



Dynamic Effects of Government Capital Expenditure and Domestic Private Investment on Employment Generation in Nigeria

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Abstract

The study explored the dynamic effects of government capital expenditure and domestic private investment on employment generation from 1986 to 2023. The objectives of the study were to examine the effects of changes in government capital expenditure and domestic private investment on employment both in the short-run and long-run. Obtaining time-series data and estimating with the ARDL technique, it was found that government capital expenditure and domestic private investment exerted positive effects on employment both in the short-run and long-run, suggesting that both variables have immediate and long-lasting effects in Nigeria. Real GDP was also found to have effect on employment while interest rate and inflation exerted negative effects. The study recommended more budgetary allocation for capital projects to promote ease of doing business and expand productive capacity, expansion of credit and low interest loans to entrepreneurs and SMEs, and targeting for inflation and stabilization of interest rates for stable macroeconomic environment.

Keywords: *Government capital expenditure; Domestic private investment; Employment; Inflation targeting; Interest rate stabilization.*

Introduction

Employment generation has been a fundamental macroeconomic necessity antagonizing the Nigerian economy. Nigeria, despite being recognized as the largest economy in Africa given her level of gross domestic product, continues to evidence deeply troubling labour market outcomes. From the National Bureau of Statistics (NBS), unemployment rate of 5.3% in the first quarter of 2024 was reported, as youth unemployment rate stood at 8.4% within the ages of 15-25 years, while that of the classified proportion of Not in Education,

Employment or Training (NEET) is 14.4% (NBS, 2024). To worsen this is the increasing informal employment rate, which is approximately 92%. This implies that majority of Nigerian population are grossly engaged in low-productivity and precarious economical activities (NBS, 2023). These figures simply highlight the structural fragility of the Nigerian labour market and how cogent it is to understand the fiscal and investment determinants of employment generation.

Government capital expenditure from theoretical view point, stimulates

employment via two broad means. The first is that jobs are created directly in public works, construction, and related sectors in the economy. The second is via complementarity hypothesis, where investment in public infrastructure lowers production costs, crowds in private investment and stimulate additional employment across the larger economy (Aschauer, 1989). But on the contrary, crowding-out hypothesis argues that expansionary public spending, however, competes strongly with private investment particularly for loanable funds, stimulates interest rates, and suppresses activity of the private sector and creation of job (Friedman, 1978). In Nigeria, this theoretical vagueness is compelling, from the raising experience of Nigerian fiscal deficits, public debt and factually low capital budget implementation processes. The actual relationship between domestic private investment and employment is however, questioned.

The domestic private investment and employment nexus is equally contested. Private investment, which constitutes as primary driver of job creation, has been constrained in Nigeria given increasingly infrastructural deficits, foreign exchange volatility, policy inconsistency and as well as higher lending rates (Afolabi & Raifu, 2025). Edet et al. (2024) and Ukoh and Nwaoha (2024) among other extant studies have examined the growth effects of capital expenditure, while others equally explored the relationship between fiscal deficit and private investment (Jato & Nwankwo, 2024). Most studies, however, focus on output implications of fiscal policy with relatively scanty attention to the direct and dynamic employment consequences of government capital expenditure and domestic private investment as variables modelled jointly and the estimation frameworks apply mostly are unable to capture temporal dynamics and feedback effects.

These gaps identified are addressed in this study by exploring the dynamic effects of government capital expenditure and domestic private investment on employment generation in Nigeria, using a dynamic time

series approach that is capable of capturing both the short-run impulse responses and long-run equilibrium adjustments within empirical context of Nigeria.

Literature Review

Theoretical Foundations

The government capital expenditure, domestic private investment and employment generation nexus is multifaceted and has been explained by several economic theories that are complementary and competing.

Keynesian Theory of Public Expenditure and Employment

This study is rooted primarily in the Keynesian macroeconomic theoretical framework, which is known as the John Maynard Keynes (1936) in the analysis of *The General Theory of Employment, Interest and Money*. The classical assumptions were challenged by Keynes that markets are self-correcting and that full employment equilibrium is the natural state of an economy, but Keynes argued that economies can experience prolonged periods of underemployment equilibrium given the presence of aggregate demand deficit.

