

## Do International Trade Dynamics Matter for Nigeria's Economic Growth? Evidence from Exports, Imports, Exchange Rate and Foreign Direct Investment

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### ABSTRACT:

#### Abstract

This study examined the impact of international trade on the Nigerian economy over the period 1985–2024. The study was motivated by the inconclusive empirical evidence and conflicting findings regarding the effects of international trade on Nigeria's economic performance. Real Gross Domestic Product (RGDP) was employed as a proxy for economic growth, while Total Export Value (TEXV), Total Import Value (TIMV), Exchange Rate (EXCR), and Foreign Direct Investment (FDI) were used as explanatory variables. The Augmented Dickey-Fuller (ADF) unit root test revealed that the variables were integrated at mixed orders, I(0) and I(1), justifying the application of the Autoregressive Distributed Lag (ARDL) modelling approach. The ARDL long-run estimates showed that Total Export Value had a positive and highly significant effect on RGDP, lending support to the export-led growth hypothesis. Similarly, Foreign Direct Investment exerted a positive and statistically significant influence on economic growth, highlighting its role in enhancing capital accumulation and productivity. In contrast, Total Import Value and Exchange Rate exhibited statistically insignificant effects on RGDP. The study concludes that international trade contributes significantly to Nigeria's long-term economic growth, primarily through export expansion and increased foreign direct investment. It recommends that the government promote export diversification by supporting domestic industries through targeted fiscal incentives, improved infrastructure, reliable electricity supply, and a conducive business environment to enhance international competitiveness. Furthermore, policies should encourage the consumption of locally produced goods, rationalize imports of non-essential commodities, strengthen institutional quality through improved contract enforcement and reduced bureaucratic bottlenecks, and maintain a stable and predictable exchange rate regime. These measures will enhance productive capacity, attract long-term foreign investment, and foster sustainable economic growth in Nigeria.

**KEYWORDS:** *Real Gross Domestic Product, Total Export Value, Total Import Value, Exchange Rate*

### MANUSCRIPT TYPE:

Research Paper

### PUBLICATION DETAILS:

Received: XX April. 2026

Revised: XX May., XX Jun. 2026

Accepted: XX Jun. 2026

Publication of the College of Management Sciences, Michael Okpara University of Agriculture, Umudike Nigeria



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## INTRODUCTION

International trade is widely recognized as a key driver of any economy; it plays a crucial role in nations' economic activities, and Nigeria's participation in global trade has increased significantly over the past few decades. Nigeria's economy has historically been heavily reliant on oil exports, but efforts have been made for it to diversify its economic activities into other areas and increase its participation in international trade (global trade) to enhance its economy. The impact of international trade on the Nigerian economy has been a subject of intense debate among scholars, as it has been a major source of foreign exchange earnings in

most countries, thereby enhancing national economies, including Nigeria's. It increases a country's foreign reserves and boosts its cash inflows through foreign direct investment, thereby enhancing the economy of a country like Nigeria. Therefore, the impact of international trade on the Nigerian economy is a significant area of research, given the country's reliance on oil exports and its efforts to diversify its economy. Nigeria, as a developing country, has been actively engaged in international trade, as noted earlier, importing goods and services while exporting crude oil, which is its primary source of revenue. International trade is the exchange of goods and services between nations. At least two countries should be involved in the activities, that is, the aggregate of activities relating to cross-border trading between merchants. Traders engage in economic activities to maximize profits, driven by different international economic environments across nations (Adedeji, 2006).

Economists have long been interested in factors that explain why countries grow at different rates and achieve different levels of wealth; one such factor is trade. Nigeria is an open economy, with international transactions constituting a significant share of its aggregate output (Mike & Okojie 2012). Nigeria, like many other developing countries, considers trade the main engine of its economic strategy, based on the implicit belief that trade can create jobs, expand markets, raise incomes, facilitate competition, and disseminate knowledge (Ogbaji & Ebebe 2013). Nevertheless, while trade between countries may enhance the global economy, there is no guarantee that its aggregate benefits are distributed equitably among trading partners. There are winners and losers in any trading relationship. Many factors determine the extent to which a country may benefit from a trading relationship. These include the terms of trade a country faces vis-à-vis its trading partners, the international exchange rate for traded goods, and the market characteristics of the country's exportable goods (Eravwoke & Oyovwi, 2012). This has been Nigeria's experience since the 1960s, even though the composition of trade has changed over the years. International trade has been a topic of interest for decision-makers, policymakers, and economists. It enables nations to sell their locally produced goods to other countries of the world. The term trade has been defined by the Oxford Advanced Learner's Dictionary as the activity in which people buy and sell or exchange goods and services between countries, while international trade is the exchange of capital goods and services across international borders. Zahoor et al. (2012) viewed it as a system in which goods and services are advertised, sold, and traded between two or more countries through import and export.

