© JAN 2026 | IRE Journals | Volume 9 Issue 7 | ISSN: 2456-8880
DOI: https://doi.org/10.64388/IREV9I7-1713473

International Seaborne Trade and Economic Growth in Nigeria (1981 – 2023)

ABAEKWUE EMEKA VICTOR[1], ELEYI ELIAS[2], EYIOKO NEWMAN[3]
[1, 2, 3]*Department of Maritime Science, River State University, Port Harcourt, Rivers State, Nigeria.*

Abstract- ***The empirical study investigated the effect of international seaborne trade on economic growth in Nigeria from 1981 to 2023. The study employed real gross domestic product (RGDP) as the dependent variable, with oil exports (OEXP), non-oil exports (NOEXP), refined oil imports (ROIMP), and non-oil imports (NOIMP) as explanatory variables. Annual time series data were obtained from the Nigerian Ports Authority (NPA), Central Bank of Nigeria (CBN) Statistical Bulletin, and National Bureau of Statistics (NBS). The econometric methodology adopted by the study included the Augmented Dickey-Fuller (ADF) unit root test, the ARDL bounds cointegration approach, and short- and long-run estimations. The unit root results revealed a mixed order of integration I(0) and I(1), justifying the use of ARDL bounds testing, which confirmed a long-run equilibrium relationship among the variables. Results showed that oil exports exerted a positive and statistically significant effect on RGDP in both the short and long run, while non-oil exports also had a strong positive and significant effect in both the short and long run, underscoring the importance of export diversification. Conversely, refined oil imports negatively and significantly influenced RGDP in both the short and long run. Non-oil imports exhibited a statistically insignificant effect on RGDP in both the short and long run. The study concluded that international seaborne trade remains a critical driver of Nigeria's economic growth.***

Keyword: Oil Export, Non-Oil Export, Refined Oil Import, Non-Oil Import, Real Gross Domestic Product

I. INTRODUCTION

This study seeks to investigate the effect of international seaborne trade on economic growth in Nigeria. By evaluating the effect of oil export, non-oil export, refined -oil import, non-oil import on real gross domestic product (RGDP).

II. LITERATURE REVIEW

Theoretical Framework

This study examines the effect of international seaborne trade on economic growth in Nigeria. In this section the theoretical framework underpinning the study has been explored. Theories such as: Comparative advantage theory and theory of international trade have been x-rayed in this section.

2.1 Conceptual Review

The conceptual review covers such subtopics as international seaborne trade, oil export, non-oil export, dry bulk trade, economic growth in Nigeria and real gross domestic products (RGDP) as a proxy.

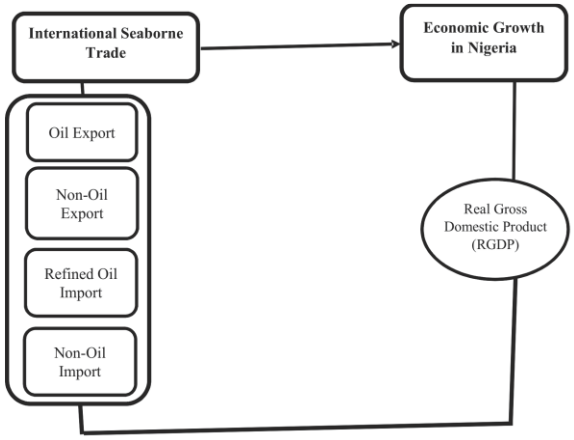

Figure 2.1: Conceptual Framework of the Effect of International Seaborne Trade on Economic Growth in Nigeria (1981-2023)

Sources: UNCTAD, (2024): Nicita (2023) and Adenigbo et al. (2023).

2.2.1 International Seaborne Trade

International seaborne trade refers to the movement of goods and/or passengers by sea between different countries, a crucial component of the global economy, facilitating the exchange of goods and resources across international borders (Adenigbo et al., 2023).

International seaborne trade is like a bustling global marketplace that takes place on the vast oceans and seas. It involves the transportation of goods,

commodities, and merchandise between countries using ships and vessels. It plays a vital role in the global economy, facilitating the movement of goods on a large scale. (Osadume & Okuoyibo, 2020). When we talk about seaborne trade, we're referring to the shipment of various types of cargo across international waters. These cargoes can include raw materials like oil, minerals, and agricultural products, as well as finished goods such as automobiles, electronics, and clothing. Virtually any product you can think of can be transported via sea routes.

The process begins with the exporter (the seller) loading the goods onto a ship at a designated port. The ship then sails across the ocean to the importing country's port, where the goods are unloaded and go through customs clearance. From there, the imported goods are distributed and made available to consumers in the local market (Matekenya & Ncwadi, 2022).

Seaborne trade is advantageous for several reasons. Ships have massive carrying capacities, allowing for the transportation of bulk commodities in large quantities. They are also cost-effective compared to air freight for long-distance transportation. Furthermore, ships can navigate various waterways and connect even the most distant parts of the world (Michail, 2020).

This type of trade has a significant impact on global economies, as it drives economic growth, generates employment opportunities, and promotes international cooperation. It enables countries to access resources and products that may not be available domestically, fostering specialization and interdependence in the global marketplace (Lee & Nam, 2017). The seaborne trade balance measures the difference between the volumes of loaded and discharged goods

International seaborne trade is the one transacted by persons, companies, agencies or governments through the sea. Stopford (2009) defines international seaborne trade as the movement of merchandise by vessels between the port of origin where merchandise is received from the exporter at the port of origin to the port of destination where merchandise is claimed by the importer. Nigeria's location and population make it a country of diverse economic capabilities with large investment opportunities as its international seaborne trade. The country has a coastline of over 750km and eight major ports excluding oil terminals with a cargo handling capacity of 35million tones per annum (WTO, 2023). At present about 5284 wells have been drilled mostly in the Niger Delta region of Nigeria (Odiegwu & Enyioko 2022b).

Global shipping continues to confront multiple challenges, including heightened trade policy and geopolitical tensions and is dealing with changes in globalization patterns. Additionally, shipping must transition to a more sustainable future, decarbonize and embrace digitalization. Being at the intersection of these forces will influence how the sector adapts to the evolving operational and regulatory landscape while continuing to effectively service global trade (Winckler, 2022). Maritime trade volume contracted marginally by 0.4 per cent in 2022, but UNCTAD projects it will grow by 2.4 per cent in 2023. Indeed, the industry remains resilient and UNCTAD expects continued but moderated growth in maritime trade volume for the medium term (2024–2028) (Adenigbo et al., 2023).

During 2022, containerized trade, measured in metric tons, declined by 3.7 per cent. UNCTAD projects it will increase by 1.2 per cent in 2023 and expand by over 3 per cent during the 2024–2028 period, although this rate is below the long-term growth of about 7 per cent over the previous three decades. Starting in early 2022, seaborne trade, in particular dry bulk and tanker shipments, has been impacted by the war in Ukraine (UNCTAD, 2024a). The war led to changes in shipping patterns and increased the distances travelled for commodities, especially oil and grain. Growth in ton-miles exceeds growth in tons in 2022, 2023 and for 2024 projections. In 2022, oil and gas trade volumes witnessed robust annual growth rates, of 6 per cent and 4.6 per cent, respectively. The increase can be attributed to heightened demand for fuel as the pandemic eased and related restrictions were lifted. As spending on energy-intensive services like transport and travel gradually recovered, a return to normalcy contributed to the surge in oil demand. In contrast, containerized and dry bulk shipments declined in 2022. Weakened containerized trade reflects the slowdown in global economic growth, high inflation and normalizing of demand after the unusual surge during the COVID-19 pandemic (Zhang et al., 2023).

In 2023, oil cargo distances reached long-term highs, driven by disruptions from the war in Ukraine. Crude oil and refined products travelled longer distances, as the Russian Federation sought new export markets for its cargo and Europe looked for alternative energy suppliers. Shipments of grains travelled longer distances in 2023 than any other year on record. Although grain shipments from Ukraine resumed in 2022 thanks to the Black Sea Initiative, several grain-importing countries had to rely on alternative grain exporters. They are instead buying from the United States of America, or Brazil, which requires longer hauls. Containerized trade distances have tumbled since 2020 but increased marginally in 2023 (UNCTAD, 2024d). Intra- Asian containerized trade, which accounts for the majority of intraregional trade, saw its share increase over the years. As intra-Asian trade is carried over shorter distances, the average distances travelled per ton of container cargo of global containerized trade are relatively low. The predominance of intra- Asian containerized trade flow reflects global manufacturing patterns with China continuing to serve as the leader in global manufacturing, supported by neighbouring East Asian countries. It also reflects the growing participation of several East Asian countries in regional and global value chains (Ndalu & Okene, 2024).

Several factors influenced the weak growth in maritime trade flows in 2022 Weaker global economic growth, high inflation impacting consumer spending, the disruption caused by the war in Ukraine, and strict COVID-19 containment measures affecting the economic and trade performance of China had a particular impact (Chen, 2023).

For 2023, UNCTAD forecasts containerized trade volumes to increase by 1.2 per cent. The outlook for containerized trade remains weak in 2023 given the overall macroeconomic and operating landscape. A potential improvement in global economic conditions and the recovery of China from the disruption caused by the COVID-19 pandemic and consequent economic slowdown could support sector performance during the second semester of 2023 (Denamiel, 2024). However, UNCTAD forecasts a growth rebound starting in 2024 of around 3 per cent p.a.. These growth rates remain well below the average rates witnessed during the periods 1992–2002 (8.7 per cent) and 2002–2012 (7.2 per cent) (Ciger, 2023).

In 2023, dry bulk shipments declined due to the disrupted Ukrainian exports, high energy prices (which affected various energy-intensive industries that use dry bulk commodities as an input) and trends in the Chinese economy, including the sharp decline in investment in the Chinese real estate sector (Baldwin, 2024). Demand for major dry bulks improved in 2023 driven by subsequent economic recovery in China. Grain and minor bulk shipments totalled 535 and 2,117 million tons respectively, representing a 3.8 and a 1.9 per cent growth rate compared to 2022 (Alvik, 2024). Bulk demand is projected to grow modestly within the 1.5–2.5 per cent range in 2023 (BIMCO, 2023). Improvements in bulk trade could materialize in 2024, depending on the easing of the global macroeconomic situation, increased coal consumption and production in China and India, the pace of the energy transition, and the war in Ukraine (Bloomberg, 2024).

Global trade has continued to increase in absolute terms, its growth relative to global GDP has stagnated since the 2008–2009 global financial crisis. From 1995 to 2007, trade expanded at twice the pace of global GDP, but the share of global trade as a percentage of GDP peaked at 25 per cent in 2008 and has remained stagnant or declined since (Ahmed, 2019). This slowdown reflects both the impact of the financial crisis and broader economic fragmentation. Changing global dynamics combined with trade disruption in 2020 and 2021 have worsened economic difficulties for low- and middle-income countries, many of which rely heavily on trade for economic growth. Many commodity-exporting countries face the effects of "reprimarization." In many economies caught in a stalled transition to non-extractive sectors, decline in manufacturing employment and rising informality limit the scope for structural transformation. Other factors are in play, as illustrated by the pivot of international trade in 2023 (Hellenic Shipping News, 2024).

