

**INTERNATIONAL TRADE AND MACROECONOMIC PERFORMANCE IN
NIGERIA**

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NOVEMBER, 2025

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**BEING A PROJECT SUBMITTED TO THE DEPARTMENT OF ECONOMICS,
FACULTY OF SOCIAL SCIENCES, UNIVERSITY OF BENIN, BENIN CITY. IN
PARTIAL FULFILLMENT FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc)
DEGREE IN ECONOMICS, UNIVERSITY OF BENIN, BENIN CITY.**

NOVEMBER, 2025

CERTIFICATION

This is to certify that, this work titled "**International Trade and Macroeconomic Performance in Nigeria**" was carried out by **Blessing Napoleon** with **Mat No: SSC2105583** for the award of Bachelor of Science (B.Sc) Degree in the department of Economics, Faculty of social science, University of Benin, Benin City, under the supervision of the following persons;

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DEDICATION

This project is dedicated to God Almighty for his protection and guidance throughout my academic journey in the University of Benin.

ACKNOWLEDGEMENT

I would like to convey my deep appreciation to Almighty God for His direction, wisdom, and strength throughout this project. I extend my heartfelt thanks to my supervisor, Mr. F.D. Isuwa, whose invaluable guidance, encouragement, and constructive feedback played a crucial role in the successful completion of this project. I am also thankful to all my lecturers in the Department of Economics, Faculty of Social Sciences, University of Benin, for their commitment to sharing knowledge and for the strong academic foundation they have provided me.

I give special thanks to my elder sister and her wonderful husband for their immense love and support throughout my academic journey at the University of Benin, as well as to my family members for their prayers, moral support, and encouragement. I also appreciate my colleagues and friends who contributed ideas, resources, and assistance in various ways towards the completion of this work. A heartfelt acknowledgment goes to my best friend, Miss Divine Eseoghene Mesharene; my progress has been made possible by your unwavering support and love since my first year. You have been a source of strength and joy for me, thank you, my friend. May God Almighty continue to bless and protect you.

In conclusion, I remain grateful to everyone who contributed, both directly and indirectly, to the success of this project.

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ABSTRACT

This study investigated the impact of international trade on macroeconomic performance in Nigeria from 1990 to 2023. The research was motivated by the persistent challenges of overdependence on crude oil exports, trade imbalances, and inconsistent policy outcomes that have impeded Nigeria's economic growth. Anchored on the Heckscher-Ohlin Theory of Factor Endowment and Adam Smith's Absolute Advantage Theory, the study examined the dynamic relationship between exports, imports, foreign direct investment (FDI), and inflation as they influence Nigeria's gross domestic product (GDP) growth rate. The study adopted an ex-post facto research design, utilizing secondary data sourced from the World Bank Development Outlook (2024) and the Central Bank of Nigeria Statistical Bulletin (2023). The Autoregressive Distributed Lag (ARDL) bounds testing approach was employed to analyze both short-run and long-run relationships among the variables. The Augmented Dickey-Fuller (ADF) unit root test revealed a mixture of $I(0)$ and $I(1)$ variables, confirming the suitability of the ARDL model. The findings showed evidence of long-run cointegration among international trade indicators and Nigeria's economic growth. The long-run estimates indicated that exports had a positive and statistically significant effect on GDP growth, while imports exerted a negative and significant impact on GDP growth. Foreign direct investment (FDI) was found to be positive but statistically insignificant. Inflation was negative and statistically significant, suggesting that persistent price instability undermines macroeconomic performance. The study concludes that international trade significantly affects Nigeria's macroeconomic performance. It recommends diversification of the export base beyond oil, improved local manufacturing capacity, better investment policies to attract productive FDI, and effective inflation management to sustain economic growth and stability.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Debates regarding the significance of international trade on the economy have existed since the era of early classical economists like Adam Smith and David Ricardo. The primary focus of these classical economists was the impact of international trade on the local economy. Consequently, Adam Smith and David Ricardo contended that international trade has a beneficial effect on economic growth because it leads to greater accumulation of technological advancements and capital, enhancing productivity, which in turn results in improved welfare gains and increased economic growth. In this context, and in agreement with the assertion of Grossman and Helpman (1990), it is essential for African countries, which are among the least contributors to global technological progress, to embrace international trade more fully to promote technological advancement and improve both productivity and economic outcomes.

In fact, enhancing economic performance is a primary motivation for the establishment of the African Continental Free Trade Area (AfCFTA) in 2018. The AfCFTA, initiated by the African Union (AU), aims to boost the economic performance

of its member states by increasing intra-African trade, liberalizing international trade of goods and services across the continent, and facilitating international trade through improved border processes and the implementation of specific “behind the border” measures (AfCFTA, 2018). The AfCFTA represents one of several initiatives undertaken by the African Union (AU), which was formed in 2002 following the dissolution of the former Organization of African Unity (OAU) established in 1963.

As an AU initiative, the AfCFTA reflects the underlying objectives of the AU's formation. It is often stated that the AU embodies a collective desire for integration within Africa (Okhonmina, 2009) and aims to shift African attention from merely addressing the consequences of colonialism and South African apartheid towards promoting economic growth, performance, and development (Mahesh, 2024). Beyond the AU and its AfCFTA initiative aimed at bolstering economic performance via the enhancement and liberalization of international trade, the African continent has also seen the creation of several regional economic and free-trade unions, including the Arab Maghreb Union (AMU) founded in 1989, the Community of Sahel-Saharan States (CENSAD) established in 1998, the Common Market for Eastern and Southern Africa (COMESA) created in 1994, the East Africa Community (EAC) which began in 2000, the Economic Community of Central African States (ECCAS) launched in 1983, the Economic Community of West African States (ECOWAS) formed in 1975, the

Intergovernmental Authority on Development (IGAD) introduced in 1996, and the Southern African Development Community (SADC) established in 1992. Since these economic and free-trade unions were formed, various measures have been implemented by each to enhance the liberalization of international trade, particularly among member nations as well as with the broader global community.

International trade is widely recognized for opening up a domestic economy to greater trade volumes, and such increases benefit entrepreneurs since higher trade volumes translate into larger profits for companies and more job creation opportunities. Additionally, through international trade, middle and lower-income households benefit from reduced prices and a wider range of products available to consumers.

While African nations may have gained from international trade by accumulating technological advances and production capital, it is disheartening to note that the experience of globalization over recent decades reveals a significant untapped potential for African economies to boost trade among themselves and with the global market, both in terms of volume and value addition. This occurs despite the initiatives taken by various economic and free-trade associations across the African continent aimed at enhancing economic performance through the expansion and liberalization of international trade.

According to the United Nations Conference on Trade and Development (UNCTAD, 2013) in its Economic Development in Africa Report 2013, Africa's share of the global market in international trade remains low and is declining. This finding is particularly concerning as it implies that even with the combined efforts of economic and free-trade unions within Africa, the continent's nations are still unable to demonstrate strong achievements in the realm of international trade, which undermines the potential economic benefits that could have been realized. Consequently, the World Trade Organization (WTO) emphasized in its 2021 report that, while international trade may have contributed to the industrialization and development of Africa, it remains crucial to intensify efforts to assist African countries in building their capacities and fully capitalizing on the advantages offered by global trade (Mamba, 2023). The WTO has strongly advised nations, especially those in Africa or other developing regions, to undertake reforms to liberalize and enhance their international trade, asserting that such actions are essential for the improved economic performance of African or developing nations. In light of this assertion regarding potential economic enhancement from international trade, this study seeks to empirically validate this claim within Nigeria by analyzing historical data pertaining to the country's volume and value of international trade alongside its economic performance over time.

1.2 Statement of the Problem

The benefits of international trade are discussed in the research by Gnanon (2018). It is suggested that countries with more liberal trade policies experience greater success than those with restrictive international trade regulations; additionally, such openness provides consumers with a wider selection of goods, enhancing their welfare. International institutions have reflected on these ideas while advising national policies regarding international trade, particularly for developing nations. These trade policies gained support in Africa during the late 1970s and early 1980s due to the shortcomings of the import-substitution industrialization model in many African countries. This support was bolstered by the impressive economic growth seen in East Asian economies, such as China and Japan, which was partly attributed to their early engagement in trade (Stiglitz, 1996; Edwards, 1997).

However, some authors contend that extensive trade liberalization undermines economic growth and hinders the achievement of macroeconomic objectives, resulting in issues like domestic price volatility, sluggish growth, and depreciation of the local currency against international partners. They argue that these adverse effects are primarily evident in nations specializing in the production of commodities with low elasticity (Hausmann et al., 2007; Grancay, Grancay, & Dudas, 2015; Fontagné et al., 2018). The reasoning behind this link has led to an ongoing debate

among economists regarding the situation in developing countries, with three empirical facets. Certain researchers assert that trade liberalization positively influences economic growth, referencing the progress of some developing economies in Southern Asia, such as Singapore, and transitional economies like China, which are now competing with developed countries in the global market (Ejike et al., 2018; Das & Paul, 2011). Others dispute the positive impact of openness on economic growth, arguing that African developing nations have faced stagnation due to more aggressive liberalization policies (Esu & Udonwa, 2015). Additionally, some studies suggest a conditional neutrality regarding the influence of liberalization on economic growth (Hausmann et al., 2007; Awokuse & Xie, 2015; Kaushal & Pathak, 2015).

Notwithstanding these differing perspectives, the consensus is that trade liberalization fosters economic growth. Considering the narrative of success surrounding trade liberalization policies, a key question arises: to what extent do these policies enhance the economic growth of a developing nation like Nigeria, which has unique income levels and trade openness? Drawing on Kim and Lin's (2009) concept of partial protectionism and factoring in Nigeria's distinct economic landscape characterized by inadequate human development and financial systems that could impede the advantages of trade liberalization, this dissertation explores the threshold at which liberalization policies may negatively affect macroeconomic performance.

International trade policies serve as vital tools for economic advancement, particularly for developing nations like Nigeria. As a prominent country, Nigeria has enacted numerous trade policies intended to stimulate economic growth. However, the success of these initiatives has been variable and, at times, detrimental.

Nigeria, rich in oil resources, has experienced variable economic results heavily influenced by international oil prices, which affect its trade balance and economic stability. The economy relies significantly on oil exports, which constitute over 90% of its export earnings. This reliance renders the economy susceptible to fluctuations in global oil prices. For instance, during the oil price slump of 2014, Nigeria's GDP growth rate fell sharply from 6.3% in 2014 to -1.6% in 2016. Even though it is a significant oil exporter, Nigeria frequently faces trade deficits due to substantial imports of refined petroleum products and other items. In 2022, the country faced a trade deficit of around \$3.2 billion (World Bank, 2024).

