BRIDGING BORDERS: THE IMPACT OF GLOBAL TRADE ON NIGERIA'S ECONOMIC DEVELOPMENT

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A B S T R A C T	K E Y W O R D S
This study examined the relationship between international trade and economic development in Nigeria from 1985 to 2022. Secondary data on per capita income, terms of trade, and exchange rates were collected from the Central Bank of Nigeria (CBN) statistical bulletin. The study utilized the Augmented Dickey-Fuller (ADF) unit root test and the Autoregressive Distributed Lag (ARDL) bounds test as the primary analytical techniques. The results from the ADF unit root test indicated that the variables were stationary at orders zero and one, which met the requirements for employing the ARDL bounds testing approach. The ARDL bounds test for cointegration revealed a long-run relationship among the variables. The short-run ARDL results demonstrated that terms of trade were positively related to per capita income, while the exchange rate exhibited an inverse relationship with per capita income. Based on these findings, it is recommended that the government implement policy measures aimed at expanding exports, as this has the potential for economies of scale. Additionally, the monetary authority should maintain a market-driven exchange rate policy to encourage local production, ultimately leading to an increase in the export of finished products and strengthening the Naira against the dollar.	ARDL, Exchange rate, Income, Per capita, Term of trade.

Introduction

The economic performance of any country, especially in terms of growth and development, is partially driven by its exchange of goods and services with other nations. According to Gbosi (2019), international trade refers to cross-border transactions that involve the utilization of foreign currencies, resulting in the movement of goods and services between countries to promote economic advancement. Consequently, many development and international economists advocate for international trade, linking it to global and domestic economic progress.

Participation in global trade can significantly contribute to economic growth and development by promoting exports, which in turn encourages production for external markets and facilitates the accumulation of foreign exchange reserves used for importing essential capital inputs. Furthermore, such engagement in trade can enhance knowledge dissemination within industries, promoting economic expansion and reducing unemployment levels (Nchom, 2021; Cyper & Dietz, 1997). Additionally, international trade allows capital to flow more freely and supports the efficient production of goods by allocating resources to countries that can produce them more competitively.

However, the dynamics of globalization and trade liberalization in developing economies like Nigeria present new complexities, with unpredictable impacts on development indicators such as the Human Development Index (HDI), living standards, job creation, and poverty reduction (Kareem, 2010). Over time, Nigeria has experimented with two distinct trade policies: restricted and liberalized regimes. As Kareem (2010) noted, "the philosophy of the controlled trade regime comprised regulatory mechanisms that employed both direct and indirect instruments to manage foreign trade and payments."

Despite the implementation of trade liberalization strategies and initial signs of economic improvement, several indicators still suggest underperformance in Nigeria's broader economy. For instance, the nation experiences low savings rates, underutilized production capacities, and insufficient capital formation needed to boost employment and HDI (Obayori & Robinson, 2019).

Empirical findings suggest that the adverse link between international trade and economic development in Nigeria can be attributed to the "Dutch disease" phenomenon. As an oil-rich nation, Nigeria's heavy reliance on crude oil exports has led to an overvaluation of its real exchange rate, making non-oil exports more costly and less competitive globally (Hausman & Rigobon, 2002). A surge in oil exports, coupled with increased reprocessing outside the country, has contributed to diminishing domestic production, which negatively impacts employment levels and living standards. Moreover, a rise in imports relative to domestic production can further reduce employment if it suppresses demand for locally produced goods. Employment can also decline if an increase in imports leads to the closure of less productive local firms unable to compete.

While the conventional perspective suggests a positive relationship between international trade and economic development, this has not been the case for Nigeria, where poverty levels have remained alarmingly high. Poverty increased from 43 percent in 1972 to 66 percent in 1996, reaching 69 percent in 2010 (Nigeria Bureau of Statistics, 2017; Kakain & Obayori, 2018). Unemployment also escalated, rising from 24 percent in 2011 to 25.1 percent in 2014 and reaching 26 percent by 2016 (NBS, 2017). Similarly, the Human Development Index (HDI) saw only modest growth of 8.1 percent over the past decade, increasing from 0.47 in 2005 to 0.5 in 2013 and 0.53 in 2017 (UNDP, 2018). These figures suggest that revenue and profits from foreign trade have yet to significantly boost per capita income, employment opportunities, or poverty reduction (Ewubare & Kakain, 2015; UNDP, 2018). In light of these observations, this study explores the influence of international trade on Nigeria's economic development, measured through GDP per capita from 1985 to 2022.