The Keynesian fundamental theory is that government expenditure serves as a powerful instrument that stimulates economic activities and promote employment. Increasing insufficiency in the private sector demands to absorb productive capacity, fiscal intervention can bridge the gap through rounds of successive government spending leading to fiscal multiplier effect by raising output and employment ultimately. From the Nigerian experience, the private sector has been constrained by increasing infrastructure deficits, weak institutional frameworks, and restricted access to credit. Government capital expenditure on power, roads, health and education assumes significance particularly, creating jobs directly while stimulating the productive environment for private enterprise. The post-Keynesian further argued that aggregate demand as influenced by significant fiscal policy will determines labour employment. This

perspective is relevant for Nigeria, a situation where surplus labour is more abundant and demand-side constraints are binding.

The Crowding-In and Crowding-Out Hypothesis

The traditional crowding-in hypothesis holds that government borrowing stimulates the increase in the level of interest rates, which affect the availability of credit to the investors in the private sector and reduces the level of net employment effect of public expenditure. Crowding-in hypothesis from the literature is however, mostly supported theoretically and empirically in developing economies. Strong argument from Aschauer (1989) and Blejer and Khan (1984) support the fact that productive government capital expenditure improves the additional productivity of private capital, enhancing rather than displacing private investment. This implies that government decision to invest on roads construction, electricity infrastructure, and telecommunications, will reduce the costs of business, improve market access and increase expected returns on private investment, which leads to the expansion of private sector activity and employment level.

The challenge of infrastructural deficit in Nigeria brings about the plausibility of the crowding-in effect, since the costs of the provision of infrastructure is borne by the private firms. The expansion of capital expenditure as a means to address these gaps brings about reduction in operation costs, increases profitability and encourages capacity growth, that stimulates labour demand. In this study, crowding-in hypothesis is adopted as the theoretical basis for the expected complementary nexus between government capital expenditure and domestic private investment, while noting that the direction of the crowding effect depends strongly on the nature the expenditure, conditions of the financial market, and the monetization of fiscal deficit.

The Accelerator Theory of Investment

The accelerator theory of investment following the work of Clark (1917), which was later reshaped by Samuelson (1939) and Hicks (1950), argues that private investment is determined by changes in aggregate demand. When there is expansion of aggregate demand, existing stock of capital becomes insufficient for the firms and firms undertake new investment in order to expand productive capacity and generate additional labour demand. In line with this study, accelerator theory is linked based on the fact that government capital spending promotes aggregate demand and improves national output, bringing about increasing demand to private investors and stimulating investment expansion with consequent employment effects. The dynamic accelerator model, which emphasis on the adjustment of costs and gradual capital stock is relevant particularly the uncertain nature of Nigeria's investment environment and it is also consistent with the distributed lag structure of the autoregressive distributed lag (ARDL) framework adopted in this study.

Endogenous Growth Theory

Romer (1986), Lucas (1988), and Barro (1990) who pioneered the endogenous growth model suggests that within an economic system, long-run growth and employment are determined. Government spending was incorporated into the model of production function by Barro as a complement to private capital, which shows that productive public expenditure raises the marginal product of private capital and sustains long-run growth, leading to continuous increase in labour demand beyond the Keynesian short-run demand-side effects. Endogenous growth model further highlights on human capital accumulation, which is stimulated through government expenditure on education and health leading to labour force quality and productivity. Romer and Lucas who respectively emphasis on increasing return and on human capital externalities noted that private investment in knowledge-intensive sectors stimulates

positive spillovers that generate new employments beyond its direct effects.

Synthesis and Theoretical Model

The theoretical models so far reviewed are complementary and mutually supporting. The four models are operating through two major interrelated channels, which are direct effect and indirect dynamic effect.

Channel One: Direct Effect

This channel expresses the fact that capital government expenditure is linked to aggregate demand, which stimulate output and employment. This is in line with Keynesian theory.

