FOREIGN DIRECT INVESTMENT CONTRIBUTION TO SOCIO ECONOMIC DEVELOPMENT ON DEVELOPING NATIONS: A CASE STUDY OF NIGERIA

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ABSTRACT

This article examines the contribution of foreign direct investment (FDI) to socio-economic development in developing countries, using Nigeria (1990 - 2022) as a detailed case study. The study focuses on the contributions of FDI to the reduction of unemployment in Nigeria over the period. The study used unemployment rate (UNEM) as the dependent variable while FDI, DIV, and CPS were used as independent variables. Using time series and ARDL regression analysis and based on 5% level of significance, the paper finds that FDI credit to private sector, and domestic investment have contributed negatively to UNEM rate growth, implying that increase in these variables can potentially reduce the unemployment rate in Nigeria. The study concludes that to combat unemployment rate in Nigeria, FDI must be encouraged. It is therefore recommended that domestic investments must be encouraged using credit to private sector.

Keywords: Foreign Direct Investment, Unemployment Rate, Nigeria, Technology Transfer, Absorptive Capacity, Credit to Private Sector.

Introduction

Foreign direct investment (FDI) has long been promoted as a catalyst for economic development in low- and middle-income countries (Okoli & Okeke, 2025). Policymakers expect FDI to provide capital, create jobs, transfer technology, upgrade skills, integrate local firms into global value chains, increase exports, and improve government revenues. Yet the empirical record is mixed: outcomes depend on sectoral composition of FDI, the quality of institutions, domestic complementary capital, and human capital (Sabado et al., 2023).

According to Stepanok (2023), socio-economic development refers to the process of enhancing both the social and economic well-being of a society. It is commonly measured through indicators such as life expectancy, gross domestic product (UNEM), literacy rate, and employment levels. Sustainability, a broad and multifaceted concept, applies across various

sectors and encompasses economic, environmental, and social dimensions (Wakilat et al., 2025). The social pillar of sustainability emphasizes welfare and development at the grassroots level (Olawumi, 2018). Historically, social sustainability originated from efforts to mobilize resources from developed to developing nations. Presently, sustainable development has become a central focus for many countries around the world (UNGA, 2019).

Traditional economic thought often assumes that human well-being is a linear function of economic growth (Effiong et al., 2022). However, several scholars have questioned this assumption according Azolibe et al. (2025). Several studies through a cross-country analysis, demonstrated that countries such as Sri Lanka and China, despite having relatively low GNP levels, recorded higher life expectancies than nations like Brazil, Gabon, and South Africa in 1992. Several findings suggested that while economic growth is necessary, it is not sufficient to ensure overall welfare (Ozili & Oladipo, 2025).

Building on this perspective, Tanaya and Suyanto (2023) argued that the narrow focus on UNEM as the primary measure of growth neglects other essential factors such as health and education. Consequently, while sustainable economic growth remains a key policy objective worldwide, UNEM growth alone does not guarantee human development. UNEM captures only one aspect of a country's progress and often serves as an overly limited measure of human welfare. Therefore, relying solely on UNEM to evaluate well-being can be misleading (Warsame & Mohamed, 2023).

Socio-economic development encompasses a wide range of factors contributing to social welfare, including liberty, quality of life, access to healthcare, and availability of modern knowledge systems (Kukaj & Usaj, 2022). In response to ongoing debates among policymakers and economists over how best to measure development, new indices have been created. One of the most significant of these is the Human Development Index (HDI), introduced by the United Nations Development Program (UNDP) in 1991. The HDI provides a composite measure of living standards by incorporating literacy, education, life expectancy, and quality of life. Since its inception, it has gained substantial recognition among policymakers and scholars as an effective tool for comparative evaluation of national development (Okoli & Okeke, 2025).