Nigeria has been a mono-product economy since the 70s, relying heavily on oil as its main source of income. The implication is that the movements of the economy are at the caprices of the price of oil, which is most of the time volatile (Igwe, 2015). Overdependence on oil production not only leads to unbalanced trade but has also resulted in economic fluctuations. Nigeria was severely affected by the global economic meltdown, partly due to the collapse of global oil prices in 2008. The prices set by the Organization of the Petroleum Exporting Countries (OPEC), which were manipulated for political gain, were unfavorable to the Nigerian economy. Additionally, the Niger Delta Crisis significantly slowed Nigeria's economic growth and development. Economic and trade diversification may serve as a strategy to reduce the Nigerian economy's exposure to external shocks associated with commodity production and trade. However, it must be established that, before any significant benefit from trade can be gained, the domestic economy will have to diversify away from overdependence on oil production and from a concentration on the production and export of primary commodities (David & Olayemi, 2010). It has been noted that Nigeria's economy has been heavily reliant on international trade, particularly crude oil exports. However, the country's economy has been hindered by various challenges.

The actual impact of international trade on the Nigerian economy has produced mixed results; among researchers, the findings have been inconclusive, a gap the study seeks to fill. Some researchers found a positive impact, others a negative impact, and still others found it to be both. Meanwhile, previous scholars who found positive impact of international trade on the Nigerian economy include (Azubuike et al., 2025; Omoregbee et al., 2025; Ann, 1991; Okafor et al., 2024; Chizoba, 2024; Nwankwo et al., 2024) while other researchers who reported negative impact of international trade on the Nigerian economy includes (Victor & Nwakwo, 2023; Orisadare & Ayoade, 2024; Onodugo et al., 2013; Ihugba et al., 2024). Meanwhile, authors like Shido-Ikwue et al. (2024) and Abogan et al. (2014) reported both positive and negative impacts of international trade on the Nigerian economy. However, international trade is a major driver of economic growth through the exchange of goods and services between countries. Prior to the discovery of commercial crude oil, Nigeria depended solely on agricultural products as its main source of income. By the mid-1960s, crude oil had become Nigeria's most prominent export, leading to the decline and neglect of other sectors of the economy. According to President Muhammadu Buhari, who spoke at a labor conference in Abuja in June 2017, Nigeria will run out of its valued oil reserves in 30 years, which means that there is a need for the country to shift its attention towards other areas of the economy to further boost its international trade and effectiveness (Caltuttawala, 2017). In the last decade, Nigeria has not really made a significant breakthrough in increasing revenue due to its overreliance on crude oil, which the government believes is the only reliable source of revenue. There is a need to improve other sectors and to provide commodity

exchange market platforms through which farmers can trade their goods with other countries with ease. Also, problems with sourcing foreign currencies hinder effective, efficient transactions amongst traders. Foreign currencies are often hard to obtain in the foreign exchange market due to high exchange rates and market forces of demand and supply. Impediments of this kind can stagnate international trade by demoralizing traders' willingness to engage in foreign trade.

Based on the above scenarios and the identified knowledge gap, this study was motivated to examine the impact of international trade on the Nigerian economy from 1985 to 2024. To achieve its overall objective, the study evaluates the impact of total export value, import value, the exchange rate, and foreign direct investment on Nigeria's real gross domestic product.

### **International Trade and the Economy**

International trade is the exchange of goods, services, and capital across borders, and the issues of international trade and the economy have gained substantial importance with the introduction of trade liberalization policies worldwide. Theoretically, international trade raises GDP by allowing countries to specialize in what they do best, thereby increasing total output and income and contributing positively to the economy. So, for a developing country like Nigeria, international trade is both an opportunity and a vulnerability, given its commodity dependence and foreign-exchange exposure. Therefore, international trade and its impact on the economy crucially depend on globalization. As for the impact of international trade on the economy, economists and policymakers in developed and developing economies are divided into two groups. One group of economists holds that international trade has brought about unfavorable changes in the economic and financial conditions of developing countries (Idowu, 2005). According to them, the gains from trade have mostly gone to developed nations. Liberalization of trade policies, reductions in tariffs, and globalization have adversely affected the industrial setups of less developed and developing economies. As a result of liberalization, most infant industries in these nations have closed. Many other industries that had previously operated under government protection found it very difficult to compete with their global counterparts (David et al., 2010). The other group of economists, which favors globalization and international trade, presents a more positive view of its impact on the economic development of developing nations. According to them, developing countries that have pursued trade liberalization policies have experienced the favorable effects of globalization and international trade. China and India are regarded as the trend-setters in this case. There is no denying that international trade is beneficial for the countries involved when practiced properly. International trade offers entrepreneurs in developing nations opportunities in the global market (Elias et al., 2018). International trade also makes the latest technology readily available to the businesses operating in these countries. It results in increased competition both on the domestic and global fronts. To compete with their global counterparts, domestic entrepreneurs strive to be more efficient, thereby ensuring the efficient utilization of available resources. Open trade policies also create a host of related opportunities for countries involved in international trade. However, even with the positive impacts of international trade, it is important to note that international trade alone cannot drive economic growth, development, and prosperity in any country. There are many other factors, such as flexible trade policies, a favorable macroeconomic environment, and political stability, that need to be in place to complement the gains from trade. There are examples of countries that have failed to reap the benefits of international trade due to inadequate policy measures. The economic stagnation in the Ivory Coast during the 1980s and 1990s was mainly due to the lack of commensurate macroeconomic stability, which, in turn, prevented the positive effects of international trade from trickling down to different layers of society. However, instances like this cannot stand in the way of international trade activities across nations worldwide (Adewuyi, 2005).