Despite multiple policy reforms, Nigeria still struggles with trade imbalances, infrastructure deficiencies, and regulatory hurdles that impede its economic development. This research aims to examine the impact of foreign trade on Nigeria's macroeconomic performance. The focus of the study is designed to assess the current state of foreign trade and to foster a deeper understanding of how it can be harnessed to promote sustainable economic growth in Nigeria.

1.3 Research Questions

The study gives answers to the following research questions

1. Do exports (EXPT) exert impact on the macroeconomic performance of Nigeria?
2. Does imports (IMPT) have impact on the macroeconomic performance of Nigeria?
3. What impact does foreign direct investment (FDI) have on the macroeconomic performance of Nigeria?
4. What is the impact of inflation (INF) on the macroeconomic performance of Nigeria?

1.4 Objectives of the Study

This study is guided by general objective of unearthing the subsisting empirical relationship existing between international trade and the macroeconomic performance of Nigeria. In the voyage towards the attainment of this general objective, the study was guided by the following specific objectives:

1. To examine the impact of exports (EXPT) on the macroeconomic performance of Nigeria.
2. To evaluate the effect of imports (IMPT) on the macroeconomic performance of Nigeria.

3. To investigate the impact of foreign direct investment (FDI) on the macroeconomic performance of Nigeria.
4. To underscore the impact of inflation (INF) on the macroeconomic performance of Nigeria.

1.5 Research Hypotheses

The study was guided by the following hypotheses, stated in null forms:

H₀₁: Exports (EXPT) exerts no impact on the macroeconomic performance of Nigeria.

H₀₂: Imports (IMPT) have no impact on the macroeconomic performance of Nigeria.

H₀₃: Foreign direct investment (FDI) has no impact on the macroeconomic performance of Nigeria.

H₀₄: Inflation (INF) has no impact on the macroeconomic performance of Nigeria.

1.6 Significance of the Study

The importance of the research on international trade and its influence on macroeconomic performance in Nigeria is significant for a diverse range of stakeholders, including students, the general populace,

policymakers, and researchers. Below is how each of these groups can benefit from the study:

The research offers essential insights into the connection between international trade policy and macroeconomic performance, providing students in economics, finance, or similar disciplines with a more profound comprehension of the topic. It can act as a basis for further research, academic endeavors, and future career opportunities in foreign trade policy, development economics, or public policy.

Grasping the significance of international trade and its effect on macroeconomic performance can empower the general populace. It enhances awareness of the advantages of engaging in formal exchange and the implications of trade, motivating individuals to make well-informed choices related to trade, investment, and the management of exports and imports.

Policymakers can leverage the results of this research to craft and enhance policies related to international trade. The study provides evidence-based perspectives on the effectiveness of current policies, identifies shortcomings, and pinpoints areas needing enhancement. It guides policy decisions focused on promoting a more equitable trading system, alleviating poverty, and fostering sustainable economic progress.

This research adds to the current body of literature on international trade and macroeconomic performance. Scholars can expand on this work to delve into specific facets more thoroughly, explore causal connections, or assess the long-term impacts of foreign trade policy. The study may also encourage interdisciplinary research collaborations among economists, sociologists, technology specialists, and policy analysts to yield comprehensive insights into the subject.

1.7 Scope of the Study

This research is limited to an examination of Nigeria exclusively. This selection is based on the accessibility and availability of data, as well as the desire to conduct a comparative analysis of the country's international trade and economic performance. The indicators of international trade utilized in this study include export, import, foreign direct investment, and inflation (with the Consumer Price Index (CPI) serving as a proxy for inflation). In contrast, the gross domestic product growth rate of Nigeria was employed as a proxy to assess economic performance.

The research adopts a macroeconomic approach focused on Nigeria, with the chosen variables comprising export, import, foreign direct investment, and inflation in relation to the gross domestic product growth rate of Nigeria. The data for this study were obtained from the World Bank Developmental Outlook and the Central Bank of

Nigeria statistical bulletin, covering the years 1990-2023, as this timeframe is crucial for understanding Nigeria's economic landscape concerning its trade with other countries.

CHAPTER TWO

LITERATURE REVIEW

This chapter reviewed relevant literature that explain the research variables and their interrelationships. It is divided into conceptual clarifications, theoretical literature and empirical literature.

2.1 Conceptual Clarifications

2.1.1 International Trade

International trade, often referred to as foreign trade or global trade, is recognized as commerce that occurs across national borders. It encompasses all commercial exchanges of goods and services between different nations worldwide (Attahir et al., 2015; BigBen, 2016). In other terms, international trade can be described as the swapping of goods and services between the residents of a specific country and those of other countries. It can also be defined as the transfer of goods and services over national boundaries. This process involves the movement of capital or services that are produced outside a country's borders. The transactions of buying and selling that facilitate the distribution of

produced goods and services to consumers are what make up trade. Thus, when these transactions take place with foreign nations, they are classified as foreign trade.

International trade manifests through exports and imports concerning the delivery of sale and purchase transactions. Exporting plays a vital role in the advancement and enhancement of a country's economy. Kanu and Nwadiubu (2020) conceptualized international trade as the exchange of capital goods and services between nations or across geographical boundaries. According to Esezobor (2009), international trade represents the commerce conducted between independent nations. Furthermore, the Encyclopedia Britannica defines international trade as involving the sale and purchase of raw materials, securities, capital or consumer goods and services, or gold across international borders. Similarly, the Encyclopedia Americana characterizes international trade as commercial interactions between individuals from various sovereign political entities. It is clear that international trade becomes distinct from domestic trade once countries begin to establish national commercial policies, thus evolving into foreign trade.

This research examines international trade through both oil exports and imports as well as non-oil exports and imports. Oil exports represent one component of international trade, which entails a nation's trading activities with other nations using oil products. Consequently, oil exports comprise goods and services sold to countries outside one's domestic economy. Non-oil exports are economic transactions that occur outside the scope of the petroleum and gas industries. This category includes multiple sectors like

agriculture, health, real estate, manufacturing, tourism, services, telecommunication, and finance. The non-oil sector, which is primarily comprised of agricultural products such as groundnut, cocoa, rubber, beans, cotton, coffee, palm oil, palm kernel, hides and skin, and cattle, constitutes the main exports in the non-oil export sectors. Oil imports refer to goods and services that are obtained from other countries outside the national economy. In national accounts, oil imports involve trade in goods and services from foreign entities to the citizens of a country. Similarly, in nations that do not produce oil or refine it, oil imports are a primary source of petroleum and gas products within their economies. The various oil product imports include petroleum, diesel, Liquefied Petroleum Gases, and kerosene. Non-oil imports comprise economic transactions that do not involve the acquisition of petroleum and gas products from foreign countries. The non-oil import products sourced from abroad encompass items from sectors such as agriculture, health, real estate, manufacturing, tourism, services, telecommunication, and finance, with agricultural non-oil imports including groundnut, cocoa, rubber, beans, cotton, coffee, and palm oil among others.

2.1.2 International Trade Policy

International trade policies regulate the import and export of goods between nations through various laws and agreements. International trade policy pertains to the laws and multilateral trade agreements that oversee the exchange of products between countries (Sanusi, 2010). As noted by Olaifa, Sabari, and Biala (2012), the goal of trade policy is

to enhance economic efficiency, competitiveness, and growth driven by exports by lessening protectionism, fostering a more outward-looking trade environment, improving export market access, and boosting global integration. Trade terms are impacted by international supply and demand, but these fundamental factors can be altered by government actions to favor one nation (Sun & Heshmah, 2012).

Governments adopt international trade policies to reduce imports and promote exports to the international market. The three most common international trade policies are tariffs, import quotas, and export subsidies. International trade policy supports sustainable economic growth by allowing access to essential raw materials, intermediate goods, components, consumables, and capital goods necessary for expanding manufacturing and providing services.

According to Udoka et al., (2016), trade policies define the standards, objectives, rules, and regulations, as well as enhance export market accessibility and global integration, all aimed at improving economic efficiency, competitiveness, and export-driven growth. Trade policy significantly influences market size for production enterprises, thus affecting both foreign and domestic investment.

International trade involves the movement of capital, products, and services across international frontiers or territories. In many nations, this trade constitutes a substantial portion of Gross Domestic Product (GDP). Hence, international trade has attracted

considerable attention from both policymakers and economists. It allows countries to market their domestically produced goods to the global community (Adewuyi, 2005).

International trade is viewed as a driver of economic growth, contributing to progressive enhancements in people's living standards by broadening their choices and preferences (Adewuyi, 2005). Since no nation has achieved growth without engaging in trade, international trade is crucial for transforming the economic and social dynamics of countries globally, especially in developing nations. Moreover, for years, development economists have acknowledged the critical role of trade in national economic growth as it generates foreign exchange earnings and stimulates market activity for accelerated economic expansion.

International trade can also be referred to as 'foreign trade' or 'global trade.' It includes both the incoming (imports) and outgoing (exports) flow of goods and services within a country. The volume of a nation's imports and exports constitutes a significant part of its gross domestic product (GDP); therefore, international trade is linked to economic advancement. In a free economy, the growth of foreign trade significantly influences GDP development (Li et al., 2010). Without international trade, countries would only have access to goods and services produced locally. International trade is closely associated with globalization, as the rise in trade activities across borders is essential to the globalization process. The globalized character of an economy encourages its active involvement in the international market, consequently facilitating market expansion.

According to Adam Smith, the growth of a nation's market fosters productivity, which ultimately results in economic expansion. The concept of international trade is described as commerce that occurs across national boundaries; that is, with foreign nations. It has been suggested that it plays a significant role in enhancing economic growth and productivity specifically, and discussions around this topic have persisted for several decades. Furthermore, it has been shown that countries that engage actively in international trade are usually more productive compared to those that only serve their domestic markets. Due to liberalization and globalization, a nation's economy has become more closely linked to external elements, such as openness. The advantages of international trade for economic growth and development cannot be overstated. Imports introduce increased competition and diversity to domestic markets, while exports expand the markets available for local production, benefiting businesses. Trade exposes domestic companies to the best practices of their international counterparts and to the preferences of sophisticated consumers, fostering greater efficiency. Trade allows companies to access enhanced capital inputs like advanced machinery, increasing productivity and creating new growth opportunities for developing nations.