Another significant and often debated concept in macroeconomics is foreign direct investment (FDI), especially as it relates to developing countries such as Nigeria. The intellectual foundation for FDI originates from theories such as Vernon's Product Cycle Theory (1966), Buckley's Internalization Theory (1985), and Porter's Theory of Competitive Advantage (1990). These frameworks have shaped academic discussions and established the theoretical basis for understanding FDI's importance (Sabado et al., 2023). Over the decades, FDI inflows have increased substantially, especially in developing nations, despite concerns over potential threats to host country sovereignty. The attraction of multinational enterprises has driven this rapid expansion, leading to a surge in empirical studies examining the relationship between FDI and economic growth (Stepanok, 2023).

Given its growing significance, numerous studies have investigated the effects of FDI on skill acquisition, knowledge transfer, competitiveness of local industries (Sun & He, 2014), technological development, and stock market performance (Wakilat et al., 2025). The majority of empirical findings indicate that FDI exerts a positive influence on economic growth in both developing and developed economies (Effiong et al., 2022). FDI inflows serve as a vital channel for mobilizing resources in developing countries according to Wakilat et al. (2025). For instance,

in 1990, FDI accounted for approximately 75% of external capital flows to developing nations, and by 1998, it constituted nearly two-thirds of total capital inflows. By 2007, developing countries had become the largest recipients of FDI, attracting $690 billion in 2010 and $765 billion in 2016, with Asia emerging as the dominant region (UNCTAD, 2012; UNCTAD, 2016).

Nigeria is an illustrative case. It is Africa's 3rd largest economy by UNEM and a principal FDI destination on the continent, but the composition of inflows has been concentrated in extractive industries (oil and gas), finance, telecommunications, and more recently services and some greenfield projects (Azolibe et al., 2025). While FDI has brought capital and modern management practices to specific sectors, its broader socio-economic contribution has been constrained by enclave dynamics in oil, weak domestic linkages, governance challenges, infrastructural bottlenecks, and variable absorptive capacity as highlighted by Okoli and Okeke (2025). Official statistics show sizable year-to-year volatility in FDI flows and changing sectoral patterns in the 2010s and early 2020s. For example, capital importation and FDI inflows have been uneven across quarters and years, with notable declines in some periods (Tanaya & Suyanto, 2023).

This article addresses key research questions.

1. What impact does FDI have on unemployment rate in Nigeria over the period?
2. How domestic investment contributed to unemployment rate in Nigeria over the period?
3. Does credit to private sector influence unemployment rate in Nigeria over the period?

Hypotheses of the Study

$H0_1$: There is no significant relationship between FDI and unemployment rate in Nigeria

$H0_2$: There is no significant relationship between domestic investment and unemployment rate in Nigeria

$H0_3$: There is no significant relationship between credit to private sector and unemployment rate in Nigeria

Literature Review

Conceptual Framework

The conceptual framework illustrates the hypothesized relationships between foreign direct investment (FDI)**,** domestic investment**,** and credit to the private sector as the key explanatory variables influencing the unemployment rate in Nigeria over the study period. Unemployment remains one of Nigeria's most persistent macroeconomic challenges, despite decades of policy reforms aimed at promoting investment and industrial growth. The framework posits that both foreign and domestic investments, along with financial intermediation (credit to private sector), play critical roles in determining employment outcomes by affecting productive capacity, firm creation, and labor demand.

Foreign Direct Investment (FDI) and Unemployment

FDI is expected to influence unemployment in many different ways. According to neoclassical and endogenous growth theories, FDI injects capital, technology, and managerial know-how into host economies, enhancing productivity and stimulating job creation in both direct (new firms) and indirect (supply-chain) ways (Kurtović et al., 2022). The "employment-

creation hypothesis" suggests that higher FDI inflows reduce unemployment by expanding productive activities and fostering skills transfer.

However, the "crowding-out hypothesis" cautions that FDI may displace local firms, particularly in economies with weak absorptive capacity, potentially leading to job losses in domestic sectors according to Kurtović et al. (2022). Thus, the net impact of FDI on unemployment in Nigeria depends on sectoral allocation, technology intensity, and linkages between foreign and local enterprises.