2. Literature Review

This section reviews existing studies conducted by various scholars on the topic. The purpose of examining these works is to gain a comprehensive understanding of the current subject under

consideration. The literature review is organized under the following subheadings: Conceptual framework, theoretical review, empirical review, and evaluation of the literature.

2.1 Conceptual Framework
2.1.1 Concept of Economic Development

Economic development is a broad concept that refers to the sustained improvement in the economic well-being and quality of life of a nation's population. It encompasses much more than just an increase in a country's Gross Domestic Product (GDP); it involves qualitative changes in the structure of the economy, improvements in living standards, and the equitable distribution of wealth. In essence, economic development is about creating opportunities for people to thrive—socially, economically, and culturally. Economic growth not synonymous with development; the distinction between the duo is significant. While growth refers strictly to an increase in economic output, , typically measured by GDP, economic development is about improving the overall quality of life and ensuring that growth translates into better living conditions for the majority. Economic development focuses on how growth translates into broader improvements for society, such as job creation, poverty reduction, and better access to resources (Todaro & Smith, 2020). For instance, a country may experience high GDP growth driven by natural resource extraction, but if the profits remain concentrated in a few hands, with little investment in education, healthcare, or infrastructure, it would not be considered development in a meaningful sense (Sen, 1999).

More so, a critical aspect of economic development is improving the human condition. This is often measured through indicators like life expectancy, literacy rates, and income levels. The United Nations Development Programme (UNDP) introduced the Human Development Index (HDI) to capture this holistic perspective. The HDI considers not only income but also health and education outcomes, reflecting the view that development is about expanding human capabilities and freedoms (UNDP, 2023). Economic development often involves a shift from agriculture-based economies to more diversified ones that include manufacturing and services. This structural transformation is important for increasing productivity and creating a more resilient economy. As countries move up the value chain, they develop the capacity to innovate, produce more sophisticated goods, and integrate into global markets (Rodrik, 2021). Furthermore, effective institutions and social frameworks play a vital role in supporting economic development. Strong governance, the rule of law, access to quality education and healthcare, and an inclusive political system are all necessary to ensure that economic growth leads to broader societal progress. Without these, economic gains may not be sustainable or equitably distributed.

In recent years, the focus has shifted toward sustainable development, which emphasizes meeting the needs of the present without compromising the ability of future generations to meet their own needs. This approach integrates economic, social, and environmental dimensions. As climate change, resource depletion, and inequality pose serious challenges, countries are increasingly adopting policies that promote long-term development goals alongside economic growth (Sachs, 2015).

2.1.2 Measures of Economic Development

Economic development is a multi-dimensional concept that goes beyond just economic growth, focusing on improving the well-being and quality of life for a country's citizens. While economic growth is typically measured by increases in gross domestic product (GDP), economic development

includes a broader set of indicators that assess social, economic, and environmental progress. Some key measures of economic development: are discussed below;

Gross Domestic Product (GDP) Per Capita: GDP per capita is one of the most widely used measures of economic development. It divides a country's total economic output by its population, giving an average economic productivity per person. While useful, GDP per capita focuses mainly on economic output and income, which does not always reflect overall well-being or inequality. High GDP per capita might not translate into equitable wealth distribution or improvements in living standards, especially if economic gains are concentrated among a small portion of the population (Stiglitz, Sen, & Fitoussi, 2010).

Human Development Index (HDI): The Human Development Index, developed by the United Nations, offers a more holistic measure of development. It combines three dimensions: life expectancy (a proxy for health), education (measured by expected and mean years of schooling), and income (adjusted GDP per capita). HDI provides a more comprehensive picture of development by capturing both economic and non-economic factors, making it a valuable tool for understanding long-term improvements in quality of life (United Nations Development Programme [UNDP], 2023).