In 2023, in contrast, global merchandise trade saw a structural slowdown while trade in services grew by 5 per cent in real terms, signifying the rising importance of international trade in services. The share of services in global trade reached almost 25 per cent in 2023 and

is projected to grow further, leading to expectations that international services could become a new growth engine. Such hopes, however, are premature, since trade in services alone is unlikely to become the new principal developmental lever. At the same time, there is growing recognition that strengthening productivity and creating quality jobs in labour-absorbing sectors requires a set of strategies for structural diversification. Such strategies should target manufacturing and services, including those that are not internationally traded (WTO, 2024).

2.2.2 Oil Export

Badejo and Solaja (2017) describe exporting as the process of earning profits by selling products or services in foreign markets. He further gave the concepts of exportation; he said, "exportation must be based on the principles of local sufficiency". This connotes that a country that will engage in any export trade mission should therefore as the case must be such a product in large quantities and it must be easily available in reasonable sufficiency.

Oil export refers to the act of a country selling crude oil that it produces domestically to other countries, essentially meaning they are shipping their extracted oil overseas to be used by other nations, this is key to economic activity for countries with significant oil reserves, generating revenue through international trade of their oil product (Maduechesi et al., 2023). Oil is typically transported via pipelines or tankers or barges to reach international markets.

The term "spot oil market" generally refers to a short-term oil transaction where oil physically changes hands very soon after the seller receives payment (Chen, 2023). Nigeria's exports in the second quarter of 2022 were dominated by crude oil accounting for 80 per cent of total export revenue despite the huge oil theft recorded in recent times (Odiegwu & Enyioko 2022b).

The crude oil trade system is an important support for every country in providing industrial production materials, promoting economic development and guaranteeing military security. The international trade of crude oil is dominated by marine shipping, which, as a foundation for the large-volume and long-distance trade, has greatly enriched international economic cooperation in crude oil resources (Maduechesi et al., 2023). Crude oil plays a critical role in all modern economies and its trade is a vital element of the global energy supply chain (Lane & Pretes, 2020). Crude oil is a mixture of comparatively volatile liquid hydrocarbons (compounds composed mainly of hydrogen and carbon), though it also contains some nitrogen, sulfur, and oxygen. Those elements form a large variety of complex molecular structures, some of which cannot be readily identified (Nicita, 2023). Crude oil, liquid petroleum that is found accumulated in various porous rock formations in Earth's crust and is extracted for burning as fuel or for processing into chemical products.

In 2022, oil and gas trade volumes witnessed robust annual growth rates, of 6 per cent and 4.6 per cent, respectively. The increase can be attributed to heightened demand for fuel as the pandemic eased and related restrictions were lifted. As spending on energy-intensive services like transport and travel gradually recovered, a return to normalcy contributed to the surge in oil demand. In contrast, containerized and dry bulk shipments declined in 2022. Weakened containerized trade reflects the slowdown in global economic growth, high inflation and normalizing of demand after the unusual surge during the COVID-19 pandemic. Port calls follow these trends in trade, dropping significantly at the start of the COVID-19 pandemic. Following a year-to-year drop in the first half of 2022, vessel port calls increased in the second half of 2022. Port calls by tankers reached historical highs while calls by bulk carriers returned to their pre COVID-19 levels; port calls by container ships are yet to return to their 2019 level (UNCTAD, 2023).

In 2023, oil cargo distances reached long-term highs, driven by disruptions from the war in Ukraine. Crude oil and refined products travelled longer distances, as the Russian Federation sought new export markets for its cargo and Europe looked for alternative energy suppliers. Shipments of grains travelled longer distances in 2023 than any other year on record. Although grain shipments from Ukraine resumed in 2022 thanks to the Black Sea Initiative, several grain-importing countries had to rely on alternative grain exporters. They are instead buying from the United States of America, or Brazil, which requires longer hauls. Containerized trade distances have tumbled

since 2020 but increased marginally in 2023 (Clarksons Research (2024).. Intra-Asian containerized trade, which accounts for the majority of intraregional trade, saw its share increase over the years. As intra-Asian trade is carried over shorter distances, the average distances travelled per ton of container cargo of global containerized trade are relatively low. The predominance of intra-Asian containerized trade flow reflects global manufacturing patterns with China continuing to serve as the leader in global manufacturing, supported by neighbouring East Asian countries. It also reflects the growing participation of several East Asian countries in regional and global value chains (Maduechesi, 2023).

Crude oil is a mixture of comparatively volatile liquid hydrocarbons (compounds composed mainly of hydrogen and carbon), though it also contains some nitrogen, suffer, and oxygen. Those elements form a large variety of complex molecular structures, some of which cannot be readily identified. Regardless of variations, however, almost all crude oil ranges from 82 to 87 percent carbon by weight and 12 to 15 percent hydrogen by weight (Matekenya & Ncwadi, 2022).
Crude oils are customarily characterized by the type of hydrocarbon compound that is most prevalent in them: paraffins, naphthene, and aromatics. Paraffins are the most common hydrocarbons in crude oil; certain liquid paraffins are the major constituents of gasoline (petrol) and are therefore highly valued. Naphthene's are an important part of all liquid refinery products, but they also form some of the heavy asphalt like residues of refinery processes. Aromatics generally constitute only a small percentage of most crudes. The most common aromatic in crude oil is benzene, a popular building block in the petrochemical industry (Ndalu & Okene, 2024).

Possibly the most important physical property is specific gravity (i.e., the ratio of crude oil the weight of equal volumes of a crude oil and pure water at standard conditions). In laboratory measurement of specific gravity, it is customary to assign pure water a measurement of 1; substances lighter than water, such as crude oil, would receive measurements less than 1 (Njoku et al., 2020). The petroleum industry, however, uses the American Petroleum Institute (API) gravity scale, in which pure water has been arbitrarily assigned an API gravity of 10°. Liquids lighter than water, such as oil, have API gravities numerically greater than 10. On the basis of their API gravity, crude oils can be classified as heavy, medium, and light as follows: Heavy: 10–20° API gravity, Medium: 20–25° API gravity and Light: above 25° API gravity (Abdulrahman, 2021).

Crude oil also is categorized as "sweet" or "sour" depending on the level of suffer, which occurs either as elemental sulfur or in compounds such as hydrogen sulfide. Sweet crudes have sulfur contents of 0.5 percent or less by weight, and sour crudes have sulfur contents of 1 percent or more by weight. Generally, the heavier the crude oil, the greater its sulfur content. Excess sulfur is removed from crude oil during refining, because sulfur oxides released into the atmosphere during combustion of oil are a major pollutant (Duru et al., 2020).

Crude oil occurs underground, at various pressures depending on depth. It can contain considerable natural gas, kept in solution by the pressure. In addition, water often flows into an oil well along with liquid crude and gas. All these fluids are collected by surface equipment for separation. Clean crude oil is sent to storage at near atmospheric pressure, usually aboveground in cylindrical steel tanks that may be as large as 30 metres (100 feet) in diameter and 10 metres (33 feet) tall. Often crude oil must be tradeed from widely distributed production sites to treatment plants and refineries. Overland movement is largely through pipelines. Crude from more isolated wells is collected in tank trucks and taken to pipeline terminals; there is also some trade in specially constructed railroad cars. Overseas trade is conducted in specially designed tanker ships. Tanker capacities vary from less than 100,000 barrels to more than 3,000,000 barrels (Maduechesi et al., 2023).

The primary destination of crude oil is a refinery. There any combination of three basic functions is carried out: (1) separating the many types of hydrocarbons present in crude oils into fractions of more closely related properties, (2) chemically converting the separated hydrocarbons into more desirable reaction products, and (3) purifying the products of unwanted elements and compounds. The main process for separating the hydrocarbon components of crude oil is fractional distillation.

Crude oil fractions separated by distillation are passed on for subsequent processing into numerous products, ranging from gasoline and diesel fuel to heating oil to asphalt. The proportions of products that may be obtained by distillation of five typical crude oils, ranging from heavy Venezuelan Boscan to the light Bass Strait oil produced in Australia, are shown in the figure. Given the pattern of modern demand (which tends to be highest for trade fuels such as gasoline), the market value of a crude oil generally rises with increasing yields of light products (Nelson et al., 2020).

In Nigeria, the conventional practice for the petroleum industry is to measure capacity by volume and to use the English system of measurement. For this reason, crude oil in the United States is measured in barrels, each barrel containing 42 gallons of oil. Most other areas of the world define capacity by the weight of materials processed and record measurements in metric units; therefore, crude oil outside the United States is usually measured in metric tons. A barrel of API 30° light oil would weigh about 139 kg (306 pounds). Conversely, a metric ton of API 30° light oil would be equal to approximately 252 imperial gallons, or about 7.2 U.S. barrels (Odiegwu & Zeb-Obipi, 2023).

2.2.3 Non-Oil Export

Non-oil exports are those commodities excluding crude oil (petroleum products), which are sold in the international market for the purpose of revenue generation. The Nigeria's non exports sector is structured into four broad constituents which are the agricultural exports, manufactured exports, and solid mineral exports and services exports (Akeem, 2011). The non-oil export products are unlimited as they include agricultural crops, manufacturing goods, solid minerals, entertainment and tourism services etc (Abogan, Akinola, & Baruwa, 2014). This explains non export in the context of this study. Akeem (2011) defined the non-oil sector of the Nigerian economy as the whole of the economy less oil and gas sub-sector. It covers agriculture, industry, solid minerals and the services sub-sector, including transport, communication, distributive trade, financial services, insurance, government, etc.

Onayemi and Ishola (2009) revealed that non-oil exports have performed below expectation under export promotion policy. This outcome supports the argument by Subasat (2002) that export promotion does not have any significant impact on economic growth of low income countries. This same result, however, contradicts Usman (2011) who discovered that an insignificant non-oil export and exchange rate would slow down economic growth given that non-oil export for previous year positively affects growth.

Non-oil export simply expressed are items other than crude oil (petroleum products) that are sold in the foreign exchange market only to generate cash are conveyed to the selling points (Ewubare et al., 2017). Farm products exports construction and manufacturing exports solid mineral exports and place in the international appear to be the four primary parts of Nigeria's non-exports industry. Agricultural commodities goods produced solid minerals entertainment and vacation services and othernon-oil export commodities are limitless (Onuorah 2018).
These are goods and services that are produced and sold by Nigeria to other countries, excluding oil and gas products. They represent the invisible coupled with visible exports that are outside the coverage of oil export and therefore, form part of aggregate exports that impact on economic growth of a country (Eriki & Okay, 2020; Aljebrin, 2019). This includes but is not restricted to products from agriculture, solid minerals, and manufacturing services among others.

Non-oil goods transport comprises the movement of agricultural products, solid minerals, textiles, manpower, etc. to where they be sold (Maduechesi, 2023). Non-oil good is made up of every other thing we export from Nigeria except petroleum products. Manufacturing exports consist of textiles, beer, cocoa butter, plastic products, processed timber, tyres, soap, detergent and fabricated iron rods. Agricultural, export merchandise includes cocoa, groundnut, palm oil, cotton, rubber (natural), yam, palm products, fish and shrimps (Saeed et al., 2021). Generally, the transportation of non-oil products is the conveyance of those commodities excluding crude oil (petroleum products), which are sold in the international market for the purpose of revenue generation.