Ogbokor (2001) examined the macroeconomic effects of oil exports on Nigeria's economy. Using the OLS method, he found that economic growth responded predictably to changes in the variables evaluated in the research. According to Afolabi et al. (2017), the most notable and lasting aspect of a nation's international economic

relations is its foreign trade. Ngige (2018) asserted that international trade has historically been, and continues to be, an economic force that has driven commerce, fostered technological advancements and growth, disseminated cultural patterns across the globe, and has often incited exploration, colonization, and conflict. The evolution of international trade has mirrored the progress of civilization. From ancient times, international commerce facilitated the exchange of goods and raw materials between nations. Nevertheless, such exchanges were frequently conducted through barter and were minimal in volume compared to modern standards. This interchange of goods played a crucial role in the economic and historical progression of every nation. In its early stages, international trade was essential not only because it supplied societies with goods they lacked, such as cowries from Africa being traded elsewhere. It also inspired cultural exchanges, thus broadening the scope of trading to include not only goods but also lifestyles, traditions, and technology.

Yakubu & Akanegbu (2018) suggest that international trade can enhance the development of monetary systems, record-keeping, accounting, and the entire field of commerce. One can confidently assert that the economic and political progress of the entire Western world has been stimulated and advanced by international trade. Governments generate revenue through international trade endeavors. International trade, as a key element of openness, has begun to significantly influence economic growth (Sun and Heshmati, 2012). A nation's openness affects its growth rate by

influencing the level of economic activities and enabling resource transfers across borders. Nigeria is fundamentally an open economy, with international transactions making up a substantial portion of its output (Emeka et al., 2012).

According to Mike (2015), Nigeria has an open economy, with a sizable share of its total output coming from overseas exchanges. From 2015 to 2017, the total amount of trade has, however, significantly decreased. This may not be unrelated to the decline in global demand for crude oil. The decrease in crude oil demand worldwide over the 2015–2017 era may have led to weaker export trade, however with little to no substantial influence on imports. Crude oil is the principal export of the economy. The variations in the overall volume of trade represent how the policy space, influenced by many economic, social institutional and political elements, impacts the incorporation of Nigeria’s economy via trade (Omoke & Opuala–Charles, 2021).

2.1.3 Benefits of International Trade

International trade fosters economic growth, efficiency, technical progress, and, most importantly, consumer welfare. Lowering prices and increasing the variety of products available to customers (Udoka & Nkamare,2014). Foreign commerce brings commodities to a country, raises a country's standard of living, stimulates the transfer of technology between countries, creates jobs, and allows consumers to enjoy a wider range of items (Omoju & Adesanya, 2012). International trade allows each country to specialize in the manufacture of commodities that are best suited to its environment. As

a result, it makes the best use of its natural resources. It allows a country to import things that it cannot create due to greater costs at home (Arodoye & Iyoha, 2014). Other advantages of international trade include the ability for countries to exchange products and services using money as a means of exchange. International trade brings several variants of a specific commodity from various destinations. This provides customers with more options, which not only improves their quality of life but also helps the country flourish as a whole (Odularu & Okonkwo, 2012).

2.1.4 Problems of International Trade

International trade is marked by several unique challenges:

Distance: Typically, international trade involves significant distances between countries, making it challenging to foster close relationships between buyers and sellers.

Diversity of languages: Various countries have different languages spoken and written, which creates an additional hurdle in foreign trade.

Transport and communication: The considerable distances in international trade lead to difficulties in efficient transport and communication, often resulting in delays and increased costs.

Lack of information about foreign traders: In international trade, the absence of direct and personal interactions between buyers and sellers creates a lack of information.

Study of foreign markets: Each international market possesses distinct characteristics, needs, customs, traditions, weights and measures, as well as marketing strategies.

Currency differences: Fluctuations in currency exchange rates influence international trade by altering the levels of exports and imports. A strong domestic currency tends to reduce exports and increase imports. Conversely, when exchange rates decline, exports tend to rise while imports drop.

2.1.5 Trade Liberalization

Trade openness also aims at liberalization of the economy as well as achievement of greater openness and greater integration of the world economy (Harberzar, 2014). Liberalization can simply be said to mean a shift from direct policy and regulatory controls to market driven behavior to set prices and allocate resources. Trade liberalization deals with the increasing breakdown of barriers and the increasing integration of the World market (ECOWAS, 2017).

Many economists argued that, trade openness leads to a better economic growth. The effects of its contribution is debatable and researchable though various studies have affirm that an open economy grows faster than a closed one and stimulates economic growth especially among developing countries. African countries have implemented a series of economic reforms, including trade liberalization, with the aim of boosting economic growth.

According to DeRosa (2012), Trade Liberalization is referred to as the increasing integration of international market for goods, trade able services and financial assets. In the real sense it also referred as the increasing integration of markets for major inputs to production (not only mobile physical capital) but also labour in its various forms: basic labour, skilled labour and other professional services.

According to Ogujiuba, Oji and Adenuga (2014), the following are the advantages of trade liberalization:

Economic well-being: The liberalization of trade allows nations to focus on creating goods and services where they hold a comparative advantage (producing at the lowest opportunity cost). This results in an overall increase in economic well-being.

Reduced costs: Eliminating tariff barriers may result in lower prices for consumers. For instance, abolishing food tariffs in Western countries could help decrease the global prices of agricultural products. This would benefit nations that rely on food imports.

Heightened competition: Trade liberalization introduces greater competition for firms from international markets. This should encourage enhanced efficiency and cost reduction, or serve as motivation for an economy to reallocate resources into emerging industries where they can sustain a competitive edge. For example, Trade Liberalization has influenced the United Kingdom (UK) to focus less on manufacturing and more on the service industry.

Efficiency gains: Trade liberalization facilitates increased specialization. Economies focus on producing specific goods, leading to significant efficiency improvements from economies of scale.

2.2 Theoretical Literature Review

2.2.1 Heckscher-Ohlin Theory (Factor Proportions Theory)

The Heckscher-Ohlin Theory, introduced by Eli Heckscher in 1919 and Bertil Ohlin in 1933, is often referred to as the Factor Proportions Theory. This theory analyzes international trade through the perspective of factor endowments, indicating that a nation's comparative advantage arises from the relative abundance or scarcity of production factors such as labor, capital, and land. According to this theory, countries will concentrate on producing goods that utilize their plentiful production factors heavily. A country rich in capital will typically export goods that are capital-intensive, while a labor-rich nation will export goods that are labor-intensive. The main difference from classical theory is that it is the availability of production factors (capital, labor, land) that serves as the primary trade determinant, rather than variations in technology. Consequently, trade occurs due to differences in the relative availability of these factors.

The theory has the following limitations:

Assumption of Free Movement of Factors within Nations: The theory presumes that labor and capital can move without restrictions within nations, but this is not

necessarily true in practice. For instance, labor mobility is frequently hindered by issues such as education, training, and regulatory constraints.

Standardized Products: It assumes that products are uniform and fails to consider the variations between goods (e.g., quality or brand), which are commonly observed in actual trade practices.

Overlooking Technological Disparities: The theory posits that technology is uniform across countries, which is unrealistic. Technological progress and innovation frequently play a significant role in influencing trade dynamics.

This theory is useful for analyzing macroeconomic performance because it links a nation's factor endowments to its trade behaviors and economic growth directly. It illustrates how trade impacts a country's income distribution, employment, and output. Additionally, it provides perspective on how changes in factor endowments (such as a rise in capital or skilled labor) can result in shifts in trade patterns, which is essential for grasping broader macroeconomic performance.

2.2.2 Adam Smith's Absolute Advantage Trade Theory

Adam Smith's trade theory, mainly outlined in his influential book *The Wealth of Nations* (1776), serves as the basis for contemporary economic principles regarding the advantages of global trade. At the heart of Smith's argument lies the idea of absolute

advantage, which suggests that nations should focus on the production of goods that they can create more efficiently than others. This focus on specialization promotes trade, enabling countries to swap goods and services, which in turn boosts overall economic progress.

A key aspect of Smith's theory is the belief that trade encourages capital formation, vital for economic development. By concentrating on the production of goods where they have a comparative advantage, nations can enhance their output and, as a result, increase their capital accumulation. This accumulation is essential as it supplies the necessary funds for investments in infrastructure, technology, and human capital enhancement. As countries engage in trade and grow richer, they are able to reinvest their profits back into their economies, further improving productivity and encouraging innovation.

Limitations of Adam Smith's Theory of Absolute Advantage

Oversimplification of Trade Dynamics: Smith's theory primarily focuses on absolute advantage, neglecting the complexities of comparative advantage, which provides a more profound understanding of trade. This limitation may lead to a partial analysis of how countries reap benefits from trading.

Neglect of Market Imperfections: Smith's framework does not take into account market imperfections such as monopolies, tariffs, and trade barriers, which can significantly distort trade patterns and economic benefits.

Assumption of Full Employment: The theory presumes full employment, a situation that frequently does not reflect reality in actual economies. Unemployment and underemployment can obstruct a nation's ability to specialize and engage in efficient trade.

This theory is well-suited for examining macroeconomic performance because it explicitly connects a country's growth in capital accumulation with economic advancement. The accumulation of capital initiates a positive cycle where enhanced productivity results in higher incomes, boosting demand and expanding markets, which in turn promotes sustained economic growth.

2.2.3 New Trade Theory

Proposed by Paul Krugman in the 1980s, this theory gained prominence with his influential paper "Increasing Returns, Monopolistic Competition, and International Trade," published in 1981. New Trade Theory (NTT) brings the notions of increasing returns to scale and imperfect competition into the realm of international trade theory. Unlike conventional theories such as the Heckscher-Ohlin model, which operate under the assumption of constant returns to scale and perfect competition, NTT posits that

some industries display economies of scale. In these sectors, higher production levels lead to lower average production costs, fostering market concentration and providing firms with a competitive edge in the global market. The theory further assumes that markets function under monopolistic competition rather than perfect competition. This scenario results in global trade patterns where nations can focus on producing unique products (such as cars and electronics), even if they lack absolute or comparative advantages in those industries. Krugman's central idea is that first-mover advantages and network effects can facilitate international trade between countries that are relatively alike in terms of their resource endowments. Technological advancements and large-scale manufacturing endow countries with a competitive advantage.

Limitations of the NTT theory

Overemphasis on Scale Economies: The theory presupposes that economies of scale are applicable across all industries, which may not hold true for every sector (for instance, agriculture or service-oriented industries).

Simplification of Real-World Competition: The premise of monopolistic competition fails to fully represent the intricacies of global competition, where oligopolistic markets with a small number of dominant firms may prevail.

Ignoring Factor Proportions: Although this theory emphasizes economies of scale, it somewhat overlooks the significance of factor endowments (as highlighted in the Heckscher-Ohlin model), which are still pertinent for certain types of trade.

New Trade Theory plays a crucial role in understanding macroeconomic performance since it elucidates the dynamic elements of international trade, including technological advancements, market concentration, and global supply chains, which have a direct impact on a nation's GDP growth, industrial performance, and competitiveness. This theory can be employed to examine how trade influences long-term growth, particularly in sectors characterized by economies of scale, such as technology, automotive, and pharmaceuticals.