Domestic Investment and Unemployment

Domestic investment, comprising both public and private domestic capital formation, is a key driver of economic expansion and job creation. The accelerator principle and Keynesian investment theory posit that higher domestic investment increases aggregate demand and stimulates production, thereby generating employment opportunities (Kukaj et al., 2022).

In Nigeria, domestic investment influences unemployment through the creation of new enterprises, expansion of existing firms, and enhancement of infrastructure that supports private-sector productivity. However, inefficient public investment or capital misallocation can limit employment benefits, implying that the quality and sectoral distribution of domestic investment are as critical as its magnitude (Okoli & Okeke, 2025).

Credit to Private Sector and Unemployment

Access to credit for the private sector is a major determinant of productive investment, entrepreneurship, and job creation. The financial intermediation theory asserts that efficient financial systems mobilize savings and allocate them to productive ventures, enhancing output and employment. In contrast, credit constraints hinder firm growth and limit new business formation, leading to higher unemployment (Fatokun et al., 2023).

In Nigeria, the size and efficiency of the financial system directly affect small and medium-sized enterprises (SMEs), which are the largest employers of labor. Hence, an increase in private-sector credit availability is expected to facilitate investment and labor absorption, thereby reducing unemployment (Farooq et al., 2024).

Theoretical Reviews

Investment-Led Growth Theory

The Investment-Led Growth Theory emphasizes the role of capital accumulation, both domestic and foreign, as a primary driver of economic expansion and employment creation (Ikani, 2024). Originating from the neoclassical growth model (Solow, 1956) and extended by endogenous growth theorists (Romer, 1986; Lucas, 1988), this theory posits that sustained increases in investment stimulate output growth, technological progress, and labor demand (Ikani, 2024).

According to this framework, Foreign Direct Investment (FDI) acts as a catalyst for development by transferring capital, technology, and managerial skills to the host country (Alfalih, 2024). FDI complements domestic investment, expands productive capacity, and increases employment through both direct effects (job creation within foreign firms) and indirect effects (spillovers to local suppliers and service providers) according to Ikani (2024).

Furthermore, FDI enhances total factor productivity (TFP) and creates forward and backward linkages that foster local entrepreneurship and skill upgrading (Okoli & Okeke, 2025).

This process aligns with the employment-creation hypothesis, which asserts that inflows of foreign investment contribute to reducing unemployment rates in developing economies, especially in Africa (Fatokun et al., 2023).

However, the theory also recognizes possible crowding-out effects, whereby foreign firms displace domestic producers due to competitive advantages or market dominance (Effiong et al., 2022). In Nigeria, the effectiveness of FDI in reducing unemployment depends on the absorptive capacity of the economy; its institutional strength, infrastructure quality, and human capital base. The theory supports the expectation that FDI should have a negative relationship with unemployment, implying that higher FDI inflows promote job creation and economic growth in Nigeria, provided the domestic environment is conducive for spillover effects.

Keynesian Investment (Accelerator) Theory

The Keynesian Investment Theory, particularly the Accelerator Principle, explains how changes in aggregate demand and investment dynamics affect employment levels in an economy (Orji & Ogbaga, 2024). Proposed by John Maynard Keynes (1936) and later refined by Samuelson (1939) and Clark (1951), the theory argues that investment is the engine of economic growth and job creation (Mukhanov, 2025).

According to Keynes, investment decisions are driven by expected profitability, which depends on aggregate demand (Orji & Ogbaga, 2024). When firms anticipate higher demand, they invest more in capital goods, leading to increased production and employment. Conversely, when demand expectations fall, investment declines, reducing output and employment (Azolibe et al., 2025). The accelerator model extends this logic by positing that the level of investment depends on the rate of change in output or income. This means that even small increases in output can induce disproportionately larger increases in investment, thereby expanding labor demand (Jumayeva, 2025).

In developing countries such as Nigeria, domestic investment, both private and public, serves as the main conduit through which aggregate demand influences employment as highlighted by Mukhanov (2025). Productive investments in manufacturing, agriculture, and infrastructure have strong multiplier effects that stimulate job creation. However, inefficient investment allocation, corruption, or inadequate infrastructure can limit these positive outcomes (Jumayeva, 2025). The Keynesian and accelerator perspectives underpin the hypothesis that higher domestic investment reduces unemployment, by stimulating production, expanding capacity utilization, and generating new employment opportunities in the Nigerian economy (Mukhanov, 2025).