Exports are one of the oldest forms of economic transfer and occur on a large scale between nations that have fewer restrictions on international trade such as tariffs or subside. According to Onyeabor (2018) the term export derives from the goods and services out of the port of a country. The seller of such goods and services is referred to as an exporter whereas the overseas based buyer is referred to as an importer". According to national accounts exports consist of transactions in goods and services (sales barter gifts or grants) from residents to non-residents. Smuggled goods must be included in the export measurement". In national accounts any direct purchases by non-residents in the country's economic territory are recorded as service exports; therefore, all expenditures by foreign tourists in the country's economic region are considered part of the export's services of that country. Also, international flows of illegal services must be included. Exports also include the distribution of information that can be sent in the form of an e-mail fax or can be shared during a telephone conversation (Adenigbo et al. 2023). Thus, in economics an export refers to any good or commodity transported from one country to another in a legitimate fashion typically for use in trade. Many countries engage in export trade.

Certain structural changes of output in the economy have occurred during the previous fiveyears the most notable of which is the deregulation of the telecommunications sector whichhas seen exploding employment opportunities. The Nigerian non-oil economy can bedefined as those economic activities that are not directly or indirectly related to the petroleum and gas industries. Manufacturing agriculture services and telecommunications; financial sector (banking and insurance) activities; tour operator (hotel restaurant park county fairsand flicks; wholesale trade; medical services; and export growth are among them. agricultural runoff; mining activities; power (conventional and renewable); manufacture; environmental cleanup such as cleaning garbage collection and recycling; research and development (R&D; ICT and so on) (Yakubu & Akanegbu 2018).

Furthermore, when evaluated against this backdrop the prevalent notion that the non-oil sector relates to important agricultural operations is incorrect limiting the sector's assessment. The reason for this assertion is understandable considering agricultural items such as cocoa pistachio sesame grain ginger locust Bean gum crustaceans jute and rubber predominate exports which are used to judge the non-oil sector's efficiency and competitiveness against global market needs (Adepoju 2020).

Non-Oil Exports Non-oil exports are those commodities excluding crude oil (petroleum products), which are sold in the international market for the purpose of revenue generation Ewubare et al., 2017). The Nigeria's non-oil exports sector is structured into four broad constituents which are the agricultural exports, manufactured exports, and solid mineral exports and services exports (Agbo Agu. E. & Eze, 2018). The non-oil export products are unlimited as they include agricultural crops, manufacturing goods, solid minerals, entertainment and tourism services etc (Azam & Feng, 2022). Akpa et al. (2022) defined the non-oil sector of the Nigerian economy as the whole of the economy less oil and gas sub-sector. It covers agriculture, industry, solid minerals and the services sub-sector, including transport, communication, distributive trade, financial services, insurance, government, etc. Omoke et al. (2018) revealed that Nigeria's non-oil exports have performed below expectation under several export promotion policies. Cariou (2020) identified key impediments to the growth of the non-oil sector as follows: Weak Infrastructure as a national challenge; Supply side constraints due to low level of technology; Low level of human capital development in general; Weak Institutional framework in general and Poor Access to finance. Consequently, efforts have been made over the years by Nigerian governments to grow the non-oil sector of the economy by initiating supportive policies and incentives to encourage the diversification of the economy.

Agriculture's domination of the non-oil industry has resulted in the mineral sub-sector being overlooked despite the fact that it has the opportunity to be second only to petroleum in terms of revenue earnings (Osabohien et al., 2019). The administration has found a way to deal with the growing need for economic diversification which has been informed by the monolithic economy since the 1980s which has been continually threatened by the instability in crude oil prices on the international market. This industrialization has becomeimperative to confront the

issues of rising unemployment and rising crisis by broadening the range of employment-generating activities particularly in the non-oil sphere where vast and mostly untapped potentials remain. Various policies have been implemented by the government at various times. This industrialization has become imperative to confront the issues of rising unemployment and rising crisis by broadening the range of employment-generating activities particularly in the non-oil sphere where vast and mostly untapped potentials remain. Various policies have been implemented by the government at various times (Ndalu & Okene, 2024).

It demonstrates that the Nigerian economy has yet to generate significant money from non-oil sources. In terms of export revenues however the oil sector contributed significantly more to the Nigerian economy than all other industries combined. Despite the oil sector's significant contribution to the Nigerian economy the country's economy remains undeveloped. Economic diversification and judicious use of public funding are the way forward (Nwamuo, 2019).

2.2.4 Refined Oil Import

The huge imported refined petroleum product continues to be a drain on the foreign reserve and BOP of the economy. It is estimated that Nigeria imported refined petroleum products in excess of US$31 billion per annum between 2012 and 2018 (Ibiyemi, 2019). Nigeria's total import for petroleum products was about *$28 billion per annum in 2021.*

Nigeria's heavy reliance on importing refined oil significantly hinders its economic growth due to the large amount of foreign exchange spent on imports, limiting funds available for other sectors, while also contributing to price instability in the domestic market due to fluctuations in global oil prices; however, developing domestic refining capacity could alleviate this issue and potentially boost economic growth by creating jobs and generating additional revenue within the country.

Nigeria's import levels surged 80.65 percent in six years, rising from $31 billion in 2017 to $56 billion in 2023, according to the World Trade Organization (WTO) Trade Policy Review seen on Wednesday. This surge was primarily fueled by imports of refined petroleum, which made up 38.3 percent of total imports.

Over the past 30 years, Nigeria's crude oil refining capacity has declined, resulting in a dependence on imported refined petroleum products from the EU, primarily the Netherlands and Belgium. This reliance on imports, which comprise a fifth of Nigeria's total imports, has negatively impacted the exchange rate of the Nigerian Naira and, consequently, the nation's GDP. This article analyses how importing refined crude oil from the EU affects Nigeria's economic growth and development.

Nigeria, with a population of over 213 million (Data 2021), is the largest economy in Africa, mainly due to its rich crude oil reserves. Crude oil, discovered in Nigeria in 1956, is now the backbone of the country's economy, with petroleum exports accounting for around 90% of the country's total exports. Nigeria is currently the second-largest producer of oil in Africa and a member of OPEC. However, despite being a significant producer of crude oil, Nigeria still relies heavily on imported refined petroleum products to meet domestic demand, with over 80% of the demand being met through imports. In 2020, Nigeria imported $7.75 billion of refined petroleum products, becoming the world's 17th largest importer of refined petroleum and one of the highest in Africa. This is surprising considering that the country has four significant refineries with a combined refining capacity of 445,000 bpd (barrels of oil per day), which is more than enough to meet domestic demand. However, these refineries have been non-functional since the 1990s due to poor turnaround maintenance, low capacity, obsolete technology, fuel scarcity, and poor government investment. As a result, Nigeria depends heavily on imports from countries in Europe, Asia, and South America, with refined crude oil imports from the EU being the focus of this article.

Nigeria's biggest import partners for refined petroleum are the Netherlands and Belgium, as shown by OPEC Annual Reports (2020). In contrast, although these countries buy crude oil from Nigeria, they do so in relatively small quantities. The Netherlands imports crude petroleum primarily from Russia, the United Kingdom, the United States,

Norway, and Kazakhstan, accounting for only about 1.5% of total imports ($49.9M) from Nigeria. Nigeria exports crude oil mainly to the United States and the United Kingdom. Most of the revenues from oil exports are spent on salaries and importing goods and services, creating a negative trade balance. This overdependence on imports, which are foreign currency-based transactions, puts enormous pressure on the naira, affecting the economy through inflation. Nigeria needs to gradually reduce its oil exports to encourage alternative sources of revenue and conserve this finite and depleting resource.

The import of petroleum products in Nigeria has been unstable since the 1980s, with motor spirit being the largest among the products imported over the years. The trend of individual petroleum product was reflected in the total of petroleum products during the period under review. The period 1990-1993 and 1994-1998 appeared to be associated with the lowest imports of petroleum products in the country. In Nigeria, domestic consumption of the various petroleum products has not matched the domestic production. Moreover, for all the petroleum products, the trends of imports on exchange rate and production gap followed similar pattern over the years. Exchange rate is the price for which a country's currency is exchanged for another country's currency and is influenced by factors such as interest rate, inflation and political condition of the country, (Abubakar & Umar, 2013). Mordi, (2006), stated that exchange rate is the price of a domestic currency in terms of another currency (international). Exchange rate is used to determine the price of petroleum products in the international market. Obioma, (2006), opined that Nigeria become more exposed to oil prices fluctuations the moment she started importing refined petroleum products due to the collapse of local refineries in the late 1980s. Thus, the country could not grapple with the enormous subsidy it committed itself to, so between 1990 and 2010, the Federal Government had adjusted its subsidy on petroleum products back and forth approximately 8 times. This has negatively affected production, consumption, general welfare and hence the pace of economic growth. Government is thus persistently confronting with import parity pricing and the burden of subsidizing the imported fuel instead of local refined products in order to reduce the burden from sourcing for exchange rate in the forex market so as to meet up with the domestic demand. Duncan, (2008), defined Nigeria as a crude oil exporter and importer of refined petroleum products. He re-stated the fact that oil price tends to exert a positive effect on the GDP growth of a net-oil exporting country and a negative effect on a net-oil importing country. On the basic of this, Nigeria's situation is clearly peculiar, as the literature on the relationship between oil imports and economic growth keeps expanding as new economic challenges unfold. In theory, proponent of oil development for example (Yakubu, 2008 and Hoffman, 2009), believes that countries lucky enough to have petroleum, can base their development on this resource. They pointed to the potential benefits of enhanced economic growth and the creation of jobs, increase in government revenues to finance poverty alleviation, transfer of technology, the improvement of infrastructure and the encouragement of related industries, the experience of almost all oil exporting countries but when a country is oil imports depending country, the reverse is the case, especially Nigeria illustrate few of these benefits as an oil importing and exporting country. It is evident from the opinions expressed in the foregoing theories that petroleum income can cause an increase or a decrease in exchange rate of a nation, depending on the type of theory, policy and practical implementation the government in power adopts.

Refined crude oil imports refer to the purchase of refined petroleum products by a country from other countries. These imports can be in the form of spot purchases or long-term contracts. The reason a country may import oil is that it does not have enough domestic production capacity to meet its demand for oil and petroleum products. Oil is a vital commodity and is used to power transportation, generate electricity, and as a feedstock in the chemical industry. As such, most countries rely on a combination of domestic production and imports to meet their refined crude oil needs. Nigeria imports Refined Petroleum primarily from: Belgium ($4.97B), Malta ($2.24B), Netherlands ($2.08B), India ($1.33B), and Russia ($1.18B). The fastest growing import markets in Refined Petroleum for Nigeria between 2022 and 2023 were Malta ($2.24B), Russia ($907M), and South Korea ($868M). There are a few factors that can affect a country's decision to import refined crude oil. One is the cost of production. If it is cheaper to import refined crude oil

than to produce it domestically, then a country will likely import oil. Another factor is the quality of the oil. Some countries may not have access to certain types of high-quality refined crude oil, and so they may need to import it to meet the domestic needs. In recent years, the government of Nigeria has implemented several policies to try to reduce the country's dependence on refined crude oil imports. For example, in 2016, the government announced a policy of deregulation and liberalization of the downstream oil sector, with the goal of attracting private investment to the sector and increasing refining capacity. However, there has been limited success in implementing these policies, and Nigeria's refining capacity remains low.

