# ANALYSIS OF INTERNATIONAL TRADE VALUES AND THE PERFORMANCE OF THE NIGERIA ECONOMIC GROWTH

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## ABSTRACT

*This study investigates the analysis of international trade values and the performance of Nigeria's economy using time series data from 1988 to 2023. The ARDL error correction model was used to estimate the effect of trade indicators (import values, export values, trade openness, and exchange rate) against real gross domestic product (RGDP), using the Eviews Statistical Package. The findings indicated that international trade has a substantial outcome on Nigeria's economy. However, the specific impacts of trade indicators differ: import value has a negative and inconsequential outcome on RGDP, while export value positively and substantially influence economic growth. Surprisingly, trade openness has a negative and inconsequential impact, and the exchange rate does not significantly influence economic growth. Recommendations include strategic import management, diversification of export sectors, careful assessment of trade openness policies, and measures to stabilize the exchange rate to foster sustainable economic growth.*

**KEYWORD:** *International Trade, Export values, Import values, Trade Openness, RGDP*

## 1.0 INTRODUCTION
### 1.1 Background to the Study
The performance of an economy as explained by Todaro (2020) is a fundamental aspect of economic development and is a desired goal for every economy. The benefits of growth are reflected in various development indicators that contribute to the overall progress of an economy. In present globalized society, it is substantial for nations to establish alliances with one another, and international trade serves as a cohesive mechanism for fostering relationships between countries, regardless of their degree of economic advancement. Through international trade, nations can engage in the exchange of goods and services, promoting cooperation and mutual benefits among participating countries.

International trade is a pivotal determinant in shaping the advancement and progress of global economies, providing nations with the prospect to broaden their market reach, avail a diverse array of goods and services, and partake in the worldwide division of labor (Smith, 1776). For emerging economies such as Nigeria, international trade can wield substantial influence on economic advancement, job creation, alleviation of poverty, and overall socioeconomic development (Krugman, Obstfeld, & Melitz, 2014).

Being the largest economy in Africa, Nigeria has encountered a multitude of trials and opportunities in its involvement with international trade. Historically, the Nigerian economy heavily relied on revenue from oil exports, rendering it vulnerable to fluctuations in the global oil market (OPEC, 2020). This over-dependence on oil exports not only impeded economic diversification but also left the economy vulnerable to external economic shocks (United Nations Development Programme, 2021). Recognizing the necessity for diversification and sustainable economic growth, the Nigerian government has taken proactive measures to augment international trade and harness its prospective advantages (World Bank, 2019).

The influence of foreign trade on the growth trajectory of the Nigeria economic expansion stands as a topic of substantial significance and interest. It prompts inquiries into how trade openness, export incentivization, import liberalization, and integration into global value chains contribute to economic expansion, industrial development,

and structural transformation (Rodrik, 2018). Grasping these intricate dynamics can provide valuable insights for policymaking, enabling the formulation of strategies that capitalize on the advantages of international trade while effectively addressing potential challenges (Koopman, Wang, & Wei, 2008).

### 1.2 Statement of the Research Problem
Several research have explored the interplay between foreign trade and Nigeria's economic expansion. For example, Okafor and Mordi (2016) explored the outcome of trade openness on economic advancement, finding a positive link between the two variables. Similarly, Adeleke and Olokoyo (2016) analyzed how trade between nations affect the economy, highlighting the significance of export diversification and import substitution policies. While some research have sowed an affirmative effects of foreign trade on the Nigerian economy, others have highlighted potential challenges and limitations. For instance, Alaba and Ogujiuba (2017) emphasized the need for appropriate trade policies, infrastructure development, and institutional reforms to maximize the benefits of trade. Adeyemi (2018) discussed the challenges faced by Nigerian exporters, such as limited access to finance, high transportation costs, and non-tariff barriers.

Given the evolving nature of the global trading system, it is essential to examine the current state of transnational trade in Nigeria and its impact on the economy. This research attempts to add to the body of current research by offering a comprehensive analysis of the interplay among transnational trade and the progress of the Nigeria's economy.

### 1.3 Objectives of the Study
The overall aim of the research is anchored on investigating the analysis of international trade values and the performance of Nigeria's economic growth. The specific objectives are:
1. To examine the impact of Import Value on the Real Gross Domestic in Nigeria.
2. To examine the impact of Export Value on the Real Gross Domestic in Nigeria.
3. To analyze the impact of Trade Openness t on the Real Gross Domestic in Nigeria.
4. To investigate the impact of Exchange rate on the Real Gross Domestic in Nigeria.

### 1.4 Research Hypotheses
For the purpose of this research work, three hypotheses are proposed
.          $H_{01}$: Import Value has no significant impact on the Real Gross Domestic in Nigeria.
      $H_{02}$:          Export Value has no significant impact on the Real Gross Domestic in Nigeria.
      $H_{03}$:          Trade Openness has no significant impact on the Real Gross Domestic in Nigeria.
      $H_{04}$:          Exchange has no significant impact on the Real Gross Domestic in Nigeria.

## 2.0 LITERATURE REVIEW
### 2.1 Conceptual Review:
International trade, colloquially referred to as the intercontinental interchange of commodities and services, encompasses the intricate process of reciprocal transactions conducted among sovereign nations across the globe. It is imperative that a minimum of two nations engage in the pursuit of commercial endeavours, specifically encompassing the collective array of activities pertaining to the trading of products and services amongst merchants situated across national boundaries. Traders partake in economic endeavours with the objective of optimising their profits, which arise from disparities within the international economic landscapes of various nations (Adedeji, 2016). The field of foreign or foreign trade pertains to the scholarly examination of the underlying factors and subsequent outcomes associated with the global interchange of commodities and services, as well as the transnational mobility of production factors. Foreign trade refers to the intricate process of enabling the exchange of products across the boundaries that separate nations, thereby fostering economic interdependence and global integration.

