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EXPORTS, FOREIGN DIRECT INVESTMENT AND UNEMPLOYMENT RATE IN NIGERIA: AN EMPIRICAL ANALYSIS

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ABSTRACT
This study appraised the effect of exports and foreign direct investment on unemployment rate in Nigeria from 1985 to 2023. Exports and foreign direct investment were represented by total oil exports, total non-oil exports, foreign direct investment, and trade openness, while unemployment rate was the dependent variable. The research employed an ex-post facto design and yearly temporal data obtained from the Central Bank of Nigeria (CBN) statistics bulletin, the National Bureau of Statistics (NBS) report, and the World Bank's World Development Indicators. The data analysis methods comprised descriptive statistics, multicollinearity test, the ADF unit root test, bound co-integration test, and the ARDL methodology. The results indicated that total oil exports, total non-oil exports, FDI, and trade openness exhibit a combination of considerable and negligible adverse impacts on the unemployment rate in Nigeria, both in the short and long-term term. The study recommended that the government should augment value addition in the oil export industry by developing local refining capabilities and petrochemical businesses. Furthermore, priority should be given to assertive diversification into non-oil exports, especially in agriculture and industry. This may be accomplished via incentives i.e. tax reductions, export subsidies, and infrastructure development in export-oriented zones.

Key words: Oil Exports, Non-Oil Exports, Foreign Direct Investment, Unemployment Rate, Trade Openness.

Introduction

Unemployment remains a key socio-economic challenge for many developing economies because of its direct effect on poverty, social stability and inclusive development. International trade (exports) and foreign direct investment (FDI) are external sector channels that can influence labour markets and unemployment through multiple channels. Exports may generate employment by expanding demand for domestically produced goods and by fostering growth in labour-intensive production and export-related services; export diversification can therefore be particularly important for job creation. FDI can also affect unemployment directly by creating jobs in foreign-owned enterprises and indirectly through productivity spillovers, technology transfer and linkages with domestic firms that stimulate broader employment growth. However, the net effect of exports and FDI on unemployment depends on sectoral composition, the labour-

intensity of activities, and domestic absorptive capacity (skills, infrastructure, and institutional quality).

A nation's exports have a significant influence on its gross domestic product (GDP), which in turn has an effect on economic growth, the creation of new employment, price stability, and the trade balance. Exports are a significant factor in the overall economic development of a nation. While it is usually true that nations that have robust export industries are more likely to have economic stability and overall development, this is not always the case. The extent to which exports have an effect on the performance of the macroeconomy is, however, controlled by regressors such as the composition of exports, global demand, currency rates, and the capacity of local production. These factors all play a role in determining the extent of exports. According to the concept of "export driven growth," the gross domestic product of the nation ought to expand primarily as a consequence of the output of the nation's exports. A well-managed trade openness plan has the ability to drive fast economic improvement, according to the majority of those who agree with this statement (Giles & Williams, 2019). Although there may be some disagreement on the actuality of the practical evidence of export-led development, this is the case regardless of the fact that. It is probable that exports will play a significant role in contributing to the development of the economy of the country. The reason for this is because exports bring in cash and foreign currency that is significantly required for the building of infrastructure, in addition to creating an environment that is favourable to investment. Growing exports of all kinds enable firms to increase their output by pushing them to cut their expenditures and increase their production. This, in turn, leads to an improvement in efficiency and opens the door to economies of scale.

Nigeria’s external sector is characterized by a heavy concentration in primary commodities — notably crude oil — and FDI inflows that have historically been skewed toward extractive industries. Suberu, Ajala, Akande, and Adeyinka (2015) claim that the nation's economic performance was bad because it put an excessive amount of dependence on profits from oil exploration and did not make significant attempts to diversify its economy. This led to the nation's poor economic performance. This structural pattern matters for labour outcomes: oil and other capital-intensive extractive activities typically create fewer direct jobs and weaker domestic linkages than manufacturing and labour-intensive non-oil sectors. Moreover, recent national labour force surveys and official reporting revisions have changed the measured level of unemployment and highlighted persistent underemployment and informality, which complicates assessments of how trade and investment affect the labour market in practice. Thus, whether exports and FDI have translated into sustained reductions in unemployment in Nigeria is an empirical question that must account for composition effects and measurement issues.

Empirical studies on Nigeria show mixed results: some research finds that FDI and exports support growth and employment when channeled into non-extractive, export-oriented sectors, while other studies report weak or ambiguous links when analysis uses aggregate FDI or export series without sectoral breakdown. Given Nigeria’s recent macroeconomic reforms and the evolving pattern of external flows, a careful, disaggregated analysis is needed to determine the extent to which exports and FDI contribute to reducing unemployment in Nigeria.

