfrey-Serial-Correlation Test	F-stat.	27.14908	0.0000
Heteroscedasticity-Breusch-Pagan-Godfrey Test	F-stat.	2.395643	0.0696
Normality Test	Jarque-Bera	0.066152	0.9675

Source: Author's Computation Using EViews-12 (2025)

The results of the DOLS diagnostic checks in Table 7 show that the Breusch-Godfrey Serial Correlation Test produced an F-statistic of 27.14908 with a probability value of 0.0000, which is less than the 5% significance level. This indicates the presence of serial correlation in the residuals, suggesting that the error terms are not entirely independent. The Heteroscedasticity Breusch-Pagan-Godfrey Test yielded an F-statistic of 2.395643 with a probability value of

0.0696, which is greater than 0.05, implying that the null hypothesis of homoscedasticity cannot be rejected; hence, the model does not suffer from heteroscedasticity. Lastly, the Jarque-Bera normality test gave a statistic of 0.066152 with a probability value of 0.9675, which is greater than 0.05. This indicates that the residuals are normally distributed. Overall, the diagnostic results suggest that while the model is free from heteroscedasticity and the residuals are normally distributed.

Discussion of Findings

The findings of the DOLS estimation reveal that capital expenditure of government (CEG) does not significantly affect unemployment in Nigeria, as its coefficient was positive but statistically insignificant at the 5% level. This suggests that capital expenditure has not been effectively translated into job creation, which aligns with the results of Obisike *et al.* (2020) who found that inefficiencies in social spending meant capital expenditure had little impact on unemployment. Similarly, Ebi and Ibe (2019) reported that capital expenditure in Nigeria increased unemployment due to resource misallocation. However, these findings differ from Oseni and Oyelade (2023) and Nwamuo (2022) who found that capital expenditure significantly reduced unemployment, at least in the short run. The divergence suggests that while capital expenditure has the potential to reduce unemployment, its effectiveness in Nigeria depends on how efficiently funds are allocated and managed.

For recurrent expenditure (REG), the results also show no significant effect on unemployment, which is consistent with Obisike *et al.* (2020) who similarly found recurrent expenditure to be insignificant in tackling unemployment. However, this contrasts with Ebi and Ibe (2019) who reported that recurrent expenditure reduced unemployment in Nigeria. The insignificance of recurrent expenditure in this study could imply that spending on wages and salaries, though stabilizing public employment, does not sufficiently translate into broader job creation. Debt service on external debt (DSE) also had no significant impact on unemployment. This result resonates with Iwuoha (2020), who found that public debt had little or no effect in combating unemployment in Nigeria, largely due to corruption and poor utilization of borrowed funds. Similarly, Cahyadin and Ratwianingsih (2020) emphasized that external debt tends to worsen unemployment when not strategically deployed. This suggests that Nigeria's rising debt service obligations are not yielding employment benefits, but instead may crowd out resources needed for productive investment.

On the other hand, government revenue (ROG) was found to have a significant negative relationship with unemployment, indicating that higher revenue reduces unemployment in Nigeria. This finding is in line with Nduka and Achugbu (2016) who confirmed a negative relationship between revenue and unemployment, consistent with Okun's law. It also resonates with the argument of Nguyen (2018) who demonstrated that fiscal discipline and stronger government revenue improve employment outcomes. This result implies that mobilizing and effectively utilizing government revenue has greater potential to reduce unemployment than relying on borrowing or poorly managed expenditures. Overall, the results highlighted that while capital expenditure, recurrent expenditure, and debt service are currently ineffective in reducing unemployment in Nigeria, government revenue plays a

significant role in curbing joblessness. This underscores the importance of fiscal efficiency and resource mobilization as more reliable tools for addressing unemployment than debt accumulation or poorly executed expenditure programs.

Conclusion and Recommendations

This study examined the fiscal policy and unemployment in Nigeria using the DOLS estimation technique. The results showed that capital expenditure, recurrent expenditure, and debt service do not have a significant effect on reducing unemployment, while government revenue significantly reduces unemployment. This implies that fiscal inefficiencies and debt mismanagement hinder employment generation, but effective revenue mobilization has the potential to foster job creation The paper recommended as follows;

i. Capital expenditure was found to have no significant impact on unemployment, suggesting poor allocation and execution of capital projects. Federal Ministry of Finance, Budget and National Planning, in collaboration with the Budget Office and Infrastructure Concession Regulatory Commission (ICRC) should *s*trengthen project monitoring and evaluation frameworks to ensure capital projects are completed on time, transparent, and employment-oriented, particularly in infrastructure, housing, and agriculture.

ii. Recurrent expenditure was insignificant in reducing unemployment, showing that spending on wages and salaries does not translate to wider job creation. Office of the Head of Civil Service of the Federation (OHCSF) and Federal Ministry of Labour and Employment should Link recurrent spending to productivity by retraining civil servants, digitizing public services, and expanding internship and graduate trainee programs to absorb more youths into productive roles.

iii. Debt service obligations did not significantly reduce unemployment, indicating that borrowed funds are not effectively used to create jobs. Debt Management Office (DMO) and National Assembly (Committees on Finance and Appropriations) should Align borrowing with employment-generating projects, enforce legislative oversight on debt utilization, and adopt debt-for-infrastructure swaps that directly stimulate job creation.

iv. Government revenue had a significant negative relationship with unemployment, meaning higher revenue reduces unemployment. Federal Inland Revenue Service (FIRS), Nigeria Customs Service (NCS), and Ministry of Finance should expand the tax base by reducing leakages, digitizing tax administration, and diversifying revenue through non-oil exports. Increased revenue should be directed into sectors with high employment elasticity such as agriculture, ICT, and manufacturing.

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