### a)          Variables for Measuring International Trade
Several variables are commonly used to measure and analyze international trade. These variables provide insights into the volume, value, and direction of trade flows between nations. The following are key variables for measuring international trade:

**b)      Import Trade/Value**

Import value pertains to the totality of monetary value of products that Nigeria purchases from foreign countries within a specific time period. It serves as an important indicator of the volume and value of products imported into the Nigerian market.

Nigeria, as a country heavily reliant on imports, has experienced significant fluctuations in import value over the years. For instance, between 2010 and 2020, Nigeria's import value witnessed both growth and decline due to various factors such as changes in government policies, global economic conditions, and domestic demand dynamics.

As per facts from the National Bureau of Statistics (NBS) of Nigeria, in 2010, the total value of imports into Nigeria amounted to $49.4 billion (NBS, 2010). This figure increased steadily over the following years, reaching a peak of $70.2 billion in 2014 (NBS, 2014). However, with the decline in global oil prices and subsequent economic challenges, Nigeria experienced a contraction in import value. In 2020, the import value stood at $34.9 billion (NBS, 2020).

**c)      Export Trade/Value**

Export value refers to the total monetary value of products that Nigeria sells to foreign countries within an exact period. It is a crucial pointer of the size and worth of products exported from Nigeria to international markets.

Nigeria, as a resource-rich country, relies significantly on its exports to generate foreign exchange earnings and support its economy. Over the years, Nigeria's export value has been influenced by various factors such as global commodity prices, government policies, exchange rate dynamics, and international demand for Nigerian products. As per data from (NBS) of Nigeria, the export value of Nigeria's goods and services has shown fluctuations over time. For example, in 2010, the total value of exports from Nigeria amounted to $77.9 billion (NBS, 2010). This figure increased gradually in the subsequent years, reaching a peak of $97.8 billion in 2012 (NBS, 2012). However, due to factors such as fluctuations in global oil prices and economic challenges, Nigeria experienced a decline in export value. In 2020, the export value stood at $34.6 billion (NBS, 2020).

**d)      Trade Openness**

Trade openness pertains to the extent to which a nation actively participates in global trade endeavours, facilitating the movement of commodities, services, and capital across its territorial boundaries. It is an essential indicator of a country's incorporation into the global economy and its willingness to participate in international trade.

Nigeria's trade openness has shown fluctuations over time. According to data from the World Bank, Nigeria's trade-to-GDP ratio, which is a common measure of trade openness, stood at 25.9% in 2010 (World Bank, 2010). It increased gradually, reaching a peak of 45.5% in 2014 (World Bank, 2014). However, in subsequent years, the trade openness ratio declined due to factors such as fluctuations in global commodity prices, economic challenges, and changes in trade policies. In 2020, the trade-to-GDP ratio for Nigeria was 19.3% (World Bank, 2020).

**e)      Exchange Rate**

The exchange rate is a crucial element in international trade as it determines the relative value of one currency in relation to another, impacting the cost and competitiveness of products in international markets. In Nigeria, the exchange rate has a significant part in shaping the nation's trade dynamics and influencing the volume and value of imports and exports.

When the exchange rate depreciates, meaning that the worth of the domestic currency decreases relative to foreign currencies, it can enhance the competitiveness of Nigerian exports. The devaluation of the naira engenders a scenario wherein Nigerian products exhibit a relatively diminished price point for international purchasers, thereby potentially stimulating an upsurge in demand and augmenting export revenues (Egwaikhide & Oriakhi, 2020). On the other hand, an appreciated exchange rate can make imports relatively cheaper, impacting domestic industries that compete with foreign goods.

**f)      Economic Performance**

Economic performance pertains to the enduring augmentation in a nation's output of commodities and amenities within a designated timeframe. The rate of growth of (RGDP) is usually used as a measure of evaluation. GDP is

a number that shows how the total worth of all the real gross domestic product produced within a nation's borders has changed over time, taking inflation into account (Mankiw, Romer, & Weil, 1992).

**g)      Economic Growth Proxy**
Economic growth proxy variables are alternative indicators or measures that are used to approximate or represent the level and level of economic growth in the absence of direct GDP data. These proxy variables capture various aspects of economic activity and provide insights into the overall health and performance of an economy. Some commonly used economic growth proxy variables include:

**h)      Real Gross Domestic Product**
Real gross domestic product serves as a pivotal economic metric, quantifying the worth of all ultimate products generated within the confines of a country's territorial boundaries. Meticulously adjusting this measurement accounts for the impact of inflation, ensuring a more accurate representation of economic activity (Mankiw, Romer, & Weil, 1992). It serves as a measure of economic activity and is widely used to assess the overall health and performance of an economy.

Real GDP in Nigeria reflects the nation's aggregate output of products, encompassing various sectors such as agriculture, manufacturing, services, and oil production. It is an essential measure for monitoring changes in economic growth over time and comparing the country's performance with other economies.

**2.2 Theoretical Review**
**There have been several theories on the**
**a) Dependency Theory:**
Dependency Theory is a critical perspective in the field of economic development, asserting that the progress of less developed countries is hindered by their dependency on developed nations for imports. This theory, which gained prominence in the mid-20th century, was advanced by economists Raul Prebisch (1950) and Hans Singer (1950).

Dependency Theory posits that the international economic system perpetuates an unequal relationship between developed and less developed countries. It contends that the economic development of the latter is impeded by a structural reliance on the former for crucial imports. The theory challenges the assumption that economic globalization and interdependence lead to mutual benefits, arguing instead that the asymmetry in power dynamics among developed and emerging nations results in the exploitation and underdevelopment of the latter.