Statement of the Problem

Despite the theoretical channels through which exports and FDI can reduce unemployment, Nigeria continues to face substantial labour market challenges, including high underemployment and a predominance of informal work. Official labour-market statistics have also been subject to methodological revisions (notably the NBS change in the hours-worked threshold), producing markedly lower headline unemployment rates that some analysts argue understate labour market distress and obscure structural unemployment problems. These measurement issues make it difficult to draw confident conclusions about the labour market effects of external-sector policies (NBS, 2024).

Structurally, Nigeria's export base remains concentrated in oil and other primary commodities, and FDI inflows have frequently been concentrated in extractive sectors. Capital-intensive extractive activities tend to generate fewer direct and indirect jobs than diversified, labour-intensive manufacturing and services; they also create weaker supply-chain linkages that would otherwise stimulate wider employment. Consequently, aggregate measures of exports or FDI may mask important heterogeneity in labour outcomes across sectors.

Empirical literature on the nexus between exports, FDI and unemployment in Nigeria is inconclusive. Some studies find that trade openness and certain forms of FDI help reduce unemployment when accompanied by domestic policies that enhance absorptive capacity, while others report negligible or mixed effects when sectoral composition and informal employment are not properly accounted for. These divergent findings limit policymakers' ability to design targeted interventions that harness trade and investment for job creation. It is against this backdrop that this study raised the following questions: to what extent do non- oil export, oil export, FDI and Trade openness influence the unemployment rate in Nigeria?

The aim of the study is to examine the bearing of exports and FDI on Nigeria's unemployment rate. It seeks to address the identified problem and develop comprehensive strategies to diversify the export base and improve the investment climate, ultimately leading to a reduction in unemployment rate in Nigeria.

Literature Review

Theoretical Framework

Export Led Growth Hypothesis

Balassa came up with the idea of export-led growth, or the ELG Hypothesis, in 1978. Adam Smith's Absolute Advantage Theory (1776) and David Ricardo's Comparative Advantage Theory (1817) are two traditional and neoclassical trade ideas that the theory draws on. Much of the credit for officially stating the Export-Led Growth theory as its own economic framework goes to Balassa (1978). As stated by the Export-Led Growth Hypothesis, exportations are the main factor that propel economies forward. Improving a nation's exportations is the key to boosting its GDP, employment, and industrial development. As stated by the theory, nations that are more open to foreign trade and investment have quicker growth rates than their more inwardly focused counterparts, known as protectionist economies. In other words, the Export-Led Growth

Hypothesis implies that an upsurge of exportations is one of the primary factors that determine economic advancement, and that there exists a nexus between the two. Expanding exportations, rather than growing the quantities of labour and capital, might provide overall growth for various nations, as stated by the idea. One of the many assumptions upon which this hypothesis is based is the idea that non-export sectors will benefit from the export sector's more efficient management styles and improved production techniques, which in turn will have a beneficial consequence on the export sector (Feder, 1983). The second benefit of rising exportations is the opportunity for scale economies, which will boost productivity (Helpman & Krugman, 1985; Krugman, 1994). Third, exportations may help ease restrictions on foreign currency and open doors to new global markets (Esfahani, 1991). Literature review points to new support for the claims made in endogenous growth theory, which places an emphasis on exportations as a driver of extended term prosperity via dynamic international learning and rapid technical advancement.

Second, an upsurge in exportations generates demand for produced products, which in turn encourages industrial growth. Nations like China, South Korea, and Singapore that have effectively adopted export-driven industrialization have seen their economies grow steadily over time. Conversely, demand limits limit the expansion of economies that depend entirely on local markets. Finally, more manufacturing capacity means more jobs thanks to a robust export industry.

Theory of Absolute Cost Advantage

In Wealth of Nations, published in 1776, Adam Smith notably laid forth the concept of Absolute Cost Advantage. The concept originated from the arguments put forth against mercantilism. The future of global countries, in his view, lay in free commerce. Smith argued that countries may benefit from free trade by purchasing commodities they were not as competent at creating and concentrating on producing those things to a higher standard. International component specialization would lead to increased global output, which would benefit all trading nations. Thus, it is not essential that one nation gain while another suffers; in fact, it is possible that all countries may gain simultaneously. The basic tenet is that countries should prioritize producing and selling the things at which they have a lower production cost or absolute cost advantage. This is good for exportations and foreign direct investment.