Financial Intermediation Theory

The Financial Intermediation Theory highlights the critical role of financial institutions in channeling savings into productive investment, thereby fostering economic growth and employment (Agyeman et al., 2021). The theory was initially advanced by Schumpeter (1911) and formalized by later scholars such as McKinnon (1973) and Shaw (1973), who emphasized financial liberalization as a catalyst for development.

According to this theory, a well-functioning financial system mobilizes savings, evaluates investment opportunities, and allocates capital efficiently across productive sectors (Agyeman et al., 2021). Credit to the private sector, a key indicator of financial intermediation, facilitates

business expansion, entrepreneurship, and job creation by providing firms with the necessary liquidity to finance operations and invest in new ventures.

In contrast, limited access to credit restricts the growth potential of small and medium enterprises (SMEs), which are typically the largest employers in emerging economies like Nigeria (Evan & Bolotov, 2022). High lending rates, credit rationing, and underdeveloped financial markets can therefore exacerbate unemployment by constraining private sector growth (Okoli & Okeke, 2025). The theory also suggests that financial deepening (an increase in financial assets relative to UNEM) enhances resource allocation efficiency and promotes long-term growth. Thus, expanding credit to the private sector not only boosts investment but also strengthens the overall employment-generating capacity of the economy (Lenka et al., 2024).

Ikani (2024) argues that this theory supports the expectation that increased credit to the private sector will lead to lower unemployment rates in Nigeria, as more firms gain access to capital, expand their operations, and create additional jobs.

Empirical Literature Reviews

Okoli and Okeke (2025) investigated the relationship between foreign direct investment (FDI) and unemployment in Nigeria, emphasizing its implications for achieving Sustainable Development Goal 8, Decent Work and Economic Growth, by 2030. Recognizing FDI as a critical catalyst for job creation and economic expansion, the study sought to determine the effect of FDI on aggregate, urban, and rural unemployment rates. Employing annual data from 1990 to 2020 and utilizing the Dynamic Ordinary Least Squares (DOLS) estimation technique to correct for endogeneity and serial correlation, the study found that FDI significantly reduced aggregate and urban unemployment but had no significant effect on rural unemployment. The authors attributed this to the concentration of FDI inflows in urban-based industries. They recommended that the Nigerian government improve the investment climate through supportive policies, infrastructure development, and human capital enhancement to maximize FDI's employment-generating potential across both rural and urban areas.

Sabado et al. (2023) examined the relationship between FDI and unemployment in the Philippines from 1980 to 2019, highlighting unemployment as a key indicator of labor market performance and a pressing challenge in developing economies. Using secondary data sourced from the International Labour Organization and the World Bank, and applying Ordinary Least Squares (OLS) regression analysis, the study found that FDI outflows had a significant effect on unemployment, whereas inflows showed a weaker association. The findings suggested that capital movement from domestic investors abroad could constrain local employment creation. The authors concluded that effective policy interventions should focus on managing FDI flows to ensure that foreign investments contribute meaningfully to domestic job creation and economic development.

Stepanok (2023) developed a theoretical growth model to analyze North–South FDI dynamics and their effects on unemployment in both developed and developing economies. Contrary to conventional expectations, the model revealed that lower FDI costs could simultaneously raise unemployment in both regions. This occurs through two channels: a direct positive effect that increases firm turnover due to innovation, and an indirect effect that amplifies unemployment through higher innovation intensity and structural adjustments. Despite these findings, the study noted that stricter intellectual property (IP) rights protection

led to improved welfare outcomes, even though unemployment remained elevated. The results underscore the complex nature of FDI's impact on labor markets, indicating that policies should balance the promotion of innovation with measures to safeguard employment stability.