Gini Coefficient: The Gini coefficient measures income inequality within a country. It ranges from 0 (perfect equality) to 1 (perfect inequality), providing insight into how wealth is distributed across the population. High inequality can hinder development, even if a country is experiencing rapid economic growth. A low Gini coefficient suggests that wealth is more evenly distributed, which can support social cohesion and sustainable economic progress (World Bank, 2023).

Poverty Rate: Another critical measure of economic development is the poverty rate, which indicates the proportion of a population living below the poverty line, usually based on the ability to meet basic needs such as food, shelter, and healthcare. Reducing poverty is a key goal of development efforts, as economic progress should ultimately improve living standards for all citizens, especially the most vulnerable. Countries may use national poverty lines or international thresholds such as the World Bank's $2.15 a day poverty line (World Bank, 2023).

Employment and Labor Productivity: Employment levels and labor productivity are important indicators of how well an economy is utilizing its workforce. High unemployment or underemployment signals economic inefficiencies and is often associated with poverty and low standards of living. On the other hand, increasing labor productivity – the output produced per worker – is a positive sign of economic development, as it often reflects improvements in technology, education, and infrastructure that allow workers to produce more goods and services (International Labour Organization, 2021).

Life Expectancy and Health Indicators: Health is a crucial component of economic development, as a healthy population is more productive and capable of contributing to the economy. Life expectancy is often used as a broad indicator of the overall health of a population. Additionally, other health metrics such as child mortality rates, access to healthcare services, and incidence of diseases are essential

measures of development, as they reflect the quality and accessibility of healthcare in a country (World Health Organization [WHO], 2022).

Educational Attainment: Education plays a fundamental role in development by equipping people with the skills necessary to participate in the economy and improve their quality of life. Measures such as literacy rates, school enrolment, and average years of schooling provide insights into a country's educational achievements. Countries with higher educational attainment tend to experience faster economic development, as an educated workforce drives innovation and economic competitiveness (Barro & Lee, 2013).

Infrastructure Development: Adequate infrastructure is essential for economic growth and development, as it facilitates trade, communication, and access to essential services. Measures of infrastructure development include access to clean water, electricity, transportation networks, and internet connectivity. Countries with well-developed infrastructure can support higher productivity and offer better living conditions, contributing to long-term economic progress (Calderón & Servén, 2014).

Environmental Sustainability: In recent years, economic development has increasingly incorporated measures of environmental sustainability. Indicators such as carbon emissions, deforestation rates, and renewable energy use reflect how sustainably a country is developing. Economic progress at the expense of the environment can lead to long-term damage, so countries that prioritize sustainability are often seen as pursuing more balanced development strategies (Sachs, 2015).

2.1.3 The Impact of Global Trade on Economic Development

Global trade, or international trade, plays a pivotal role in shaping the economic development of nations. Through the exchange of goods, services, capital, and technology, countries can access markets beyond their borders, fostering economic growth, technological advancement, and enhanced living standards. However, the relationship between global trade and economic development is complex and varies depending on the specific conditions of a country, such as its stage of development, institutional framework, and trade policies.

One of the most widely acknowledged benefits of global trade is its positive impact on economic growth. By engaging in international trade, countries can specialize in the production of goods and services in which they have a comparative advantage, leading to increased efficiency and output (Krugman et al., 2018). Specialization allows for the optimal use of resources, which, in turn, boosts productivity and growth. Moreover, trade provides access to larger markets, which can lead to economies of scale for domestic firms. For developing countries, trade can serve as a critical driver of industrialization and economic modernization, offering an avenue for integration into global value chains (World Bank, 2020). For instance, East Asian economies such as South Korea and China have used export-oriented industrialization strategies to achieve rapid economic development. By participating in global trade, these nations have transformed their economies from agriculture-based systems into advanced manufacturing hubs, achieving sustained growth (Gereffi & Lee, 2016).

International trade also facilitates the transfer of technology, which is crucial for economic development. Through trade, developing countries can import advanced machinery, know-how, and technology that they might not be able to produce domestically (Helpman, 2020). This transfer of

technology can enhance productivity and stimulate innovation within domestic industries. Moreover, exposure to international markets fosters competition, compelling firms to innovate and adopt more efficient production methods. In many cases, foreign direct investment (FDI) is linked to trade, bringing both capital and technology into developing countries. Multinational companies that invest in local markets often introduce new technologies and management practices, contributing to the overall development of the host economy (Blomström & Kokko, 2020).