Empirical Review

Ugwo, Umeh, and Ochuba (2019) appraised the sway that the export of crude oil has had on the economic advancement of Nigeria. The particular goals are to: The specific goals are to ascertain whether or not crude oil exportations make a empirically validated contribution to the GDP of the economy, to ascertain the extent to which crude oil exportations contribute to the growth of the economy in Nigeria, and to investigate the nexus between crude oil exportations and the growth of the economy in Nigeria. As stated by the upshots of the study, the export of crude oil has a beneficial consequence on the economic performance of Nigeria by a factor of 32 percent thirty-two percent. As stated by the upshots of the study, the government should make a greater effort to ensure that crude oil and its natural components are fully utilised. Additionally, the conditions that contribute to the underutilization, misuse, and underutilization of crude oil should be removed. These conditions comprise those that pertain to technology, human capital, manpower capital, funding, bureaucratic bottlenecks, public policy, and regulatory laws.

Over the course of 33 years, from 1990 to 2022, Oladosu, Ibeinmo, and Lasisi (2023) appraised the consequence of oil and non-oil exportations on Nigeria's macroeconomic expansion. This research followed the Two-Gap Model. The research employed data collected over time from the CBNs' statistics bulletin. Methods for analysing the data comprised the ECM, the ARDL strategy, and the ADF statistic. Oil exportations notably affect GDP in the near and extended term, in congruent with the research's most imperative finding. Similarly, exportations of services and commodities other than oil have a beneficial and empirically validated effect on GDP in the near and far future. FDI has an adverse outcome on GDP that is seen in both the near and extended term. In congruent with the research's upshots, exportations of both oil and non-oil products notably contribute to Nigeria's macroeconomic expansion.

Using statistics from 1981 to 2018, Onodugo, Ikpe, and Anowor (2020) appraised how non-oil exportations contributed to Nigeria's economic expansion. The research applied the Endogenous Growth Model (EGM) to analyse the Augmented Production Function (APF). We applied the standard methods to check for co-integration and mean reversion. The upshots infer that non-oil exportation has a negligible upshot on the pace of change in Nigeria's economic advancement. The study has done more than just provide evidence that does not support the idea that Nigeria's economy has grown thanks to non-oil exportations; it has also established a data benchmark for evaluating how the sector can do better in the future in terms of its contributions to GDP growth.

Aremu (2016) appraised the years 1981–2015 to determine how Nigeria's non-oil exportations affected the nation's economy. The examination comprised a variety of research approaches, comprising impulse response functions (IRF), variance decomposition (VD), the Johansen co-integration test, the Granger causality test, and the ADF and PP unit root tests. Cointegration analysis shows an empirically validated link between GDP, oil exportations, and non-oil exportations. Granger causality test upshots infer that oil exportations and GDP have a one-way causal link, which means that this connection only exists in the near term. However, non-oil exportations only have a one-way causation link to GDP, unlike oil exportations which have an extended term causality connection that flows in both ways. In congruent with the research's upshots, exportations of non-oil commodities encourage macroeconomic expansion, whereas exportations of oil products have the reverse effect.

Louis, Iyabo, and Jacob (2024) appraised the FDI influx from 1981 to 2022 and how different macroeconomic factors affected it. We were able to identify the sway of Nigeria's political system in attracting FDI because, unlike previous research, ours also records the bearing of a regime change on FDI intake to the nation. We applied the ARDL model to display the FDI-Macroeconomic regressors extended term linkages and their dynamic interactions. FDI models' predicted extended term and near term co-efficient infer that inflation rate and economic openness are imperative regressors attracting FDI to Nigeria. Investments from outside tend to rise in tandem with economic expansion and non-oil exportations. But they do not amount to much in the grand scheme of things. Direct investment into Nigeria is highly sensitive to the two most imperative policy factors: the currency rate and the monetary policy rate. Depreciation of the currency leads to a rise in FDI, as stated by the estimated upshots. Real wage channel theory predicts that as a nation's currency depreciates, wages and production costs fall in comparison to other nations. As stated by the research, a stable currency rate is essential for Nigeria to attract

FDI. The government should lower the monetary policy rate, which is now too high and hurting FDI inflows. At the same time, they should step up their fight against corruption.

Sunday (2023) appraised the connection between FDI and the development of Nigeria's industrial production. Everyone knows that no nation can stand alone economically, which is why many different types of mutual commercial indentures facilitate cross-border trade. Notably, despite Nigeria's FDI level in Africa, the nation's industrial production growth still lags behind in recent years. Therefore, it is vital in this research to explain why growing FDI inflow brings to sluggish industrial production development in Nigeria. To find out whether there exist an extended term connection between the rise of industrial production and FDI in Nigeria, researchers applied diagnostic tests and methods from ARDL and Cointegration and Error Correction Mechanisms (ECM). Notably, post estimations tests were carried out to evaluate the correctness of the models employed in the research. Upshots indicated a nexus between FDI and Industrial Output Growth in Nigeria both in the near and extended term. Hence, FDI showed an adverse time-path nexus with rising industrial production in Nigeria. Because of the adverse nexus between FDI and industrial output growth, this postulates that the present sluggish rise in Nigeria's production runs counter to anticipated economic intuitions. As an upshot, the research suggested that Nigeria may benefit from a proactive governmental framework that encourages industrialisation via the localisation of industry. To further strengthen the local productivity foundation, authorities should enact trade policies that restrict foreign competition.