**b) Export-Led Growth Theory**
Export-Led Growth Theory, credited to Sir Arthur Lewis and Hollis B. Chenery, posits that a nation's economic growth can be driven by an increase in exports. This mid-20th-century theory challenges the notion that internal factors alone suffice for economic development, emphasizing the importance of international trade dynamics. By strategically promoting exports, countries can stimulate production, employment, and overall economic prosperity.

The theory suggests that leveraging comparative advantages can enhance a nation's global market share, leading to increased export revenues. This, in turn, fuels domestic economic activities, creating a positive cycle of growth. Export-Led Growth Theory contends that successful export-oriented policies can drive higher income levels and increased domestic demand.

Proponents, Lewis (1954) and Chenery (1952) argue that exposure to international markets encourages technological advancements and efficiency improvements, further contributing to a nation's economic development. While recognizing the significance of domestic factors, the theory underscores the additional growth avenues provided by global economic integration.

Thus, the Export-Led Growth Theory provides a nuanced understanding of the role exports play in shaping a nation's economic growth. Rooted in the seminal contributions of Lewis (1954) and Chenery (1952), this theory enriches academic discourse and offers valuable insights for policymakers aiming to formulate strategies for sustainable economic development through international trade.

**c) Import Substitution Industrialization (ISI) theory**

Import Substitution Industrialization (ISI) theory, proposed by Raúl Prebisch in 1959, advocates for protecting domestic industries from foreign competition, emphasizing the development of domestic industries over reliance on imports (Prebisch, 1959). The theory suggests that developing nations should use trade barriers and interventionist measures to reduce dependence on imported goods, fostering a self-sufficient and robust industrial base for sustained economic growth.

Prebisch argued that ISI could reduce vulnerability to global market fluctuations, especially for countries heavily reliant on primary commodity exports (Prebisch, 1959). This vulnerability was outlined in his Dependency Theory, which highlighted the adverse effects of exporting primary commodities on terms of trade for developing countries.

While ISI policies were initially successful in promoting industrialization and economic growth, criticism arose over time. Critics contended that ISI could lead to inefficiencies, hinder competitiveness, and stifle innovation in the long run. The impact of ISI varied across countries, with some experiencing success while others faced challenges and eventually shifted to more open economic policies.

**d) Exchange Rate Pass-Through (ERPT) theory**

Exchange Rate Pass-Through (ERPT) theory, presented by Paul Krugman in 1986, posits that changes in exchange rates can influence domestic prices, impacting economic output (Krugman, 1986). This theory explores how shifts in exchange rates lead to adjustments in domestic prices, emphasizing the notion of exchange rate pass-through, where variations in exchange rates are reflected in changes in domestic prices. The extent of this pass-through varies based on factors such as market structure and demand elasticity.

Krugman's work highlights the potential implications of exchange rate movements on inflation, monetary policy, and overall economic performance. While ERPT theory provides valuable insights, its application and findings depend on specific economic contexts and structural factors.

**2.3 Empirical Review**

Researchers have conducted numerous empirical investigations to provide strong evidence on the multifaceted interplay among cross-border trade and its impact on the economy. The extant literature pertaining to the Nigerian economy has predominantly undergone critical examination and analysis.

Yusuf, Osuji, and Udeorah (2020) conducted a scholarly inquiry that explored the intricate interplay among transnational trade and the growth of Nigeria' economy. Specifically, their study centred on the profound effects of foreign direct investment inflow, net export, and foreign exchange rate on the nation's economic trajectory. By employing the method of Dynamic Ordinary Least Square and utilising data gotten from the esteemed Central Bank of Nigeria bulletin spanning the years 1980 to 2018, the study has discerned that all the explanatory variables, with the exception of the exchange rate, exhibit a positive correlation with the phenomenon of economic growth. Furthermore, it is worth noting that all variables exhibited statistical significance, with the exception of net export. The Durbin Watson- stat. 1.81 implies no serial correlation, indicating the model's suitability for policy implementation. The paper recommended maintaining a market-driven exchange rate policy to influences domestic production and international competitiveness, fostering economic growth. Moreover, efficient macroeconomic policies were suggested to create a secure business environment, attracting foreign investment and further enhancing Nigeria's economic growth.

Elias, Agu, and Eze (2018) assessed the outcome of external trade on progress of Nigeria's economy, specifically focusing on the effects of export and import trade. Utilizing multiple regression analysis and data from the 2012 edition of the CBN bulletin spanning 1980 to 2012, the research uncovered a substantial positive outcome of export trade on Nigeria's economy. Conversely, there was no substantial outcome of import trade on the economy of the nation. The researchers recommended that the government should actively fine-tune macroeconomic variables to foster an environment conducive to stimulating foreign trade, with an emphasis on promoting export activities and curbing import trade to mitigate negative economic effects. Additionally, they suggested measures to combat underground economic activities and encouraged diversification of exports, particularly emphasizing non-oil sector exports to reduce dependence on oil-related exports.

Babajide and Emmanuel (2022) conducted a scholarly inquiry into the intricate dynamics among external trade and the economic growth of Nigeria. Their study placed particular emphasis on the empirical evidence pertaining to trade costs, aiming to discern the consequential effects on the nation's economic landscape. Employing the conventional method of ordinary least squares and utilising a dataset encompassing the temporal range from 1960 to 2021, the research focused on examining the outcome of trade costs on the advancement of the economy. Various analyses were undertaken, encompassing ADF tests, error correction models, Granger causality tests, and fully modified ordinary least squares (FMOLS) tests. The findings derived from the FMOLS analysis have revealed a noteworthy and discernible inverse relationship among the consumer price index and inflation consumer prices with respect to the GDP. This outcome suggests a detrimental influence of trade costs on the sustained and protracted economic advancement of Nigeria. In the short run, only CPI had a favourable outcome on GDP, while ICP showed a negative outcome, though statistically insignificant. The study recommends strengthening government monetary policy for price stability in response to these findings.

