

Foreign Direct Investment and Employment Generation in Nigeria: Evidence from ARDL Approach.

Dr. Uwaifo Emmanuel Chukwuekwu

Department of Economics, Faculty of Social Sciences, University of Delta, Agbor, Nigeria

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ABSTRACT

This study examines the relationship between foreign direct investment (FDI) and employment in Nigeria over the period 1990–2025. The analysis is motivated by the expectation that FDI can expand productive capacity, introduce technology and managerial expertise, stimulate domestic business activity and create employment, while recognising that these effects depend on the sectoral and technological composition of investment. Annual time-series data were analysed using descriptive statistics, the Augmented Dickey–Fuller unit-root test, the Autoregressive Distributed Lag (ARDL) framework, the ARDL bounds procedure, an error-correction model and post-estimation diagnostic and stability tests. Employment is specified as the dependent variable, while FDI, gross domestic product (GDP), gross fixed capital formation (GFCF), inflation and trade openness are explanatory variables. The estimated ARDL model indicates a positive and statistically significant short-run coefficient for FDI. The estimated long-run FDI coefficient is also positive but statistically insignificant at the 5 percent level. GDP is positive but only marginally significant at the 10 percent level; GFCF is negative and statistically significant; inflation is statistically insignificant; and trade openness is positive and significant in the reported long-run equation. The coefficient for error correction is a negative number which also a significant value, i. e. the speed of adjustments is at approx. one quarter a year. But, at the present level of the 5%, the bound- test value (2.820191) is in the range that the critical bounds of the upper and lower levels. So there is little support provided to cointegration evidence by the data. The diagnostic test further reveals that there is presence of heteroskedasticity, and residuals are not normally distributed, and there is a chance of a functional form or specification issue in these econometric models. First, the results obtained from stability test in the source paper showed that the coefficients are stable. Taking into account all these pieces that the conclusion that must drawn from the study is only that the employment gains in the short-run are correlated with FDI. But, one cannot conclude from the findings that the long-run effect is statistically significant or that is an established causal relationship. So, the measures should center on attracting investments with emphasis on providing jobs, developing links with local suppliers/domestic firms and upgrading, investment in infrastructure, the development of workers' skills and creation of macroeconomic stability.

Keywords: Foreign direct investment; Employment; Nigeria; ARDL; Economic growth; Capital formation; Trade openness.

INTRODUCTION

Foreign direct investment has remained an important source of external finance and productive capital for developing economies. The advantages of attracting FDI that governments typically look for include the ability for the FDI firm to supplement the domestic investment, bring new technologies or practices, link host economies to overseas markets, and provide jobs. In Nigeria, the employment channel is particularly significant as there is a need to expand productive and decent work opportunities.

But the employment impact of FDI is not guaranteed. Foreign investment can generate employment directly in foreign-owned companies and indirectly through local suppliers, distributors, transport operators and other supporting companies. Meanwhile, investment can focus on capital-intensive kinds of activities in which one can produce more output with less labour than usual. Foreign companies can also plant labour-saving technology or restructure their acquired companies to decrease the need for labour. Thus, the connection

between FDI and employment is essentially empirical, and will be contingent on the form and quality of the investment.

This qualification has recently been supported by some evidence. Ngukwarai et al. (2024) using Nigerian time-series data and bounds test for the ARDL model found a positive short run relationship between FDI and employment creation. Using dynamic ordinary least squares Okoli and Okeke (2024) finds that FDI quite a bit influenced total and urban unemployment but not rural unemployment. Madueke et al. (2026) ARDL model (2000 to 2024) on Nigerian data suggests that the weak employment response to FDI could be because of the structural constraints and limitations of the economy absorptive capacity and therefore FDI to labour intensive sectors is recommended.