The connection between openness of trade and GDP growth in Nigeria was evaluated by Ohwofasa and Ekaruwe (2023) by dissecting openness of trade into exportation earnings from solid minerals, manufacturing, agriculture, and oil. The ARDL model, which was employed in this study, covers the data set from 1986 to 2020. Macroeconomic expansion in Nigeria was shown to be beneficially correlated with all four sectoral exportation factors in congruent with the bound test result. Changes in agricultural and crude oil exportations have a beneficial and empirically validated outcome on economic progress in the near term, whereas changes in solid mineral exportations have an adverse and empirically validated impact, in congruent with the research. Statistical research, however, showed that manufactured commodities exportations did not notably affect GDP growth in the near term. The study found that exportations of agricultural products and manufactured items had a highly beneficial outcome on growth in the extended term, in contrast to exportations of solid minerals and oil, which had an adverse and empirically validated effect.

In their research conducted from 2000 to 2020, Tyokosu and Abakpa (2023) aimed to examine the nexus between openness of trade and macroeconomic expansion in Nigeria applying an ex-post facto study technique. Secondary data was extracted from the 2022 CBN Statistical Bulletin and analysed applying SmartPLS 12.1, a tool that is well-suited to time series regression analysis. No empirically validated nexus between exportations and GDP or per capita income in Nigeria was discovered during the analysed period, in congruent with the research. Studies have found no empirically validated correlation between FDI and Nigeria's GDP or per capita income. That being said, studies shown that importations notably impacted GDP and PCI. This infers that importations maintained a more empirically validated outcome on Nigeria's macroeconomic expansion across the course of the research period.

Ajayi and Araoye (2019) evaluated the nexus between openness of trade and the growth of Nigeria's agricultural industry applying data collected from 1970 to 2016. The research endeavour relied on secondary sources to get information. Data for this compilation came from a variety of sources, comprising the World Bank and International Fiscal Statistics, the International Monetary Fund Data Base (IFS) from 2010, the Statistical Bulletin of the CBN from 2015, and the World Development Data Base (WDDB) from 2000. The study found that none of the series are stationary at levels, in congruent with the upshots of the unit root tests called the ADF and the Phillip-Peron (PP) tests. The upshots of the Co-integration test demonstrated that the factors are in equilibrium, in accordance with the assertions made by Engel and Granger (1987), who thought that regressors had an extended term nexus if appraised for unit root difficulties. Since no problems were identified, this supports the research's conclusion. This supports the argument that the research put out. Labour input was the only ADF factor that did not become stationary after the first difference. Upshots showed that at the 5 percent significance level for ADF and the 1 percent level for PP, all other regressors were I(1). To do this, we checked for a connection between the regressors applying the Co-integration test. By the time we got to the significance threshold of 5 percent, all of the co-efficient were in agreement and correctly interpreted. It should come as no surprise that there exists an adverse correlation between the expansion of the agriculture sector and the rate of exchange in a nation with an active foreign trade policy. There was a beneficial correlation between openness of trade and the growth of the agricultural sector, conversely.

Gap in Literature/Value addition

The review of related literature revealed that much of the existing studies focused on the relationship between exports, foreign direct investment and macroeconomic performance neglecting their effect on unemployment rate in Nigeria thus creating a gap in knowledge which this study filled by examining the effect of exports, foreign direct investment on unemployment rate in Nigeria over the period 1985 to 1923.

Methodology

Research Design

This study adopted the ex-post facto research design in an effort to conduct an analysis of the causal links that have been developed over the course of this investigation. It was able to establish the manner in which exports and FDI contributed to the real GDP growth of Nigeria. Annual times data were sourced from the Central Banks of Nigeria (CBNs), National Bureau of figures (NBS), and world Development Indicators covering the time span from 1985 to 2023, which implies that there were thirty-nine (39) years of sample observations.

Model Specification

This inquiry was as per the Two-Gap Model, which served as the theoretical underpinning for the investigation. The work that Oladosu, Ibeinmo, and Lasisi (2023) did in their analysis of the bearing of non-oil and oil exports on economic development in Nigeria served as the basis for the building of the model with slight modification. The following is a statement that describes the model that Oladosu, Ibeinmo, and Lasisi (2023) created. $GDP = \delta_0 + \delta_1 OEXP + \delta_2 NOEX + \delta_3 FDI + \mu_t$

Modifications are made to the model for the research so as to not only accommodate all of the regressors that were chosen for the investigation but also to exclude factors that were not comprised in this particular study. Thus, the model is represented in its functional, mathematical and econometrical forms respectively:

Functional Model Specifications

$UMR = f\,(TOE, TNO, FDI, TOP)$ (3.3)

Mathematical Model Specifications

$UMR_t = \alpha_0 + \alpha_1 TOE_t + \alpha_2 TNO_t + \alpha_3 FDI_t + \alpha_4 TOP_t$ (3.7)

Econometrical Model Specifications

$UMR_t = \alpha_0 + \alpha_1 TOE_t + \alpha_2 TNO_t + \alpha_3 FDI_t + \alpha_4 TOP_t + U_{it}$ (3.11)

Log Linear Model Specifications

$InUMR_t = \alpha_0 + \alpha_1 InTOE_t + \alpha_2 InTNO_t + \alpha_3 InFDI_t + \alpha_4 InTOP_t + U_{it}$ (3.15)

ARDL Model Specifications

$$\Delta(\ln UMR_t) = \alpha_0 + \alpha_{1i}\Delta(\ln UMR_{t-1}) + \alpha_{2i}\Delta(\ln TOE_{t-1}) + \alpha_{3i}\Delta\ln(TNO_{t-1}) + \alpha_{4i}\Delta\ln(FDI_{t-1}) + \alpha_{5i}\Delta\ln(TOP_{t-1}) + \sum_{t=1}^{p}\lambda_{1i}\Delta(\ln UMR_{t-1}) + \sum_{t=1}^{q}\lambda_{2i}\Delta\ln(TOE_{t-1}) + \sum_{t=1}^{p}\lambda_{3i}\Delta\ln(TNO_{t-1}) + \sum_{t=1}^{q}\lambda_{4i}\Delta\ln(FDI_{t-1}) \sum_{t=1}^{q}\lambda_{5i}\Delta\ln(TOP_{t-1}) + \varepsilon_{2i} \quad (3.19)$$

Where:

f	=	Function of
$\delta_0, \alpha_0, \beta_0, \Psi_0$	=	Constant regressors in the models.
UMR	=	Unemployment rate
TOE	=	Total Oil Export
TNO	=	Total Non-Oil Export
FDI	=	Foreign Direct Investment
TOP	=	Trade Openness
α_1 - α_4	=	Co-efficient of independent regressors in unemployment rate model
U_i	=	Error term

A Priori Expectation: $\alpha_1 < 0$; $\alpha_2 < 0$; $\alpha_3 < 0$; $\alpha_4 < 0$.

Data Analysis Techniques

The study adopted the ARDL method that was presented by Pesaran, Shin, and Smith (2001) in an effort to estimate the model. This followed the result of the unit root test and a co-integration test carried out, which showed a mixed other of integration and co-integrating equation respectively.

Results and Analysis

Unit Root Test

The series is tested for stationarity using the ADF statistic to rule out artificial regression. Here are the results of the ADF unit root test, as shown in Table 4.3:

Table 4.3: Augmented Dickey-Fuller (ADF) Test Upshots

	ADF at Levels		ADF at First Difference				
Factors	**ADF Statistic**	**5 percent Critical Value**	**ADF Statistic**	**5 percent Critical Value**	**Order of Integration**	**Decision**	
$InUMR_t$	-1.472112	-2.941145	-5.413498	-2.943427	I(1)	Stationary @ Differences	1st
$InTOE_t$	-2.215271	-2.941145	-3.041283	-2.951125	I(1)	Stationary @ Differences	1st
$InTNO_t$	-1.438398	-2.941145	-7.170658	-2.943427	I(1)	Stationary @ Differences	1st
$InFDI_t$	-2.831543	-2.941145	-6.172176	-2.943427	I(1)	Stationary @ Differences	1st
$InTOP_t$	-3.417477	-2.941145	-	-	I(0)	Stationary @ Level	

Source: *Compilation by Researcher, 2025 (EViews, 12.0 Output).*

Note: (i) * implies stationarity at 5 percent level of significance; (ii) Decisions are as per absolute values.

Table 4.3 shows that the ADF unit root test was successful in discarding the null hypothesis of unit root for TOP at its level. This means that the consequence of TOP is flat at its level and has an integration of order zero, denoted as [I(0)].

However, for the following factors: UMR, TOE, TNO, and FDI at levels, it is not possible to discard the null hypothesis of unit root. This indicates that the regressors in question have unit roots at certain levels. First difference analysis allows us to discard the null hypothesis of unit root for the following factors: unemployment rate (UMR), (TDB), TOE, TNO, and FDI. With an integrated degree of one, or [I(1)], these regressors are also stationary at first difference. The data should not comprise any misleading or false regression estimates, as stated by the upshots of

the unit root test. Since there exist a mixture of I(0) and I(1) factors, indicating mixed stationarity, co-integration analysis is warranted.