The effect of global trade on employment and income distribution is multifaceted. On one hand, trade can create new jobs by expanding industries that are export-driven. For instance, as countries open their markets, demand for labor in export-oriented sectors typically increases, leading to higher employment rates (Rodrik, 2018). Additionally, international trade can enhance income by providing access to cheaper goods and services, improving consumers' purchasing power. However, the benefits of trade are not distributed evenly across all sectors of the economy. While some industries thrive through access to global markets, others may face intense competition from imports, potentially leading to job losses or wage reductions in those sectors (Stiglitz, 2017). Developing countries are particularly vulnerable to these disruptions, as they may lack the social safety nets or retraining programs needed to support workers affected by trade liberalization.

Trade can play an important role in reducing poverty, especially in developing countries. By integrating into global markets, low-income countries can generate more jobs, raise household incomes, and improve access to essential goods and services (World Trade Organization [WTO], 2021). In countries with large agricultural sectors, trade can offer smallholder farmers opportunities to sell their products in international markets, improving their livelihoods and contributing to rural development. Yet, the relationship between trade and poverty reduction depends on several factors, including the structure of the economy and the degree of inequality. If the gains from trade are concentrated in specific sectors or among a small group of elites, the overall impact on poverty reduction may be limited (Dollar & Kraay, 2013).

2.2 Theoretical Review: The Adam Smith Theory of Absolute Advantage

This study is theoretically based on Adam Smith's theory of absolute advantage. Smith argued that two countries can mutually benefit from trade by specializing in goods they can produce more efficiently with the same amount of resources (Gbosi, 2005). Absolute advantage refers to a nation's ability to produce a particular good using fewer resources compared to another nation. For instance, consider two countries—Ghana and Nigeria—that produce cocoa and groundnut, respectively. If Nigeria employs an equal amount of labor as Ghana and utilizes fewer resources, it can produce a higher quantity of groundnut than Ghana (Gbosi, 2005). Conversely, Ghana would produce more cocoa under the same conditions. Therefore, Nigeria holds an absolute advantage in groundnut production over Ghana.

Smith (1776) explained that the surplus output generated by a nation should be exported to other countries, and the revenue from these exports could be utilized to import goods that the nation cannot produce as efficiently. Thus, if both Nigeria and Ghana engage in trade, Nigeria stands to benefit by specializing in groundnut production and exporting the surplus to Ghana, while importing cocoa from Ghana in return (Gbosi, 2005). This specialization and exchange would contribute to economic growth by creating jobs, increasing per capita income, and enhancing the Human Development Index (HDI)

in the short term, ultimately leading to sustained economic development in the long term. See Table 2.1 for better analysis.

Table 2.1: 2 by 2 Model of Absolute Advantage

Country	Labour Input	Ground nut	Cocoa
Nigeria	1,000 units	200 kg	400 kg
Ghana	1,000 units	300 kg	150 kg

Source: Gbosi (2005)

2.2 Empirical Literature

The empirical literature on the impact of international trade on economic stability in Nigeria and other countries has been widely explored. Relevant studies are discussed below;

Nchom and Udeorah (2021) explored the link between international trade and employment rates in Nigeria from 1999 to 2019, employing the dynamic ordinary least square (DOLS) regression analysis. Their findings indicated that export had a negative but significant relationship with the employment rate in Nigeria. Similarly, import was also negatively signed with employment rate, but the effect was not statistically significant in explaining the employment rate during the study period.

Afolabi and Oyelekan (2020) investigated the influence of trade openness on Nigeria's economic growth using the Ordinary Least Squares (OLS) method. The results suggested that trade openness positively influenced economic growth in Nigeria, with evidence of a long-term relationship. Interestingly, exports were negatively related to growth, while imports had a positive effect, contrary to the expected outcome.

Gizem (2020) analyzed the relationship between export, import, and economic growth in BRICS-T countries using data from 1990 to 2018. The Augmented Mean Group (AMG) estimator was applied to measure coefficients across the panel. Findings showed that both exports and imports had a statistically significant and positive impact on economic growth. However, country-specific results revealed varying effects. For instance, in Brazil, export was negatively related to growth, while in India, it had a positive impact. For Brazil, Russia, China, and Turkey, imports positively influenced economic growth, while no significant result was found for South Africa.