The findings of these studies indicate that the employment impact of FDI remains a controversial topic and could be dependent on the time dimension, employment measures and structural characteristics of the Nigerian economy. The material from the African literature at large on this question reinforces the thesis that the amount and quality of investment are different things. Lakemann et al. (2025), from a comprehensive project-level database of greenfield FDI across Africa, conclude that while greenfield FDI projects can generate formal employment, most of all in manufacturing and services, direct greenfield job creation is relatively small as a share of total employment increase and can be consistent with a crowding-out effect in select domestic enterprises. This implies simply that a country's ability to attract FDI is not enough; the country must have the institutional capacity skills infrastructure, and production linkages needed to translate FDI into large scale employment generation. This study explores the FDI employment relation in Nigeria during 1990 to 2025.

The model includes other variables such as GDP GFCF inflation and trade openness to give a better picture of data. Employing the ARDL structure is appropriate because the research has dynamic time-series specification and it reports the variables integrated at the orders of $I(0)$ and $I(1)$. This paper offers some new evidence for Nigeria and, more important, clearly differentiates the short-run positive link of FDI and the statistically insignificant long-run coefficient from the data. The major contribution to the implications from the estimated model is that the paper cannot ignore the econometric restrictions of the revealed model. The paper might be valuable for every country which conducts FDI policies to forecast the employment issue. It also could be useful for the future research which explores the influence of FDI on the employment of host countries.

The rest of the paper is structured like this. In section 2, the review of the theoretical and empirical literature is given. The approach and model specification are outlined in section 3. Empirical results and their analysis are presented in section 4. The conclusion and policy implications are presented in section 5, and the limitations and further research are suggested in section 6.

LITERATURE REVIEW

Conceptualising FDI and Employment

FDI is a foreign investment that is based on a long-term interest in an enterprise in another economy. FDI typically involves a continued relationship with the foreign affiliate, as well as some degree of influence over the management of the affiliate. In contrast with stock investment, FDI usually does not involve the temporary purchase of a stock but rather a relationship of some sort and a degree of control over the management of the foreign affiliate. The development effects from its potential development can come from capital accumulation, technology transfer, foreign market access, and managerial knowledge and connections with domestic firms.

OECD (2025), sees Foreign Direct Investment (FDI) as cross-border investment undertaken by foreign investors with the objective of establishing a lasting interest and significant influence in productive enterprises in the host economy. In contemporary development economics, FDI is conceptualised not merely as a source of external capital but also as a potential channel for technology transfer, managerial expertise, skills development, market access and integration into global value chains. Employment generation, on the other hand, refers to the expansion of productive work opportunities arising from increased economic activity. The employment impacts of FDI can be direct (i.e. jobs created within FDIs); indirect (i.e. jobs created in the domestic supply side and jobs created through business linkages with FDIs); and induced (i.e. jobs created in the domestic supply side due to increased household spending resulting from the domestic supply of FDI-

related incomes). FDI can also, however, generate employment replacement impacts when foreign investment is very capital-intensive, when it replaces labour with technology, or when it involves restructuring due to mergers and acquisitions.

One of the main routes of investment to impact welfare is via employment. Directed employment is when foreign investment companies employ people. Indirect employment is created when goods and services are bought from domestic suppliers and service providers; induced employment can be created when incomes from foreign investment lead to additional domestic demand. However, such channels may be counterbalanced by competition which forces domestic firms out of business, by mergers which result in restructuring of the firms, or by production becoming capital intensive and thus cutting the amount of labour needed.

According to ILO (2026), Foreign direct investment and the activities of multinational enterprises play an essential role in shaping employment outcomes, particularly in developing and emerging economies. Accordingly, the net effect of FDI on employment is ultimately an empirical question.

THEORETICAL REVIEW

The theoretical underpinnings of the study are based on complementary views that attempt to understand the impact that foreign direct investment (FDI) can have on employment. These include the Solow–Swan growth theory, endogenous growth and absorptive-capacity perspectives, and Dunning’s eclectic (OLI) paradigm. They provide insights on why FDI might lead to job creation and also on why the job creation effect is not necessarily large and long term due to technology, human capital, sectoral composition, domestic linkages, and the investment climate in the host country.

The study is anchored primarily in the Solow–Swan growth framework, which emphasises the roles of capital accumulation, labour and technological progress in determining economic performance. The original study underpinning this manuscript specifies employment as a function of FDI, GDP, GFCF, inflation and trade openness. The Solow view is that foreign capital can augment the productive capital stock of the economy, and embodied technology and productivity growth can boost output and, as a result, the demand for labour. Thus, the employment effect relies on the complementarity or substitutability between capital and labour.