Wakilat et al. (2025) analyzed the effect of domestic investment on unemployment in Nigeria from 1999 to 2023 using the Autoregressive Distributed Lag (ARDL) model. Data sourced from the Central Bank of Nigeria, the National Bureau of Statistics, and the World Development Indicators revealed that domestic investment and UNEM growth rate exerted a negative relationship with unemployment, suggesting that higher domestic investment reduces unemployment levels. Conversely, institutional quality, inflation, and government expenditure were found to increase unemployment in both the short and long run. The study recommended encouraging investment in strategic sectors such as manufacturing and agriculture to enhance productive capacity and stimulate job creation.

Effiong et al. (2022) explored the short-run and long-run effects of private sector credit on unemployment in Nigeria between 1990 and 2020. Employing Augmented Dickey-Fuller (ADF) unit root tests, ARDL bounds testing, and an error correction model, the study established a long-run relationship between private sector credit and unemployment. Results indicated that while private sector credit had a positive but insignificant short-run impact on unemployment, its lagged effect was positive and significant, implying that credit expansion initially fails to translate into immediate job creation. However, in the long run, credit to the private sector exerted a negative, though statistically insignificant, effect on unemployment, suggesting its potential to reduce joblessness when coupled with lower interest rates. The study concluded that increasing private sector credit availability could promote productivity and long-term employment growth if complemented by favorable monetary policies.

Few studies combine (i) long-run time-series estimation of aggregate development outcomes (growth, employment, HDI components) with (ii) sectoral disaggregation and (iii) institutional interaction terms in Nigerian covering the 1990 - 2022 period. This article fills that gap and suggests policy levers to shift FDI composition toward development-friendly sectors.

Methodology

Research Design

The research design uses observational research design as it analyzes events that have already occurred and recorded without manipulation. This approach is well-suited for research focused on identifying cause-and-effect relationships between independent and dependent variables.

Data Collection Methods and Sources

The data used for the analysis are sourced from the CBN statistical bulletin covering the periods, 1990 – 2022.

Model Specification

The research aims to investigate the impact of FDI on Nigeria's unemployment rate in Nigeria. To achieve this, the research estimated the FDI on unemployment rate using a linear regression equation:

$UNEM = a_0 - a_1FDI - a_2CPS - a_3DIN + e_1$----------(1)

Where:

UNEM is the unemployment rate, representing the socio-economic environment, in Nigeria
FDI is the foreign direct investments in Nigeria
CPS represents the credit to private sector
DIN represents the domestic investment in Nigeria
e_1 is the error term
a_1-a_3 = the coefficients of the independent variables measuring the slopes
a_0 = intercept parameter estimate

Pre-estimation Test

Unit Root Test

To validate the adequacy of the variables used in the model, the study employs the Augmented Dickey-Fuller (ADF) test to examine the stationarity of the data. This step is critical because performing regression analysis on non-stationary time series data can lead to spurious results, which undermine the reliability and validity of the findings.

Co-integration Test

Co-integration refers to the existence of a long-term equilibrium relationship between economic variables (Ari, 2021). It implies that if variables share the same order of integration, their linear combination will also be stationary, indicating a persistent connection over time. The core idea behind co-integration analysis is that while individual macroeconomic variables may exhibit independent trends, groups of variables can correlation in the long term, reflecting a stable underlying relationship despite short-term fluctuations.

Data Analysis Techniques

The research employs the use of time series data for a period of 22 years ranging from 1990-2022. In analyzing the relationship between FDI and UNEM in Nigeria, the research conducts regression analysis using key variables such as UNEM, FDI, DIN, and CPS. The study is analyzed using regression analysis. The choice of regression analysis is due to its BLUE (Best Linear Unbiased Estimator) properties.

Post Estimation Tests

The study conducts the following post estimation tests:

Normality Test: In order to test if the residuals of the analysis are normally distributed, the Jarque-Bera test statistic was employed. In this study, a normality test can help assess if the residuals from the regression analysis follow a normal distribution. Deviations from normality could indicate that the model may not be appropriate or that there are underlying issues affecting the data.