Emehelu (2021) empirically investigated the outcome of international trade on Nigeria's economy (1981-2018) using OLS. The study identified key challenges, including a limited export base and high trade barriers. It focused on understanding the effects of exchange rates, trade policy changes, and liberalization on economic growth. To address objectives, five research questions and hypotheses were formulated. The literature review covered the theory of comparative cost and the Factor Endowment theory. Using secondary data, the study regressed policy changes, exchange rates, and liberalization against Nigeria's GDP. Econometric tests confirmed variable integration and revealed no long-run equilibrium. Findings indicated a negative and insignificant interplay between exchange rates and economic expansion. Various trade policies were found to negatively impact GDP growth significantly. The study recommends promoting local production and discouraging certain imports to enhance trade's desired impact on Nigeria's economy.

## 3.0 METHODOLOGY
### 3.1 Introduction
This section encompasses the comprehensive research methodology, encompassing aspects such as research design, data sources, the approach to analysis, and the specification of the model.

### 3.2 Research Design
As it deals with events that have already happened and secondary data are easily accessible for gathering, this study used an ex-post facto research approach. Real Gross Domestic Product in Nigeria was adopted as the dependent variable, while import value (IMPTV), export value (EXPTV), trade openness (TROP), and exchange rate (EXCHR) was used as the independent variables.

### 3.3 Sources of Data
The study drew its data from the 2023 Bulletin of the Central Bank of Nigeria (CBN), utilizing a time series that covers the period from 1988 to 2023.

### 3.4 Method of Data Analysis
In the analysis of the data, which was derived from the annualized time-series spanning the extensive sample period of 1988 to 2023, measures were taken to ensure the integrity of the dataset against unit root impairment. To ascertain the stationarity of the series, the Augmented Dickey-Fuller test was used. Additionally, assessments of long-run and short-run relationships were conducted using co-integration analysis and the error correction model (ECM) was adopted for the analysis of data.

### 3.5 Model Specification
Economic model stand as a depiction of core features within an economic phenomenon, abstracted from the complexities of the real world (Fonta, Ichoku & Anumundu, 2003). The formulation of the model is contingent upon the pertinent information available for the specific study. The model is delineated as follows:

$$RGDP = f(IMPV, EXPV, TROP, EXRT) \tag{1}$$

Expressed as a linear regression equation derived from the aforementioned functional relationship:

$$RGDP_t = b_0 + b_1 IMPV_t + b_2 EXPV_t + b_3 TROP_t + b_4 EXRT_t + u \tag{2}$$

Where:
- RGDP = Real Gross Domestic Product
- IMPV = Import Value
- EXPV = Export Value
- TROP = Trade Openness
- EXRT = Exchange Rate
- t = Time period
- µ = Error Term

**Apriori Expectations**
1. **Import Value (IMPV):** A positive coefficient ($b_1$) is expected, indicating that a rise in import value is linked with a corresponding rise in Real Gross Domestic Product (RGDP).
2. **Export Value (EXPV):** A positive coefficient ($b_2$) is anticipated, signifying that a rise in export value is linked to an increase in RGDP.
3. **Trade Openness (TROP):** The coefficient ($b_3$) is expected to be favourable, suggesting that greater trade openness corresponds to a higher RGDP.
4. **Exchange Rate (EXRT):** The anticipated coefficient ($b_4$) is expected to reflect the interplay among the exchange rate and RGDP, providing insights into how changes in the exchange rate influence Real Gross Domestic Product.

## 4.0 DATA ANALYSIS AND DISCUSSION

**Table 4.1: Descriptive Statistics**

|  | LnRGDP | LnIMPV | LnEXPV | LnTROP | LnEXRT |
|---|---|---|---|---|---|
| Mean | 10.53938 | 14.38923 | 14.74832 | 3.529276 | 4.327145 |
| Median | 10.53439 | 14.69672 | 15.56910 | 3.562442 | 4.846032 |
| Maximum | 11.20344 | 16.92433 | 16.80676 | 3.975523 | 5.991374 |
| Minimum | 9.853808 | 9.973279 | 10.34794 | 2.794362 | 1.512207 |
| Std. Dev. | 0.490826 | 1.986687 | 1.896986 | 0.303931 | 1.261338 |
| Skewness | 0.069550 | -0.688762 | -0.796812 | -0.807514 | -0.718300 |
| Kurtosis | 1.374582 | 2.450253 | 2.427224 | 3.063302 | 2.262450 |
| Jarque-Bera | 3.770220 | 3.116376 | 4.062589 | 3.700791 | 3.694383 |
| Probability | 0.151812 | 0.210517 | 0.131166 | 0.157175 | 0.157679 |
| Sum | 358.3389 | 489.2338 | 501.4429 | 119.9954 | 147.1229 |
| Sum Sq. Dev. | 7.950022 | 130.2486 | 118.7523 | 3.048335 | 52.50211 |
| **Observations** | **36** | **36** | **36** | **36** | **36** |

Source: Eview 10

The dataset contains five variables: LnRGDP (Natural Log of RGDP), LnIMPV (Natural Log of Imports Value), LnEXPV (Natural Log of Exports Value), LnTROP (Natural Log of TROP), and LnEXRT (Natural Log of Exchange Rate). For LnRGDP, the average value is approximately 10.54, ranging from about 9.85 to 11.20, with a median of approximately 10.53. In the case of LnIMPV, the mean is approximately 14.39, with values ranging from about 9.97 to 16.92, and the median is around 14.70. As for LnEXPV, the mean is approximately 14.75, with values ranging from about 10.35 to 16.81, and the median is about 15.57. In the case of LnTROP, the mean value is approximately 3.53, ranging from about 2.79 to 3.98, and the median is about 3.56. Finally, for LnEXRT, the mean is approximately 4.33, with values ranging from about 1.51 to 5.99, and the median is approximately 4.85. These descriptive statistics provide valuable insights into the central tendency, spread, and range of each variable, allowing for a comprehensive understanding of the dataset.