The endogenous growth perspective gives a new look at the idea of technology, knowledge and human capital accumulation to induce long-run changes in productivity. But FDI might produce those effects by technology transfer, training workers, and knowledge spillovers. It is, therefore, not surprising that the employment impact of FDI is greater in the case of foreign-invested enterprises that are tied to local firms, and when the local labour force is skilled to manage the transferred technology.

Solow–Swan Growth Theory

Solow-Swan model was developed by Solow (1956) and Swan (1956) and it has three fundamental inputs of output growth which are capital accumulation, labour and technological progress. An alternative flow of capital into a developing economy is FDI. Firms can expand production and demand for labour when foreign capital is used in combination with local labor resources to boost productive capacity. Investment can also be capital intensive and replace machinery and technologies with labour. The theory therefore permits either a positive or weak employment response depending on the structure of production.

Endogenous Growth and Absorptive Capacity

In endogenous growth theory, knowledge, human capital and technological spillovers are key factors in generating sustained productivity. FDI can be used to transfer technology, management, training, and organizational practices to the host country's economy. Borensztein, De Gregorio and Lee (1998) discovered that the growth advantage from FDI is contingent on the extent of human capital in the host country. When applied to employment, it means that the more likely FDI is to create permanent labour positions, the more FDI is likely to lead to the absorption of new technology by the labour force and the greater the opportunity for the domestic labour force to work in foreign-invested value chains.

Dunning's Eclectic (OLI) Paradigm

The eclectic paradigm of Dunning (1998) is applied to explain multinational production by the advantages of ownership, location and internalisation. Foreign companies have assets that can only be utilized by them, like assets like technology, brands, managerial power and finance. Host economies offer location advantages in terms of market size, labour, natural resources, infrastructure and institutions. The framework suggests that job creation is more likely to occur when FDI contributes to the productive capacity of the country, rather than acquisition of existing productive assets, and when it has linkages with the domestic economy.

EMPIRICAL REVIEW

International Evidence

There is a mix of positive and conditional employment effects based on international evidence. Borensztein et al., (1998) demonstrated that FDI can aid in technology transfer, but that the gains are conditional on the human capital in the host country. Drawing on firm-level data for 19 Sub-Saharan African countries, Coniglio, Prota and Seric (2015) found that foreign firms were different from domestic firms in terms of employment characteristics and more intensive in unskilled labour. Their research shows that foreign firm employment outcomes are associated with the sector and characteristics of foreign firms.

Evidence from Africa and Nigeria

The evidence in Africa is mixed. The study by Mkombea et al. (2021) on the impact of FDI on youth unemployment in the Southern African Development Community showed insignificant effect. Inekwe (2014) noted that the impact of FDI on manufacturing and services varied in Nigeria, and Osabohien et al. (2020) found a relationship between FDI inflows and employment in Nigeria. The relevance of the relationship was also affirmed by Aladelusi and Olayiwola (2021) and Anisiobi, Okeke and Madueke (2022) who studied FDI and employment creation in Nigeria; adding to the evidence required for the nation-specific relationship.

Recent Empirical Evidence, 2023–2026

Mixed results are the norm, albeit lately they have evolved to be a bit more subtle. Some past empirical studies have disagreed on the relationship between FDI and employment creation in Nigeria, hence, Obetta et al. (2023) re-examined this relationship. They also demonstrate that model specification and the period of observation are crucial in estimating the impact of foreign investment on employment.

Ngukwarai et al. (2024) have looked at how foreign direct investment (FDI) and employment in Nigeria are linked, from 1985 to 2023. The researchers conducted a Bounds-testing approach using the ARDL technique on the matter. From the results, it could be concluded that the long run relationship between FDI and employment in terms of employment generation is statistically significant and positive. The researchers said the employment advantages are more pronounced under these conditions: good infrastructure and a good business climate, macroeconomic conditions.