### **METHODOLOGY**

#### ***Model specification***

This study adapted George-Anokwuru's (2024) model with minimal modification. Below is his model:

$$GDP = \beta_0 + \beta_1 EXV + \beta_2 IMV + \beta_3 EXRT + \mu \dots \dots \dots \text{eqn1.}$$

Where:

- GDP=Gross Domestic Product
- EXV=Export Values
- IMV=Import Values
- EXRT=Exchange Rate
- $\mu$ =Error Term/Stochastic Variable
- $\beta_0$ = Intercepts

However, this study modified equation 1 by replacing gross domestic product (GDP) in George-Anokwuru (2024) with real gross domestic product (RGDP) as the measure for our dependent variable in the Nigerian economy and introduced Foreign Direct Investment (FDI) as the fourth variable to capture

our independent variable, international trade, as against the three variables used by George-Anokwuru (2024).

Having established the above fact, the functional relationship between the dependent and independent variables for this present study is as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu \dots \text{eqn 2.}$$

Where:

Y=Dependent Variable

$\beta_0 - \beta_1$ =Intercept term

X1 – X3=Regression Coefficient

$\mu$ =Error Term

By re-specification of the above-stated model in order to capture the objective of the study, we have:

$$RGDP = F(\text{TEXV}, \text{TIMV}, \text{EXCR}, \text{FDI}) \dots \dots \dots \text{eqn3.}$$

In implicit form, we have:

$$\log\_RGDP = \beta_0 + \beta_1 \log\_TEXV + \beta_2 \log\_TIMV + \beta_3 \text{EXCR} + \beta_4 \text{FDI} + \mu \dots \dots \dots \text{eqn4.}$$

Where:

log\_RGDP = Natural Logarithm of Real Gross Domestic Product (Proxy for Nigerian Economy)

log\_TEXV=Natural Logarithm of Total Export Values

log\_TIMV=Natural Logarithm of Total Import Values

EXCR=Exchange Rate

FDI=Foreign Direct Investment

$\mu$ =Error Term/Stochastic Variable

$\beta_0$ = Intercepts

$\beta_1 - \beta_3$  = Coefficients

The *a priori* expectation is that the coefficients  $\beta_1, \beta_2, \beta_3$  and  $\beta_4 < 0$

**Estimation techniques**

The unit root test is used to assess the stationarity of time series data. In considering the levels, the data could be said to be integrated at 1 (1) or 2 (1(2)). Augmented Dickey-Fuller (ADF) test statistics shall be compared with the 5% critical values. If the (ADF) test statistics exceed the critical values, and the absolute values are considered, the data at the tested order are said to be stationary. The Augmented Dickey-Fuller test rejects the null hypothesis of a unit root (the series are non-stationary) in favor of the alternative hypothesis of stationarity. The tests are conducted with and without a deterministic trend (t) for each of the series.

Therefore, in the estimation procedure in our study, a unit root test was conducted on the variables. The unit root test was performed to avoid spurious regression results. To test the stationarity of the variables, the Augmented Dickey-Fuller (ADF) test was applied to detect the stationarity of the variables, with the following equation:

$$\Delta y_t = \alpha_0 + \alpha_1 \Delta y_{t-1} + \sum_{j=1}^{p-1} \beta_j \Delta y_{t-j} + E t \dots \dots \dots \text{eqtn3.1}$$

Where:

$\Delta y_t = y_t - y_{t-1}$  is the difference of the series  $y_t$

$E t$  = Stochastic variable or Error term

$\alpha_0, \alpha_1,$  and  $\beta_i$  are the parameters of the estimation.

$\alpha_0 = 0$ , the null hypothesis of non-stationarity is accepted. But if  $\alpha_1 < 0$  and statistically significant, the null hypothesis of non-stationarity is rejected.