Adegbemi, Babatunde, and Grace (2019) explored the nexus between trade liberalization and poverty in 21 African nations over the period 2005-2014 using a variety of econometric tests such as pooled OLS, panel unit root tests, and the Johansen co-integration test. The results showed that foreign direct investment and inflation positively correlated with the Human Development Index (HDI), while exchange rates and trade openness had a negative relationship with poverty levels at a 5% significance level.

Rani and Kumar (2018) examined the Export-Led Growth (ELG) and Import-Led Growth (ILG) hypotheses for BRICS countries using panel data from 1967 to 2014. Utilizing FMOLS and DOLS estimators, their study found that exports significantly and positively influenced economic growth, while imports had a significant but negative effect. The panel Vector Error Correction Model (VECM) analysis further revealed a bidirectional causality between export and growth, validating both the ELG and ILG hypotheses.

Ahamad (2017) assessed the effect of international trade on economic growth in Bangladesh using Pearson correlation and multiple regression models. The findings showed a direct impact of both export

and import on GDP, confirming that international trade positively influenced the economic performance of the country.

Asaleye et al. (2017) evaluated the relationship between trade openness and employment in Nigeria using a Vector Error Correction model and Granger Non-Causality tests. The results showed short-run causality between trade openness, Real Gross Domestic Product (RGDP), Consumer Price Index, exchange rate, and interest rate, but no long-term causality was established. The findings also indicated a negative long-term relationship between trade openness and output, suggesting that trade openness hindered employment generation.

Sunde (2017) investigated the relationship among economic growth, Foreign Direct Investment (FDI), and exports in South Africa using the ARDL model and causality tests. The results indicated a long-term relationship among the variables, with FDI and exports driving economic growth. There was unidirectional causality from FDI to economic growth and exports, and a bidirectional causality between economic growth and exports.

Keho (2017) studied trade openness and economic growth in Cote d'Ivoire from 1965 to 2014 using ARDL and the Toda and Yamamoto causality tests. The results revealed that trade openness had a direct positive impact on economic growth, confirming a direct link between the variables.

Ebrahimi (2017) used the autoregressive distributed lag (ARDL) modeling technique to analyze the relationship between imports and economic growth in Iran from 1961 to 2010. The study established the existence of a cointegration relationship between total imports and real GDP. Additionally, a neural network approach was used to model the variables, which further validated the reliability of the results.

2.3 Literature Gap

The study has reviewed Adam Smith's theory of absolute advantage as it pertains to trade and development. According to Smith, two countries can gain from international trade by focusing on producing goods for which they have an absolute advantage, using the same unit of labor. In addition, empirical studies such as those by Nchom and Udeorah (2021), Afolabi and Oyelekan (2020), Gizem (2020), and Asaleye et al. (2017) have examined the relationship between international trade and macroeconomic indicators in various contexts.

However, a noticeable gap in the literature is that most of these empirical works focus on the drivers of international trade independently, rather than providing a holistic assessment of its impact on overall economic development. Moreover, many of these studies are primarily concerned with macroeconomic performance indicators such as employment or economic growth, with limited attention to the broader concept of economic development, which includes improvements in living standards, GDP per capita, and societal well-being.

This study addresses these gaps by focusing on the impact of international trade on economic development in Nigeria, extending the time frame to 2022 to capture recent trends in the Nigerian economy. Furthermore, the study employs the Auto Regressive Distributed Lag (ARDL) model to establish the relationship between the dependent (economic development) and independent variables, thereby providing a more comprehensive understanding of the dynamics of international trade and its implications for Nigeria. By using Adam Smith's theory of absolute advantage as a framework, the study aims to provide policy recommendations that highlight the potential benefits of Nigeria's active participation in international trade.

3. Methodology

The data for this study was sourced from the Central Bank of Nigeria (CBN) statistical bulletin, World Bank, and publications from the National Bureau of Statistics (NBS). To analyze the impact of international trade on economic development, the study adopts the Auto Regressive Distributed Lag (ARDL) model as proposed and applied by Pesaran, Shin, and Smith (2001). The ARDL technique is chosen because it is suitable for estimating models where the variables are either integrated of order zero I(0), order one I(1), or a combination of both, making it versatile for different time series properties.