2.2.5 Non-Oil Import

Nigeria's non-oil imports encompass a wide range of goods, with significant categories including machinery, vehicles, and electrical equipment, reflecting the country's reliance on imported goods for industrial and consumer needs.

Imports are a key part of international trade and are vital to economic growth. Both exports and imports of developing countries are subject to periodic fluctuations in the world market, and revenue from this source tends to oscillate (Inam and Oscar 2014). Imports are goods or services brought into one country from another. Countries are most likely to import goods that domestic industries cannot produce as efficiently or cheaply. They may also import raw materials or commodities that are not available within its borders but are required in industries for the production of finished goods and services. Imports and exports exert a profound influence on the consumer and the economy. These imports provide more choices to consumers. But when there is too much import in relation to exports it can distort a nation's balance of trade and devalue its currency. However, imports are a vital component of the economy. A high level of imports indicates robust domestic demand and a growing economy. Again, the expansion of domestic absorption which reveals supply inadequacies in the system, such that aggregate demand outweighs supply. To make up for the supply shortfalls and cut down on the surging inflationary consequences, Nigeria relied on imports, to the extent that imports as a component of total trade, particularly non-oil imports, have persistently been on a steady rise, resulting in deficits in Nigeria's overall trade Balance of Payments, (Moro, 1995; Egwaikhide,1999; Oyinlola et al. 2010). Nigeria is a developing country, whose imports are highly dominated with consumer goods. This may be due to the poor infrastructure, low level of technology and a high cost of business operation which are very detrimental to the manufacturers whose activities would boost the level of exports that in the long run boost economic growth and cause the exchange rate to appreciate. However, since the major components of imports in Nigeria as at 2015 were base metals, machinery and mechanical appliances, electrical equipment, vehicles, aircraft vessels and associated transport equipment which constitute 47.8% of the total expenditure on imports (Central bank of Nigeria Statistical Bulletin, 2015) which could in the long run promote local production. Imports are crucial part of external trade and the import of productive commodities specifically, is important for domestic investment and economic progress. Evidence available generally points out that most low income countries and indeed Nigeria registered a continuous decline in their earnings from foreign exchange from the beginning of the 1980s and in recent years Nteegah and Mansi (2016). As a developing economy, Nigeria has had her own share of high nominal value of aggregate import over the years. This has been the order since independence in 1960, and has been made worse by the oil boom of the 1970s that gave rise to an increase in average income, and subsequently increase in the demand for import. Evidence shows a concentration of these import volumes on the side of the non-oil sector, such that non-oil imports have over time been on a steady growth path. The nominal value of non-oil imports rose from an average of N36.55 billion, representing 96.8% of total import into Nigeria within the period 1970-1979, to N118.36 billion, representing 93.4% of total import in the period 1980-1989, N3.48 trillion in the period 1990- 1999, representing 79.9% of total import and N19.33 trillion, representing 82.0% of total imports over the period 2000-2008/2. These represent an average growth rate of 22%. This growth in the value of imports has in the literature been attributed to a number of factors which include expansion in crude oil exports that considerably raised foreign exchange earnings, the over-valuation of the naira during the period of controls, and liberal trade policies, born out of the desire to provide capital goods and raw materials for

import substituting industries; both of which made access to imports easy. Again, the expansion of domestic absorption which reveals supply inadequacies in the system, such that aggregate demand outweighs supply. To make up for the supply shortfalls and cut down on the surging inflationary consequences, Nigeria relied on imports, to the extent that imports as a component of total trade, particularly non-oil imports, have persistently been on a steady rise, resulting in deficits in Nigeria's overall trade Balance of Payments, (Moro, 1995; Egwaikhide,1999; Oyinlola et al. 2010).

2.2.6 Economic Growth

Economic growth is the heartbeat of economic development in any country and is measured by the growth rate of a country's national income; a higher national income should translate to higher benefits for the citizens (Agboola et al., 2020). Economic growth, an increase in the real gross domestic product (GDP) over time, is a necessary condition for a country's overall social and economic development. It is the most powerful tool for creating jobs, reducing poverty and improving the standard of living through improved health status and educational attainment. Economic growth is vital especially in developing countries/regions where the unemployment rate is high and poverty is still widespread Economic growth refers to the increase of potential output, that is, production at full employment, rather than aggregate demand growth (Duodu & Baidoo, 2020). This definition provided above seems to support classical tradition in which at equilibrium, full employment is achievable. Similarly, Okwu et al. (2016) define economic growth as referring to the increase in the inflation-adjusted market value of various goods and services an economy produces over time. Put differently, economic growth could be viewed as the enhancement in the basket of commodities an economy produces over some time. For this study, we adopt the definition provided by Okwu et al (2016).

Economic growth can be described as the country's ability to strengthen the production of goods and services of a present year or period in comparison with previous time period (Finance Map of World, 2013). In a simple way, Dwivedi (2006) opined that economic growth is a sustainable increase in per capita national output or net national product over a long period of time. He further stated that the rate of increase in total output of production must be much greater than the rate of population growth. Economic growth, being the growth in output per capital is an important objective of government since it is associated with rising average real incomes and living standard, thus, it is the single most important factor in the success of a nation in the long run (Samuelson & Nordhaus, 2005). In the opinion of Imimole and Imoughele (2012), they contend that a country cannot attain development state without considering economic growth. This is a practical example in Nigeria whereby growth continuously dominates the main policy thrust of government's development objectives.

Nigeria's economic growth is also constrained by insufficient electricity generation capacity, which results in a lack of a reliable and affordable supply of power. At the same time, Nigeria flares considerable amounts of associated gas, a by-product of offshore crude oil extraction. Flaring generates significant greenhouse gas emissions and wastes a considerable amount of energy. To reduce gas flaring and increase generation of clean energy generally through greater private sector participation, we support the Government of Nigeria's efforts to better manage the sector (Egole, 2022). GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars. Dollar figures for GDP are converted from domestic currencies using single year official exchange rates. For a few countries where the official exchange rate does not reflect the rate effectively applied to actual foreign exchange transactions, an alternative conversion factor is used (Atakpa, 2021).

2.2.7 Real Gross Domestic Product (RGDP)

Real Gross Domestic Product (RGDP) is a measure of the value of all goods and services produced in a country in a given year, adjusted for inflation. Njoku et al. (2020) real GDP growth is driven by a number of factors, including real gross domestic product growth, population growth, and investment. vi. Real GDP growth is associated with a number of positive outcomes, such as higher living standards, lower

unemployment, and reduced poverty (Elias et al., 2018).

Real gross domestic product (real GDP) is a macroeconomic measure of the value of economic output adjusted for price changes. This adjustment transforms the money-value measure, nominal GDP, into an index for quantity of total output (Ahmed, 2019).

Real Gross Domestic Product (RGDP) is a common measure of the value added created by a country's output of goods and services over a given time period. As a result, it accounts for both the money created by such production and the total amount spent on end items and services. While RGDP is the most important single indicator for measuring economic activity, it does not provide an adequate assessment of people's material well-being, for which alternative metrics may be more appropriate (OECD, 2022). A measure that can be used to determine the total value created of both goods and services produced annually for a specific state is Real Gross Domestic Product (RGDP). The trade to RGDP ratio is a dominant indicator of the significance of trade for a single country or for the rest of the whole world.

Real Gross Domestic Product (RGDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period. Though RGDP is usually calculated on an annual basis, it can be calculated on a quarterly basis. RGDP includes all private and public consumption, government outlays, investments, private inventories, paid in construction costs and the foreign balance of trade (exports are added, imports are subtracted) (Ahmed, 2019). Put simply, RGDP is a broad measurement of a nation's overall economic activity the godfather of the indicator world. Real Gross Domestic Product (RGDP) is also a monetary measure of the market value of all final goods and services produced in a period (quarterly or yearly) of time (Ajayi & Olasehinde, 2020).

Real Gross Domestic Product (RGDP) is commonly used as an indicator of the economic health of a country, as well as a gauge of a country's standard of living. Since the mode of measuring RGDP is uniform from country to country, Real Gross Domestic Product (RGDP) can be used to compare the productivity of various countries with a high degree of accuracy. Adjusting for inflation from year to year allows for the seamless comparison of current Real Gross Domestic Product (RGDP) measurements with measurements from previous years or quarters. In this way, a nation's RGDP from any period can be measured as a percentage relative to previous periods. An important statistic that indicates whether an economy is expanding or contracting, GDP can be tracked over long spans of time and used in measuring a nation's economic growth or decline, as well as in determining if an economy is in recession (generally defined as two consecutive quarters of negative GDP growth) ((Jawaid et al., 2020).

Real gross domestic product is an inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year. It is expressed in base-year prices and is often referred to as constant-price, inflation-corrected, or constant-dollar GDP. Real gross domestic product (GDP) is an inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year. Real GDP is expressed in base-year prices. It is often referred to as constant-price GDP, inflation-corrected GDP, or constant-dollar GDP. Put simply, real GDP measures the total economic output of a country and is adjusted for changes in price (Egole, 2022).

This adjustment transforms the money-value measure, nominal GDP, into an index for quantity of total output. Although GDP is total output, it is primarily useful because it closely approximates the total spending: the sum of consumer spending, investment made by industry, excess of exports over imports, and government spending. Due to inflation, GDP increases and does not actually reflect the true growth in an economy. That is why the GDP must be divided by the inflation rate (raised to the power of units of time in which the rate is measured) to get the growth of the real GDP. Different organizations use different types of 'Real GDP' measures, for example, the UNCTAD uses 2015 Constant prices and exchange rates while the FRED uses 2009 constant prices and exchange rates, and recently the World Bank switched from 2005 to 2010 constant prices and exchange rates (Elias et al., 2018). Real GDP is an example of the

distinction between real and nominal values in economics. Nominal gross domestic product is defined as the market value of all final goods produced in a geographical region, usually a country; this depends on the quantities of goods and services produced, and their respective prices (Dentons, 2022).

Empirical Review

Usman and Ibrahim (2010) studied the impact of change in external reserve positions of Nigeria on domestic investment, inflation rate and exchange rate. Using a combination of ordinary least square (OLS) and vector error correction (VEC) methods, it was observed that change in external reserves in the country only influences foreign direct investment (FDI) and exchange rates and no influence of it was found on domestic investment and inflation rates. The results suggest that there is the need for broader reserve management strategies that will aim at maximizing the gains from oil export revenue by utilizing more of these resources to boost domestic investment. This research considered external reserve as a dependent variable over exchange rate and foreign direct investment. In our study, external reserve was considered as an independent variable since it is one of the major factors of gross domestic product.

The study of Adeleye Adeteye and Adewuyi (2015) examined the impact of international trade on economic growth in Nigeria, using net export (i.e total export less total import) and Balance of Payment as proxies for international trade while Gross Domestic Product represent economic growth. The study employed regression analysis as the method of analysis using co-integration and error correction modelling techniques to find the long-run relationship between economic performance and international trade.

Onyema et al. (2015) conducted a study on comparative analysis of port performance in Nigeria: A study of ports in Rivers State. The study used descriptive statistical tools to analyse the data. The study revealed that international trade is very crucial to the continuance of globalisation. Countries are limited to the goods and services produced within their own borders without international seaborne trade The benefits of international seaborne trade have been the major drivers of growth for the last half of the 20th century.