Okoli and Okeke (2024) addressed this issue from an alternate perspective, but concerned about the impact of unemployment rather than employment. They took Nigerian data for the period 1990, 2020 and a model named dynamic ordinary least squares. The authors showed that FDI has significant influence of unemployment both aggregate and urban whereas FDI impact on rural unemployment was not statistically relevant. Their findings point to the importance of geographical and structural aspects of the foreign investment in shaping the labor-market outcomes.

Lakemann et al. (2025) offer valuable evidence for Africa in general. Their project level study of greenfield FDI from 2013 to 2020 indicates that the importance of greenfield jobs in terms of formal employment is significant in selected manufacturing and service industries, but the share of greenfield jobs is relatively low in terms of total employment. There is also suggestive evidence that the authors report that foreign investment can replace some of the domestic employment, either formal or informal. This finding cautions against treating every FDI inflow as a net employment gain.

The latest data from Nigeria supports the structural model. Madueke et al. (2026) using annual 2000 to 2024 data as well as an ARDL model have analyzed FDI and youth unemployment. They indicate through their results that the FDI has a long-run correlation with the factors under study and that the slow or weak reaction of employment to the arrival of FDI is due to structural and absorptive capacity constraints. Their policy implication is to redirect FDI flow toward labor-intensive industries like, ICT. This fits the situation in Nigeria very well, where youth employments not only depend on the amount of investment, but also on the nature of activities and the kind of investment through which they enter the economy.

In general, the new literature points out to four main results. To begin with, FDI brings about job creation, though to a varying degree, given the circumstances. Secondly, short-term and long-term impacts on employment can be different. Thirdly, employment effects of FDI will largely depend on the sector of the economy that receives the investment as well as the level to which domestic factors can be mobilized and the extent of linkages created. Lastly, the level of government efficiency, state of physical facilities in the country and quality of human resources and degree of macroeconomic stability play the key role and affect how foreign capital leads to changes in labor market.

The empirical literature therefore does not support a simple automatic relationship between FDI and employment. Findings vary with sector, type of investment, employment measure, period and estimation method. Much of the Nigerian literature also focuses on unemployment or economic growth rather than the employment rate, while fewer studies simultaneously control for GDP, gross fixed capital formation, inflation and trade openness over an extended period. This study addresses the gap by examining annual Nigerian data from 1990 to 2025 within an ARDL framework, allowing short-run dynamics and long-run relationships to be evaluated together.

Synthesis of Empirical Evidence

In Nigeria, there has been a recent trend of inconclusive studies. With a Nigeria-specific focus, Ngukwarai et al. (2024) found positive long-run relationship between FDI and employment generation through ARDL model. Okoli and Okeke (2024) discovered that FDI had a significant impact on some aspects of unemployment but not on rural unemployment. With evidence from project-level data of greenfield FDI in Africa, Lakemann et al. (2025) found that greenfield investment can create formal jobs, particularly in manufacturing and services, but the job creation may not be as large as the overall employment created. Madueke et al (2026) also studied the relationship between FDI and youth unemployment in Nigeria and called for an orientation of investments towards labour-intensive activities and the development of the absorptive capacity of the home market.

Research Gap

Despite the burgeoning literature, there is a need for new Nigerian evidence that collectively accounts for the effects of FDI, economic growth, gross fixed capital formation and inflation and trade openness while accounting for the short-run and long-run effects. The present study will fill this gap with annual data from 1990 to 2025, and with the ARDL specification, as reported in the empirical work underlying the present study. The other contribution it brings is the methodological transparency: the reported bounds statistic does not suggest cointegration or causality, and some diagnostic tests suggested misspecification, so the study does not claim the estimated long-run coefficients as conclusive evidence of cointegration or causality.

METHODOLOGY

Research Design and Data

The study adopts a quantitative ex-post facto research design. It uses annual time-series observations covering 1990–2025. The source document reports the National Bureau of Statistics, Central Bank of Nigeria statistical publications and related official statistical sources as the data sources. The estimation reported in the results uses 34 observations covering 1992–2025 after lag adjustment.