Cointegration and Bounds tests were conducted to examine the long-run effects/relationships among the variables. The study also conducted other diagnostic tests.

**RESULT AND DISCUSSIONS**

The table below presents descriptive statistics for the variables under study based on 40 observations. Real Gross Domestic Product (RGDP) had a mean of 1.21 and a standard deviation of 6.05, indicating significant dispersion in economic output during the period. Its value ranged from 4.88 to 2.18. Total Export Value (TEXV) and Total Import Value (TIMV) showed average values of N3,980.13 and N22,332,595, respectively. Notably, both trade variables exhibit high volatility, as evidenced by their large standard deviations relative to their means. The Exchange Rate (EXCR) maintained a mean of N182.04, peaking at N1,480.70, while Foreign Direct Investment (FDI) showed a mean of N1.276 and a relatively low standard deviation of N0.956294, suggesting greater stability than the other macroeconomic indicators. Regarding the distributional characteristics, all variables—TEXV, TIMV, EXCR, and FDI—exhibit positive skewness, with TEXV (5.90) being the most significantly skewed to the right. The Kurtosis values for these four variables are all above N3.0, indicating leptokurtic distributions with fat tails. The Jarque-Bera test for

normality indicates that RGDP ( $p = 0.095$ ) and FDI ( $p = 0.062$ ) are normally distributed at the 5% significance level, as their p-values exceed 0.05.

### Descriptive Statistics

|              | RGDP     | TEXV     | TIMV     | EXCR     | FDI       |
|--------------|----------|----------|----------|----------|-----------|
| Mean         | 1.21E+14 | 3980.127 | 22332595 | 182.0413 | 1.276360  |
| Median       | 1.07E+14 | 1587.050 | 11327455 | 127.2500 | 1.123510  |
| Maximum      | 2.18E+14 | 77400.13 | 3.01E+08 | 1480.700 | 4.282088  |
| Minimum      | 4.88E+13 | 295.2000 | 14904.20 | 0.890000 | -0.028873 |
| Std. Dev.    | 6.05E+13 | 12021.96 | 48013436 | 251.6419 | 0.956294  |
| Skewness     | 0.275684 | 5.904361 | 5.081244 | 3.696048 | 0.858547  |
| Kurtosis     | 1.414766 | 36.58675 | 30.05216 | 19.06923 | 3.616123  |
| Jarque-Bera  | 4.694956 | 2112.526 | 1391.826 | 521.4388 | 5.546698  |
| Probability  | 0.095610 | 0.000000 | 0.000000 | 0.000000 | 0.062453  |
| Sum          | 4.84E+15 | 159205.1 | 8.93E+08 | 7281.650 | 51.05439  |
| Sum Sq. Dev. | 1.43E+29 | 5.64E+09 | 8.99E+16 | 2469622. | 35.66540  |
| Observations | 40       | 40       | 40       | 40       | 40        |

Source: Authors' computation

### Diagnostic Test

#### Unit Root Test Result (Summary)

| Variables | Levels  | Levels            |         | 1st Differenced | 1st Differenced   |         |                      |  |
|-----------|---------|-------------------|---------|-----------------|-------------------|---------|----------------------|--|
| Variables | t-stats | Critical Value 5% | P-value | t-stats         | Critical Value 5% | P-value | Order of Integration |  |
| RGDP      | -0.8403 | -2.9411           | 0.7959  | -4.0787         | -3.6736           | 0.0029  | I(1)                 |  |
| TEXV      | -51223  | -3.5628           | 0.0013  |                 |                   |         | I(0)                 |  |
| TIMV      | -3.2504 | -3.5297           | 0.0898  | -4.7395         | -3.5442           | 0.0029  | I(1)                 |  |
| EXCR      | -1.2811 | -2.9314           | 0.6298  | -4.9960         | -3.5207           | 0.0011  | I(1)                 |  |
| FDI       | -3.6946 | -2.9386           | 0.0080  |                 |                   |         | I(0)                 |  |