Ijirshar, Joseph and Godoo (2016) investigated the relationship between external debt and economic growth in Nigeria for the period of 1981-2014. The study used both descriptive and econometric tools. The analysis of unit root was performed on each of the variables incorporated in the model and the result showed that, all the variables were not stationary at level but achieved stationary after first difference at 5% level of significance. The regression results showed a significant relationship between external debt and economic growth in Nigeria. However, external debt stock impacted positively while external debt service impacted negatively on the annual growth rate of the Nigerian economy both in the long run and the short run. The study also considered external debts as dependents variable over some economic growth in Nigeria.

Osei-Assibey (2017) evaluated exactly how importers and exporters are incentivized either similarly or differently by cost of export duty volatility. It was found that import decisions are negatively affected by volatility of export duty in Ghana, as Ghanian exporters are risk-averse in the presence of higher export duty volatility and the absence of hedging facilities. Finally, it was concluded that the relationship between total trade and volatility reflects the different responses by Ghanian importers and exporters to higher costs of export duty volatility. Regional studies can be found in the literature relating to the effects of export duty volatility. Examples include Sub-Saharan Africa and South America.

Badejo and Solaja. (2017) examined the Nigerian seaports and development (1900-2015): Historical perspectives and dynamics. using a panel data in a bounds' testing approach for the analysis. The results found that trade flows of many countries are affected by export duty volatility in the short term, but only a few countries are affected in the long term in both imports and exports. Oladimeji and Muhammed (2017) investigated the effect of international business on SMEs growth in a competitive environment particularly Nigeria. It was also revealed that the exchange rate has a significant effect on SMEs growth

in Nigeria and the level at which exchange rate affects SMEs growth is relatively high.

Inah and Elijah (2018) investigated the challenges of Calabar sea port operations Calabar South-South Nigeria. The purpose of the study was to examine the impact of marine services on port efficiency in the study area. Both open and closed ended questionnaire were used to obtain data from 37 port agents importers exporters port operators and the Nigerian Port Authority (NPA) all operating in the Calabar port. Hypotheses were tested using multiple regression analysis and Chi-Square statistics in Statistical Package for Social Sciences software (SPSS). The findings revealed that container terminal efficiency is measured by the degree of increase in inputs and throughput. It also showed that the volume of container handled at the Calabar port is low compared to other ports and thus was revealed that expansion of the current terminal as well as depth of the quay will certainly increase the volume of container inputs and throughput to meet international standards.

Yakubu and Akanegbu (2018) examined trade openness and economic growth: Evidence from Nigeria. The study used multiple regression of ordinary least square estimation The study findings revealed that trade liberalization did not cause growth during the period of the study.

Osidipe et al. (2018) assessed the impact of Trade Liberalization on some selected manufacturing sectoral groups. The results of analysis led to the conclusion that trade liberalization does not have significant impact on FBT CKM and BM in Nigeria. FDI is positively signed and thus have direct impact on the three- sub-sectors. Agbo et al. (2018) examined the impact of international trade on the economic growth of Nigeria in Enugu Nigeria. The results of the study showed that there is a significant impact of export trade on the Nigerian economic growth. The study also revealed that there is no significant impact of import trade on the Nigerian economic growth.

Egbetunde and Obamuyi (2018) investigated foreign trade and economic growth: A study of Nigeria and India. The study chose real income and relative prices as determinants of maritime imports and exports. The results showed that the existence of a long-term and short-term equilibrium relationship among the variables. Ahmed (2019) examined the impact of trade liberalization on economic growth in Nigeria. The study used ARD testing approach was utilized for the analysis. The results found that trade flows of many countries are affected by export duty volatility in the short term, but only a few countries are affected in the long term in both imports and exports.

Omodero and Alphonsus (2019) carried out a study on the effect of foreign debt on the economic growth of Nigeria. The regression results indicate that foreign debt exerts a significant negative influence on economic growth while foreign debt servicing has a strong and significant positive impact on economic growth.

Osabohien et al. (2019) investigated the impact of agricultural export on Nigeria's economic growth. The results from the ARDL technique revealed that agricultural exports significantly affect Nigeria's economic growth this suggests that a 1percent increase in - agricultural export will boost economic growth in Nigeria by approximately 25 percent. Onuorah (2018) examined trade liberalization and economic growth in Nigeria. The results/findings revealed that the independent variables: DOP. INF. FDI. BOT and NEXP have positive significant impact on GDP while EXR and BOP shows a negative impact.

Babatunde et al. (2020) empirically examined the effect of FDI inflows into Nigeria on real gross domestic product (RGDP) growth and how these external inflows can bring about achieving goal-of mobilizing additional financial resources for developing countries from multiple sources. The study found that labour quality has a positive and significant effect on RGDP in line with theory. Adepoju (2020) investigated new seaport development-prospects and challenges: Perspectives from Apapa and Calabar Seaports. Descriptive analysis and stochastic frontier analysis (SFA) were used to examine seaports' challenges and determine the efficiency of the ports. Secondary data and responses of the stakeholders and shipping companies were collected through 2008–2017 cargo throughputs of the selected seaports and a well-structured questionnaire. The study found draught level cost of shipment ease of access to industries and condition of other modes of

transportation as major challenges linked to the Calabar Seaport but found the Lagos Apapa seaport quite efficient. The study recommended that investment decisions to build a new seaport or dredge to upgrade the existing ones should be analyze carefully as demand should be the driving force for new port establishment: when a port cannot generate enough traffic it may not yield returns on investment as expected.

Ikpechukwu et al. (2020) investigated the appraisal of shipping trade influence on the economic growth in Nigeria from 1981-2016. The study used secondary data collected from the Central Bank of Nigeria. The main objectives are to examine the trend of shipping trade in Nigeria as well as determine the influence of economic growth on gross domestic product (GDP). The study employed both descriptive and influential tools. The study adopted cointegration regression method for the analysis of each of the variables (shipping trade, external reserves and external debts). The results show that there is a statistically significant relationship between GDP and external reserves with p-value 0.0190. Also, the result revealed that there is a statistically significant relationship between GDP and shipping trade with p-value 0.000. However, shipping trade and external reserves contributed positively at 1% and 5% level of significance respectively while external debts impacted negatively to GDP at 5% level of significance with a long run variance of cointegration regression. Duru *et al*. (2020) examined trade liberalization and economic growth: An assessment of Nigerian experience. Using co-integration and error correction approach in the regression analysis the result showed that crude oil shipment significantly affected domestic product per capital estimated around $3500 person (Nigeria economy).

Lane and Pretes (2020) investigated maritime dependency and economic prosperity: why access to oceanic trade matters and found a significant relationship between maritime dependency, which is characteristic of coastal nations, and Gross Domestic Product (GDP) per capita, which depicts that most countries that have access to the ocean benefit from shipping. The finding suggests the importance of import and export shipping to the economic growth of maritime nations.

Ewubare and Onuchukwu (2022) examined the effect of trade policy indicators on macro-economic performance in Nigeria from 1985-2021. The study adopted three distinct models by specifically investigating the effect of trade openness, exchange rate, quota and tariff on real gross domestic product, unemployment rate and balance of payment in Nigeria using Autoregressive Distributed Lag (ARDL) technique with bound test approach to cointegration and Granger causality test. The time series data showed stationarity and long run relationship between the variables. Findings in the first model showed a strong positive and significant relationship between trade policy indicators and macro-economic performance The Prob. F-stat. (0.0162) showed that the overall model was significant at 5% level Findings in the second model revealed that the effect of trade policy indicators on balance of payment (BOP) was negative and significant at 5% level on the long run analysis with the R^2 of (0.878961)indicating that 87% of the variation of balance of payment (BOP) was explained by the autonomous factors, while Prob. F-stat.(0.0000) implies the overall model was significant at 5% level. The implication of this finding is that trade policy indicators help to mitigate macroeconomic shocks by fostering convergence and as demonstrated in the short run dynamics to long run equilibrium annually. Findings in the third model showed that the effect of trade policy indicators on unemployment rate was negative but significant at 5% level with Prob. (F-stat. 0.016238) indicating that the overall model was significant at 5% level while the R^2 (0.720981) implies that 88% of the variations of balance of payment was explained by the autonomous factors and the CointEq (--0.322587) was negative which indicates the short run disequilibrium converged at the speed of 32 % in the long run annually.

Matekenya and Ncwadi (2022) examined the impact of maritime transport financing on total trade in South Africa. The study used Pearson Product Moment Correlation Coefficient (r) and found that there is a strong correlation between maritime transport financing on total trade in South Africa, which is typical of coastal countries, showing that maritime transport financing is beneficial to most nations with access to the ocean. The result indicates the value of maritime transport financing in import and export

trade to the development of maritime nations' economies.

Shi et al. (2023) researched on port throughput based on VAR model. In Sixth International Conference on Traffic Engineering and Transportation System (ICTETS 2022) and found that exports have a negative significant impact on the trade index along the Persian Gulf and European shipping routes, while the freight index has a negative significant impact on exports in the Southeast Asian and Taiwanese shipping routes.

Likewise, Wosu and ThankGod (2023) investigated the impact of external reserve on the performance of manufacturing industry in Nigeria. Unit root test and ARDL estimation technique was utilized in the analysis. The result revealed that external reserve is paramount to the performance of manufacturing industry in Nigeria in the short-run while export, import and aggregate trade are revealed to have a significant and positive influence in economic development in the long-run.

Zhang et al. (2023) studied how liner shipping heals schedule disruption: A data-driven framework to uncover the strategic behaviour of port-skipping. The study used the Ensemble Empirical Mode Decomposition (EEMD) method, Autoregressive Distributed Lag (ARDL) approach, Vector Autoregression (VAR) model, and a new framework were utilized to analyze data. Evidence suggested that different effects on net containerized cargo and exporting countries can be produced by two oil price shocks. Further, the results from different frequencies showed that export duty have a significant relationship to oil shocks only at a high frequency. Uniqueness was shown by China among the countries of BRICS, because the response to oil price shocks by Chinese export duty was found as insignificant compared to other countries.

Odiegwu and Adiele (2023) examined the effect of international seaborne trade on cargo throughputs of ports in Nigeria. The study used descriptive and inferential statistical tools to analyse the data. Specifically, multiple regression analysis of ordinary least square estimation to test the hypotheses with the aid of SPSS 26.0. The study found that oil export has significant effect on cargo throughputs (t= 8.079), non-oil export has negative and significant effect on cargo throughputs (t = -2.869), oil import has negative and insignificant effect on cargo throughputs (t = -0.485) and non-oil import has significant effect on cargo throughputs (t = 4.059).

Adenigbo et al. (2023) investigated the effect of shipping trade on economic growth in Nigeria: The Vector Error Correction Model (VECM) approach. The study used the Vector Error Correction Model, to carry out the analyses The cointegration test established a short- and long-term causality from import, export and exchange rates to GDP. The result showed that Nigeria's economic growth is import dependent and that, in the long run, import and exchange rates significantly affect GDP. The study further indicates that the present export volume does not significantly contribute to GDP growth. The results imply that building an economic system on an import-dominated trade system is not sustainable for future development. The study recommended strategic initiatives to maintain the economic growth rate while promoting export through local production.