The variables are employment (EMP), foreign direct investment (FDI), gross domestic product/economic

growth (GDP), gross fixed capital formation (GFCF), inflation (INF) and trade openness (TOP). Employment is the dependent variable. FDI is the principal explanatory variable, while GDP, GFCF, INF and TOP are control variables.

Model Specification

The functional relationship is specified as:

$$EMP_t = f(FDI_t, GDP_t, GFCF_t, INF_t, TOP_t) \dots\dots\dots I$$

The econometric model is:

$$EMP_t = \beta_0 + \beta_1 FDI_t + \beta_2 GDP_t + \beta_3 GFCF_t + \beta_4 INF_t + \beta_5 TOP_t + \varepsilon_t \quad II$$

where EMP represents employment; FDI represents foreign direct investment; GDP is economic growth; GFCF is gross fixed capital formation; INF means inflation; TOP is trade openness; β_0 is the intercept; and β_1 to β_5 are slope parameters; and ε_t is the stochastic disturbance term.

The unrestricted ARDL(p, q₁, q₂, q₃, q₄, q₅) model can be stated as:

$$EMP_t = \alpha_0 + \sum_{i=1}^p \alpha_i EMP_{t-i} + \sum_{j=0}^q \alpha_{1j} FDI_{t-j} + \sum_{j=0}^q \alpha_{2j} GDP_{t-j} + \sum_{j=0}^q \alpha_{3j} GFCF_{t-j} + \sum_{j=0}^q \alpha_{4j} INF_{t-j} + \sum_{j=0}^q \alpha_{5j} TOP_{t-j} + \varepsilon_t \dots\dots\dots III$$

The work specifies a log-linear ARDL formulation with lags of the dependent and explanatory variables.

$$\ln EMP_t = \beta_0 + \beta_1 \ln FDI_t + \beta_2 \ln GDP_t + \beta_3 \ln GFCF_t + \beta_4 \ln INF_t + \beta_5 \ln TOP_t + \varepsilon_t \quad V$$

Estimation Strategy

The ARDL (autoregressive distributed lag) method helps separate short-run fluctuations from the estimated long-run relationship. The bounds test reveals a long-run level relationship. If strong statistical evidence exists, the error correction representation can be viewed through standard cointegration. But, in this case, the bounds statistic is between the lower and upper critical values. That's why, the long-run coefficients are presented as long-run relations estimated, but not as cointegration proof.

Post-estimation procedures include the Breusch–Godfrey serial-correlation test, heteroskedasticity testing, the Jarque–Bera normality test, Ramsey RESET and CUSUM/CUSUMSQ stability tests. These tests are important because the reliability of conventional statistical inference depends on the adequacy of the estimated specification.

RESULTS AND DISCUSSION

Descriptive Statistics

Variable	Mean	Std. Dev.	Minimum	Maximum
EMP	90.44	8.63	66.7	96.5
FDI	2956.42	2503.15	-187	8914.9
GDP	4.43	3.8	-1.8	15.3
GFCF	15.83	1.13	14.1	19.1
TOP	48.06	18.64	16.4	74.5
INF	18.93	15.72	5.4	72.8

The descriptive results indicate that there is a marked difference in the Nigerian macroeconomic situation. FDI in particular has a large standard deviation compared to its average, which suggests that the period was characterized by large-scale changes in foreign investment. Inflation too, to some extent, reflects the instability

episodes in the macroeconomic situation. The trade openness level shows a significant change in Nigeria's degree of international market integration.

Unit-Root Properties

The results shows that the variables are stationary after differencing and therefore integrated at order one within the set used for the ARDL analysis. This supports the use of an ARDL framework under the requirement that variables are not integrated beyond I(1).

Given the potential pitfalls of using the non-stationary data, instead of the usual model in levels-only, we decided to apply the ARDL approach.

Lag Selection and ARDL Specification

Item	Result
Selected model	ARDL(2,1,0,0,0,2)
Selection criterion	Akaike Information Criterion (AIC)
Candidate models evaluated	486
Estimation sample	1992–2025
Included observations	34

With minimum information criterion, ARDL(2 1 0 0 0,2) specification was considered for this paper. The lag length of two on the dependent variable, one on FDI, zero on GDP/GFCF/INF and finally the one on trade openness with two-lag. Lag adjustments are done to match the lag patterns in the data so that there are enough data pairs for estimation. In fact, there are 34 data points left after the adjustments.