Serial correlation, also known as autocorrelation, occurs when the residuals from a regression model are correlated with each other. This violates the assumption of independent residuals, which is necessary for the validity of statistical inferences.

Heteroscedasticity occurs when the variance of the residuals in a regression model is not constant across all levels of the independent variables. This violates the assumption of homoscedasticity, which is necessary for the efficiency of OLS estimates. heteroscedasticity could indicate that the variability of BOT explained by currency devaluation is not constant.

Data Presentation and Result Analysis

Descriptive Statistics

	LOG_UNEM_	LOG_FDI_	LOG_CPS_	LOG_DIN_
Mean	6.33810	2.529524	11.31429	15.09857
Median	3.10000	2.220000	14.90000	12.00000
Maximum	17.3000	4.800000	2.169000	21.00000
Minimum	23.00000	0.320000	1.100000	4.000000
Std. Dev.	0.324530	1.211324	6.582994	68.27565
Skewness	0.836376	0.169934	0.026901	0.340466
Kurtosis	2.813926	2.263524	4.740843	2.045417
Jarque-Bera	2.478635	0.575669	1.389824	1.203034
Probability	0.289582	0.749886	0.499118	0.547980
Sum	300.1729	84.70661	93.52211	88.74080
Sum Sq. Dev.	55.07266	12.76965	1.181088	22.41704
Observations	32	32	32	32

***Source**: Author's computation using review (2025)*

Descriptive statistics provide an overview of the dataset used in any data analysis, allowing for an initial understanding of the data's characteristics and confirming its relevance for further analysis (George, 2018).

The model above shows that in the descriptive statistics indicate, the variables used are generally normally distributed, as reflected by the probabilities associated with their Jarque-Bera statistics. However, the DIN shows that the variable is not normally distributed. Additionally, the data shows a leftward skew, and kurtosis values reveal that UNEM, FDI, and CPS have moderate kurtosis (mesocratic), while DIN is leptokurtic, with a value above 3. This suggests that, apart from CPS, the variables are free from significant outliers and generally follow a normal distribution, reinforcing their suitability for the study's analysis. The analysis also suggests that UNEM, FDI, and CPS are normally distributed as shown by their probabilities.

Unit Root Analysis

Unit root tests, according to Yilanci & Pata (2020), refer to statistical tests used to determine if a time series has a unit root or not. The presence of a unit root indicates that the time-series is not stationary. Unit root also means that the variable is not deterministic in nature.

Also, the presence of non-stationary time-series poses some challenges in the statistical analysis. This is because the mean and the variance of the series may change over time. This makes it difficult to identify patterns or trends (Nishi & Kurozumi, 2023). With unit root tests, assessing the stationarity of time series becomes easier for researchers (Nishi & Kurozumi, 2023).

Variables	At levels (Prob)	First difference (Prob)	Comments
Log UNEM	0.0030	0.0000	I(0) Stationary at levels
Log FDI	0.2311	0.0000	I(1) Stationary at first difference
Log CPS	0.6422	0.0000	I(1) Stationary at first difference
Log DIN	0.4993	0.0000	I(1) Stationary at first difference

***Source**: Author's computation (2025)*

The unit root tests show that the variables are stationary at both levels and first difference. This suggests that the use of Autoregressive Distributed Lag Model (ARDL) is the most appropriate model and analytical procedure for the analysis. This is in line with the study of Rahman et al (2020) who also used the ARDL for the analysis due to the mixture of both the levels and first difference in the unit root analysis.

Bounds Test for Co-integration

The bounds test for co-integration tests for long term relationship between the dependent and the independent variables used in the study (Rahman et al, 2020).

Table 1: Bounds test for Co-integration

F-Bounds Test Null Hypothesis: No levels relationship

Test Statistic	Value	Significant.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	6.129554	10%	3.47	4.45
K	3	5%	4.01	5.07
		2.5%	4.52	5.62
		1%	5.17	6.36

***Source**: Authors computation from E-views (2025)*

The bounds test for co-integration for the model examined showed that the model has long-term relationships amongst the variables used. Using their F-stat at 5% confidence interval, all the models revealed that the F-statistics are higher than their 5% asymptotic variables, indicating that there is a long run relationship amongst the variables used in the models.