## 4.1 RESULT OF DATA ANALYSIS
### a) Stationarity Tests

We conducted the unit root test using the ADF-test. When subjecting a time series that lacks stationarity to regression analysis with another time series, the outcome invariably appears spurious in nature. There isn't a real linear association among a dependent variable and one or more independent variables, even though there are high R-squared or adjusted R-squared values and a small number of statistically significant t-ratios. This is called a

spurious regression. In order to mitigate the possibility of the regression estimate being incorrect or spurious in nature, we undertake the application of the ADF unit root test.

**Table 4.3:Augmented Dickey-Fuller Unit Root Result**

| Variables | Unit Root Test @Levels | | | Unit Root Test @1st Difference | | | Order of Integration |
|---|---|---|---|---|---|---|---|
| | Trend and Intercept | | | Trend and Intercept | | | |
| | t-stat | Critical Value | Prob. | t-stat | Critical Value | Prob. | |
| LnRGDP | -3.147 | -3.5742 | 0.1148 | -3.564 | -3.5577 | 0.0525 | I(1) |
| LnIMPV | -2.4648 | -3.55297 | 0.3421 | -8.2384 | -3.5577 | 0.0000 | I(1) |
| LnEXPV | -2.1753 | -3.55297 | 0.4870 | -4.9313 | -3.5683 | 0.0022 | I(1) |
| LnTROP | -4.1601 | -3.55297 | 0.0128 | - | - | - | 1(0) |
| LnEXRT | -2.3413 | -3.55297 | 0.4016 | -5.5951 | -3.5577 | 0.0004 | I(1) |

*Source: Author Computation from E-view output, 2023*

The results obtained in our ADF unit root test, shows that Trade Openness (LnTROP) was stationary at level, in the order of I(0); whereas, the remaining variables; Real Gross Domestic Product (LnRGDP), Import Value (LnIMPV), Export Value (LnEXPV) and Exchange Rate (LnEXRT) were stationary at first difference, in the order of I(1), at 5 percent level of significance. Thus, we proceed to running the co-integration test, using the ARDL Bound Testing method.

**Table 4.4 ARDL Bound Test**

| F-Bounds Test | | Null Hypothesis: No levels relationship | | |
|---|---|---|---|---|
| Test Statistic | Value | Signif. | I(0) | I(1) |
| F-statistic | 10.77977 | 10% | 2.2 | 3.09 |
| K | 4 | 5% | 2.56 | 3.49 |
| | | 2.5% | 2.88 | 3.87 |
| | | 1% | 3.29 | 4.37 |

*Source: Eview 9*

The calculated value of the test statistic is 10.77977, surpassing the critical values for all levels of significance. Henceforth, it is within our purview to dismiss the null hypothesis and deduce that there exists substantiation of a protracted association among the variables. Henceforth, we shall proceed with the implementation of the ARDL error correction model.

**Table 4.5: Estimated ARDL short run Correction Model Results**
Dependent Variable: D(LNRGDP)

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | -0.005091 | 0.015963 | -0.318915 | 0.7524 |
| D(LNRGDP(-1)) | 1.120034 | 0.292778 | 3.825543 | 0.0008 |
| D(LNIMPV) | -0.040050 | 0.024632 | -1.625964 | 0.1165 |
| D(LNEXPV) | 0.054415 | 0.022872 | 2.379081 | 0.0253 |
| D(LNTROP) | -0.006503 | 0.028716 | -0.226461 | 0.8227 |
| D(LNEXRT) | -0.012916 | 0.024431 | -0.528675 | 0.6017 |
| ECM(-1) | -0.950439 | 0.363120 | -2.617420 | 0.0148 |
| R-squared | 0.457835 | Mean dependent var | | 0.041582 |
| Adjusted R-squared | 0.327716 | S.D. dependent var | | 0.038629 |
| S.E. of regression | 0.031673 | Akaike info criterion | | -3.876078 |
| Sum squared resid | 0.025079 | Schwarz criterion | | -3.555448 |
| Log likelihood | 69.01725 | Hannan-Quinn criter. | | -3.769798 |
| F-statistic | 3.518574 | Durbin-Watson stat | | 1.816577 |
| Prob(F-statistic) | 0.011593 | | | |

*Source: E-view 10.*

The result above shows that import value, trade openness and exchange rate all have unfavourable relationship with the RGDP in Nigeria, with coefficients of -0.040050, -0.006503, and -0.012916, respectively. Whereas, export value has a favourable relationship with the RGDP in Nigeria, with a coefficient value of 0.054415.