Bounds Test for a Level Relationship

Significance	I(0) Lower Bound	I(1) Upper Bound
10%	2.331	3.417
5%	2.804	4.013
1%	3.9	5.419

Reported F-statistic = 2.820191.

At 5 percent, the calculated F-statistic of 2.820191 is slightly above the lower bound of 2.804 but below the upper bound of 4.013. Thus, $2.804 < 2.820191 < 4.013$. The result lies in the inconclusive region. It is therefore not statistically defensible to state that the study has established cointegration at the 5 percent level. This qualification is central to the interpretation of the estimated long-run coefficients.

Long-Run ARDL Estimates

Variable	Coefficient	t-Statistic	Probability
FDI	0.00038	0.98484	0.3349
GDP	0.47962	1.73047	0.0969
GFCF	-2.803	-2.9654	0.0069
INF	0.02937	0.50987	0.615
TOP	0.19552	2.30957	0.0302

FDI has a positive estimated coefficient of 0.000377, but its probability value of 0.3349 indicates that the coefficient is statistically insignificant at 5 percent. Therefore, it would be hard to claim that the model offers

adequate evidence on a statistically significant long-run effect of FDI on employment.

The positive sign is, however, consistent with the hypothesis that foreign investment fosters the creation of jobs, and although the size of the relationship cannot be statistically inferred from the estimated specification, this is not a problem.

The coefficient value of GDP is (+0.479623) and probability value is 0.0969. It is at the 10 percent level, but not the 5 percent level, a marginal indication of a positive association.

The coefficient of GFCF is -2.802982 and the same is statistically significant at 5 per cent. The negative sign indicates that a rise in aggregate fixed capital formation will lead to a fall in the employment in the estimated LR equation. A possible explanation is that some investments were of an investment "intensive" type, that is, they have involved a rise in productive capacity, in the form of machinery and technology, but not in employment. This interpretation should nevertheless be treated as a hypothesis rather than a demonstrated causal mechanism.

Inflation has a positive coefficient of 0.029373 but is statistically insignificant ($p = 0.6150$). There is therefore insufficient evidence of a significant long-run inflation–employment relationship in the estimated model.

Trade openness has positive coefficient 0.195523 and is statistically significant at 5 percent ($p = 0.0302$). This indicates a positive association between openness to international trade and employment in this long-run relationship based analysis only.

Also, one explanation that a greater degree of openness through which producers are enabled access to international markets often means greater domestic and foreign trade and so increase employment in trade sector which is also the result here. Yet, the causal interpretation should be done with care because this model suffers limitations of the model as diagnosed and also the bounds test gives inconclusive results.

Error-Correction and Short-Run Dynamics

Variable	Coefficient	t-Statistic	Probability
ECT(-1)	-0.6367	-4.9891	0
$\Delta EMP(-1)$	0.27154	2.03062	0.0516
ΔFDI	0.00132	2.69295	0.0116
ΔTOP	-0.0229	-0.2651	0.7928
$\Delta TOP(-1)$	-0.1436	-1.5366	0.1352

The error-correction coefficient is -0.636735 and statistically significant. Its negative sign is consistent with adjustment toward the estimated long-run path, with approximately 63.67 percent of the deviation represented by the error-correction term adjusted within a year. The source results report the same coefficient and significance. [22]

The change in FDI has a positive coefficient of 0.001321 and is statistically significant at 5 percent ($p = 0.0116$). This is the central short-run result: increases in FDI are positively associated with changes in employment in the estimated short-run equation. The outcome agrees with the notion that foreign investment projects can generate employment on the spot, as they are established, expanded and their economic activities.

It is important to understand what is the difference between the short run and the estimated long run FDI Coefficients. It suggests that the primary effect of the FDI on employment might be at an initial stage of investments and not continue in the Really. In addition, studies on African studies recently highlight that greenfield jobs can create jobs in particular sectors but only account for a relatively low proportion of the overall jobs (Lakemann et al., 2025).