Ndalu and Okene (2024) investigated the impact of port infrastructure and logistics efficiency on economic growth in Nigeria, by adopting the ARDL Bound Test approach in other to estimate the relationship between the variables. The study findings show that both quality of port infrastructure and logistics efficiency have insignificant relationships with economic growth in both the short-run and long-run.

Effect of Oil Export on Real Gross Domestic Products (RGDP)

Fiwe and Turakpe (2017) carried out comparative analysis on the role of crude oil export and non-oil export in relation to Nigeria's economic growth. Data were collected from CBN statistical bulletin from 1980-2015. OLS, augmented dickey fuller, co-integration and error correction model were used to analyse the data. Findings suggested that both the oil export sector and non-oil export sector have a positive impact on GDP. The error correction model indicated that oil export sector and non-oil export sector has a long run relationship with Nigeria's GDP. It concludes that non-oil export has greater impact on the economy

than the oil export sector for the period under reviewed.

Omoke *et al* (2018) used Granger causality and cointegration tests to investigate the relationship between crude oil shipment domestic demand and seaborne trade in Nigeria. The results from Trace and Maximum Eigen Value test conducted showed that the variables do not have long-run relationship, but the Pair-wise Granger Causality test showed that seaborne trade Granger causes both crude oil shipment and domestic demand while a bilateral causality exists between crude oil shipment and domestic demand.

Ndikom et al. (2018) investigated the influence of time on seaborne oil trade in Nigeria. The study used the statistical tools of trend analysis simple regression analysis and independent sample t-test to analyze the data obtained. The study found that there is a significant difference between the export oil trade and import oil trade. The difference favours sea borne oil export trade indicating that more oil export trade has been handled/facilitated by the seaports over the time period covered in the study than oil import trade.

In a study conducted by Bediako et al. (2018), the focus was on examining the economic effects of oil price volatility on developing countries: A case study of an oil exporting country. The study examines the economic implications of oil price volatility on Nigeria's economy. The analysis utilised various macroeconomic indicators, including gross domestic product, exchange rate, interest rate, Foreign Direct Investment, and balance of payment. Data from the period of 1999-2015 was employed, using Ordinary Least Square (OLS) estimation. Their findings revealed that there is a relationship between the volatility of oil prices and the response of macroeconomic variables, although the extent of this response varies across different variables and this shows that there is a linear relationship between oil price volatility and the examined macroeconomic variables. Hence, they concluded by saying it is advisable to diversify the Nigerian economy in order to ensure a reduced reliance on oil revenue as the primary source of foreign income. Additionally, it is crucial to invest in domestic production to promote exports and discourage excessive imports.

Abdulrahman (2021) examined the effect of oil and liquid bulk trade on economic performance in Saudi Arabia. The study applied the pooled-mean group estimator of dynamic heterogeneous panels technique to analyze data for Saudi Arabian economy from 2000 to 2020. The results of the study uncovered that there are no significant impacts of oil volatility in terms of exports. In contrast, a negative impact of volatility on imports was found in the short term, while a positive impact was found in the long term.

A study by Adams and Olamide Bello (2022) utilised Descriptive Statistics, the Augmented Dickey-Fuller Unit Root test, Johansen cointegration analysis, and the ARDL cointegration statistical method to investigate the enduring impacts of crude oil production on the Nigerian economy from a period of 2006 to 2020. Based on their findings, it has been determined that the contribution of oil revenue to Nigeria's economy is significant, as evidenced by its positive impact on the country's GDP. Moreover, Nigeria has implemented measures to regulate oil revenue with the aim of achieving economic growth in various ways. Their study suggested that it would be beneficial for the Nigerian Government to enhance its export supply by engaging in downstream production and promoting increased involvement of the private sector.

Another study by Sani & Nwoye, (2023) used the Autoregressive Distributed Lag (ARDL) estimation method to examine how oil price and its volatility affect Nigeria's economic growth. The study looked at oil price volatility's short- and long-term effects on Nigeria's real GDP with secondary data from 1985 to 2020. The indicators used were Nigeria's Real GDP, Crude Oil Price, Real Exchange Rate, and Foreign Direct Investment. Their analysis shows that short-term oil price effects on real GDP are positive and statistically significant at 1%. All other variables being equal, a 1% increase in the real exchange rate results in a 1.528% increase in the real GDP. The long-term economic impact is favourable and statistically significant, with 14.67 positive effects. It also demonstrated that oil price volatility boosts short-term economic growth but has no statistically meaningful long-term effect. The study's conclusions showed that Nigeria's GDP is positively impacted by oil prices. Thus, maintaining a balance in Nigeria's crude oil

supply is essential, and the global community should let supply and demand dynamics take their course (Sani & Nwoye, 2023). Based on the above expositions the study hypothesized that: Ho_1: Oil export has no significant effect on real gross domestic product (RGDP).

2.3.2 Effect of Non-Oil Export on Real Gross Domestic Products (RGDP)

Idoko and Wada (2017) examined the contributions of Oil and Non-Oil Sectors to the Performance of Nigeria Economy for the period spanning 1981 - 2016. Time series data on Real Gross Domestic Product was used as a proxy for the performance of the Nigerian economy which is the dependent variable; while the independent variables were oil export, non-oil export, oil import and non-oil import. The technique of estimation employed in the study was Ordinary Least Square (OLS) regression analysis and the results showed that oil and non-oil export have significant positive impact on the performance of the Nigerian economy. On the other hand, oil and non-oil import showed that there is a significant negative impact as well as decline in service sector contributions to the performance of the Nigerian economy.

Ewubare, Ajie and Ojiya (2017) examined the impact of non-oil exports on economic growth in Nigeria through 1980 to 2015 using annual time series data derived from Central Bank of Nigeria's statistical bulletin (CBN) and World Development Indicators (2015). Autoregressive Distributed Lags (ARDL) econometric technique and other econometric tools were used. ARDL Bounds Co integration test revealed that the variables are co-integrated which confirms the existence of long-run equilibrium relationship between the variables. Granger causality test indicated the presence of casual relationship among the variables in the model. The findings show that non-oil exports have performed below expectations giving reasons to doubt the effectiveness of the sector and export promotion strategies that have been adopted in the Nigerian economy

Ugwu (2017) empirically investigated the impact of some selected non-oil exports on Nigerian economy during the period of 1986-2015. This study was carried out against the background of the crucial role non-oil export can play as an alternative source of revenue apart from crude oil exports. In carrying out the analysis, multiple regressions were employed to analyse data on such variables; Gross Domestic Product (GDP)- as proxy for economic growth, non-oil exports (NOE), Oil Export (OEX), and Government Expenditure (GEX). The result showed that the non-oil exports and its associated Revenue from non-oil sectors products has a positive impact on Nigeria's' Economic Growth and Development.

Adepoju (2020) examined new seaport development-prospects and challenges: Perspectives from Apapa and Calabar Seaports and found that imports and exports are accounted for in a country's current account in the foreign exchange. International Trading may give consumers and countries the opportunity to be exposed to new markets and products. Almost every kind of product can be found in the international market ranging from food clothes spare parts oil dry bulks wine stocks currencies and water. Services such as tourism, banking, consulting, and transportation.

Usoro et al. (2020) examined the nexus between non-oil sectoral contribution and economic growth in Nigeria from 1981-2018. The study employed Autoregressive Distributed Lag (ARDL) model and Vector Error Correction Model (VECM). The results confirmed the short-run relationship between the variables where non-oil revenue immediately impact the GDP growth of Nigeria by 8.49%. The study then conclude that the non-oil sector is crucial to the economic growth of Nigeria and therefore suggested increased government investment in the non-oil sector as well as strengthening of institutions.

Ogunsanwo et al. (2020) on the short-run and long-run effects of non-oil trade export on economic growth in Nigeria used time series data on non-oil export (proxied by non-oil total trade, balance of trade, exchange rate and inflation rate); and economic growth (proxied by growth rate of Real Gross Domestic Product) that were sourced and obtained from the Central Bank of Nigeria Statistical Bulletin and Nigerian Bureau of Statistics over a period of thirty (33) years (1986–2018). The study showed that non-oil total trade, balance of trade and exchange rate have positive and significant effects on economic

growth in Nigeria while inflation rate has no significant effect on economic growth in Nigeria.

Ajayi and Olasehinde (2020) examined non-oil exports and economic growth in Nigeria from 1981-2018 using variables such as non-oil output, trade openness, exchange rate, inflation and interest rates. Autoregressive Distributed Lag (ARDL) cointegration bound test technique, error correction regression and Granger causality were used to achieve the objectives of the study. The result showed that there existed a positive significant long-run relationship between non-oil exports and economic growth. Non-oil exports exhibited a positive significant short-run impact on GDP, and a uni-causality was established between non-oil exports and economic growth which ran from non-oil exports to economic growth.

Ideh et al. (2021) studied Non-Oil Sector and Economic Growth in Nigeria: The National Accounts Perspective using data sourced from the Central bank of Nigeria (CBN) statistical bulletin covering the periods of 2000 – 2019. An economic growth model was formulated using the study variables and the model was estimated using vector auto-regression (VAR) techniques, other diagnostic tests such as Roots of Characteristic Polynomial for VAR model stability, Augmented Dickey-Fuller test for time series stationarity, and granger causality tests were conducted to ensure the reliability of the model estimates. The analysis revealed that the estimated model is stable while the VAR and variance decomposition results shows that real gross domestic product is strongly endogenous in the short run but weakly endogenous in the long run. Further findings suggest that in the long run non-oil sector is strongly endogenous to real gross domestic product (92% contribution).

Magaji et al. (2021) investigated population growth, non-oil export and sustainable economic growth in Nigeria using autoregressive and distributed lag (ARDL) model techniques. Results indicates that population growth retards sustainable economic growth in Nigeria in the long run. While significant positive relationship exists between non-oil export, exchange rate and sustainable economic development in both the long run and short run. The study therefore recommends government concerted effort towards control of the rising population and ensuring that the existing one becomes more productive.

Ajayi and Omotunde (2022) examined the effects of non-oil dependency on economic sustainability in Nigeria using secondary time series data spanning thirty-one years (1986-2020). Data gathered in the study was estimated using descriptive statistics, unit root analysis, Autoregressive Distributed Lag (ARDL) analysis, parsimonious error correction model and other post estimation tests. Findings from the study established that agricultural sector revenue contribution exerts negative insignificant and significant impact on economic sustainability in the long and short run respectively; manufacturing sector revenue contribution affects economic sustainability positively and significantly in the long run and in the short run, the effect is negative and significant and small and medium enterprise (SME) contribution affects economic sustainability of Nigeria negatively and significantly in the long run and in the short run, the effect is positive and insignificant.

A strong positive correlation exists between robust international seaborne trade, particularly in oil exports, non-oil exports, and dry bulk trade, and a lower unemployment rate; meaning that a thriving maritime trade sector generally leads to lower unemployment levels due to the increased demand for jobs across various related industries like port operations, shipping, logistics, and associated services (Adenigbo et al., 2023).