Source: E-Views 12

The table above presents the summary results of the Augmented Dickey-Fuller (ADF) unit root tests used to determine the stationarity of the variables. To avoid spurious regression, the variables were tested at both levels and in first differences. The empirical results indicated a mixed order of integration among the series. Considering the Stationarity at Levels I(0), the variables Total Export Value (TEXV) and Foreign Direct Investment (FDI) were found to be stationary at levels. Specifically, the test statistics for TEXV (-51223) and FDI (-3.6946) were more negative than their respective critical values at the 5% significance level. Their associated probability values (0.0013 and 0.0080, respectively) are less than 0.05, leading to the rejection of the null hypothesis of a unit root at levels. Thus, these variables are integrated of order zero, denoted as I(0). Conversely, the Stationarity at First Difference I(1) showed that Real Gross Domestic Product (RGDP), Total Import Value (TIMV), and Exchange Rate (EXCR) exhibited unit roots at levels, with probability values (0.7959, 0.0898, and 0.6298) exceeding the 0.05 threshold. However, upon transitioning to the first difference, these variables became stationary. RGDP attained stationarity with a t-statistic of -4.0787 ( $p = 0.0029$ ), TIMV became stationary with a t-statistic of -4.7395 ( $p = 0.0029$ ), and EXCR became stationary

with a t-statistic of -4.9960 ( $p = 0.0011$ ). Consequently, these three variables are integrated of order one (I(1)). The presence of a mixture of I(0) and I(1) variables suggests that an Autoregressive Distributed Lag (ARDL) framework was appropriate for further econometric modeling.

**Diagnostic Test for Serial Correlation**

| Breusch-Godfrey<br>Serial Correlation<br>LM Test:      | Breusch-Godfrey<br>Serial Correlation<br>LM Test: | Breusch-Godfrey<br>Serial Correlation<br>LM Test: | Breusch-Godfrey<br>Serial Correlation<br>LM Test: | Breusch-Godfrey<br>Serial Correlation<br>LM Test: |
|--|---|---|---|---|
| Null hypothesis: No serial correlation at up to 2 lags |   |   |   |   |
| F-statistic  | 0.531480  | Prob. F (2,19)                                    | Prob. F (2,19)                                    | 0.5962  |
| Obs*R-squared  | 1.907325  | Prob. Chi-Square (2)                              | Prob. Chi-Square (2)                              | 0.3853  |

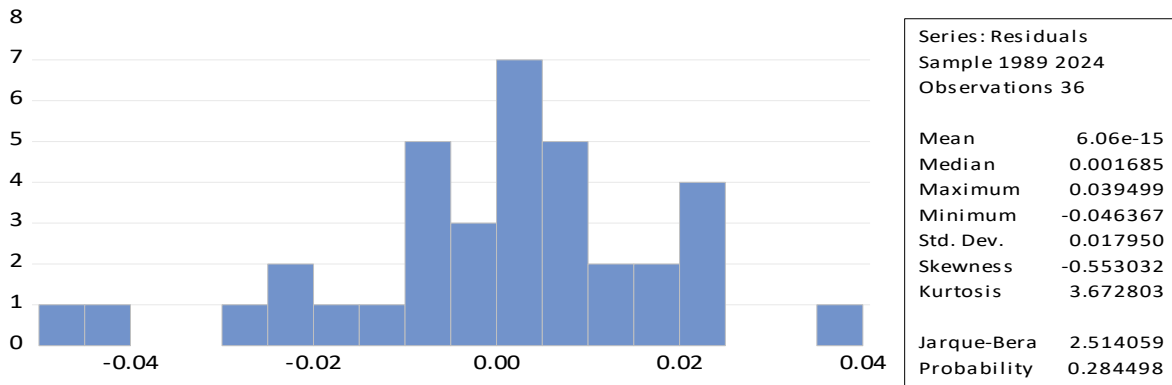


Figure 1

To ensure the robustness of the estimated model and the validity of the standard errors, the Breusch-Godfrey Serial Correlation LM Test was conducted. This test is essential for identifying whether the model's residuals are correlated over time, which would otherwise lead to inefficient estimates and misleading t-statistics. As shown in the table above, the test was performed under the null hypothesis ( $H_0$ ) that there is no serial correlation in the residuals up to two lags. The empirical results yield an F-statistic of 0.5315 and a corresponding p-value of 0.5962. Similarly, the Observed R-squared (Obs\*R2) value of 1.9073 yields a Chi-Square probability of 0.3853. Since both probability values (0.5962 and 0.3853) are significantly greater than the 0.05 threshold (5% significance level), we fail to reject the null hypothesis. This statistical evidence confirms that the model is free of serial correlation. Consequently, the residuals are purely random, and the model's predictive power is reliable for drawing economic inferences.