### 4.1.5 Result of Diagnostic and Model Stability Test

**Table 4.6: Breusch-Godfrey Serial Correlation LM Test**

| | | | |
|---|---|---|---|
| F-statistic | 0.095719 | Prob. F(2,23) | 0.9091 |
| Obs*R-squared | 0.264150 | Prob. Chi-Square(2) | 0.8763 |

**Table 4.7: Heteroskedasticity Test: Breusch-Pagan-Godfrey**

| | | | |
|---|---|---|---|
| F-statistic | 0.238762 | Prob. F(6,25) | 0.9594 |
| Obs*R-squared | 1.734313 | Prob. Chi-Square(6) | 0.9424 |
| Scaled explained SS | 2.024048 | Prob. Chi-Square(6) | 0.9175 |

**Source: Eview 10**

The result from both tables shows a F-statistic of 0.095719 and 0.238762, with an associated p-values of 0.9091 and 0.9594, which are all above 5% (0.05) level of significance. Based on the given output, there is no evidence of serial correlation and Heteroskedasticity in the errors of the regression model.
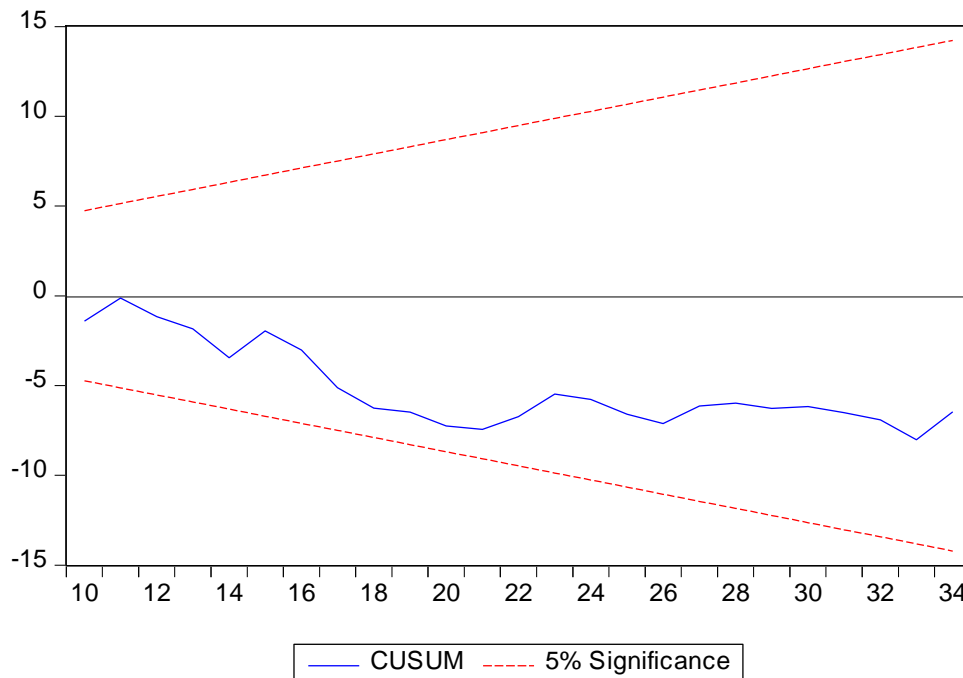


**Figure 1: Stability test (CUSUM Residual Test)**

The Cumulative Sum of Recursive Residuals (CUSUM), as depicted in Figure 1, demonstrates that the model's parameters exhibit a noteworthy degree of stability throughout the duration of the study. These findings substantiate the accuracy of the designated model, as the summation of values remains confined within the region delineated by the two critical boundaries. The observation substantiates that the designated model accurately specifies the suitable variables.

### b) Hypotheses Testing

The E-view highlighted the result that is significant with the output indicating significant at 5% level. Accept the alternate hypothesis if $p$-value $\leq 0.05$. Otherwise, reject.
The hypotheses formulated in chapter 1 are tested below;

**Hypothesis One**
**$H_{01}$: Import Value has no significant impact on the Real Gross Domestic in Nigeria.**

From the table, it can be seen that Import Value has a t-stat value of -1.625964 and a probability value of $0.1165>0.05$ level of significance. Henceforth, it can be inferred that a deleterious and inconsequential correlation prevails between the reliant and autonomous variables.

**Decision:** From the result we therefore reject the alternate hypothesis and accept the null hypothesis which implies that import value has no substantial outcome on the Real Gross Domestic in Nigeria.

**Hypothesis Two**
**$H_{02}$: Export Value has no significant impact on the Real Gross Domestic in Nigeria.**

From the table, it can be seen that Export Value has a t-stat value of 2.379081 and a probability value of $0.0253<0.05$ level of significance. Hence we can argue that a positive and significant interplay exists among the dependent and independent variables.

**Decision:** Based on the outcome, we can consequently dismiss the null hypothesis. This statement suggests that the Export Value plays a substantial role in influencing the RGDP in Nigeria.

**Hypothesis Three**
**$H_{03}$:Trade Openness has no significant impact on the Real Gross Domestic in Nigeria.**
Looking at the figure from the table, it can be seen that Trade Openness has a t-stat value of -0.226461 and a probability value of $0.8227>0.05$ level of significance. Hence we can argue that a negative and insignificant interplay exists among the dependent and independent variables.

**Decision:** Based on the outcome, we consequently embrace the null hypothesis, thereby suggesting that the degree of trade openness does not exert a noteworthy influence on the RGDP in Nigeria.

**Hypothesis Four**
**$H_{04}$: Exchange rate has no significant impact on the Real Gross Domestic in Nigeria.**
The result from the table indicates a t-stat value of -0.528675; and a p-value of $0.6017>0.05$ level of significance. This is an indication that exchange rate has an unfavourable and inconsequential outcome on the RGD in Nigeria.

## 4.2 DISCUSSION OF FINDINGS
**Import Value (IMPTV):**
The negative coefficient of -0.040050 contradicts the apriori expectation, suggesting that an rise in import value is connected with a decline in Real Gross Domestic Product (RGDP). This finding is noteworthy as it implies that higher import values exert a negative impact on the economic output in Nigeria, potentially indicating sensitivity to imports that may affect domestic production or trade balance. This finding corresponds with the Dependency Theory of Raul Prebisch (1950) and Hans Singer (1950), which holds that, economic growth of the developing nations is impeded by a structural reliance on imports.