Channel Two: Indirect Dynamic Effect

This channel also expresses that capital government expenditure brings about increase in infrastructure, which leads to the growth of private investment, productive capacity and employment. This is in consonance with Crowding-In, Accelerator and Endogenous growth theories.

Combining these four models, the two channels suggest that the effect of capital government expenditure on employment exhibit both direct and indirect, short-run and long-run and demand-side and supply side effects. The dynamic nature of these channels justifies the adoption of ARDL bounds testing approach to capture dynamism of the short-run and long-run nexus between government capital expenditure, domestic private investment and employment generation in Nigeria.

Empirical Literature

Government Capital Expenditure and Employment Generation

The empirical connection between government expenditure and employment have been examined by a number of studies, with most finding showing consistency with the Keynesian fiscal multiplier framework, although with great regards concerning the composition of spending, efficiency and financing.

Aschauer (1989) found that in the United States that output elasticity was about 0.39 to non-military spending on critical infrastructures, suggestive of significant effects on productivity and employment. Nevertheless, the study's outcome attracted criticisms from Tatom (1991) and Evans and Karras (1994) on the ground that study suffered omitted variable bias and estimates obtained were spurious which are core violations of econometric analysis. This study addressed this shortcoming by employing the ARDL bounds testing technique.

Nurudeen and Usman (2010) examined the relationship between capital expenditure and economic growth with annual data from 1970 to 2008 in Nigeria and found that capital expenditure significantly enhanced economic growth while recurrent expenditure showed a negative effect. Although this study emphasis was on growth, not directly on employment, the findings obtained are relevant based on theoretical connection with the accelerator principle.

Critically, the study did not incorporate private investment as a transmission variable, which is a gap this study seeks to address. Also, Aigheyisi (2013) examined the connection between capital expenditure and growth using the ARDL approach and revealed that capital expenditure exerted positive but insignificant effect in the short-run while it has positive and statistically significant effect in the long-run. This finding is ascribed to negligible short-run outcome due to lags in implementation, padding of budget, systemic poor project execution and misuse of public funds. Recent evidence reinforces these findings, mainly in the sub-Saharan Africa context. In Guinea, Aboubacar and Xu (2017), examined the connection between government expenditure and economic growth and found that the effect of capital expenditure was stronger on growth in the long-run than recurrent expenditure. This finding corroborates the endogenous growth model.

In Nigeria, Muritala and Taiwo (2011) also found that capital expenditure has positive

influence on output growth, employing institutional inefficiencies in budget execution as moderating variable. This was further demonstrated by Ogbole, Amadi, and Essi (2011) during the periods of structural reforms where capital expenditure was found to exhibit more significant effect on growth, indicating that that nexus between the fiscal variable and employment was significantly moderated by the institutional and policy environment. This a perspective that aggregate economic studies may not fully account for.

Concerning the contribution of growth to employment intensity in Nigeria, Ajakaiye et al. (2016) found that “jobless growth” between 2000 and 2014 because growth was mainly driven by the oil sector. They noted that Capital expenditure on agriculture, manufacturing, and small and medium enterprise development exhibited substantial employment intensity, underscoring heterogeneity in the sectors of the economy that aggregate time-series study cannot fully account for and thus the need for future research efforts.

Domestic Private Investment and Employment Generation

In Nigeria, Adelowokan (2012) explored the relationship between investment and employment from 1970 to 2010 using the ARDL technique and discovered that a 10 percent increase in investment triggered about 4.3 percent increase in employment, suggesting that gross fixed capital formation promoted employment in the long-run. The study found short-run relationship to be insignificant, which is traceable to structural challenge associated with Nigeria’s oil sector capital-intensiveness that aggregate investment cannot sufficiently capture.

Employing the Johansen cointegration technique, Ugochukwu and Chinyere (2013) found that domestic private investment had positive and statistically significant effect on GDP growth rate than foreign direct investment in Nigeria. This suggest that local entrepreneurs generated more employment per unit of investment than foreign investors since local investors are more integrated into

local labour markets and supply chains. This is the distinction that this study clearly spelt out by drawing distinctions between domestic and foreign investment both in theory and policy. In corroboration with this, Anyanwu (2014) found in a study in the African context that foreign investments employ few labour because their production functions are usually capital intensive as against the domestic investment that employ larger share of labour force traceable to labour-intensive production function.