Naanzem et al. (2023) examined the effects of non-oil exports on economic growth in Nigeria. Specifically, the study focused on the exports from the agricultural, manufacturing, and services sectors for the period 1986 – 2021. The ARDL technique of estimation was used to determine the effect of non-oil exports on economic growth. The findings of the study showed that agricultural and services exports have a positive and statistically significant impact on economic growth in the short and long run. It was found that a 1% increase in agricultural exports would increase economic growth by 0.0181% and 0.1270% in the short and long run, respectively while a 1% increase in services export will raise economic growth by 0.0370% and 0.2043%, respectively in the short and long run. Similarly, the findings revealed that

manufacturing exports have a positive impact on economic growth in the short-run.

Khayat (2024) examined the Impact of non-oil exports on the economic growth in Saudi Arabia during the period 2000-2022. This study used multivariate time series analysis, including Johansen-Juselius co-integration and Vector Error Correction Model to determine the long-run relationship between them. The findings of the study revealed that non-oil exports have a statistically significant impact on economic growth in the long run. However, oil exports have a negative relationship with economic growth in the long run. Moreover, it also observed that a real effective exchange rate negatively affects economic growth while gross capital formation has a positive impact on economic growth in the long run. With adequate idea of the grave implications of the overly dependence on oil for economic sustainability in Nigeria, several studies have been carried out to bring this idea to fore; although most studies have focused on the revenues from non-oil sectors instead of their contributions to the total export trade or volume of the country which is the ultimate metric to evaluate the performance of these sectors and their ability to direct sustainable change in the economy of Nigeria. More importantly, it is observed that the role and significance of exchange rate to the growth of export trade in general and non-oil exports in particular to the economy of Nigeria have been totally ignored in previous related literatures. Furthermore, this study inculcates trade openness as a major explanatory variable in analysing the impact of non-oil exports on sustainable development. This has not been experimented in previous studies on the relevance of non-oil exports to growth in the country. Based on the finding of the study, it was concluded that non-oil trade export has positive and significant effects in the short run and long run-on economic growth in Nigeria. Based on the above expositions the study hypothesized that: $Ho_{2:}$ Non-oil export has no significant effect on real gross domestic product (RGDP).

2.3.3 Effect of Refined Oil Import on Real Gross Domestic Products (RGDP)

Moshen (2013) made research on the effect of exchange rate on imports and other macroeconomic variables from 1960-2012. He used Vector Autoregression model, cointegration test and Impulse Response Function for the analysis. His results showed that exchange rate has positive effect on imports but no effect on macro- economic variables. Tamirisa (2004) extended the literature on the subject by testing for the role of good governance on oil imports on the exchange rates of oil-importing/oil-exporting countries. He derived a simple theoretical model based on the effect of imports movements on the real exchange rates of oil-importing countries that depends on the degree of government spending as well as the size of the oil sector compared to the domestic economy. He utilizes a panel of 33 oil-importing countries with data from 1985 to 2005 to evaluate seven indicators and computed the average partial derivatives of real exchange rates with respect to the oil imports. He found that higher oil imports triggers depreciation proportional to the size of the oil-dependent economy. De menil (2003) used a discrete model to test the effect of oil imports on macroeconomic variables such as incomes, current-account balances, and saving. According to him, these have different influence on asset stocks and their distribution in oil-importing and oil-exporting countries, and thereby disturb asset market equilibrium. He found that a rise in the price of oil generates a current account surplus for OPEC and current-account deficits in the oil-importing countries. In the case of Nigeria, Dayo and Adegbulugbe (1987), found that oil boom was the major factor responsible for the high growth of petroleum products consumption, while price is less important in driving the consumption of refined petroleum product. In similar study, Akinlo (2008) discovered that refined petroleum products consumption in Nigeria responded positively to changes in GDP and negatively to changes in petroleum price. Okonju, (2009), after a careful assessment of Nigeria's growth path in post oil discovery period, judged it as having been very rough. He explained that during the oil boom era GDP grew positively by 6.2% annually, but the growth rate turned negative through the larger part of the 80s when oil prices crashed; this period also saw inflation rate jump to 11% on average, with a peak of 41% in 2006; Gross domestic investment (GDI) as percentage of GDP fell from 16.3% to 14%.

Francisco & Lúcio (2015), the study examines the relationship between oil imports, oil dependence, and carbon dioxide emissions in a sample of developing

countries using annual data from 1980 to 2012. The study finds that oil imports and oil dependence have a positive and statistically significant relationship with carbon dioxide emissions in developing countries.

Al-Mulali et al. (2022) examines the impact of oil prices on economic growth in oil-exporting and importing countries from 1980 to 2019. The researchers found that oil exports are associated with higher carbon dioxide emissions, while oil imports are associated with lower emissions.

Chen et al. (2019), the study used a life-cycle assessment approach to estimate the carbon footprint of global oil trade. The researchers found that the carbon footprint of oil exports is generally higher than that of oil imports, due to differences in the production and transportation processes. Bashir & Tukur (2020), the study investigates the relationship between oil exports, oil imports, and carbon dioxide emissions in a sample of developing countries using annual data from 1971 to 2016. The study finds that oil exports and oil imports have a positive and statistically significant relationship with carbon dioxide emissions in developing countries.

Lawal and Ezeuchenne (2017) used Johansen cointegration and vector error correction model (VECM) to show the existing relationship among imports, exports, balance of trade, trade openness and real gross domestic product from the years 1985-2015. The study found long run existing relationship between international trade and economic growth; it further showed that import and trade openness are both insignificant in the short run but significant in the long run while export and balance of trade are significant in both the short and long run. The granger causality test showed that economic growth is independent of imports, exports and balance of trade but economic growth is unidirectional with trade openness. Dumani, Nelson and Siaisiai (2018) studied the effects of oil imports, non-oil imports, oil exports, and non-oil exports on economic growth in Nigeria from 1981 to 2016. The multiple regression was applied and findings indicated that oil import has a linear but insignificant impact on economic growth, non-oil imports and non-oil exports have a positive and significant impact on economic growth and oil exports have a nonlinear and insignificant impact on real economic growth in Nigeria. Elias, Agu and Eze (2018) evaluated the impact of export and import trade on the Nigeria's economic growth from 1980 to 2012. The study found through the use of multiple regression analysis that export trade significantly impacted on economic growth while import trade does not.

Based on the empirical analysis the study hypothesizes that: Ho_3: Refined oil import has no significant effect on real gross domestic product (RGDP).

2.3.4 Effect of Non-Oil Import on Real Gross Domestic Products (RGDP)

A decrease in non-oil imports generally has a negative effect on Real Gross Domestic Product (GDP), as it can lead to reduced domestic production and economic activity within a country that heavily relies on imported goods for consumption and production processes; however, the exact impact depends on the specific economic context and the ability of the domestic sector to substitute for imported goods (Nteegah & Mansi, 2017).

Chani et.al (2011) used imperfect substitution approach to derive the aggregate import demand function on the basis of disaggregated expenditure components from 1972 – 2008. This derived import demand function is then empirically tested for Pakistan by using co-integration and error correction mechanism. The empirical results showed that elasticity of import demand with respect to different macro components of final expenditure is different. The import demand in Pakistan is affected positively and significantly by all expenditure components. The relative prices have -20 0 20 40 60 80 100 120 140 160 180 Official Exchange Rate (LCU per US$ Period Averages) Non-Oil Import Gross Domestic Product (Constant 2005 US$) (%) negative but insignificant relationship with import demand in Pakistan. The findings indicate that use of aggregate expenditure variable in the aggregate import demand function leads to aggregation bias because different macro components of final expenditure have different import contents.

Alwell and Mason (2016) analysed the factors influencing import demand in Nigeria from period of 1980-2014 using import demand theory. the estimated

import demand using ordinary least square and found that real income, domestic price change and exchange rate, all have negative but significant impact on total import demand while degree of openness, gross capital formation and external debt have positive and significant implication of total import demand in Nigeria.

Nteegah and Mansi (2017) analyzed the factors influencing import demand in Nigeria from the period of 2003- 2014 using import demand model and found that Income elasticity of import is much higher than the price elasticity of import in turkey. Empirical evidence demonstrates that 1% rise in real exchange rate will lead to 0.29% increase in import, 1% rise of export will lead to 0.86% increase on import and 1% rise of real exchange rate will lead to 3.14% increase on import.

Similarly, Yavuz and Guriis (2006) analyzed Turkish aggregate demand behaviour of import during the period of 1982-2002 using vector error correction model and auto regressive distribution lag approach. The study found that there is a long run relationship among import demand, real income, and relative prices and that import demand for turkey is relatively elastic in income and relatively inelastic in prices.

Muluvi.et.al (2014) in this paper, import structure and economic growth in Kenya during 1975- 2011 is estimated to assess the major determinants of import and an error correction model was adopted. The results shows Kenya imports are significantly determined by real GDP, real exchange rate, foreign reserves and trade openness. The statistical significant of the lagged error correction term suggests import and its determinants are co-integrated hence have long run equilibrium.

Ayodotun and Farayibi (2016) investigated the determinant of import demand in sub-Sahara African during the period of 1995-2012 using consumer demand theory and adopted fixed effect estimation technique and random effect estimation technique. They found that income, price of import, foreign reserves and degree of openness and the precious year import are highly significant and positively related to import.

Fosu and Magnus (2008) by using data from the period of 1970-2002, analysed the aggregate import demand and expenditure components in Ghana. The study found that, an inelastic and positive relationship exists between the three expenditure component and aggregate import demand. Relative price is also inelastic but negatively impact aggregate demand.

Kim.et.al (2007) examined the relationship between export, import, and economic growth Korea between 1980-2003 using growth model and import model. The study found that Import has a significant positive effect on productivity growth but exports do not.

Adeniyi et al. (2015) conducted a study on financial development and economic growth in Nigeria: Evidence from threshold modelling by applying co-integration analysis and error correction model, they found out that income has a lower and negative elasticity in the short run compared with the long run. Relative prices are three times as elastic in the short run than in the long run. Volatility is negative in the long run, but positive in short run. Foreign reserves behave the same irrespective of time. Overall, change takes place much faster in the long run than in the short run. In Jamaica-UK trade, GDP, and volatility are less elastic in the short run than in long run, but real foreign reserves and relative price adjust much faster. Moreover, in contrast to the long run, real foreign reserves and volatility are both negative in the short run. Tight monetary policy has had a significant impact in the short run only in Jamaica's import demand function with the UK but not with the US.

Tonuchi (2019) carried a study on the impact of non-oil export on the economic growth of Nigeria adopting the Ordinary Least Square (OLS) methodology. The result of their finding shows that both Oil and Non-Oil are statistically significant at 5 percent degree of freedom. A one-unit change in Oil will cause a 3.24 increase in the nation's economic growth and a one-unit change in Non-oil causes a 3.5 unit increases in GDP. Submitting that, non-oil is more statistically significant and has more positive effect on the Nigerian economy.

Omoke and Ugwuanyi (2010) investigate the relationship between export, domestic demand and economic growth in Nigeria using Granger

causality and cointegration tests. The study results from Trace and Maximum Eigen Value test conducted showed that the variables do not have long-run relationship, but the Pair-wise Granger Causality test showed that economic growth Granger causes both export and domestic demand, while a bilateral causality exists between export and domestic demand.

In a related study by Mohamed et al. (2012) on Tanzania using Vector Autoregressive (VAR) technique to analyse annual data from 1980 to 2009 to determine the long-run relationship between exports trade and economic growth. Their results also find no evidence for long-run relationship between export of goods and growth but suggest existence of a long-run nexus between export of services and economic growth in Tanzania.