3.1 Model Specification

The ARDL model is described by Belloumi (2014) as a robust technique for estimating both short-run and long-run relationships, particularly for small and relatively large sample sizes. The model will be constructed based on Adam Smith's theory of absolute advantage and the general theory of development. The functional model is expressed as:

GPC =f(TD, ER)   (1)

The econometric form of the model is stated in log-linear form in equation (2) in order to align the variable in the same unit as follows:

$lnGPCt = α0 + α1lnGPCt + α2lnTDt + α3lnERt + \sum_{i=1}^{n} Δα1lnGPCt − 1 + \sum_{i=1}^{n} Δα2lnTDt − 1 + \sum_{i=1}^{n} Δα3lnERt − 1 + \mathcal{E}1t$ (2)

The error correction models (ECM) ARDL equation was stated as:

$ΔlnGPCt = α0 + α1lnGPCt + α2lnTDt + α3lnERt + + \sum_{i=1}^{n} Δα1lnGPCt − 1 + \sum_{i=1}^{n} Δα2lnTDt − 1 + \sum_{i=1}^{n} Δα3lnERt − 1 + ΩECM + \mathcal{E}1t$ (3)

Where; GPC = Per Capita Income, TD = Terms of Trade (Proxied by degree of openness), ER= Exchange rate, $α_o$ = constant terms, $α_1 − α_3$, = coefficients of the regressors, $Δ=$ first difference operator, n = maximum lag lengths, $\mathcal{E}_{1t}$= white noise, ECM = error correction term lagged for one period, Ω= error correction coefficients and In = natural logarithm.

4. Results and Discussion

4.1 Descriptive Statistics for Underlying Series

The essence of the descriptive statistics is to ascertain stability of the time series

Table 1: Descriptive Statistics for the Underlying Series

	GPC	TD	ER
Mean	258.5120	35268.75	114.4728
Median	231.6335	8.970050	121.8500
Std. Dev.	75.41403	84108.20	103.2670
Skewness	0.335939	2.069759	0.790444
Kurtosis	1.403235	5.500260	2.821764
Jarque-Bera	4.501616	35.08035	3.796466
Probability	0.105314	0.000000	0.149833
Observations	36	36	36

Source: E- view 10 Output

The information on Table 1 showed that, the mean of per capita income (GPC), term of trade (TD) and exchange rate averaged ₦259 billion, 35269 percent and 114 ₦/$ respectively. The standard deviation showed that the all the dependent variable (GPC) as well as two of the independent variables (TD and ER) converged around their respective means. The skewness test result showed positive values for all the series, meaning that they have high tails. More so, the probability of Jarque-Bera statistics suggests that the null hypothesis of normal distribution for per capita income and exchange rate was upheld while the null hypothesis for the variable term of trade was rejected at 5% level. Therefore, it was concluded from the revealed statistical properties of the time series that the variables are largely not normally distributed, which may have resulted from the problem of unit root. This necessitated the test for stationarity of the time series.

4.2 Unit Root Test

The Augmented Dickey Fuller (ADF) test was used to investigate stationarity and the order of integration of the variables.

Table 2: Augmented Dickey Fuller Unit Root Test

Variable	ADF Test	Critical Values			Order of Integration
		1%	5%	10%	
GPC	-5.3972	-3.6463	-2.9540	-2.6158	1(1)
TD	-5.58851	-3.6329	-2.9540	-2.6158	1(0)
ER	-4.70024	-3.6329	-2.9540	-2.6158	1(1)

Source: E- view 10 Output

The information on Table 2 showed that, one variable (term of trade) was stable at level (integrated of order zero). But, the not stable variables, (per capita income and exchange rate) were differenced once and they became stationary at first difference (that is order one) prior to subsequent estimations to forestall spurious regressions. This means that the best regression results were obtained when the above variables were used in the model estimations.

4.3 ARDL Bounds Test for Cointegration

The Pesaran-Shin ARDL Bounds test for co-integration is applied to check if the null hypothesis of no long run relationship among the variables in each of the four models is to be rejected or not. The results of the bounds test co-integration is reported in Tables 3.