Bakare (2011) employed OLS technique and found that gross capital formation significantly reduced unemployment, spanning 1980 to 2009 in Nigeria. This finding is consistent with the theoretical expectation that investment improves capacity to produce and job creation ability. However, the reliability of estimates obtained were limited by the use of OLS as estimation technique due to its inability to address endogeneity problem between investment and employment. Thus, the study addresses this by employing ARDL technique, which accounts for dynamic feedback relationships among variables.

Utilising vector autoregressive approach, Nwosu and Okafor (2014) further broadened investigation by accessing private investment-employment nexus in Nigeria between 1985 to 2012 and found that domestic private investment significantly promoted employment in the manufacturing and services sectors. The impulse response function disclosed that employment gradually and persistently responded to employment shocks, which align with the flexible accelerator model.

On the whole, there are evidence to institutional constraints militating employment generation. As noted by Ugwu (2008) and Okonjo-Iweala and Osafo-Kwaako (2007), implementation of the budgetary allocation on capital items was below 60 percent on the average from 1999 to 2007, with adverse effect on the capacity of public spending to generate meaningful employment, manifesting in the forms of corruption, abandonment of projects, capital

budget misallocations, presenting a key gap expectations from theory and fiscal outcomes observed in Nigeria.

Methodology and Model Specification

A major shortfall associated with the Johansen and Juselius (1990) cointegration approach is that it cannot be used when there is just one cointegrating vector. Therefore, regardless of whether the underlying variables are $I(0)$, $I(1)$, or a combination of both, it is essential to employ the Autoregressive Distributed Lag (ARDL) approach to cointegration or bound technique for a long-run connection, as presented by Pesaran and Shin (1995) and Pesaran et al

(1996b). The ARDL approach to cointegration (Bound Test) provides accurate and effective estimates in this scenario.

However, the ARDL suffers limitations such as lag selection sensitivity, small sample bias, structural breaks and limited applications with $I(2)$ variables, over-parameterization risks in case of too many lags and potential for spurious regression if the cointegration status of variables is not verified. This study addresses these limitations by carrying preliminary tests, robustness and stability tests and found that the ARDL can yield estimates that are consistent, stable and fit for inference making.

Model Specification

Drawing the theoretical foundation, the model for the study is thus specified.

$$EMP = f(CAXP, DPINV) \quad (3.1)$$

EMP = Employment

CAXP = Government Capital Expenditure

DPINV = Domestic Private Investment

Other macroeconomic variables such as real GDP, interest rate and inflation rate enter the function due to their bearings on employment generation. These variables serve as control variables in the function. Thus, equation 3.1 yields:

$$EMP = f(CAXP, DPINV, RGDP, INT, INF) \quad (3.2)$$

RGDP = Real Gross Domestic Product

INT = Interest Rate

INF = Inflation Rate

From equation 3.2, the baseline function is specified below

$$EMP_t = C + Z_1 CAXP_t + Z_2 DPINV_t + Z_3 RGDP_t + Z_4 INT_t + Z_5 INF_t + \mu_t \quad (3.3)$$

Where:

All variables are previously defined

C is the intercept, $Z_1, \dots, Z_5$ are the coefficients

μ = Stochastic Term

t = Time (Assessment Periods); 1986-2023

From equation 3.3, the dynamic ARDL model is presented below

Short-Run and Long-Run Dynamics

The short-run and long-run effects are presented in the ARDL model below.

$$\begin{aligned} \Delta EMP_t = & c_0 + \sum_{j=1}^p (\alpha_j \Delta EMP_{t-j}) + \sum_{i=0}^m (\lambda_i \Delta CAXP_{t-i}) + \sum_{i=0}^n (\gamma_i \Delta DPINV_{t-i}) \\ & + \sum_{i=0}^f (\chi_i \Delta RGDP_{t-i}) + \sum_{i=0}^e (\hbar_i \Delta INT_{t-i}) + \sum_{i=0}^j (\check{j}_i \Delta INF_{t-i}) \\ & + Z_1 EMP_{t-1} + Z_2 CAXP_{t-1} + Z_3 DPINV_{t-1} + Z_4 RGDP_{t-1} + Z_5 INT_{t-1} \\ & + Z_6 INF_{t-1} + \mu_t \end{aligned} \quad (3.4)$$