2.2.4. Gravity Model of Trade

Numerous economists played a role in the development of the Gravity Model, with James E. Anderson and others enhancing it in the 1970s, especially through the establishment of empirical models for international trade dynamics. The Gravity Model of Trade serves as an empirical tool that accounts for trade movements between two nations, focusing on their economic scales (indicated by GDP) and the distance separating them. Larger nations typically engage in more trade due to their expansive markets, while nations that are more geographically proximate tend to trade more because of reduced transportation and transaction expenses. This model emphasizes that economic size and geographical closeness are crucial factors influencing trade,

while also considering elements such as cultural connections, historical ties, and trade agreements.

Limitations of the GMT theory

Does Not Consider Trade Barriers: The model posits that distance is the sole impediment to trade, yet in reality, various trade barriers such as tariffs, regulations, and non-tariff barriers (for instance, quotas and licensing) exist.

Over-Simplification: The model relies on a basic connection between trade, economic size, and distance, failing to incorporate elements like technology, specialization, and market structures.

Assumes Uniformity of Goods: The model presupposes that all goods are the same, neglecting the impact of differentiated products on trade flows.

The Gravity Model serves as a useful framework for understanding how geographical and economic elements affect trade patterns, which in turn influences a nation's macroeconomic performance. It illustrates how trade volume is related to economic size and distance, which is crucial when analyzing trade among neighboring nations, regional trade agreements, and the effects of globalization on economic growth. Additionally, the model offers a valuable practical tool for empirical research, making it useful for examining actual trade behaviors and their implications for GDP, employment, and other macroeconomic indicators.

New Trade Theory highlights the significance of economies of scale, monopolistic competition, and technological advancements, which are essential factors driving long-term growth in global trade today. While the Gravity Model of Trade aids in elucidating how economic size, closeness, and other variables influence trade flows, it directly affects economic expansion and regional integration.

2.3 Empirical Literatures

2.3.1 International Trade-Growth Nexus in Africa

A thorough examination of empirical studies indicates that the link between trade and growth remains ambiguous, mirroring the uncertainties found in theoretical discussions. Notably, Bandy (2021) conducted a long-term estimation utilizing the pooled mean group (PMG) method, revealing that trade openness did not facilitate economic growth in BRICS nations, but instead slowed down growth during the period from 1990 to 2018. This decline in economic output was also influenced by foreign direct investment (FDI), exchange rates, and domestic investment. The panel analysis did not support the findings of Rani and Kumar (2021), who employed fully modified and dynamic ordinary least squares methods to argue that trade openness positively impacted the economy of BRICS countries. Sghaier (2021) found that trade openness fostered accelerated output growth in four North African nations studied, recommending an increase in output levels to enhance trade openness and strengthen the domestic financial system.

Using a similar approach, Kong et al. (2021) conducted a differential analysis across Eastern, Western, and Central regions of China from 1994 to 2018, highlighting the varying effects of a more open economy among different regions. Their panel regression results showed that trade openness increased output exclusively in the Eastern region, with no significant effects observed in the Western and Central regions. The study concluded that the impact of economic openness varies by region and recommended strategic policies tailored to enhance growth in these areas.

Research by Duodu and Baidoo (2020) utilized the autoregressive distributed lag (ARDL) method, demonstrating that trade openness and institutional quality positively influenced economic growth in Ghana. Their findings emphasized that the quality of institutions played a negligible role in mediating the impact of trade openness on Ghana's economy. The study, which used seemingly unrelated regression and panel bootstrap Granger methodologies, concluded that institutional quality is insignificant in its influence on the trade-growth relationship in Ghana.

Kawa et al. (2020), who examined eleven EU member states from 1995 to 2008, found that trade openness was a predictor of economic growth in only six of those countries. In Croatia, economic growth occurred prior to an increase in trade openness. Their study, employing panel regression techniques, revealed a significant relationship between trade openness and economic growth in the selected EU countries. They recommended that

trade openness should be managed strategically, as it allows nations to market their domestically produced goods internationally.

2.3.2 International Trade and Economic Growth: ECOWAS

Lloyd et al. (2014) explored how export diversity and composition affect GDP growth and GDP per capita in the ECOWAS region from 1975 to 2007, utilizing Cointegration and Panel Least Squares estimation techniques. Their findings revealed that export diversification and the manufacturing value-added index positively and significantly influenced per capita growth. They further concluded that the volume of exports is less important than the type of exports, as regions with lower specialization and more varied exports generally demonstrated higher economic growth rates. This research highlighted the crucial role of export diversification rather than merely focusing on the relationship between exports and growth, and it concluded that many African developing countries have unfortunately faced stagnation in growth due to more aggressive liberalization policies.

Yelwa and Diyoke (2013) investigated the relationship between exports and economic growth in several selected ECOWAS countries. Their objective was to determine whether export-led growth could effectively stimulate economic growth as a substitute for foreign direct investment during the period from 1980 to 2011, employing Panel Model Analysis. They discovered a consistent export-driven growth trend among these

countries and demonstrated that export-led growth in the region has the potential to foster growth, particularly concerning aggregate net transfers and trade in exportable goods and services, concluding that export-led growth can indeed drive economic growth as an alternative to foreign direct investment.

Benik and Yoonus (2012) analyzed whether the member countries of ECOWAS possess favorable economic traits for deeper economic integration, specifically transitioning towards an economic union from 1963 to 2005. They found that an increase in trade resulting from deeper economic integration in the ECOWAS region could offset declines in trade between ECOWAS and the rest of the world. The study concluded that enhanced trade in the ECOWAS region generates resources necessary to boost aggregate demand, thereby meeting the fiscal needs for development expenditures.

2.3.3 International Trade and Economic Growth: Nigeria

YYeboah et al. (2023) investigated the impact of foreign trade (both exports and imports) on economic growth using World Bank data spanning from 1990 to 2020. To ensure the results were reliable, they applied various econometric techniques including a unit root test, the Johansen cointegration test, the vector error correction model, and the Granger causality test. The ADF and Kwiatkowski-Phillips-Schmidt-Shin unit root tests indicated that the variables were non-stationary at the level and integrated at the first-order difference. The research concluded that both exports and imports contribute

positively to Ghana's economic development. As a result, the study advises the government to assist and encourage local businesses to scale up production for both local consumption and export.

Mboto et al. (2022) explored the influence of foreign trade on the economic growth of Nigeria. They utilized secondary data obtained from the Central Bank of Nigeria's statistical bulletin. The Ordinary Least Squares multiple regression technique (OLS) was applied to assess the impact of independent variables on the dependent variable. The analysis revealed a significant correlation between trade balance, imports, exports, balance of payments, and economic growth, with GDP serving as a proxy, indicating that these variables positively affected Nigeria's economic growth. The study thus suggested that the government should implement a comprehensive fiscal policy and strategies to enhance production in Nigeria. Furthermore, it recommended allowing for policies that facilitate access to a broader range of technological knowledge inflows into Nigeria. The country should also create an open environment for foreign investment, particularly in advanced technology that could lead to increased innovation and subsequently boost the economy's growth rate.

Emehelu (2021) assessed the impact of international trade on Nigeria's economic growth from 1981 to 2018, employing the Ordinary Least Squares (OLS) method. The primary factors hindering Nigeria's trade include a limited production and export base dominated by low-value goods such as raw materials and primary commodities, along

with exceedingly high trade costs and various tariff and non-tariff barriers to intra-Nigeria trade. Using secondary data from the Central Bank of Nigeria's Statistical Bulletin 2018, the econometric diagnostics for unit roots in the series were performed using the Augmented Dickey-Fuller technique, confirming that the variables were integrated of order 1(1). The Johansen co-integration test was used to assess cointegration among the variables in the different equations, indicating a lack of long-run equilibrium. The study found that exchange rates negatively and insignificantly impacted economic growth. Moreover, it indicated that several trade policies in Nigeria have hindered the economic prosperity of the nation since their effect is negative and significantly impacts GDP growth. As a result, the study recommends that, given that import and export trade do not significantly contribute to growth in Nigeria, the federal government should initiate programs and policies that promote domestic production and limit the importation of certain essential goods to ensure trade positively influences the growth of Nigeria's economy.

Omoke and Opuala–Charles (2021) by taking institutional quality into account, explored the link between trade openness and Nigeria's economic growth. Total trade, import trade, and export trade are the three indices of trade openness considered in the study, which spans the years 1984 to 2017. Autoregressive Distribution Lag Model (ARDL) bounds testing technique was deployed to assess cointegration between the variables. According to the estimations, import trade has a significant negative

influence on economic growth whilst export trade has a significant positive impact on economic growth. The results also show that the negative longterm effects of import trade on economic growth increase when institutional quality in Nigeria becomes less pronounced. This study emphasizes the necessity of raising the level of governance in the nation. The recommends that the benefits of trade openness can be directed toward initiatives that promote economic growth with the support of strong institutions and good governance.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Theoretical framework

The theoretical foundation for this research is based on the Heckscher-Ohlin Trade Theory, introduced by Eli Heckscher in 1919 and further developed by Bertil Ohlin in 1933. The theory posits that nations will concentrate on manufacturing goods that make intensive use of their plentiful production factors, such as labor and capital, implying that labor-rich nations will produce goods that require significant labor input, while capital-rich nations will focus on capital-intensive products. Consequently, a country that has an abundance of capital will export goods that are capital-intensive, whereas a

labor-abundant nation will export goods that are labor-intensive. Nevertheless, the Leontief Paradox, which observed that the United States, a capital-rich country, exported labor-intensive goods while importing capital-intensive ones, presents a challenge to this theory's assertions (Leontief, 1953). Despite the contradictions posed by the Leontief Paradox, the Heckscher-Ohlin theory persists as a crucial framework for comprehending international trade. The predictions of this theory hold true in numerous situations, especially for countries that exhibit substantial disparities in resource endowments. For example, research conducted by Bowen, Leamer, and Sveikauskas (1987) demonstrated that the predictions of the Heckscher-Ohlin theory were validated within a multifactor, multi-good context. Factors such as variations in technology, institutional differences, and trade regulations can account for some inconsistencies with the Heckscher-Ohlin predictions. For instance, Trefler (1995) revealed that disparities in productivity among nations might clarify some of the divergences from the expectations of the Heckscher-Ohlin theory. The Leontief Paradox underscores the intricacies of global trade, yet it does not inherently refute the core predictions of the Heckscher-Ohlin theory.