Table 3: ARDL Bounds Test for Co-integration for Per Capita Income (GPC) Model

Model		**F-Statistic =** 12.90496
F(TD), Log(ER)		K = 2.0000
Critical-Values	Lower Bound	Upper Bound
10 percent	3.1700	4.1400
5 percent	3.7900	4.8500
1 percent	5.1500	6.3600

Source: E-views 10 Output

Note: k represents number of explanatory variables

The co-integration result showed that, the F-statistic of 12.90496 is higher than the upper bound critical value of 4.8500 at the 5percent level of significance using restricted intercept without trend specification. This simply implies that, the term of trade, exchange rate and per capita income shared long-run relationships among themselves

Table 4: Estimated ARDL Long Run Coefficients.

Dependent Variable: GPC ARDL (1, 2, 1)

Regressors	Coefficients	t-Statistics	P-Values
TD	-0.002418	-2.05456	0.0497
Log(ER)	2.189703	2.917825	0.0070

Source: E-views 10 Output

The estimated ARDL long run coefficients in the table above showed that term of trade has a negative relationship with per capita income in Nigeria. This means that, a percentage increase in term of trade reduced per capita income by 0.5 percent. Also, the coefficient of exchange rate appears with positive; this conforms to the apriori expectation. Meaning that a strong value of the naira in relation to the US dollar will increase per capita income in Nigeria. Also, the absolute value of the t-statistic for the slope coefficients of term of trade and exchange rate are statistically significant. Thus, it can be deduced from the result that the influence of the variables (term of trade and exchange rate) on per capita income in the long-run will be noticeable in Nigeria.

Table 5: Error Correction Representation for the ARDL

Model: GPC ARDL (ARDL (1, 2, 1)

Regressors	Coefficients	t-Statistics	P-Values
C	11.92935	1.97273	0.0588
LOG(GPC)	0.935246	27.62664	0.0000
TD	0.000900	-2.52812	0.0176
LOG(ER)	-0.10705	-1.91043	0.0668
ECM (-1)	-0.064754	-2.950504	0.0012
R-squared = 0.6549 Adjusted R-squared = 0.5783	F-statistic = 8.5431 Prob(F-statistic) = 0.000	Durbin-Watson	1.7487

Source: E-views 10 Output

Table 5 presents the results of the short-run dynamic coefficients associated with the long-run relationships derived from the error correction mechanism (ECM) equation. The coefficient for the terms of trade (TD) exhibits a positive sign, indicating that a favorable terms of trade can enhance per capita income (which serves as a proxy for economic development) in Nigeria. Specifically, a proportional increase in the terms of trade is associated with a 0.009 percent increase in per capita income. Furthermore, the absolute value of the t-statistic for the slope coefficient related to terms of trade is significant, leading the study to reject the null hypothesis and accept the alternative hypothesis. This suggests a significant relationship exists between terms of trade and per capita income in Nigeria. Therefore, if Nigeria's exports of finished goods and services surpass its imports, it is likely to stimulate growth and development within the economy. This finding aligns with the empirical work of Omekwe

(2018), who explored the degree of openness in trade and concluded that the openness of an economy regarding exports and imports positively impacts the development of Nigeria's economy.

The coefficient for the exchange rate shows a negative sign, indicating a weak value of the Nigerian currency. This suggests that a depreciated naira against the US dollar negatively impacts per capita income (used as a proxy for economic development) in Nigeria during the study period. Specifically, a proportional increase in the exchange rate results in a decrease of 10.7 percent in per capita income. Additionally, the absolute value of the t-statistic for the slope coefficient is not significant, leading the study to reject the alternative hypothesis and accept the null hypothesis, which states that there is no significant relationship between the exchange rate and per capita income in Nigeria. This outcome implies that poorly managed exchange rate policies can hinder economic development in Nigeria, contradicting the findings of Nchom (2021), who argued that the exchange rate has a positive and significant relationship with economic development.