Error-Correction Model

In order to combine the short-run dynamics with the long-run equilibrium relationship, the ARDL model is re-specified as an error correction model (ECM):

$$\Delta EMP_t = \sum_{j=1}^p (\alpha_j \Delta EMP_{t-j}) + \sum_{i=0}^m (\lambda_i \Delta CAXP_{t-i}) + \sum_{i=0}^n (\gamma_i \Delta DPINV_{t-i}) + \sum_{i=0}^f (\tau_i \Delta RGDP_{t-i}) + \sum_{i=0}^e (\eta_i \Delta INT_{t-i}) + \sum_{i=0}^j (\beta_i \Delta INF_{t-i}) + \psi ECT_{t-1} \quad (3.5)$$

$Z_1, \dots, Z_5$ are the long-run coefficients, $\alpha_j, \lambda_i, \gamma_i, \tau_i, \eta_i, \beta_i$ are representatives of short run coefficients, p, m, n, f, v, e, j and c capture the lags of variable in the dynamic model, Δ is the represents the difference operator, and ψ captures the speed of adjustment while μ represents the disturbance terms.

Table 3.1: A priori signs and data sources

Variables	A priori sign with EMP	Data Sources
EMP	(Dependent Variable)	Nigerian Bureau of Statistics
CAPEX	> 0	CBN Statistical Bulletin
DPINV	> 0	CBN Statistical Bulletin
RGDP	> 0	CBN Statistical Bulletin
INT	< 0	CBN Statistical Bulletin
INF	< 0	WDI Data

Source: Author's (2026)

Presentation of Results and Discussion

The presentation and analysis of empirical results include the preliminary tests, model estimation, post-estimation (diagnostics) tests.

The pre-estimation tests utilised in this study include the descriptive statistics, the unit root test, lag length selection and the autoregressive test for lag selection, the ARDL Bound Test for Cointegration.

Preliminary Tests

Descriptive Statistics

The descriptive statistics for the variables employed are presented in Table 5.1.

Table 5.1: Descriptive Statistics

Variables	Mean	Max.	Min.	Std. Dev.	Skew.	Kurt.	J-B	Prob.	Obs.
EMP _t	45.265	84.83	25.51	19.32	-0.02	2.28	0.80	0.66	38
CAXP _t	795.13	4,486.20	6.37	962.25	2.07	7.59	60.64	0.00	38
DPINV _t	12,865.10	84,561.30	108.87	19,813.18	2.24	7.39	62.64	0.00	38

RGDP	42, 865	77, 936	17,180	21,389	0.31	1.46	4.37	0.11	38
INT _t	13.84	26.00	6.00	3.77	0.66	4.66	7.21	0.02	38
INF _t	20.01	72.84	5.72	17.74	1.78	5.20	27.83	0.00	38

Source: Author's Computation (2026) from EViews 14

Table 4.1 shows that mean value are all non-zero. Average employment for the period was over 45 million people, with maximum and minimum of about 85 million and 26 million respectively. With the standard deviation of ₦19.32, employment exhibited considerable fluctuations linked to instability in macroeconomic environment. Capital expenditure showed averages of ₦795 and deviation of ₦795 billion respectively. The high deviation points to inconsistency in infrastructure spending. DPINV and RGDP exhibited averages of ₦12. 68 trillion and ₦42.86 trillion and respective deviation of ₦21.38 trillion and ₦12.68. These deviations are reflection of instability in real growth and high volatility in capital formation of private sector. INT has mean of ₦20.00, and INF with mean of about ₦14. Both variables

exhibited high standard deviations which can affect firm's employment decisions. The distribution is positively skewed and leptokurtic, except for EMP and RGDP. The non-normality in distribution is confirmed by the J-B Statistic and P-values lower than 0.05. This reflects structural breaks and policy shocks in the system. Therefore, non-normality in distribution is corrected with log-transformation.