Estimation of Unemployment Rate (UMR) Model

Multicollinearity Test

This study used a nexus matrix to detect multicollinearity. Table 4.10 shows the outcome of the nexus matrix:

Table 4.10: nexus Matrix Result

	$InUMR_t$	$InTOE_t$	$InTNO_t$	$InFDI_t$	$InTOP_t$
$InUMR_t$	1				
$InTOE_t$	0.317471	1			
$InTNO_t$	0.484939	0.16393	1		
$InFDI_t$	0.386793	0.38687	0.583387	1	
$InTOP_t$	-0.46413	0.450775	0.266753	0.361277	1

Source: *Compilation by Researcher, 2025 (EViews, 12.0 Output).*

From 1985 to 2023, there was a modest beneficial association between the unemployment rate (UMR), TNO, FDI, and TOP, as stated by the nexus test upshots shown in Table 4.10. We can confidently go on with our econometric study since this indicates that the independent regressors do not exhibit any signs of multicollinearity.

Bound Cointegration Test

Since the regressors are not strictly stationary, but rather exhibit both zero-order and one-order integrations, we can use the ARDL bounds test to determine whether or not the regressors in the equation exhibit a extended term co-integrating relationship. As stated by Table 4.12: the boundaries co-integration test was successful.

Table 4.12: ARDL Bounds Cointegration Test Result

Null Hypothesis: No Extended term Relationships Exist				
Critical Value Bounds				
T-statistic	**Value**	**Significance**	**I(0)**	**I(1)**
F-statistic	5.774289	10 percent	2.2	3.09
K	5	5 percent	2.56	3.49
			2.88	3.87
		1 percent	3.29	4.37

Source: *Compilation by Researcher, 2025 (EViews, 12.0 Output).*

In Table 4.12, we can see the upshots of the ARDL bound co-integration test. The F-statistic value of 5.774289 is above the upper bound critical value and the lower bound critical value both set at 5 percent. This means that the null hypothesis is discarded and that the model regressors are cointegrated. Further evidence from the boundaries test points to the existence of a extended term link or co-integration among trade openness, FDI, TNO, TOE, and unemployment rate. This infers that trade openness, TNO, FDI, and TOEs are strong extended term predictors of

unemployment rate. So, we estimated our ARDL model when we found co-integrating nexus in the model.

Estimation of Autoregressive Distributed Lag (ARDL) Near term UMR Model Estimation

Table 4.13: Near term ARDL UMR Model

Dependent Factor = $InUMR_t$				
Factor	**Co-efficient**	**Std. Error**	**t-Statistic**	**Prob.***
$D(InTOE_t)$	-0.334356	0.127785	-2.616555	0.0170
$D(InTOE_{t-1})$	0.197230	0.081955	2.406571	0.0242
$D(InTOE_{t-2})$	-0.260040	0.139470	-1.864484	0.0778
$D(InTOE_{t-3})$	0.507062	0.149750	3.386058	0.0031
$D(InTNO_t)$	-0.009895	0.154569	-0.064019	0.9496
$D(InFDI_t)$	-0.603185	0.206714	-2.917966	0.0088
$D(InFDI_{t-1})$	-0.239850	0.090118	-2.661514	0.0154
$D(InTOP_t)$	-0.443260	0.161889	-2.738041	0.0131
$D(InTOP_{t-1})$	0.438044	0.211639	2.069769	0.0523
$D(InTOP_{t-2})$	0.204085	0.205505	0.993090	0.3331
$D(InTOP_{t-3})$	-0.295189	0.980381	-0.301097	0.7666
*CointEq(-1)**	-0.152782	0.063069	-2.422456	0.0256
Adjusted R-squared = 0.524017; Durbin-Watson stat = 1.824154				

Source: *Compilation by Researcher, 2025 (EViews, 12.0 Output).*

TOE has an adverse co-efficient value (-0.334356) and a probability value (0.0170) that is below the significance threshold of 5 percent, as stated by the near term ARDL outcome in Table 4.13. This infers that TOE has a near term adverse and arithmetically considerable consequence on the unemployment rate (UMR). Since UMR is directly proportional to UME, it follows that UME will fall by 0.334356 for every unit rise in TOE and UMR will rise by 0.334356 for every unit drop in TOE.

Furthermore, at the 5 percent level of significance, both the co-efficient value (-0.009895) and the probability value (0.9496) of TNO are adverse. This infers that, at least in the near term, TNO has a net adverse consequence on the unemployment rate (UMR). As an upshot, for every one unit rise in TNO, the unemployment rate (UMR) will fall by 0.009895.

Furthermore, FDI has a probability value of 0.0088 and an adverse co-efficient value of -0.603185, both of which are arithmetically inconsiderable at the 5 percent level. This shows that FDI has an adverse and arithmetically considerable consequence on the UMR in the near term. As an upshot, for every one unit rise in FDI, the unemployment rate (UMR) will fall by 0.603185.