Furthermore, the coefficient of the error correction term is negative and statistically significant, indicating that deviations from the short-term per capita income quickly adjust to long-run equilibrium, with an adjustment speed of 64.75 percent. In other words, any disequilibria in per capita income from the previous year are corrected in the current year at this rate. Thus, the ECM effectively addresses any deviations from the short-run to long-run equilibrium relationship between per capita income, representing economic development, and the explanatory variables associated with international trade. Moreover, the adjusted R^2 value of 0.5783 suggests that the dynamic model fits well, explaining approximately 58 percent of the variation in per capita income (economic development) due to terms of trade and exchange rate. The Durbin-Watson (DW) value of 1.7487, which is close to 2.0, indicates that the model is free from serial autocorrelation issues. Additionally, the F-statistic value of 8.5431, with a corresponding probability value of 0.000000 (which is less than the 0.05 critical value), demonstrates that all explanatory variables (terms of trade and exchange rate) are significant in explaining the increase in per capita income in Nigeria during the study period.

5. Summary, Conclusion and Recommendations

This study utilized the Auto Regressive Distributed Lag (ARDL) model to examine the relationship between international trade and economic development in Nigeria from 1985 to 2022. As Nigeria seeks to enhance its development through better per capita income, increased economic growth, and improved Human Development Index (HDI), it is essential to focus on the contributions and improvements in the external sector of the economy, particularly concerning exchange rates and terms of trade. Several interrelated issues, such as declining foreign exchange receipts due to falling oil prices and the continuous depreciation of the Naira, underscore the need for a productive external sector. A robust external sector, supported by favorable exchange rates and exports, is crucial for enhancing the performance of the Nigerian economy. The findings indicate that international trade has significantly impacted economic development in Nigeria. Specifically, the terms of trade have positively contributed to economic development, while the weak value of the Naira against international currencies, such as the US dollar, has been detrimental to Nigeria's economic progress.

Global trade is a key driver of economic development, offering countries opportunities for growth, technology transfer, job creation, and poverty reduction. However, the impact of trade varies depending on a country's economic structure and policy framework. While the benefits of trade are clear, challenges such as income inequality and industrial disruption must be carefully managed to ensure

that the gains from trade are widely shared. Ultimately, global trade, when balanced with sound domestic policies, has the potential to significantly enhance economic development and improve living standards.

Based on the findings of this study, it is recommended that the government should formulate and implement policy measures aimed at expanding exports, particularly finished products. This should involve promoting the export of manufactured goods and value-added products rather than relying solely on primary raw materials. Such policies could stimulate a vigorous transformation within the dom3estic economy and enhance its overall performance. Additionally, the Central Bank of Nigeria (CBN) should maintain a market-driven exchange rate policy to encourage local production, which would boost exports and subsequently drive economic growth and improve per capita income in Nigeria.

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Appendix: Research Data

YEAR	GPC(₦ billion)	TD (%)	ER(₦ /$)
1985	178.2349	0.093400	0.89
1986	176.939	0.072400	2.02
1987	172.6494	0.235500	4.02
1988	178.6424	0.239400	4.54
1989	185.6051	0.375200	7.39
1990	201.8995	0.581600	8.01
1991	195.729	0.795200	9.91
1992	195.0317	1.285200	17.3
1993	193.288	1.398700	22.05
1994	188.8386	1.339100	21.89
1995	187.7601	6.061600	21.89
1996	190.4489	6.373400	21.89
1997	191.1325	6.911300	21.89
1998	191.0425	5.112000	21.89
1999	187.3907	6.571400	92.53
2000	192.7443	8.903200	109.55
2001	200.536	9.036900	113.45
2002	224.1309	7.538900	126.9

2003	239.1361	5.002800	137
2004	256.373	12.49080	132.85
2005	268.4452	17.88010	129
2006	279.1033	17.51060	127
2007	291.5925	19.26950	116.8
2008	304.3156	22.83730	131.25
2009	320.8243	18.71950	148.1
2010	341.9678	15.83530	148.81
2011	350.2499	29.33390	156.7
2012	355.0349	28.94700	155.76
2013	364.1631	29.14300	155.74
2014	375.5749	29.05000	168
2015	374.8041	238658.2	197
2016	361.0291	255612.1	305
2017	357.6552	262567.5	306
2018	357.0845	252279.3	307
2019	342.0103	172726.5	306
2020	335.0244	87522.5	365
2021	336.4544	172726.5	NA
2022	NA	87522.5	367