Unit Root Test

The determine the stationarity status of the variables involved two distinct stationarity tests: The Augmented Dickey Fuller (ADF) and Phillip-Perron (PP) Test Statistics. The outcomes from the unit roots tests are shown in Table 5.3

Table 4.2: ADF and PP Unit Test Results

Variable	ADF Statistic			PP Test		
	ADF t-Statistic	Prob*	Remark	Adj t-Statistic	Prob*	Remark
EMP _t	-4.559724*	0.0009	Stationary	-8.841854*	0.0000	Stationary
CAXP _t	-1.474704	0.5351	Not Stationary	-1.539527	0.5029	Not Stationary
D(CAXP _t)	-6.891725*	0.0000	Stationary	-6.831432*	0.0000	Stationary
DPINV _t	-1.251749	0.6413	Not Stationary	-1.132954	0.6923	Not Stationary
D(DPINV _t)	-4.740060*	0.005	Stationary	-4.817138*	0.0004	Stationary
RGDP	-3.870019*	0.0250	Stationary	-3.914061*	0.0003	Stationary
INT _t	-3.250917**	0.0248	Stationary	-3.304753**	0.0218	Stationary
INF _t	-2.914974***	0.0532	Stationary	-2.964096***	0.0478	Stationary

Source: Author's Computation (2026) from EViews 14

Note: Prefix D represents first differencing of variable, (*) (**) (***) indicate significance at the 1%, 5% and 10% levels of significance respectively. Prob* represents Mac Kinnon One-Sided P-values.

The examination of unit root was done using the Augmented Dickey–Fuller (ADF) and

Phillips–Perron (PP) tests. The results reveal a mixed order of integration among the series.

Employment (EMP), RGDP, interest rate (INT) and inflation rate (INF) were stationary at levels, with test statistics significant at 1%, 5% and 10% respectively, indicating rejection of the null hypothesis of a unit root, thus integrated of order zero, $I(0)$. Conversely, CAXP and DPINV were non-stationary at level but became stationary after first differencing at 1% and 5% respectively, indicating integration of order one, $I(1)$, with shocks having persistent long-run effects. The consistency of results across both tests strengthens reliability of the inference. =Overall, the mixture of $I(0)$ and $I(1)$

variables justifies adoption of the ARDL modelling framework, further necessitating a bounds cointegration test to determine whether a stable long-run equilibrium relationship exists among the variables.

Selection of Lag Length

The lag structure of the autoregressive estimator frequently affects a cointegration-based analysis such as the ARDL. The lag selection test is employed to obtain the maximum lag that can produce reliable and consistent estimates (Greene, 2011).

Table 4.3: Lag Length Selection Criteria

Lag Length	FPE	AIC	SC	HQ
0	3.887	4.187	4.542	4.310
1	0.391*	1.888*	4.626*	4.044*
2	0.415	1.942	2.836	2.096
3	0.434	1.982	2.471	2.151

Source: Author's Computation (2026) from EViews 14

Note: * indicates significant at 5 percent and acceptance of lag length.

Table 5.5 shows that lag length from lag order 0 to lag order 3. Given that every lag selection test identifies lag 1 as the ideal lag length, this suggests that a one-lag is the optimal lag for the ARDL estimation. Based

on the FPE, AIC, SC, and HQ criteria in the ARDL model, a lag structure of one period is chosen to reflect the structure that would provide more stable coefficient estimations.

ARDL Bound Test for Cointegration

The Bound test result is thus presented below in a tabular form.

Table 4.4: ARDL Bound Test for Cointegration

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Significant	I(0)	I(1)
		Asymptotic: n=1000		
F-statistic	24.70	10%	1.92	2.89
K	5	5%	2.17	3.21
		1%	2.73	3.90

Source: Author's Computation (2026) from EViews 14

Note: k= number of explanatory variables.