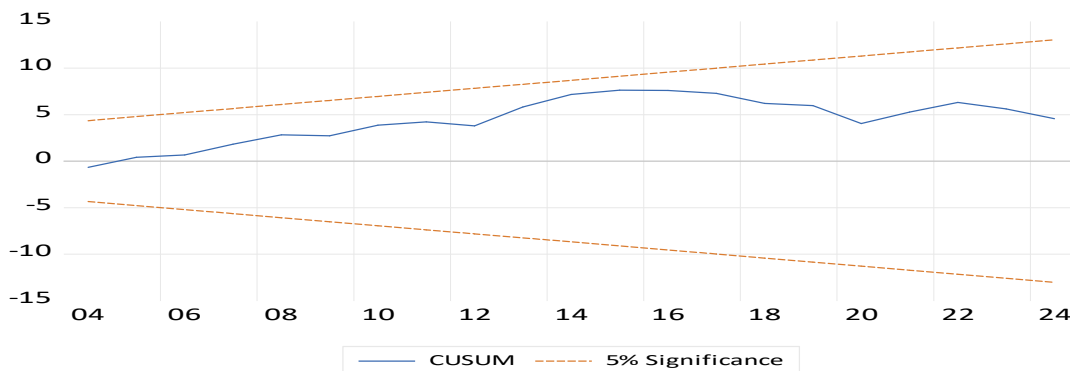


Figure 2

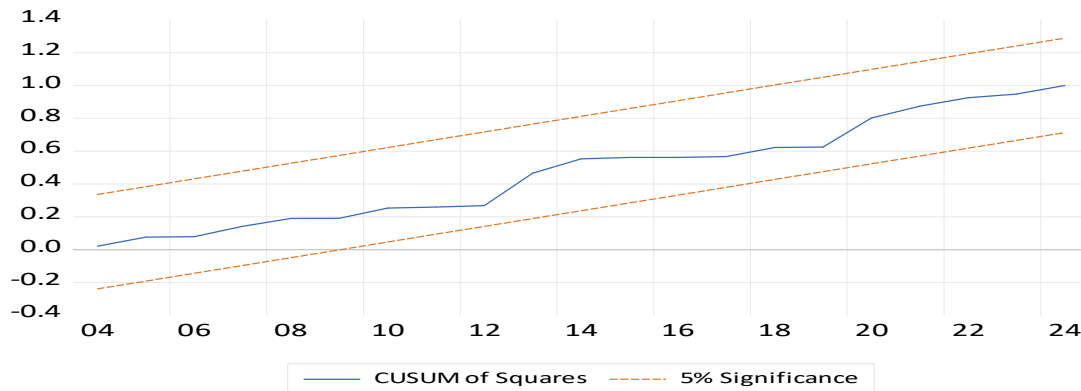


Figure 3

The above tests showed the stability of the model as the CUSUM lines were between the upper and lower bounds at 5%, which indicated clearly that the plot of the CUSUM statistic at the five per cent critical lines wandered between the critical lines, showing the stability of the estimated impact of international trade on the Nigerian economy.

#### Analysis of ARDL Cointegration and Error Correction Model

The study utilized the Autoregressive Distributed Lag (ARDL) model, specifically an ARDL (3, 4, 0, 0, 2), selected based on the Akaike Information Criterion (AIC). This model was estimated under "Case 5," which allows unrestricted constants and trends to capture the dynamic nature of economic growth.

#### ARDL Bounds Test for Cointegration

Before analyzing the individual effects of the regressors, it is imperative to determine whether the variables exhibit long-run synchronization. This study employs the ARDL Bounds Testing approach, which is superior for its flexibility in handling variables with mixed orders of integration - specifically a combination of I(0) and I(1) series. The test evaluates the null hypothesis of "no levels relationship" against the alternative hypothesis of cointegration. As presented in the diagnostic results, the calculated F-statistic is 5.692995. To determine significance, this value is compared against the critical value bounds for  $k=4$  (representing the four independent variables: TEXV, TIMV, EXCR, and FDI). At the standard 5% significance level, the calculated F-statistic of 5.69 significantly exceeds the Upper Bound critical value I(1) of 4.57. The strength of this relationship is further validated at the more stringent 2.5% level, where the F-statistics remain higher than the Upper Bound of 5.07.

Furthermore, the t-Bounds Test serves as a secondary verification of the long-run equilibrium. The computed t-statistic of -4.376 is more negative than the 5% Upper Bound critical value of -4.36, reinforcing the rejection of the null hypothesis. Given that both the F-statistic and t-statistic surpass their respective upper bounds, we reject the null hypothesis. This provides robust statistical evidence that a stable, long-run cointegration relationship exists between Real Gross Domestic Product (RGDP) and its macroeconomic determinants. Consequently, the variables move together in the long run, allowing reliable estimation of the long-run coefficients and the short-run error-correction mechanism.

#### Long-run Coefficients (Levels Equation)

The long-run estimation reveals the structural relationship between economic growth and the selected macroeconomic determinants, expressed by the following equation:

$$RGDP = 0.1522(TEXV) - 0.0178(TIMV) - 0.0001(EXCR) + 0.0636(FDI).$$

The empirical results show that Total Export Value (TEXV) positively and highly significantly influences growth ( $p = 0.0005$ ). Specifically, a 1% increase in export value generates a 0.15% increase in Real Gross Domestic Product. This finding strongly validates the export-led growth hypothesis, suggesting that international trade remains a primary engine for domestic economic expansion.