The main difference from classical theory is that variations in factor endowments (such as capital, labor, and land) take precedence over technological differences as the leading cause of trade. Therefore, trade occurs due to discrepancies in the relative availability of production factors. This theory is suitable for analyzing macroeconomic

performance as it connects a nation's factor endowments to its trading behaviors and economic development. It illustrates how trade influences a country's income distribution, employment levels, and overall output. Additionally, it provides an understanding of how changes in factor endowments (like a rise in capital or skilled labor) can result in alterations in trade patterns, which is essential for grasping broader macroeconomic performance. This analysis also incorporates aspects of the Absolute Advantage Trade Theory introduced by

Adam Smith in 1776; this theory is fitting for examining macroeconomic performance since it correlates a country's growth in capital accumulation to economic development. Accumulating capital establishes a positive feedback loop whereby enhanced productivity results in increased income, which boosts demand and market growth, consequently promoting sustained economic advancement.

3.2 Methodology

3.2.1 Research Design

The research approach utilized in this study is the ex-post facto research design. This type of research focuses on events that have already occurred, where data is available, and there is no effort to control or alter relevant independent variables because these variables cannot be changed (Kerlinger 1986 and Campbell & Stanley 1963). Furthermore, as noted by Apere (2014), ex-post facto research design, also known as

causal-comparative research, is employed when the researcher aims to identify the cause-and-effect relationship between the independent and dependent variables in order to establish a causal connection between them. Therefore, the rationale for selecting this research design is based on the inability to manipulate data and the researcher's goal of assessing the cause-and-effect relationship concerning the influence of international trade on economic performance in Nigeria from 1990 to 2023, considering that this timeframe is crucial to Nigeria's economic context in relation to its trade with other nations.

3.2.2 Data type and source

Secondary data on Gross Domestic Product growth rate (GDP), imports, exports, foreign direct investment and inflation were sourced from the World Bank Developmental Outlook (2024), and the Central Bank of Nigeria statistical bulletin (2023), over the period 1990-2023, given that this period is strategic to the economic landscape of Nigeria with regard to her trade with foreign countries.

3.2.3 Estimation Technique

This research utilizes the Autoregressive Distributed Lag (ARDL) Bounds Testing method. This approach is appropriate for time series data featuring variables with differing integration orders ($I(0)$ and $I(1)$), and it enables the assessment of both short-term and long-term dynamics. Investigations into macroeconomic variables frequently

reveal a mix of integration orders (for instance, Omodero & Mlangi, 2019, identified unit roots at levels that became stationary after first differencing, indicating the existence of both I(0) and I(1) variables). This method provides a thorough analysis of the dynamic interrelationships, in contrast to simpler techniques like Ordinary Least Squares (OLS), which may produce misleading results if the variables are non-stationary. The numerical estimates of the parameters within the model are obtained through ARDL, supported by Econometric Views (EView version 10) software. Its strong statistical algorithms and graphical features render it an excellent option for performing rigorous empirical research on macroeconomic and financial data. The ARDL method thus offers a versatile and suitable framework for exploring the intricate relationships being studied.

3.3 Model Specification

The model to be estimated has the following variables as independent variables; Export, Import and Foreign direct investment. The dependent variable is Gross Domestic Product growth rate while The control variable is Inflation.

Many theories have been explored in chapter two (II) of this study. Among the numerous theories examined, it is noted that the evaluation of the Heckscher-Ohlin Trade Theory and the Absolute Advantage Theory serves as the foundational basis for the model specification of this research (Heckscher 1919, Ohlin 1933, and Smith, A.

1776). The framework for this research is grounded in the Heckscher-Ohlin theory and Adam Smith's notion of absolute advantage theory, as these theories provide a foundation for analyzing international trade patterns and inform the hypotheses concerning the relationships between the variables in this study. By applying these theories, this research aims to improve our understanding of how international trade influences macroeconomic performance in Nigeria.

The Heckscher-Ohlin Trade Theory, also known as the Factor Proportions Model, is based on the premise that countries export (EXPT) goods that utilize their relatively abundant and inexpensive factors of production, while importing (IMPT) goods that rely on their relatively scarce factors. This foundational premise of the Factor Proportions Model implies that international trade consists of two components: exports (EXPT) and imports (IMPT). This relationship can be expressed mathematically as follows;

$$I = f(\text{EXPT}, \text{IMPT}) \tag{3.1}$$

Where:

I = International Trade

f = Function

EXPT = Export

IMPT = Import

In the analysis of the Absolute Advantage Trade Theory, Adam Smith suggests that, due to its tendency for an increased accumulation of technical progress and capital, international trade becomes relevant for country's productivity level, and thereby ultimately determines the country's level of economic growth. Therefore, according to the analysis of the Absolute Trade Theory;

$$\text{GDPgr} = f(I) \tag{3.2}$$

Where:

GDPgr = Gross Domestic Product Growth Rate (take as a measure for economic growth or macroeconomic performance)

I = International Trade

From equation 3.1, since $I = f(\text{EXPT}, \text{IMPT})$, equation 3.2 can then be re-written as,

$$\text{GDPgr} = f(\text{EXPT}, \text{IMPT}) \tag{3.3}$$

If Foreign Direct Investment (FDI), being a major form of technological and capital accumulation is incorporated into the model, and Inflation (INF), is incorporated into the model as a control variable then equation 3.3 becomes expressed as,

$$\text{GDPgr} = f(\text{EXPT}, \text{IMPT}, \text{FDI}, \text{INF}) \quad - \quad - \quad - \quad 3.4$$

Where:

GDPgr = Economic performance (measured by GDP growth rate)

EXPT= Export

IMPT= Import

FDI = Foreign direct investment

INF = Inflation

The empirical model for examining the relationship between international trade and macroeconomic performance is given as;

$$\text{GDPgr}_t = \alpha_0 + \alpha_1 \text{LNEXPT}_t + \alpha_2 \text{LNIMPT}_t + \alpha_3 \text{FDI}_t + \alpha_4 \text{LNINF}_t + \mu_t \quad 3.5$$

Where: μ = Error term;

LN = The natural logarithm of the variables

α_0 = Constant term/ Intercept;

α_1 , α_2 , α_3 , and α_4 , are the respective coefficients of the individual parameter estimates.

All the other variables are as earlier defined.

Apriori Expectation

This tells us whether or not the explanatory variables conform to the postulations of economic theory in terms of their signs and magnitudes. Base on the stated models the apriori expectation are stated thus;

$$\alpha_0 > 0; \alpha_1 > 0; \alpha_2 < 0; \alpha_3 > 0 \text{ and } \alpha_4 < 0.$$

The expected relationships include a positive intercept (α_0) that signifies additional factors affecting GDP growth, with exports (α_1), expected to enhance GDP growth rate, imports (α_2), expected to negatively affect GDP growth rate and FDI (α_3) expected to enhance GDP growth rate, while the inflation (α_4) is expected to negatively influence GDP growth rate.

Building equations (3.5) into an ARDL model, we have:

$$\begin{aligned} \text{GDPgr}_t = & \\ & \alpha + \sum_{i=0}^p \alpha_{1i} \text{GDPgr}_{t-i} + \sum_{j=0}^q \alpha_{2j} \ln \text{EXPT}_{t-j} + \sum_{k=0}^r \alpha_{3k} \ln \text{IMPT}_{t-k} + \sum_{l=0}^s \alpha_{4j} \text{FDI}_{t-l} \\ & + \sum_{m=0}^t \alpha_{5m} \ln \text{INF}_{t-m} + \varepsilon_t \dots\dots\dots (3.6) \end{aligned}$$

To assess the long-term effects and short-term behaviors, the unrestricted Error Correction Model (ECM) will be employed. By incorporating equation (3.6) into an ECM framework, we arrive at:

$\Delta GDPgr_t =$

$$\alpha + \sum_{i=1}^{p-1} \alpha_{1i} \Delta GDPgr_{t-i} + \sum_{j=0}^{q-1} \alpha_{2j} \Delta \ln EXPT_{t-j} + \sum_{k=0}^{r-1} \alpha_{3k} \Delta \ln IMPT_{t-k} + \sum_{l=0}^{s-1} \alpha_{4l} \Delta FDI_{t-l} + \sum_{m=0}^{t-1} \alpha_{5m} \Delta \ln INF_{t-m} + \textcircled{O} ECT_{t-1} \dots\dots\dots(3.7)$$

The ECT_{t-1} measures how quickly agents correct prediction errors from the previous period. The variables $\Delta GDPgr_t$, $\Delta \ln EXPT_t$, $\Delta \ln IMPT_t$, ΔFDI_t , and $\Delta \ln INF_t$, represent the changes in the variables over the lagged time period.

3.4 Definition of variables

Dependent Variable

1. GDP growth rate: The GDP growth rate denotes the yearly percentage change in Nigeria's Gross Domestic Product (GDP), serving as an indicator of the pace of economic growth or decline.

Independent Variables

1. Export (EXPT): The monetary value of goods and services created in Nigeria and sold abroad.
2. Import (IMPT): The monetary value of goods and services acquired from foreign countries by Nigeria. Although some research suggests a negative effect of import

trade on economic growth, others propose that it can be beneficial when directed towards capital goods and technology. (Panta, Devkota, and Banjade 2022).

3. Foreign direct investment (FDI): Refers to investments made by international entities in Nigeria's economic framework.
4. Inflation (INF): Inflation refers to the pace at which overall prices in an economy rise over a specified time frame.

CHAPTER FOUR

EMPIRICAL RESULT AND DISCUSSION

4.0 Introduction

This section of the research focuses on presenting and interpreting the empirical results. The variables examined in this study include the gross domestic product growth rate, serving as a measure of macroeconomic performance (GDPgr), along with exports (EXPT), imports (IMPT), foreign direct investment (FDI), and inflation (INF). The Augmented Dickey Fuller unit root test was employed to assess the stationarity of each variable. Following the unit root test, additional tests pertinent to the autoregressive distributive lag model (ARDL) method were conducted, such as identifying the appropriate lag length for the ARDL model using the Akaike Information Criterion (AIC), as well as the bounds testing procedure to determine whether a long-term relationship exists between the dependent variable (GDP growth rate) and the independent variables (EXPORT, IMPORT, FDI, and INF). Finally, a series of diagnostic assessments, including tests for autocorrelation, heteroscedasticity, and normality, were performed to ensure the accuracy and validity of the results obtained from the ARDL model. This comprehensive approach ensures that the results are trustworthy and can guide future effective policy recommendations.