Table 5.7 reveals the long run inter-relationship between variables employed in the study. This means that the ARDL bound test for cointegration test shows that variables are co-integrated owing to the fact that the F-statistic value of about 25. This is highly

statistically significant at 1% far higher than the upper bound $I(1)$ critical values. Against this backdrop, it is sufficient to conclude that a long-run equilibrium relationship exists among the variables.

ARDL Results

The Autoregressive Distributed Lag Result is presented below

Table 4.5: ARDL Results

Dependent Variable: EMP

Long Run Relationship				
Variable	Coefficient	Std. Error	t-Statistics	Probability
CAXP _t	0.26	0.04	6.50	0.00
DPINV _t	0.57	0.08	7.12	0.00
RGDP _t	0.04	0.01	4.00	0.00
INT _t	-0.07	0.02	-3.50	0.00
INF _t	-0.03	0.01	-3.00	0.01
Short Run Relationship				
Variable	Coefficient	Std. Error	t-Statistic	Probability
D(EMP _t (-1))	0.48	0.08	6.00	0.00
D(CAXP _t (-1))	0.21	0.09	2.33	0.03
D(DPINV _t (-1))	0.37	0.12	3.08	0.00
D(RGDP _t (-1))	0.29	0.11	2.63	0.03
D(INT _t (-1))	-0.02	0.02	-1.00	0.32
D(INF _t (-1))	-0.03	0.02	-1.50	0.16
CointEq(-1)	-0.47	0.06	-7.83	0.00
R-squared	0.67	Mean depend var	20.02	
Adjusted R-squared	0.62	S.D. dependent var	5.51	
S.E. of regression	2.08	Akaike info criterion	6.18	
Sum squared resid	21.58	Schwarz criterion	5.71	
Log likelihood	-51.87	Hannan-Quinn criterion	5.77	
F-statistic	27.33			
Prob (F-Statistics)	0.00			

Source: Author's Computation (2026) from EViews 14

Table 4.5 exhibits R^2 of 0.67, indicating that about 67% of the system variation in employment is captured by the independent variables. The F-statistic of 27.33 and corresponding P-value of 0.00 confirm that the overall model is effortlessly significant at 1% level.

In the short-run, capital government expenditure (CAXP) has a positive coefficient of 0.21 and T-value of 2.33, indicating that a one percent rise in capital expenditure generated employment by 0.21 percent at 5% significance level, corroborating outcome from Nurudeen and Usman (2010). DPINV has a positive short-run coefficient of 0.37 and T-statistic of 3.08,

significant at 5%, indicating that domestic investment had short-run positive effect on employment. This is consistent with the Keynesian multiplier effect (Corchón, 2003). RGDP was positive and significant at 5%, while INT and INF portrayed negative but statistically insignificant coefficients, suggesting that immediate effects of interest rate and inflation on employment are negligible.

In the long-run, CAXP has a positive coefficient of 0.26 and significant T-value of 6.50, indicating that it is significant driver of employment. This is consistent with Aboubacar and Xu (2017) and Ajakaiye et al. (2016). DPINV has a coefficient of 0.57 and

T-statistic of 7.12, passing the significance test at 1% level. This suggests that employment is highly sensitive to cumulative changes in private capital formation (Ugochukwu and Chinyere, 2013). Interest rate and inflation were negative and significant, indicating that they adversely affected employment. This validates the hypothesis that both variables discourage firm production and labour demand. The

cointegration coefficient of -0.47, significant at 1%, indicates a speed of adjustment of 47 percent toward long-run equilibrium following short-run disequilibrium.

Diagnostics Tests

For robustness and validity of estimates, the serial correlation and homoscedasticity tests were conducted.

Serial Correlation and Heteroskedasticity Results

Table 4.6: Serial correlation and Heteroscedasticity Tests

Tests	Statistics
Breusch-Godfrey Serial Correlation LM Test	1.64 (p = 0.21)
Breusch-Pagan-Godfrey Heteroskedasticity Test	1.02(p = 0.53)

Source: Authors' Computation (2026) from EViews14

Table 5.9 shows the F-statistic of 1.64 and corresponding probability of 0.21. Since this probability value outweighs the significance level at 0.05 it can be said that the hypothesis the null hypothesis of no serial correlation in the residual is validated.