Similarly, Foreign Direct Investment (FDI) shows a positive, statistically significant impact ( $p = 0.0188$ ). A unit increase in FDI inflows leads to a 0.06% rise in RGDP. This underscores the critical role of external capital and technology transfer in bolstering long-term economic performance. Conversely, Total Import Value (TIMV) and the Exchange Rate (EXCR) exhibit negative coefficients, suggesting that rising import costs and currency fluctuations may act as a drag on growth. However, since their probability values exceed the 0.05 threshold, these variables are not statistically significant in this specific long-run estimation. Overall, the model confirms that exports and foreign investment are significant long-term drivers of the economy.

### Short-run Error Correction Mechanism (ECM)

The short-run Error Correction Model (ECM) bridges the gap between short-term fluctuations and the long-run equilibrium, identifying the velocity at which the system stabilizes following an external shock. A critical component of this regression is the Error Correction Term (ECT), denoted as Coint Eq (-1). The estimation results show that the ECT coefficient is -0.3847, which is statistically significant at the 1% level ( $p = 0.0000$ ). The negative signs and high significance of this parameter are theoretically consistent and satisfy the necessary conditions for a stable, convergent return to long-run equilibrium.

In terms of the speed of adjustment, the magnitude of -0.3847 indicates that approximately 38.48% of any disequilibrium or deviation from the long-run steady state in the previous period is corrected within the current year. This suggests a moderate pace of recovery, where the economy gradually re-aligns with its fundamental growth path. Regarding short-run impacts, the dynamics of trade reveal a complex relationship. While Total Export Value (LN\_TEXV) is a positive driver in the long run, its second and third lags (D(LN\_TEXV (-2)) and D(LN\_TEXV (-3))) exhibit negative, significant coefficients in the short run. This discrepancy implies that trade shocks or sudden shifts in export volume may cause immediate structural disruptions or adjustment costs. However, these temporary negative effects are eventually superseded by the positive benefits of international trade as the long-term equilibrium is restored.

### Discussions

#### The Impact of Total Export Values on the Nigerian Real Gross Domestic Product

The empirical results from the ARDL long-run estimation reveal that Total Export Value (LN\_TEXV) positively and highly significantly influences the Nigerian Real Gross Domestic Product (RGDP), with a coefficient of 0.1522 and a p-value of 0.0005. This finding implies that a 1% increase in export value results in a 0.15% expansion of the Nigerian economy. This result strongly validates the Export-Led Growth (ELG) Hypothesis, which posits that export expansion is a key determinant of economic growth. By increasing exports, a nation can achieve economies of scale, encourage technological innovation, and alleviate foreign exchange constraints. In the Nigerian context, this positive relationship reflects the critical role that crude oil and, increasingly, non-oil exports play in generating the revenue necessary for public infrastructure and industrial development. This finding aligns with the work of Nwankwo et al. (2024), who argued that exports are a major engine of growth in Nigeria, provided the economy diversifies. It also resonates with the cross-country analysis of Giles and Williams (2000), who emphasized that exports enhance total factor productivity. However, the short-run results showed negative impacts in the second and third lags. This "disruptive" short-term effect is consistent with the findings of Fagbola et al. (2020), who noted that over-reliance on volatile primary commodity exports can create short-term shocks before long-term equilibrium is restored. The significance of this finding underscores the need to sustain the Export Expansion Grant (EEG) and other incentives to buffer these short-term shocks.

#### The Impact of Total Import Values on the Nigerian Real Gross Domestic Product

The analysis regarding Total Import Value (LN\_TIMV) showed a coefficient of -0.0178 with a p-value of 0.1730. Consequently, the study failed to reject the null hypothesis, concluding that total imports have no statistically significant impact on Nigeria's RGDP in the long run. The negative coefficient, though insignificant, suggests that imports may act as a drain on domestic output, particularly when they consist of consumer goods that compete with local industries. In economic theory, the Keynesian national income identity treats imports as a "leakage" from the circular flow of income. In Nigeria, the high propensity to import refined petroleum products and food items often puts pressure on the national reserves without directly contributing to industrial value addition. This lack of significance mirrors Bakare's (2011) findings, which observed that the composition of imports matters more than their volume. When imports are dominated by raw materials and capital machinery, the impact is usually positive; however, when dominated by consumables, the impact becomes negligible or negative. This result contrasts with Basu and Guariglia (2007), who found that imports of technology-intensive goods drive growth in developing nations. For Nigeria, the insignificance of imports in this model suggests that the current import structure does not effectively complement domestic production processes to a degree that significantly influences long-term growth trends.