The independent variables, namely export, import, and inflation, were transformed using logarithmic functions. Logarithmic transformation assists in stabilizing variance and normalizing the distribution of these variables. This is particularly relevant in economic

research, where the relationships between exports and imports usually grow at different rates. Additionally, applying logarithms to these variables helps mitigate issues linked to heteroskedasticity, which can distort the results of regression analyses. Log transformation is essential for alleviating the heteroskedasticity issue because it compresses the measurement scale of the variables, effectively reducing a tenfold difference between two values to a twofold difference (Gujarati, 2004).

4.1 Descriptive Statistics Results

Descriptive statistics offer essential insights into the central tendencies, variability, and distributional attributes of the dataset. These initial findings are vital prior to engaging in more complex econometric modeling because they reveal potential concerns like outliers, skewness, and kurtosis that can affect model assumptions and interpretations. In Table 4.1, the descriptive statistics for both the dependent and independent variables are displayed in their original form.

Table 4.1: Descriptive statistics

	GDP	EXPORT	IMPORT	FDI	INF
Mean	4.245753	8754220.	7372983.	2630.486	18.40441
Median	4.213000	7817219.	3510236.	1548.585	12.94500
Maximum	15.32920	36247788	32642666	8084.800	72.84000
Minimum	-2.035100	109886.1	45717.90	186.7900	5.390000
Std. Dev.	3.905552	8683461.	8567907.	2503.065	15.97081
Skewness	0.500464	1.178443	1.368919	1.050794	2.135852
Kurtosis	3.486561	4.310279	4.112336	2.811923	6.675874
Jarque-Bera	1.754681	10.30163	12.37182	6.307067	44.99263
Probability	0.415888	0.005795	0.002058	0.042701	0.000000
Sum	144.3556	2.98E+08	2.51E+08	89436.53	625.7500
Sum Sq. Dev.	503.3601	2.49E+15	2.42E+15	2.07E+08	8417.202
Observations	34	34	34	34	34

Source: Author's Computation, 2025.

The descriptive statistics in table 4.2 indicate that Nigeria's GDP growth rate averaged 4.25 percent over the study period. This suggests a moderate pace of economic expansion, though not without significant fluctuations. The minimum growth rate recorded was -2.03 percent, reflecting periods of economic recession, while the maximum was 15.32 percent, corresponding to oil-driven booms and favourable external conditions. With a standard deviation of 3.91, GDP growth demonstrates considerable variability across the years. The skewness (0.50) and kurtosis (3.49) values indicate a fairly normal distribution, further confirmed by the Jarque-Bera statistic, which is not significant at conventional

levels ($p = 0.416$). This implies that GDP growth in Nigeria is approximately normally distributed, though subject to periodic shocks.

Exports recorded an average value of ₦8.75 trillion, underscoring the central role of trade—particularly crude oil exports—in Nigeria’s economy. The minimum export value was ₦109.89 billion, while the maximum was as high as ₦36.25 trillion, reflecting sharp increases during oil price booms. The high standard deviation (₦8.68 trillion) demonstrates the extreme volatility of export earnings. The skewness (1.18) and kurtosis (4.31) values indicate that the export distribution is positively skewed and leptokurtic, suggesting a concentration of lower export values with occasional extreme spikes. The Jarque-Bera probability (0.0058) confirms that exports are not normally distributed, which aligns with the volatility typically associated with oil-dependent economies.

Imports had an average value of ₦7.37 trillion, slightly below exports, suggesting that Nigeria’s external sector is prone to persistent trade imbalances. The minimum import value was ₦45.7 billion, while the maximum stood at ₦32.64 trillion, reflecting periods of high import demand for consumer and industrial goods. The standard deviation (₦8.56 trillion) points to high variability in imports over time. With skewness (1.37) and kurtosis (4.11), the distribution is positively skewed and leptokurtic, showing that most years experienced relatively moderate import values, but with occasional very high spikes. The Jarque-Bera probability (0.0020) rejects normality, indicating the highly volatile nature of Nigeria’s import dependence.

Foreign Direct Investment inflows, measured in U.S. dollars, averaged about USD 2.63 billion during the study period. This figure reflects modest levels of foreign capital inflows compared to the scale of Nigeria's trade sector, underscoring the country's limited ability to attract sustained international investment. The minimum value of USD 186.79 million indicates periods of very low net capital inflows or investment, while the maximum inflow of USD 8.08 billion occurred during peak years of investor confidence, often linked to oil price booms or policy reforms. With a standard deviation of USD 2.50 billion, FDI shows substantial volatility, shaped by political instability, oil price shocks, and regulatory uncertainties in Nigeria. The distribution is positively skewed (1.05), with kurtosis of 2.81, suggesting that while most years had moderate inflows, there were a few exceptional years of high investment. The Jarque-Bera probability (0.0427) indicates mild deviation from normality, pointing to the erratic nature of FDI inflows. Overall, the results highlight Nigeria's struggle to attract consistent, long-term foreign capital despite its resource potential.

The average inflation rate during the sample period is approximately 18.40. This implies that, on average, the price level for goods and services consumed by households has risen by about 18.40% compared to the base year. The maximum recorded inflation rate of 72.84 indicates a significant inflation surge within the sample. Such a steep figure points to a period of hyperinflation, potentially caused by various factors including economic instability, supply chain issues, or poor fiscal policies. The lowest inflation rate recorded

at 5.39 reflects the minimum inflation during this time frame. This suggests that there were years characterized by relatively low inflation, possibly indicating periods of economic stability or successful monetary policy. The standard deviation of around 15.97 signifies a considerable degree of fluctuation in inflation. This implies that inflation rates have varied greatly throughout the years. The skewness value of 2.14 and kurtosis value of 6.68 indicate a highly asymmetrical and peaked distribution, which highlights the presence of extreme inflationary shocks in certain years. The Jarque-Bera probability (0.0000) provides strong evidence against normality, affirming that movements in inflation rates are highly volatile and prone to structural changes.

4.2 Unit Root Test Results

A unit root test is conducted on time series data to ascertain the stationarity of the data series. The stationarity of a historical sequence implies that its mean, variance and covariance are constant over time. In other words, it is time invariant. The study employed the Augmented Dickey Fuller Unit Root Test to examine the unit-root properties of the specified regression models. Table 4.2 highlights the outcome of the ADF unit-root test.

Table 4.2: Augmented Dickey Fuller (ADF) Unit Root Test

Variable	ADF Statistic		Critical Value (5%)		~I(d)
	Level	Prob.	1 st Diff.	Prob.	
GDPGR	-3.735593	0.0080			I(0)

LNEXPT	-1.775772	0.3854	-5.172167	0.0002	I(1)
LNIMPT	-2.382230	0.1542	-7.801277	0.0000	I(1)
FDI	-1.483599	0.5293	-6.360735	0.0000	I(1)
LNINF	-2.375185	0.1562	-4.671577	0.0007	I(1)

Source: Author's Computation, 2025.

Table 4.3 is the result of the Augmented Dickey Fuller (ADF) unit root test. The ADF statistic for GDPGR at level is -3.7356 with a p-value of 0.0080 , which is less than the 5% significance level. This implies that the null hypothesis of a unit root is rejected. Hence, GDP growth rate is stationary at level, integrated of order zero, $I(0)$.

At level, the ADF statistic for LNEXPT is -1.7758 with a probability of 0.3854 , which is greater than 0.05 , indicating non-stationarity. However, after first differencing, the ADF statistic improves to -5.1722 with a p-value of 0.0002 , significant at 5%. Therefore, exports are stationary after first differencing, integrated of order one, $I(1)$.

At level, the ADF statistic for LNIMPT is -2.3822 with a p-value of 0.1542 , showing evidence of non-stationarity. After first differencing, the statistic is -7.8013 with a p-value of 0.0000 , well below 0.05 . This indicates that imports are stationary at first difference, integrated of order $I(1)$.

The ADF statistic of FDI at level is -1.4836 with a probability of 0.5293 , which is greater than 0.05 , confirming non-stationarity. At first difference, the statistic is -6.3607 with a

p-value of 0.0000, significant at 5%. Thus, FDI is stationary at first difference, integrated of order I(1).

The ADF statistic at level for LNINF is -2.3752 with a probability of 0.1562, clearly non-stationary. After first differencing, the statistic is -4.6716 with a p-value of 0.0007, significant at 5%. Therefore, inflation is stationary at first difference, integrated of order I(1).

4.3 ARDL Estimation

The Augmented Dickey-Fuller (ADF) test was employed to examine the stationarity properties of the series used in this study. The results reveal that GDP growth rate (GDPGR) is stationary at level, integrated of order zero, I(0). Exports (LNEXPT), imports (LNIMPT), foreign direct investment (FDI), and inflation (LNINF) were all found to be non-stationary at levels but became stationary after first differencing, making them integrated of order one, I(1). The mixture of I(0) and I(1) variables confirms the appropriateness of the Autoregressive Distributed Lag (ARDL) bounds testing approach for analysing the short-run and long-run relationships between international trade variables and macroeconomic performance in Nigeria

4.3.1 Optimal Lag Length

Estimation using ARDL approach begins with an assessment of the optimal lag length. Accordingly, the result of the optimal lag model selection as chosen by the Akaike Information Criteria (AIC) is shown in Table 4.3.

Table 4.3 Optimal Lag Length

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-447.1341	NA	3206430.	29.16994	29.40123	29.24534
1	-352.8560	152.0615	37636.37	24.70038	26.08811*	25.15275
2	-323.1581	38.31976*	31863.43	24.39730	26.94147	25.22664
3	-284.8029	37.11799	19840.52*	23.53567*	27.23628	24.74198*
* indicates lag order selected by the criterion						
LR: sequential modified LR test statistic (each test at 5% level)						
FPE: Final prediction error						
AIC: Akaike information criterion						
SC: Schwarz information criterion						
HQ: Hannan-Quinn information criterion						

Source: Author’s Computation, 2025

The Akaike Information Criterion (AIC), was used to select the number of lags required. The lag length that minimized the AIC at the lowest level of FPE is 3.

4.3.2 Co-integration test

The study utilised the bound test approach to ascertain whether there is long run relationship between variables in the model. The result of the bound test is found in Table 4.4.

Table 4.4 ARDL Bound test

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)

F-statistic	3.767330	10%	2.2	3.09
k	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

Source: Author's Computation, 2025

The ARDL bounds test was utilized to investigate the presence of a long-run relationship among the GDP growth rate, exports (EXPT), imports (IMPT), foreign direct investment (FDI), and inflation (INF). The calculated F-statistic of 3.767 surpasses the upper bound critical value at the 5% significance level ($I(1) = 3.49$), while it falls short of the upper bound at the 1% significance level ($I(1) = 4.37$). This finding suggests that the null hypothesis asserting the absence of a long-run relationship can be rejected at the 5% level, but not at the more stringent 1% level. Consequently, this study determines that a long-run cointegrating relationship exists among the international trade variables, namely exports, imports, FDI, inflation, and the macroeconomic performance of Nigeria, as indicated by the GDP growth rate.