The Breusch-Pagan-Godfrey (B-P-G) Heteroskedasticity Test with F-statistic of 1.02 and tallying probability value of 0.53 shows the absence of heteroskedasticity. Therefore, the estimated model is deemed to be reliable and effective for long term prediction and analysis.

Stability Tests

The stability test utilised is the Cumulative Sum of Recursive Residuals (CUSUM). The CUSUM test is delayed below.

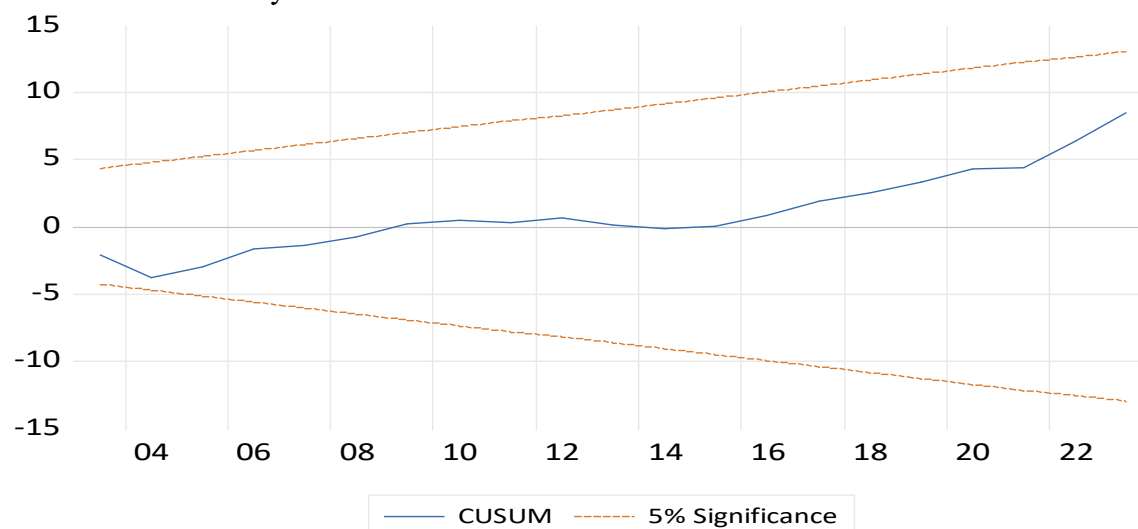


Figure 4.1: Structural Stability Test; Cumulative Sum of Recursive Residuals (CUSUM)

Source: Author's (2026) from EViews 14

Figure 4.1 exhibits the structural stability of short-run and long-run coefficients. It shows that the CUSUM plots passed the significant test at 5% since it lies within the critical

boundaries. This indicates that the model is stable and policy prescriptions originating from estimates are reliable.

Conclusion and Policy Recommendations

This study employed the ARDL bounds tests approach and utilised annual time-series data from 1986 to 2023 to examine the dynamic effects of government capital expenditure and domestic private investment on employment generation in Nigeria. Findings revealed that capital government expenditure and domestic investment exerted positive effects on employment generation both in the short-run and long-run, which corroborated the Keynesian theory of employment, crowd-in hypothesis and the endogenous theory. Also, real GDP was found to positively influence employment generation in both the short and long-run. Conversely, interest rate and inflation were found to have negative effect on employment, thus reflecting the labour absorption constraint imposed by both variables. The magnitude of speed of adjustment confirms the existence of long-run equilibrium relationship. Drawing from the findings, the study recommends the allocation of more resources to capital projects and cut back excessive expenditures on recurrent items. This is to improve the ease of doing business and enhance employment capability of private firms. This study also calls for expansion of access to low-interest financing, grants, and entrepreneurial training for domestic firms, especially the small and medium-sized enterprises (SMEs). Emphasis on inflation targeting and interest rate stabilization by the CBN for stable macroeconomic environment.

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