Overall Model Fit

Statistic	Value
R-squared	0.84452
Adjusted R-squared	0.77692
F-statistic	12.4927
Prob(F-statistic)	0
Durbin-Watson	2.36486

The reported R-squared of 0.8445 indicates that approximately 84.45 percent of the in-sample variation in employment is accounted for by the regressors and lagged terms in the estimated ARDL equation. The adjusted R-squared is 0.7769. The overall F-statistic is statistically significant. The Durbin–Watson statistic is 2.3649, while the Breusch–Godfrey test does not reject the null of no serial correlation at up to two lags. These fit measures, however, should not be interpreted in isolation because the diagnostic tests identify other specification concerns.

Diagnostic and Stability Tests

The diagnostic outcomes are worth examining closely. As the Breusch, Godfrey test, the result has an F-statistic value of 1.433185, the significance is $p = 0.2609$, and the Obs*R-squared probability is 0.1298, which means that, statistically speaking, there's a lack of serial correlation up to two orders behind. At the same time, the heteroskedasticity, indicated by the test in the same paper, confirms heteroskedasticity whereas the Jarque, Bera statistic suggests that residuals don't follow the normal distribution. Lastly, as Ramsey RESET test comes out statistically significant, it points to either a problem in the specification of functional forms or the absence of certain variables.

The RESET test generated p-values of approximately 0.0001 for the t and F versions and concludes that the model may suffer from specification error. It also reports that CUSUM and CUSUMSQ stability plots remained within the stated critical boundaries over the sample period. 

These results lead to an important qualification. Stability of coefficients does not eliminate concerns about heteroskedasticity, non-normality or functional-form misspecification. Thus, the empirical results should be interpreted as evidence of association rather than as definite causal estimates, since this is the specification that was reported. Robust inference and alternative specifications would add to the evidence base with a re-estimation to be performed in the future.

DISCUSSION OF FINDINGS IN RELATION TO RECENT LITERATURE

The conclusion that a positive short run FDI coefficient is in line with the results of Ngukwarai et al. (2024) is general. A positive relationship between FDI and employment when it comes to Nigeria was reported by them through an ARDL system. The results also corroborate Madueke et al. (2026), who found that the employment impact of FDI is dependent on the extent of problem-solving of the structural issues. However, in the long term, the relationship between the unemployment rate and FDI change is not statistically significant, suggesting that there is no certainty that FDI can boost employment.

The larger African findings from Lakemann & et al. (2025) align with the findings here, in that greenfield investments can have a direct positive effect on employment in formal sectors such as manufacturing and services, but this effect is still relatively small for total employment. That investment can displace employment in local enterprises by some investors, as they have shown, is an important reason why aggregate inflows of FDI do not have to generate proportionate growth in the long-run employment.

Positive trade openness coefficient suggests that external market integration can complement investment and production activities but the benefit largely depends on the domestic productive capacity. If openness only leads to more imports without a parallel increase in local production, there would probably be less employment

effect. In a similar way, a negative GFCF coefficient reflects that investment in the aggregate do not indicate if the investment is labour-saving or labour-complementary. On top of differentiating overall, urban and rural levels of unemployment, the Nigerian study of Okoli and Okeke (2024) presents yet another angle of FDI effects interpretation. Foreign capital inflow probably creates jobs in certain areas and sectors but other labour markets remain more or less the same. So, instead of focusing on inflowing investment volume, governments should take investment targeting at both sectors and locations into account as part of their policies.

CONCLUSION

This study looked into the interaction of foreign direct investment and employment in Nigeria over 1990-2025 employing an ARDL technique. The biggest discovery from the study was that, at short-run levels, FDI is positively related to employment and the relationship is also statistically significant; at long-run levels, the coefficient for FDI is positive, but doesn't reach statistical significance level even at 5 percent confidence level. Employment is also shown to be strongly linked with GDP at short-run but the link is only marginally significant at 10 percent level. GFCF is negatively and statistically much related to employment at long-run. Inflation doesn't have any effect on unemployment level whereas trade openness is positively and statistically quite a bit related to employment at long-run equation.