In addition, the co-efficient value (-0.443260) and probability value (0.0131) of TOP are both below the significance threshold of 5 percent. This infers that, at least in the near term, TOP considerably affects the unemployment rate (UMR) in an adverse way. Therefore, for every one unit rise in TOP, the unemployment rate (UMR) will fall by 44.326 percent.

Additionally, Table 4.13's near term ARDL outcome reveals that CointEq(-1)'s predicted adverse sign of 0.152782) is arithmetically considerable at 0.0256. This proves that the regressors with their different considerable delays do in fact have a extended term connection. A 15 percent correction of the extended term divergence from the unemployment rate occurs the next year, as stated by the co-efficient of CointEq(-1) which is -0.152782.

Furthermore, the adjusted R-squared (R2) value of 0.524017 shows that in the near term, TOE, TNO, FDI, and TOP account for 52 percent of the systematic variation in the unemployment rate, while other regressors outside the model account for the remaining 48 percent.

Finally, a Durbin-Watson statistic of 1.824154 shows that the model does not comprise serial nexus.

Estimation of Autoregressive Distributed Lag (ARDL) Extended term UMR Model Estimation

Table 4.14: Extended term ARDL UMR Model

Dependent Factor = $InUMR_t$				
Factor	**Co-efficient**	**Std. Error**	**t-Statistic**	**Prob.**
$InTOE_t$	-0.447470	0.130380	-3.432030	0.0022
$InTNO_t$	-0.592064	1.108724	-0.534005	0.5995
$InFDI_t$	-0.249421	0.078780	-3.166032	0.0042
$InTOP_t$	-0.143645	0.057622	-2.492894	0.0200
C	4.207041	3.844324	1.094351	0.2875

Source: *Compilation by Researcher, 2025 (EViews, 12.0 Output).*

TOE has an adverse co-efficient value (-0.447470) and a probability value (0.0022) that is below the signifcance threshold of 5 percent, as stated by the extended term ARDL research. All things considered, this points to a extended term, adverse, and arithmetically considerable nexus between TOE and unemployment rate (UMR). Therefore, for every one unit rise in TOE, the unemployment rate (UMR) will fall by 0.447470, and for every one-unit reduction in TOE, the UMR will rise by 0.447470.

The extended term ARDL outcome also shows that TNO is arithmetically considerable at the 5 percent level, with an adverse co-efficient value of -0.592064 and a probability value of 0.5995. So, in the extended term, TNO has a negligible adverse consequence on the unemployment rate (UMR). Therefore, for every one unit rise in TNO, the unemployment rate (UMR) will fall by 0.592064, and for every one unit decline in TNO, the UMR will rise by 0.592064.

Additionally, FDI has an adverse co-efficient value (-0.249421) and a probability value (0.0042) that is below the significance threshold of 5 percent, as stated by the extended term ARDL finding. This shows that FDI has a extended term adverse and arithmetically considerable consequence on the UMR. Consequently, for every one unit rise in FDI, the unemployment rate (UMR) will fall by 0.249421, and for every one-unit reduction in FDI, the UMR would rise by 0.249421.

Finally, TOP has an adverse co-efficient value (-0.143645) and a probability value (0.0200) that

is below the significance threshold of 5 percent, as stated by the extended term ARDL finding. What this means is that there exist a extended term adverse and arithmetically considerable nexus between TOP and the unemployment rate (UMR). Thus, for every one unit rise in TOP, the unemployment rate (UMR) will fall by 0.143645, and for every one unit drop in TOP, the UMR will rise by 0.143645.

Post-Estimation Tests of Unemployment Rate (UMR) Model

Here are the post-estimation tests that were performed in this research and the results:

Table 4.15: Post-Estimation Tests Upshots

Test	F-Statistic	P-value	Null Hypothesis	Decision
Jarque-Bera Normality Test	0.468514	0.791159	**H_0:** Normally distributed	Retain H_0
Breusch-Godfrey Serial nexus LM Test	0.001360	0.9986	**H_0:** No serial nexus	Retain H_0
Heteroskedasticity Test	1.385240	0.2484	**H_0:** Homoscedasticity	Retain H_0
Ramsey RESET Test	0.984305	0.3343	**H_0:** Correctly specified	Retain H_0

Source: *Compilation by Researcher, 2025 (EViews, 12.0 Output).*

The post-estimation test results showed that our UMR model's regressors (unemployment rate, TOE, TNO, FDI, and trade openness) adhere to the fundamental assumptions of OLS estimation.