#### The Impact of Exchange Rate on the Nigerian Real Gross Domestic Product

The exchange rate (EXCR) had a coefficient of -5.68 and a p-value of 0.6865. This result indicates that the exchange rate has no statistically significant impact on the Nigerian RGDP within the period and model parameters studied. This finding is particularly interesting given the high level of public and academic discourse regarding "Naira's value." The statistical insignificance suggests that while exchange rate fluctuations cause significant price instability (inflation), they may not be the primary structural driver of long-term real output growth. This could be due to the "J-Curve" effect, where the benefits of currency devaluation (lowering export prices) are not realized because Nigeria's export base is largely inelastic (crude

oil is priced in Dollars, not Naira). This result is consistent with the study by Illo et al. (2025), who found that exchange rate volatility in Nigeria often leads to uncertainty but does not consistently dictate the direction of RGDP growth. It also supports Alabi's (2019) view that, without a strong manufacturing base, the exchange rate remains a nominal variable with limited impact on real production. However, it contradicts the findings of Adeleke et al. (2014), who reported a significant relationship, likely due to differences in model specifications or timeframes. For the current study, the result implies that structural factors—such as power supply and infrastructure—may be more critical to RGDP than the nominal exchange rate.

#### **The Impact of Foreign Direct Investment (FDI) on the Nigerian Real Gross Domestic Product**

The fourth hypothesis test revealed that Foreign Direct Investment (FDI) has a positive and significant impact on RGDP, with a coefficient of 0.0636 and a p-value of 0.0188. This confirms that FDI is a productive catalyst for economic expansion in Nigeria. The positive significance of FDI supports the Endogenous Growth Theory, which holds that FDI facilitates the transfer of technology, managerial expertise, and capital, thereby enhancing the host country's productive capacity. In Nigeria, FDI in the telecommunications and banking sectors has historically revolutionized service delivery and contributed significantly to non-oil GDP growth. This finding aligns with Adeleke (2014), who found that FDI significantly complements domestic investment in Nigeria. It also aligns with the global perspective of Borensztein et al. (1998), who noted that FDI is an important vehicle for technology transfer, contributing relatively more to growth than domestic investment. The result underscores the importance of the Nigerian Investment Promotion Commission (NIPC)'s efforts to create a "one-stop shop" for investors. By providing a stable environment for external capital, Nigeria can leverage the 0.06% growth dividend identified in this study to sustain broader economic development.

#### **CONCLUSION**

The study examined the impact of international trade on the Nigerian economy and reviewed the literature on international trade and the Nigerian economy through a conceptual framework and theoretical and empirical reviews of related literature, with past studies yielding mixed results/findings. The present study used the Augmented Dickey-Fuller (ADF) unit root test to assess the stationarity of the time series data. The findings from the study revealed that the variables were of mixed order, at level  $I(0)$  and first difference  $I(1)$ ; hence, the presence of a mixture of  $I(0)$  and  $I(1)$  variables suggests that an Autoregressive Distributed Lag (ARDL) framework was appropriate for the study.

The empirical results from the ARDL long-run estimation revealed that total Export Value had a positive and highly significant impact on the Nigerian Real Gross Domestic Product. While Total Import Value had no statistically significant impact on the Nigerian Real Gross Domestic Product. It was also found that the exchange rate had no statistically significant impact on the Nigerian Real Gross Domestic Product, whereas Foreign Direct Investment had a positive and significant impact. The study, therefore, concludes that international trade has impacted and contributes significantly to the Nigerian economy, in line with the study by Azubuike et al. (2025). In light of the above, the study made the following recommendations to guide policy and advance international business:

- The government should encourage domestic/local producers through financial and other incentives. This includes reducing or waiving taxes for agribusiness industries for a certain period to boost their cash flow, provide reliable electricity, a stable water supply, and good roads, to enable them to produce quality products of international standard, thereby enabling them to export more goods at lower cost, as this will in turn contribute positively to the Nigerian economy.
- The government should increase tariffs on non-essential goods entering the country, such as imposing higher taxes on luxury goods, making importation more expensive, and promoting "Made in Nigeria" goods campaigns, encouraging Nigerians to buy local products, hence supporting local industries. These policies will discourage importers of foreign products from using Nigeria as a dumping ground for foreign goods. Also, a total ban on products in which Nigeria has a comparative advantage, such as cocoa, will encourage local producers to produce more, thereby positively impacting the Nigerian economy.
- The Central Bank of Nigeria should ensure proper compliance and strict control of the flexible exchange rate regime in Nigeria. Stable monetary policy will aid planning and enhance the overall stability of local firms' operations.
- The Nigerian government should strengthen institutions by improving contract enforcement, protecting property rights, and reducing bureaucratic bottlenecks, as weak institutions can raise the cost of doing business and discourage long-term foreign direct investment.

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