4.3.3 ARDL Longrun and Shortrun Output

Table 4.5 Long-run ARDL Output

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNEXPORT	5.949613	1.933841	3.076579	0.0060
LNIMPORT	-5.901661	1.754212	-3.364280	0.0031
FDI	0.000140	0.000269	0.520916	0.6081

LOG(INF)	-3.141609	1.310400	-2.397443	0.0264
C	8.989324	8.704453	1.032727	0.3141
EC = GDP - (5.9496*LNEXPORT -5.9017*LNIMPORT + 0.0001*FDI -3.1416				
*LOG(INF) + 8.9893)				

Source: Author's Computation, 2025

The findings demonstrate that exports (LNEXPT) have a positive and statistically significant effect on Nigeria's economic growth in the long term. Specifically, a 1 percent increase in exports results in a 5.95 percent rise in the GDP growth rate, assuming other variables remain unchanged. This conclusion supports the export-led growth hypothesis, highlighting the need to enhance Nigeria's export sector, particularly beyond crude oil, as a means of achieving sustainable growth (Emeka; Frederick and Peter 2012).

On the other hand, imports (LNIMPT) have a negative and highly significant impact on GDP growth. A 1 percent rise in imports leads to a 5.90 percent decline in GDP growth over the long term. This substantial negative impact reflects Nigeria's heavy reliance on imported goods, which not only undermines domestic industries but also depletes foreign reserves. This outcome is consistent with dependency theory, which posits that excessive dependence on imports can destabilize macroeconomic conditions in developing nations. It parallels Akinlo's (2013) findings that excessive import reliance may impede economic growth in developing economies.

Foreign direct investment (FDI) shows a positive coefficient (0.000140), but it is not statistically significant (prob. = 0.6081). This indication suggests that FDI does not significantly affect GDP growth over the long run within the context of this model. The lack of significance could imply that FDI inflows are not translating effectively into economic growth, possibly due to challenges such as insufficient infrastructure or regulatory hurdles. This observation concurs with Ogujiuba et al. (2014), who pointed out that the effectiveness of FDI in promoting growth often depends on the local economic circumstances.

The coefficient for inflation (LNINF) stands at -3.14 and is statistically significant (Prob. = 0.0264). This means that a 1 percent increase in inflation results in a 3.14 percent decrease in the GDP growth rate in the long term. This notable negative elasticity suggests that high and persistent inflation fundamentally undermines GDP growth in Nigeria and reduces purchasing power. This result underscores the detrimental effects of inflation on economic performance, aligning with Onakoya et al. (2014), who noted that rising inflation rates can erode purchasing power and create uncertainty in economic planning.

The ARDL long-run analysis reveals significant relationships between GDP growth and the independent variables LNEXPORT and LNIMPORT, while inflation negatively influences GDP growth. However, FDI does not exhibit a significant effect in this model. These findings highlight the importance of fostering exports and the need for careful

management of imports while also addressing inflation's negative repercussions to enhance economic growth in Nigeria.

.Table 4.6 Short run ARDL Output

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP(-1))	0.364606	0.184637	1.974712	0.0623
D(GDP(-2))	0.571849	0.145587	3.927898	0.0008
D(LNIMPORT)	-2.300798	1.478270	-1.556413	0.1353
DLOG(INF)	-1.534137	0.932711	-1.644815	0.1156
DLOG(INF(-1))	3.624634	0.980774	3.695687	0.0014
CointEq(-1)*	-0.939218	0.176693	-5.315541	0.0000
R-squared	0.639442	Mean dependent var		-0.057129
Adjusted R-squared	0.567331	S.D. dependent var		3.449476
S.E. of regression	2.268983	Akaike info criterion		4.648526
Sum squared resid	128.7071	Schwarz criterion		4.926071
Log likelihood	-66.05215	Hannan-Quinn criter.		4.738999
Durbin-Watson stat	2.316760			

Source: Author's Computation, 2025

The coefficient for the lagged change in GDP (D(GDP(-1))) is positive (0.365) yet statistically insignificant (prob. = 0.0625). This suggests that while there is a positive correlation indicating a 1 percent increase in the previous period's GDP growth leads to a 0.36% rise in current GDP growth, it does not reach the typical thresholds for significance. This finding exemplifies the idea that previous economic performance

might influence current activity, but is not reliable enough to draw definitive conclusions (Fadeyibi & Adegbite, 2015). On the other hand, the next lagged value of the GDP growth rate ($D(GDP(-1))$) is positive (0.572) and statistically significant (0.0008), indicating that Nigeria's economic growth reflects strong persistence, where earlier growth rates have a considerable effect on present performance.

The coefficient for the change in imports ($D(LNIMPORT)$) is negative (-2.301) and statistically insignificant (prob. = 0.1353). The negative coefficient indicates that, all else being equal, a 1 percent increase in imports is associated with a 2.301 percent decrease in GDP growth. However, since the p-value is greater than 0.05, this relationship lacks statistical significance. This insignificance suggests that, while a notable negative relationship between imports and GDP growth may exist, the evidence is insufficient to confidently claim its influence. Consequently, we cannot reliably conclude that changes in imports have a significant impact on GDP growth in the short term. The interaction between imports and GDP growth is complex and may not consistently yield clear outcomes (Akinlo, 2013).

Inflation exhibits a complicated pattern in the short run. The direct effect of inflation ($DLOG(INF)$) is negative (-1.534) and statistically insignificant (prob. = 0.1156), indicating that while a negative trend is observed, its immediate impact on GDP growth is not strongly predictable in the short term, aligning with some research that found weak short-term influences of inflation (Ashley et al., 2024). Conversely, the following lagged

term $DLOG(INF(-1))$ is positive (3.625) and significant (prob. = 0.0014), suggesting that the effects of inflation on economic growth may manifest with a delay. This dual influence implies that while inflation might be detrimental in the short term, it could positively contribute to GDP growth in subsequent periods.

The error correction term (CointEq(-1)) is negative (-0.9392) and highly statistically significant ($p = 0.0000$). This indicates a very rapid speed of adjustment towards long-run equilibrium, with approximately 93.92 percent of correction occurring in each period. In practical terms, any short-run imbalance is quickly corrected back to the long-run growth trajectory, highlighting the stability of the ARDL model.

The short-run model aligns well with the data, showing an R^2 of 0.6394, which means roughly 63.94 percent of the variations in GDP growth are accounted for by the explanatory variables. The adjusted R^2 (0.5673) also reflects good explanatory strength. The Durbin-Watson statistic (2.32) indicates no serious autocorrelation, while the information criteria values support the model's adequacy.

The absence of $LNEXPORT$ and FDI in the short-run model can be attributed to several factors. First, the characteristics of economic interactions can differ greatly between the short and long term. In the short run, variables may respond differently to economic fluctuations, and their immediate effects might not accurately reflect their long-term connections to GDP growth. Specifically, exports can be influenced by short-term market conditions, trade regulations, or shifts in external demand, which may not be captured in

short-run dynamics (Ojo & Adewumi, 2018). Moreover, the responses related to FDI are frequently characterized by delayed effects. While FDI can contribute to economic growth over a longer period, its immediate impact in the short term may be minimal due to factors like investment lags and the time required for capital to become productive (Ogujiuba et al., 2014). The exclusion of these variables from the short-run analysis underscores the intricacies of their effects and highlights the necessity for further investigation into their roles within the economic context. The short-run analysis utilizing ARDL indicates notable associations between GDP growth and the prior GDP variable; however, exports and FDI do not show significant effects in the short term, while inflation displayed a complicated

pattern. The model demonstrates strong explanatory power, as evidenced by the R-squared and adjusted R-squared values, and a robust error correction term implies a rapid return to equilibrium. These findings are crucial for understanding the dynamics of economic growth in Nigeria and stress the importance for policymakers to consider both short-run and long-run impacts when devising economic policies.

4.4 Post-Diagnostic Tests

a. Serial Correlation and Heteroscedasticity Tests

Additionally, post-estimation tests were performed on the outputs of the specified model, with the results displayed in Table 4.8 below. The findings from the post-estimation diagnostic tests affirm the adequacy of the ARDL model. The Breusch-Godfrey LM test

shows no signs of serial correlation, as the probability values associated with both the F-statistic and the Chi-square statistic surpass 0.05. Likewise, the Breusch-Pagan-Godfrey heteroskedasticity test suggests that the residuals are homoskedastic, since all test statistics are not significant at standard levels. These outcomes validate that the model is correctly specified, devoid of significant econometric issues, and appropriate for dependable inference.

Table 4.7 serial correlation test

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.672609	Prob. F(2,18)	0.2156
Obs*R-squared	4.858313	Prob. Chi-Square(2)	0.0881

Source: Author’s Computation, 2025

The Breusch-Godfrey LM test indicates that the F-statistic (1.673) has a probability value of 0.2156, while the Obs*R-squared statistic (4.858) also yields a probability of 0.0881. Since both p-values are greater than 0.05, we fail to reject the null hypothesis of no serial correlation. This implies that the model is free from autocorrelation, confirming that the residuals are independently distributed and the results are reliable.

Table 4.8 Heteroscedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.871237	Prob. F(10,20)	0.1118
Obs*R-squared	14.98445	Prob. Chi-Square(10)	0.1326

Scaled explained SS	9.666406	Prob. Chi-Square(10)	0.4702
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Source: Author's Computation, 2025

The Breusch-Pagan-Godfrey (BPG) Heteroskedasticity test shows that the F-statistic (1.871, $p = 0.1118$), the Obs*R-squared statistic (14.984, $p = 0.1326$), and the Scaled Explained SS statistic (9.666, $p = 0.4702$) are all insignificant at the 5% level. This means that we fail to reject the null hypothesis of homoskedasticity. The residuals exhibit constant variance.

b. Jarque Bera Normality Test

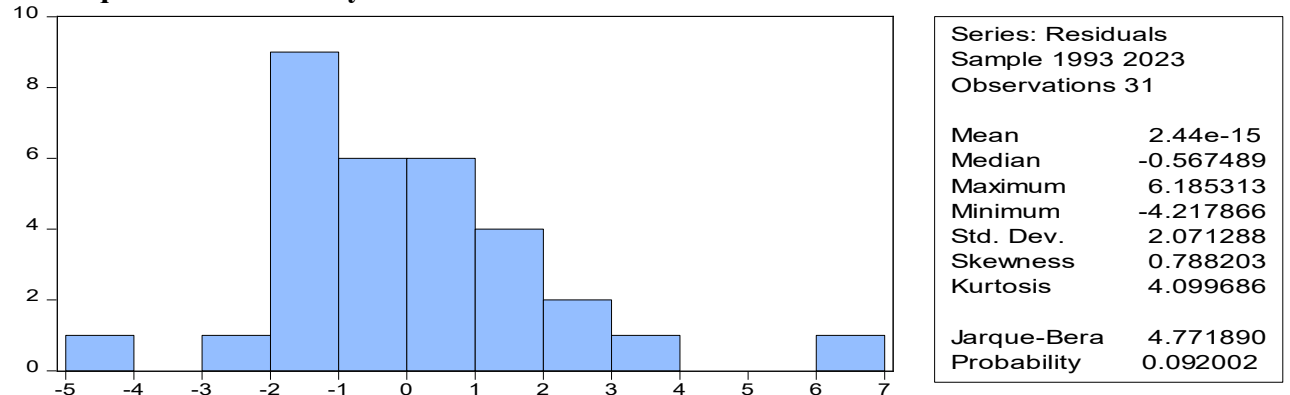


Figure 4.1 Normality Distribution

Source: Author's Computation, 2025.