Discussion of Results

The major objective of this study is to investigate the impact that FDI and exports have had on the unemployment rate in Nigeria from 1985 to 2023. The results of the analysis showed that TOEs have an adverse outcome on the unemployment rate in the short and long-run This shows that a rise in Nigeria's TOEs will produce a fall in the nation's unemployment rate. The upshots of Ikpe, Bassey, and Umoren (2023) were similar in that they concluded that the exportation of crude oil had a considerable and beneficial outcome on the economy of Nigeria. Furthermore, in congruent with Khayati (2021), oil exports rise economic growth both in the short run and in the extended term. In congruent with the upshots of Ugwo, Umeh, and Ochuba (2019), the export of crude oil has a beneficial outcome on the economic performance of Nigeria that is advantageous.

This study also discovered that Nigeria's TNO has a slightly adverse outcome on unemployment, this is the case even when the outcome on unemployment is negligible. This infers that a rise in Nigeria's TNO would cause a decrease in the nation's unemployment rate, this outcome is related to the one that was discovered by Onodugo, Ikpe, and Anowor (2020), who discovered that the rate of change in Nigeria's income growth was not notably affected by the export of non-oil products. There exists a nexus between the two upshots". Furthermore, Aremu (2016) found that there exists a causal link between Nigeria's GDP and exports of commodities other than oil over the extended term. Moreover, Mohsen (2015) established that there exists a two-way extended term causal nexus between Syria's GDP and exports of commodities other than oil-based products.

In addition, the findings of the research demonstrated that FDI has a demonstrable and adverse outcome on Nigeria's unemployment rate, both in the near future and in the far future. This

shows that a rise in FDI would outcome in a fall in Nigeria's unemployment rate. As a outcome of the fact that Louis, Iyabo, and Jacob (2024) have shown that the growth rate of the GDP and exports of non-oil commodities also have a beneficial outcome on FDI inflows over the extended term, our upshots are consistent with theirs. In addition, Sunday (2023) found that FDI into Nigeria upshots in a steady rise in industrial output. Additionally, Silva and Ijeoma (2022) found that there exist a extended term connection between FDI and the real estate industry throughout the course of their analysis.

Finally, the study found that trade openness impacts on Nigeria's unemployment rate adversely and significantly in both the short run and the long term. Given this, it is reasonable to anticipate that Nigeria's unemployment rate would decrease both temporarily and permanently, as trade continues to open up. This lends credence to the upshots of Afolabi and Oyelekan (2020), which is that the openness of trade contributes to the expansion of the GDP in Nigeria. In congruent with Tyokosu and Abakpa (2023), the openness of trade has a direct and considerable outcome on the growth of the economy in Nigeria. In congruent with Solomon and Tukur (2019), the openness of trade also has a considerable and beneficial outcome on the growth of the economy.\

Conclusion and Recommendations

Conclusion

This research investigated effect of exports and FDI have had on the unemployment rate in Nigeria from 1985 to 2023. As stated in the results, total oil exports, total non-oil exports, FDI, and trade openness significantly influence unemployment rate in Nigeria. The research comes to the conclusion that exports and FDI have a key role in enhancing and driving the reduction of unemployment rate in Nigeria. This conclusion is as per the upshots of the study.

Recommendations

As per the study upshots and the conclusion obtained, the following are recommended:

1. The government need to work towards the development of local refining capacity and petrochemical businesses so as to rise the value addition in the oil export industry. Nigeria should improve its trade balance and drive real GDP growth by exporting refined petroleum products and derivatives rather than depending primarily on crude oil exports. This would be a more effective way to achieve these goals.

2. It should be a top priority to make aggressive diversification into non-oil exports, notably agriculture and industry. Providing incentives i.e. tax exemptions, export subsidies, and the building of infrastructure in export-oriented zones are all ways to accomplish this goal. Increasing the base of non-oil exports may help minimise overdependence on oil, improve job prospects, and contribute to sustainable growth in the GDP among other benefits.

3. So as to rise productivity and the number of jobs available, it is necessary to have policies in place that both attract and keep FDI. It is imperative that the government of Nigeria address concerns over the ease of doing business, the clarity of the law, and corruption. Through the strengthening of investment protection regimes, the reduction of regulatory bottlenecks, and the improvement of infrastructure, Nigeria will become more appealing to investors from other nations. Employment and price stability are both supported by a macroeconomic environment that is stable, which in turn contributes to an upsurge in GDP growth.

4. Although there is the possibility of advantages brought about by trade openness, it should be controlled strategically so as to prevent undue dependency on imports and the collapse of local industries. Beneficial tariffs, import substitution policies, and export promotion policies should be implemented so as to promote competitiveness, safeguard emerging sectors, and assist the development of local content. Trade policy should be adjusted to achieve these goals. When combined with robust local production and export capability, trade openness has the potential to improve the trade balance and decrease unemployment by increasing the demand for Nigerian products in marketplaces outside of the nation.

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