**Export Value (EXPTV):**
The positive coefficient of 0.054415 for Export Value aligns with expectations, indicating that a rise in export values corresponds to an increase in RGDP. This finding resonates with export-led growth theories, which propose that a strong export sector contributes positively to overall economic development. The results support the idea that promoting and expanding exports can be a viable strategy for fostering Nigeria's economy.

**Trade Openness (TROP):**
The negative coefficient of -0.006503 for Trade Openness contradicts the anticipated positive relationship, challenging theories that advocate for the benefits of trade openness in driving economic growth. The negative coefficient contradicts the apriori expectation, revealing that a rise in trade openness is linked with a decrease in RGDP. This unexpected finding suggests that a higher degree of trade openness may be linked to challenges or dynamics that negatively impact the overall economic output in Nigeria. This finding is supported by the Import Substitution Industrialization (ISI) theory, proposed by Raúl Prebisch (1959), which suggested that developing

nations should use trade barriers and interventionist measures to reduce dependence on imported goods. They advocated for the reduction of trade openness.

**Exchange Rate (EXCHR):**

The negative coefficient for Exchange Rate supports expectations, indicating that a rise in the exchange rate is linked to a decrease in RGDP. This finding aligns with Exchange Rate Pass-Through (ERPT) theory, presented by Paul Krugman (1986), which posits that changes in exchange rates can influence domestic prices, impacting economic growth. The results underscore the importance of exchange rate policies in shaping the economic landscape, emphasizing the need for a balanced approach to currency management in Nigeria.

**Coefficient of Determination ($R^2$)**

The R-squared value of 0.457835 indicates that the independent variables incorporated in our model are responsible for 46% of the observed fluctuations in economic growth, specifically in RGDP. The remaining 54 percent of unexplained deviations can be ascribed to other elements that are not accounted for in our model and are instead represented by the error term.

The F-ratio statistics, which show a value of 3.518574, along with the probability values of 0.011593, make it very clear that the models being looked at do not have any misspecification errors. The observed results hold great significance at the 5 percent significance level, thereby providing support for the assertion that the model exhibits a satisfactory level of goodness of fit. The findings obtained during the designated period of analysis provide evidence that international trade exerts a substantial influence on the trajectory of economic growth within the Nigerian context.

## 5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

### 5.1 Summary

The study was an investigation into the analysis of international trade values on the performance of the Nigerian economic growth. Using the ARDL model, the study found that collectively, international trade values has a significant effect on the performance of the Nigerian economic growth. Specifically though, the study found that:

1. Import value has an unfavourable and inconsequential outcome on the Real Gross Domestic Product in Nigeria.
2. Export value has a favourable and significant impact on the Real Gross Domestic Product in Nigeria.
3. Trade openness has a negative and insignificant impact on the Real Gross Domestic Product in Nigeria
4. Exchange rate has a negative and insignificant impact on the Real Gross Domestic Product in Nigeria

### 5.2 Conclusion

Analyzing the specific impacts of various trade indicators on RGDP, the study reveals interesting insights. Firstly, import value shows a negative and insignificant effect on Nigeria's RGDP, implying that an increase in imports does not result to significant economic expansion. Secondly, the export value exhibits a favourable and substantial outcome on Nigeria's real GDP. This indicates that a rise in exports positively contributes to the country's economic growth.

Thirdly, the study finds that trade openness, despite being expected to boost economic growth, surprisingly has a negative and insignificant impact on Nigeria's real GDP. This suggests that the level of trade openness in the country may not be significantly driving economic growth. Lastly, the exchange rate demonstrates an unfavourable and inconsequential outcome on Nigeria's real GDP. This suggests that fluctuations in the exchange rate may not be substantially influencing the country's economic growth.

In summary, the results indicate that international trade plays an important part in Nigeria's economy. Emphasizing the significance of export values, the findings suggest that policies promoting exports could have a more substantial positive impact on the country's economic development. Additionally, policymakers should carefully consider trade openness and its potential implications on economic growth. All things considered, this research offers insightful information to stakeholders and policymakers that want to accelerate Nigeria's economic progress through strategic trade policies and interventions. However, it's essential to consider the limitations of the study and conduct further research to gain a comprehensive understanding of the complex relationship between international trade and Nigeria's economic progress.

**5.3 Recommendations**

In light of the findings of this research regarding the outcome of international trade variables on Nigeria's economic progress, the following recommendations can be made:

**1. Import Value**

The study found that import value had an unfavourable and inconsequential outcome on RGDP in Nigeria. To address this issue, policymakers should focus on strategic import management. Implementing targeted import substitution policies can encourage the domestic production of goods that are currently being heavily imported. By supporting local industries and reducing reliance on imports for certain goods, Nigeria can boost economic growth and create job opportunities within the country.

**2. Export Value:**

Given that export value had a favourable and substantial outcome on real GDP in Nigeria, policymakers should prioritize efforts to diversify and expand the country's export sectors. This can involve providing financial incentives, export promotion schemes, and access to international markets for Nigerian exporters. Additionally, investing in research and development to improve the quality and competitiveness of exported goods can help maximize the positive impact of exports on economic growth.

**3. Trade Openness:** Although the study revealed that trade openness had a negative and insignificant impact on real GDP in Nigeria, it's essential to carefully assess the reasons behind this finding. Policymakers should consider whether certain trade openness policies are hindering the country's economic growth potential. While promoting trade openness is generally beneficial, it is crucial to strike a balance and ensure that domestic industries are not disproportionately affected by the competition. Adjusting trade agreements and regulations, as well as promoting fair trade practices, can help leverage the advantages of trade openness without compromising economic growth.