ARDL ECM Tests

ECM Regression
Case 5: Unrestricted Constant and Unrestricted Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.303465	1.298958	2.543165	0.0198
@TREND	-0.006789	0.009295	-0.730428	0.4740
D(LOG_FDI_(-1))	-4.246640	1.185801	-3.581241	0.0000
D(LOG_CPS_(-1))	-1.376093	0.178201	-7.722139	0.0000
D(LOG_DIN_(-1))	-2.732113	1.231223	-2.219023	0.0000
CointEq(-1)*	-0.178239	0.081623	-2.183681	0.0417

R-squared	0.758675	Mean dependent var	0.122236
Adjusted R-squared	0.660252	S.D. dependent var	0.316059
S.E. of regression	0.252798	Akaike info criterion	0.253121
Sum squared resid	1.405946	Schwarz criterion	0.493091
Log likelihood	1.582870	Hannan-Quinn criter.	0.324476
F-statistic	4.660258	Durbin-Watson stat	1.865558
Prob(F-statistic)	0.007071		

***Source**: Author's computation using E-views (2025)*

The ARDL ECM results of the model shows the relationships between the dependent and the independent variables over the period. The result reveals that the adjusted R-square, which shows the goodness-of-fit, is 66%. This shows that 66% of the changes in the dependent variable are caused by the changes in the independent variables. The f-test also shows that the model, taken as a whole, is statistically significant. This implies that the model is reliable for the current analysis. The model equally shows that the error correction mechanism (ECM) is -17.8%. This implies that there is 17.8% annual speed of adjustment of the variables to equilibrium.

Serial Correlation Tests

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	2.001220	Prob. F(2,33)	0.1512
Obs*R-squared	4.434844	Prob. Chi-Square(2)	0.1089

***Source**: Author's computation using E-views (2025)*

The serial correlation helps to understand how (and if) a variable affects itself when lagged. The implication is that if a variable affects itself over time, this will result to spurious results and cannot be used for predictive purposes (Schork, 2022). The serial correlation result for the model reveals that there is no issue of serial correlation among the variables used. This is shown by the probability of the F-stat being more than 0.05.

Heteroscedasticity Tests

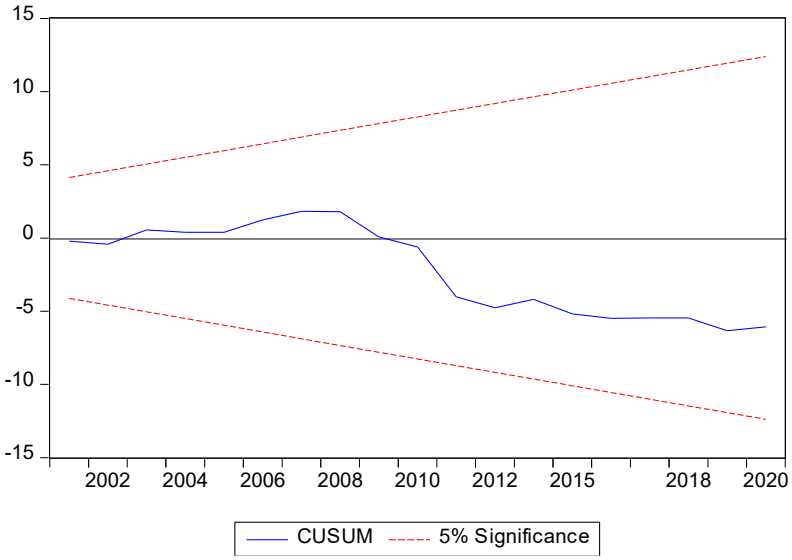
Heteroscedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.302349	Prob. F(7,19)	0.3019
Obs*R-squared	8.754450	Prob. Chi-Square(7)	0.2708
Scaled explained SS	4.276486	Prob. Chi-Square(7)	0.7474

***Source**: Author's computation using E-views (2025)*

The heteroscedasticity test reveals the variability of the variance or error term of the time series over the period. As one of the assumptions of regression analysis, heteroscedasticity shows that the error terms of the variables are not the same (and cannot be) if the analysis will be reliable (Daryanto, 2020). As the results shows, the probabilities of the f-stat are greater than 0.05. This shows that there is no reason to believe that the variables are homoscedastic.