Figure 4.1 shows that the Jarque Bera test of Normality is in conformity with expectations as the J.B probability value of 0.092 is above the 5% significance level.

4.5 Discussion of Findings

The empirical findings of this research offer valuable perspectives on the connection between international trade and the macroeconomic performance of Nigeria. The results

indicate that exports have a positive and notable impact on GDP growth in the long term, although they do not influence GDP growth in the short term. This long-term positive impact aligns with the export-led growth theory, which suggests that expanding trade can stimulate output by developing external markets, improving resource allocation, and promoting productivity improvements (Tyler, 1981; Feder, 1983). In the context of Nigeria, this outcome supports the studies by Iyoha (2002) and Adeniran, Yusuf, & Adeyemi (2014), who discovered that exports, particularly crude oil, have historically driven economic growth despite fluctuations in global markets.

Conversely, imports were shown to have a negative and highly significant long-term impact on GDP growth, while in the short term, their effect on GDP growth was negative but statistically insignificant. These findings are consistent with the assertions made by Obi (2007) and Olayiwola & Osabuohien (2010), who argued that Nigeria's heavy reliance on imported consumer goods hinders industrial development and macroeconomic stability. This outcome also supports the dependency theory, which suggests that an overdependence on imports deepens structural vulnerabilities in developing economies.

The findings also indicate that foreign direct investment (FDI) inflows have a positive but insignificant effect on GDP growth in the long term, with no impact observed in the short term. The lack of significance may suggest that FDI inflows are not effectively translating into economic growth, potentially due to challenges such as inadequate

infrastructure or regulatory complications. This finding corresponds with the work of Akinlo (2004) and Adegbite & Ayadi (2011), who reported that the growth influence of FDI in Nigeria is mixed and varies based on absorptive capacity and the policy environment.

Inflation was found to have a negative and statistically significant effect on GDP growth in the long run, while showing a mixed impact in the short term. The long-term results highlight the detrimental effect of inflation on economic performance, which aligns with the findings of Onakoya et al. (2014), who noted that rising inflation rates can reduce purchasing power and create uncertainty in economic planning.

The diagnostic tests confirmed the robustness of the estimated ARDL model, indicating it is free from serial correlation and heteroskedasticity, thereby enhancing the reliability of the results. In summary, the findings suggest that the growth trajectory of Nigeria is more influenced by trade dynamics than by investment inflows. Consequently, policies that encourage export diversification, manage dependency on imports, control inflation, and attract productive FDI are essential for achieving sustained macroeconomic performance.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This research empirically explored the effects of international trade on Nigeria's macroeconomic performance. The study utilized historical data on gross domestic product growth rate, exports, imports, foreign direct investment, and inflation spanning from 1991 to 2023. To assess the four specific objectives outlined in the introductory chapter, three econometric models were developed. The analysis of these specified models was conducted using the ARDL estimation approach. Therefore, this chapter summarizes the findings from the empirical analysis, outlines the main conclusions reached, and presents pertinent policy recommendations.

5.1 Summary of Findings

This research examined how international trade affects Nigeria's macroeconomic performance, using GDP growth rate as the dependent variable. Leveraging annual time-series data and the ARDL bounds testing technique, the study investigated both short-run and long-run interactions.

The ARDL bounds test indicated a long-run relationship exists between GDP growth rate and the independent variables (Exports, Imports, Foreign Direct Investment, and Inflation). The long-term results indicated that exports have a significant and positive effect on GDP growth rate, suggesting that an increase in exports will boost GDP growth, whereas imports have a considerable negative impact on GDP growth, indicating that rising imports will hinder GDP growth. Foreign direct investment favored GDP growth positively, although the effect was minor and statistically insignificant, while inflation negatively and significantly impacted GDP growth, indicating that increased inflation adversely affects GDP growth.

In the short term, GDP growth exhibited persistence, with previous growth notably affecting current output. In the short run, exports had no effect on GDP growth, while imports presented a negative but insignificant influence on GDP growth. Foreign direct investment was determined to have no short-run effect on GDP growth, and inflation demonstrated a varied impact on GDP growth in the short term; its immediate effect was negative and statistically insignificant, while the subsequent lagged period showed a positive and statistically significant effect. The error correction term was negative and highly significant, indicating a robust adjustment mechanism toward long-run equilibrium in the event of disequilibrium. Diagnostic tests confirmed the robustness of the ARDL model, showing no signs of serial correlation or heteroskedasticity.

5.2 Conclusion

The results of this research highlight the essential role of international trade in influencing Nigeria's macroeconomic performance. Exports are a critical engine of economic growth in Nigeria, supporting the export-led growth theory, which asserts that trade expansion fosters output by opening external markets, improving resource allocation, and promoting productivity improvements (Tyler, 1981; Iyoha, 2002). Meanwhile, a heavy reliance on imports is detrimental to long-term performance, aligning with dependency theory, which argues that overdependence on imports solidifies structural weaknesses in developing economies (Obi, 2007; Olayiwola & Osabuohien, 2010). Foreign direct investment positively affects economic growth in the long run, despite its small magnitude and lack of statistical significance. In the short run, foreign direct investment has no impact on economic growth, suggesting that investment inflows do not always target productive or growth-enhancing sectors (Akinlo, 2004; Adegbite & Ayadi, 2011). Inflation negatively and insignificantly influenced short-run economic growth, yet its long-run impact is negative and statistically significant, indicating that high and persistent inflation fundamentally undermines GDP growth in Nigeria and diminishes purchasing power.

In conclusion, the study finds that Nigeria's growth trajectory is predominantly shaped more by trade dynamics and inflationary trends than by investment inflows. Achieving sustainable growth necessitates policies that promote export diversification, reduce import reliance, curtail inflation, and direct foreign direct investment toward productive sectors.

5.3 Recommendations

Based on the research, the following policy suggestions are proposed:

1. Nigeria ought to focus on broadening its export portfolio beyond crude oil. Enhancing agricultural exports, manufacturing, and services within frameworks like the African Continental Free Trade Area (AfCFTA) can help stabilize foreign earnings and lessen dependence on fluctuating oil prices.
2. The government should implement targeted import substitution strategies, especially in vital sectors such as agriculture, textiles, and manufacturing, to decrease reliance on imported goods. Providing incentives for domestic production and improving infrastructure will alleviate the adverse effects of imports on economic growth.
3. Policies should aim to attract foreign direct investment (FDI) into key sectors that promote growth, such as manufacturing, infrastructure, and technology. This will boost

FDI inflows, which will significantly contribute to productivity, job creation, and sustainable economic growth and development.

4. The Central Bank of Nigeria (CBN) should prioritize maintaining price stability as a fundamental goal of monetary policy, ensuring that inflation stays in check.

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APPENDIX

YEAR	EXPT (N'Mil)	IMPT (N'Mil)	FDI (\$Mil)	GDPGR (rate)	INF
1990	109,886.10	45,717.90	587.88	11.7769	7.36
1991	121,535.40	89,488.20	712.37	0.3584	13.01

1992	205,611.70	143,151.20	896.64	4.6312	44.59
1993	218,770.10	165,629.40	1035.15	-2.0351	57.17
1994	206,059.20	162,788.80	1096.16	-1.8149	57.03
1995	950,661.40	755,127.70	335.84	-0.0727	72.84
1996	1,309,543.40	562,626.60	499.28	4.1959	29.27
1997	1,241,662.70	845,716.60	469.58	2.9371	8.53
1998	751,856.70	837,418.70	299.57	2.5813	10
1999	1,188,969.80	862,515.70	1000	0.5841	6.62
2000	1,945,723.30	985,022.39	1014.04	5.0159	6.93
2001	1,867,953.85	1,358,180.33	1019.1	5.9177	18.87
2002	1,744,177.68	1,512,695.33	1087.8	15.3292	12.88
2003	3,087,886.39	2,080,235.27	2001.01	7.3472	14.03
2004	4,602,781.54	1,987,045.27	1018.8	9.2506	15
2005	7,246,534.80	2,800,856.33	4098.8	6.4385	17.86
2006	7,324,680.63	3,108,519.32	4085.8	6.0594	8.23
2007	8,309,758.32	3,911,952.63	6006.6	6.5911	5.39
2008	10,387,693.62	5,593,180.45	8019.1	6.7645	11.58
2009	8,606,319.72	5,480,656.12	8056.5	8.0369	12.54
2010	12,011,475.87	8,163,974.57	6003.3	8.0057	13.74
2011	15,236,665.99	10,995,863.63	8084.8	5.3079	10.83
2012	15,139,326.13	9,766,556.74	7007.7	4.2301	12.22
2013	15,262,013.61	9,439,424.71	5056.5	6.6713	8.5
2014	12,962,026.84	10,538,914.51	4069.6	6.3097	8.05

2015	8,845,158.81	11,076,068.34	3006.3	2.6527	9.01
2016	8,835,611.91	9,480,366.87	2041.4	-1.6169	15.7
2017	13,988,143.19	10,804,845.85	2041.1	0.8059	16.5
2018	18,707,327.43	13,445,112.75	775.2	1.9228	12.1
2019	19,910,533.80	20,449,968.39	2039.3	2.2084	11.4
2020	12,613,592.70	20,519,192.15	2039	-1.7943	13.25
2021	19,204,170.87	22,954,835.52	3031.3	3.6472	16.95
2022	27,251,572.39	27,115,108.58	186.79	3.2517	18.85
2023	36,247,788.33	32,642,666.15	1087.8	2.8602	28.92

Source: CBN Annual Statistics(2023), World bank developmental outlook 2024