The error-correction coefficient is negative and significant, indicating substantial adjustment within the estimated dynamic model. Nevertheless, the ARDL bounds statistic of 2.820191 lies between the reported 5 percent critical bounds, so the evidence of a long-run level relationship is inconclusive. Furthermore, heteroskedasticity, non-normality and a significant Ramsey RESET test indicate that the specification requires caution. These restrictions preclude the conclusions to be presented as conclusive evidence of a cause.

There is a major finding here, but only when conditions like FDI's contribution to employment creation in Nigeria is predominantly over time are satisfied. However, there is no evidence to the contrary that jobs created as a result of FDI are permanent. The stability of the gains from FDI depends, for example, on the nature of the sectors that attract the FDI, the extent of linkages between local economic activities and the FDI, skill level of the labour force, level of infrastructure and stability of the investment environment.

POLICY IMPLICATIONS

Prioritise Employment-Intensive FDI

Investment promotion efforts need to be focused on industry sectors with relatively high employment absorption capacity such as manufacturing, agro-processing, selected services, ICT and other sectors. Its aim should be to stimulate FDI, job creation and not just the flow of capital only.

Strengthen Domestic Linkages

The government should facilitate foreign-invested enterprises to build supply chain with the skill domestic enterprises. Indirect employment impacts can be boosted through local supplier development, technology diffusion and workforce training, which can optimise the local retention of FDI benefits.

Improve Infrastructure

The availability of reliable electricity, transport infrastructure, ports, and telecommunications and digital infrastructure, would bring down Nigeria's operating costs and make it more attractive to productive long term investors. Infrastructure policy should therefore be considered to be part of employment policy and investment policy.

Develop Labour-Market Skills

Attract investment with technical/vocational/digital skills development. If employees have the skills needed by the new forms of production technology, high quality domestic jobs are more likely to be created by foreign firms.

Maintain Macroeconomic Stability

Affects the timing and size of investment due to inflation, exchange-rate uncertainty and regulatory uncertainty. A stable macroeconomic environment is therefore essential to induce sustained productive investment, instead of capital flows, into the economy.

Improve the Quality of Capital Formation

The negative GFCF coefficient suggests that investment should not be evaluated solely by its volume. Public and private investment should be directed toward activities that complement labour, increase productivity and expand productive capacity without unnecessarily displacing workers.

Strengthen FDI Monitoring and Evaluation

Nigeria would be wise to introduce improvements and carry out better monitoring of FDI projects in particular sectors. Such monitoring should include aspects like the number of jobs and the quality of those jobs, domestic purchase training technology sharing, survival of the projects, etc. With the help of this information, it would be possible to align investment incentives with real and positive developmental outcomes.

Contribution to Knowledge

The paper adds to the Nigerian literature in three ways. First, it presents updated evidence from the 1990 to 2025 timeframe. Second, it distinguishes the short-run FDI, employment relationship from the long-run coefficient estimate, showing that a positive short-run effect alone is not sufficient to imply statistically significant long-run effect. Lastly, the authors directly point out the ambiguous bounds test and the weaknesses in diagnoses that often means overstated causal interpretations to be avoided. The paper so presents a more cautious and a more transparent evaluation about employment impacts of FDI in Nigeria.

LIMITATIONS AND AREAS FOR FURTHER RESEARCH

The study has limitations. The aggregate FDI measure does not distinguish greenfield investment from mergers and acquisitions or identify sector-specific investment. Employment is also treated as an aggregate outcome, which can conceal important differences between formal and informal employment and between youth, urban and rural labour markets. In addition, the relatively small effective sample of 34 annual observations limits the statistical power of the model. Finally, the significant RESET and heteroskedasticity results indicate that the specification can be improved.

Future studies should, as a result, not only breakdown FDI based on sector and mode of entry, but also separately consider formal and informal employment, account for the quality of institutions and human capital level. Researchers should be encouraged to adopt estimators that effectively deal with possible endogeneity. Analysis at the level of the sectors or industries would mostly be a good idea when investigating questions related to what kinds of activities, manufacturing agriculture services, ICT or others, generate the strongest employment linkages from FDI.

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