CUSUM Test



CUSUM test reveals the stability of the model and its applicability in the analysis. All the models reveal that the models are stable and therefore, applicable in the current analysis.

Tests of Hypotheses

The results of the ARDL ECM are used for the tests of hypotheses.

H_{01}: *There is no significant relationship between UNEM and FDI*

The analysis shows that there is a negative relationship between UNEM and *FDI*, which is expected apriori. The result shows that as *FDI* increases by a unit, *UNEM* decreases by -4.246640 and vice versa. The analysis reveals that *FDI* is statistically significant as shown by the t-value prob (0.0000). We will therefore accept the alternative hypothesis, reject the null and conclude that there is a significant relationship between *UNEM* and *FDI* over the period.

H_{02}: *There is no significant relationship between UNEM and DIN*

Further, the analysis shows that there is a negative relationship between *DIN* and *UNEM*. The result reveals that as *DIN* increases by a unit, *UNEM* decreases by -2.732113 and vice versa. The analysis reveals that *DIN* is statistically significant as shown by the t-value prob (0.0000). We will therefore reject the null hypothesis, accept the alternative and conclude that there is a significant relationship between *UNEM* and *DIN* over the period.

H_{03}: *There is no significant relationship between UNEM and CPS*

The analysis shows that there is a negative relationship between *UNEM* and *CPS* over the period. The result shows that as *CPS* increases by a unit, *UNEM* also decreases by -1.376093 and vice versa. The analysis reveals that *CPS* is statistically significant as shown by the t-value prob (0.0000). We will therefore reject the null hypothesis, accept the alternative and conclude that there is a significant relationship between *UNEM* and *CPS* over the period.

Discussion of Findings

The results of the analysis reveal that foreign direct investments and other macro-economic factors contribute to the socio-economic development of Nigeria through the creation of employment over the period of study.

Reports suggest that the FDI has potentials that can significantly contribute to solving Nigeria's increasing unemployment challenges. Further, various authors have studied the impact of FDI on the economy and their findings have revealed the importance of FDI to the overall growth of the economy. The results of the study revealed that FDI has a negative and significant impact on the UNEM, indicating that the more foreign investors invest in this area, the less the unemployment and the better for the economy. The findings agree with the findings of Ari (2021) who also noted that the FDI has a negative and significant relationship with the UNEM.

Again, the study found that the domestic investment (DIN) has a negative and significant effect on the UNEM. This also implies that the local investments improve job creation and reduce the UNEM. The findings also agree with the works of Okoli and Okeke (2025) who noted that local investments not only improve the economy through job creation, it also encourages foreign investments in the economy.

Finally, the study found a negative and significant relationship between CPS and UNEM. The study shows that credit to private sector reduces the UNEM, implying that if business ventures have access to funds or credits, they will expand their investments and this will require additional skills and labors, leading to job creation. The study of Fatokun et al. (2023) also agrees with the findings of this study, suggesting that credit to private sector could potentially solve the unemployment challenges in Nigeria if well implemented.

Conclusion and Recommendations

FDI remains an important instrument for socio-economic development in developing countries, but its net benefits are conditional as highlighted by Wakilat et al. (2025). Nigeria's experience shows that while FDI has delivered substantial benefits, in telecommunications, banking, and some services. It has also contributed immensely in the creation of job opportunities directly and indirectly. The study showed that local investments and credit to private sector has played key roles in the provision of job opportunities; bring down the unemployment rate over the period. Therefore, the study recommends that the authorities encourage the credit to private sector as this will boost local investments. Increasing local investments will encourage foreigner to also invest through FDIs. These measures will reduce the unemployment rate substantially over time.

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