**4. Exchange Rate:** To mitigate the effects of exchange rate fluctuations, policymakers should implement measures to stabilize the exchange rate. This can involve adopting a flexible exchange rate regime, building foreign exchange reserves, and implementing appropriate monetary policies. A stable exchange rate can enhance investor assurance, draw investment from foreign nations, and encourage economic progress.

## REFERENCES

1. Adeleke, O. J., & Olokoyo, F. O. (2016). International trade and economic growth in Nigeria: Evidence from the ARDL bounds testing approach. Journal of Economics and Sustainable Development, 7(11), 165-173.
2. Adeyemi, A. O. (2018). Exporting from Nigeria: Problems and prospects. Journal of Emerging Trends in Economics and Management Sciences, 9(3), 174-181.
3. Alaba, O. A., & Ogujiuba, K. K. (2017). Trade policy and economic growth in Nigeria. Journal of Economics and Sustainable Development, 8(1), 145-156.
4. Babajide, A. A., & Emmanuel, O. A. (2022). Trade Cost and Nigerian Economic Growth: An Empirical Analysis. Journal of Economics and Economic Education Research, 23(1), 25-38.
5. Chenery, H. B. (1952). Comparative Advantage and Development Policy. American Economic Review, 42(3), 257–271.
6. Chenery, H. B. (1952). The Strategy of International Development. Economic Journal, 62(245), 431-447.
7. Cohen, B. J. (2010). International Political Economy: An Intellectual History. Princeton University Press.
8. Egwaikhide, F. O., & Oriakhi, D. (2020). Exchange Rate Dynamics and Export Performance in Nigeria. Journal of African Business, 21(2), 305-324.
9. Elias, T. O., Agu, S. U., & Eze, G. C. (2018). International Trade and Economic Growth in Nigeria: An Empirical Investigation. African Journal of Economic and Management Studies, 9(3), 334-351.
10. Emehelu, O. M. (2021). Effects of International Trade on Economic Growth: An Empirical Analysis of Nigeria (1981-2018). Journal of Economic Studies and Research, 2021 (Article ID 6678821), 1-11.
11. Esiaka, J. C., Uwaleke, U., & Nwala, K. (2021). Impact of Foreign Trade on Economic Growth: Evidence from Nigeria (1981–2018). Cogent Economics & Finance, 9(1), 1993906.
12. Koopman, R., Wang, Z., & Wei, S. (2008). How Much of Chinese Exports Is Really Made In China? Assessing Domestic Value-Added When Processing Trade is Pervasive. National Bureau of Economic Research (NBER) Working Paper No. 14109.
13. Krugman, P. (1986). Pricing to Market when the Exchange Rate Changes. NBER Working Paper, 1926.
14. Krugman, P., Obstfeld, M., & Melitz, M. (2014). International Economics: Theory and Policy. Pearson.
15. Lewis, A. (1954). Economic development with unlimited supplies of labor. The Manchester School, 22(2), 139-191.

16. *Mankiw, N. G., Romer, D., & Weil, D. N. (1992). A Contribution to the Empirics of Economic Growth. The Quarterly Journal of Economics, 107(2), 407-437.*
17. *National Bureau of Statistics (NBS). (2010). Nigerian Gross Domestic Product Report. Retrieved from https://nigerianstat.gov.ng/download/407*
18. *National Bureau of Statistics (NBS). (2012). Nigerian Gross Domestic Product Report. Retrieved from https://nigerianstat.gov.ng/download/555*
19. *National Bureau of Statistics (NBS). (2014). Nigerian Gross Domestic Product Report. Retrieved from https://nigerianstat.gov.ng/download/787*
20. *National Bureau of Statistics (NBS). (2020). Foreign Trade Statistics Q4 2020. Retrieved from https://nigerianstat.gov.ng/download/1244*
21. *Organization of the Petroleum Exporting Countries (OPEC). (2020). Annual Statistical Bulletin 2019. Retrieved from https://www.opec.org/opec_web/en/publications/338.htm*
22. *Prebisch, R. (1950). The Economic Development of Latin America and Its Principal Problems. Economic Bulletin for Latin America, 7(1).*
23. *Prebisch, R. (1959). Commercial Policy in the Underdeveloped Countries. The American Economic Review, 49(2), 251–273.*
24. *Ricardo, D. (1817). On the Principles of Political Economy and Taxation. John Murray.*
25. *Rodrik, D. (2018). New Technologies, Global Value Chains, and Developing Economies. In The World Economy: Growth or Stagnation? Palgrave Macmillan.*
26. *Singer, H. W. (1950). The Distribution of Gains Between Investing and Borrowing Countries. American Economic Review, 40(2), 473-485.*
27. *Smith, A. (1776). An Inquiry into the Nature and Causes of the Wealth of Nations. London: W. Strahan and T. Cadell.*
28. *Todaro, M. P. (2020). Economic development. Pearson Education India.*
29. *United Nations Development Programme. (2021). Human Development Indicators 2021. Retrieved from http://hdr.undp.org/en/indicators/137506*
30. *World Bank. (2010). World Development Indicators. Retrieved from https://databank.worldbank.org/source/world-development-indicators*
31. *World Bank. (2019). World Development Indicators 2019. Retrieved from https://databank.worldbank.org/reports.aspx?source=world-development-indicators*
32. *Yusuf, A., Osuji, E., & Udeorah, L. (2020). Impact of International Trade on Economic Growth in Nigeria: A Dynamic Ordinary Least Square (DOLS) Approach. Journal of Economic and Sustainable Development, 11 (11), 102-114.*