Offi (2012) researched on the effect of non-oil export on economic growth in Nigeria using multiple regressions analysis. The finding shows that non-oil export is statistically significant to Nigeria economic growth. On the other hand, the result also shows that oil export is significant to Nigeria Economic growth of the non-oil export while government expenditure is not significant to Nigeria's economic growth of the non-oil exports. The study therefore recommended that efficient allocation and use of resources, government base investing in non-oil sector in other to diversify the economy (from monoculture economy to a multicultural economy) and creating economic environment will help boost the activity of non-oil export sector. Raheem, Raheem, and Adeniyi (2013) examined the linkage between economic growth and non-oil export using time series data for Nigeria over a period of 1970-2010, employing both Simultaneous Equation Model (SEM) and a single equation model. Gross domestic product, non-oil exports, agriculture and industrial were used in the analysis. The result shows that non oil export and agricultural performance are negatively associated with growth. It was also found that that the industrial sector performance and population growth are good determinant of economic growth. They failed to consider inflation, exchange and trade openness in their analyses.

Aladejare and Saidi (2014) studied the impact of aggregate non-oil sector and its determinant on economic 303growth. The bound test approach was explored to examine the long and short run effects of the non-oil export and its ensuing determinants. The result of their findings shows a significant effect of non-oil export on economic growth in both the long and short run.

Ifenacho et al. (2014) investigated the effect of non-oil export on the economic development of Nigeria using ordinary least square estimating technique. The study used per capita income as proxy for economic development and expressed it as a function of non-oil export volume, trade openness, exchange rate, and capital formation and inflation rate. The result shows that non-oil export exhibits a significant positive relationship with per capita income. This indicates that if non-oil export volume is increased it is going to lead to a significant improvement in the Nigerian level of economic development. However, other variables do not have individual significant impact of economic development but jointly they can significantly influence economic development. In addition, the result shows that the coefficient of trade openness is negative thus, indicating that Nigeria might not be benefiting enough by trading with outside countries.

Abogan et al. (2014) investigated the impact of non-oil export on economic growth in Nigeria between 1980 and 2010, using error correction mechanism, over-parametization and parsimonious. Gross domestic product, non-oil export, inflation rate and exchange rate were used in their analysis. The study reveals that the impact of non-oil export on the economic growth was moderate and not all that heartening as a unit increase in non-oil export impacted positively by 26% on the productive capacity of goods and services in Nigeria during the period.

Albiman and Suleiman (2016) investigated the relationship among Export, Import, Capital Formation and Economic Growth in Malaysia using time series data from 1967-2010 and VAR analysis. Cointegration test results revealed no long run relationship among the variables. For causality analysis, export ratio and economic growth granger cause domestic investment. The impulse response

© JAN 2026 | IRE Journals | Volume 9 Issue 7 | ISSN: 2456-8880
DOI: https://doi.org/10.64388/IREV9I7- 1713473

function show that, the economic growth responds both positive and negative way depending on time period, due to the shock of domestic investment, import and export.

Adegboyega (2017) carried outa research on the impact of import and export on economic growth in Nigeria using Vector Autoregressive (VARs) and Granger causality tests. The study finding reveals that the predominant sources of Nigeria economic growth variation are due largely to "own shocks" and import-export trade innovations. The result also shows that there is a stable, long-run relationship between import-export and economic growth, but the magnitude is 304minimal. The study therefore agreed that government should always embark on policies that will encourage exports with proper implementation of import control measures.

Awoke et al. (2019) carried out research on the impact of non-oil export and economic growth in Nigeria using the auto regressive distributive lag method (ARDL) for both long-term and short-term relationships. The result of their finding reveals that the impact of non-oil exports on economic growth in Nigeria is not significant enough to take the country to an enviable level within the period under the study. Their findings also indicate that all variables considered possess inherent capacity to contribute to the growth of non-oil export if effectively, efficiently and adequately managed. They therefore recommended that Government should reduce the current exchange rate by 3% and at the same time strengthen the current policy on non-oil export to ensure proper implementation and monitoring. This study builds on the more recent time series data to examine the impact of non-oil import and export trade on economic growth in Nigeria. Based on the above expositions the study hypothesizes that: Ho_4: Non-oil import has no significant effect on real gross domestic product (RGDP).

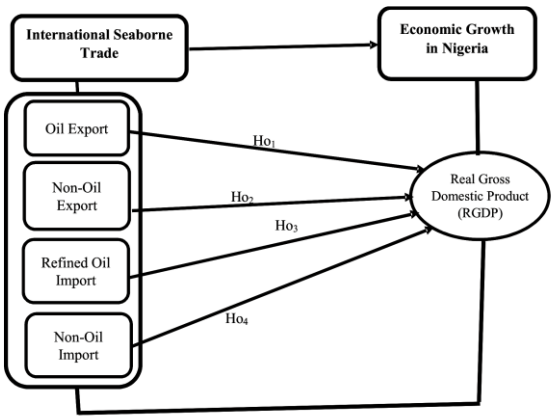

Figure 2.2: Operational Framework of the Effect of International Seaborne Trade on Economic Growth in Nigeria (1981-2024)

Sources: UNCTAD, (2024); Nicita (2023) and Adenigbo et al. (2023).

III. METHODOLOGY

Research Questions

The aim of this research is to evaluate the effect of international seaborne trade on economic growth in Nigeria. In line with this the following research questions have been raised for investigation:

i) What is the effect of oil export on real gross domestic product (RGDP)?
ii) What is the effect of non-oil export on real gross domestic product (RGDP)?
iii) What is the effect of refined -oil import on real gross domestic product (RGDP)?
iv) What is the effect of non-oil import on real gross domestic product (RGDP)?

1.5 Research Hypotheseses

This research seeks to investigate the effect of international seaborne trade on economic growth in Nigeria. The research examined these hypotheses:

Ho_1: Oil export has no significant effect on real gross domestic product (RGDP).

Ho_2: Non-oil export has no significant effect on real gross domestic product (RGDP).

Ho_3: Refined -oil import has no significant effect on real gross domestic product (RGDP).

Ho_4: Non-oil import has no significant effect on real gross domestic product (RGDP).

Method of Data Collection

Secondary sources of data would be used as the main data collection sources. So, the relevant data for this

© JAN 2026 | IRE Journals | Volume 9 Issue 7 | ISSN: 2456-8880
DOI: https://doi.org/10.64388/IREV9I7-1713473

study shall be generated from the annual reports and accounts of Nigerian Ports Authority, National Bureau of Statistics and Central Bank of Nigeria Annual Statistical Bulletins of the various years in question from their official website. The data for the study were from the period of 1981 – 2023.

3.3 Model Specification

The econometric form of the model was given as:

$RGDP = \beta_0+\beta_1 OEXP +\beta_2 NOEXP, +\beta_3 ROIMP +\beta_4 NOIMP +\mu_t$

$RGDP = f (OEXP, NOEXP, ROIMP, NOIMP)$

Where; RGDP = Real Gross Domestic Products;
OEXP = Oil export;
NOEXP = Non-Oil Export
ROIMP = Refined Oil Import
NOIMP = Non-Oil Import

Econometric Analysis

Validity Test: Validity is considered as the most important criterion for evaluating the goodness of a measure and it is defined as the degree of to which an instrument measures what it is supposed to measure (Kiabel 2020). Reliability Tests*:* A measuring instrument is said to be reliable if it produces the same results (or data when administered twice or more times under the same conditions (Babbie 2007). The ordinary least square (OLS) technique was used in this study.

Data Analysis Techniques

The study shall employ the ordinary least square of multiple regression. This is because, it assured to be the best linear unbiased estimator. Due to the supervisor nature of OLS request, further test shall be carried out within the Auto regressive distributed lag (ARDL) model.The Autoregressive Distributive Lag (ARDL) model will be as analytical technique which was created by Pesaran and Shin (1999) and Pesaran, Shin and Smith (2001), shall be adopted in this study. All these analyses shall be computed through the use of E-view statistical package version 10.

Pre-Estimation Test

Unit Root Test

For the purpose of this study, unit root tests proposed by Dickey and Fuller (1979) shall be adopted. Unit root test is defined as a random tendency in time-series data, which is frequently described as a "randomized walking with deviation" and in many cases the unit root test is named by the difference between stationery or unit root processes.

It is necessary to test whether the underlying processes that generated the data series can be assumed to be invariant with respect to time. If the process is non-stationary, it will often be difficult to represent the time series with equations with fixed coefficients (Pindyck & Rubinfeld, 1998). Several unit root-tests have been presented for understanding stationary properties of time series data. For the purpose of this study, unit root tests proposed by Dickey and Fuller (1979) will be adopted. Following Dickey and Fuller (1979, 1981), Levin, Lin and. Chu (2002) considered a panel extension of the null hypothesis that each individual time series in the panel contains a unit root against the alternative hypothesis that all individual series are stationary (Hsiao, 2003). The test of Im Pesaran and Shin (2003) allow for a heterogeneous coefficient of Y_{it-1} and propose an alternative testing procedure based on averaging individual unit root test statistics. Im Pesaran and Shin (2003) suggested an average of the ADF tests when u_{it} is serially correlated with different serial correlation properties across cross-sectional units. The general ADF regression model is specified as follows:

$$\Delta y(t) = a + \beta t + \gamma y(t-1) + \Sigma\varphi \times \Delta y(t-i) + \varepsilon(t) \quad 2$$

Where; $\Delta y(t)$ = the first difference of the time series variable, α and β = the intercept and slope coefficients, y(t-1) = the lagged level of the variable, $\Sigma\varphi*\Delta y(t-i)$ = the lagged differences, ε(t) = the error or disturbance term.

The hypothesis of the ADF test is stated as follows:

H_0: The variable has a unit root (non-stationarity), that is, $\beta = 0$.

H_1: The variable has no unit root (stationarity), that is, $\beta < 0$.

The ADF test involves estimating the model, obtaining the test statistic, and comparing it with critical values in order to decide on the rejection of the null hypothesis or otherwise. The ADF test is performed by estimating this regression equation and conducting inference on the coefficient γ. The coefficient γ represents the presence of a unit root, with $\gamma = 0$ indicating stationarity (absence of a unit root) and $\gamma \neq 0$ indicating non-stationarity (presence of a unit root). The ADF test has an essential characteristic in that it allows for alternative model specifications based on

© JAN 2026 | IRE Journals | Volume 9 Issue 7 | ISSN: 2456-8880
DOI: https://doi.org/10.64388/IREV9I7-1713473

the characteristics of the time series data. To capture higher-order autoregressive behavior and account for potential serial correlation in the data, the ADF test can include lagged differences of the variable. Researchers can select the lag length based on criteria such as the Schwarz Information Criterion (SC), also known as the Bayesian Information Criterion (BIC) or the Akaike Information Criterion (AIC).

3.7.2 Cointegration Test

The concept of cointegration was developed by Granger (1981) and defined as it is inherently multivariate, as a single time series cannot be cointegrated. It implies the co-movement of the two or more-unit root variables with similar stochastic trends. Cointegration provides a long-run equilibrium relationship between two or more-unit root variables. The long-run relationships are closely linked to the concepts of equilibrium relationships in economic theory and of persistent co-movements of economic time series in econometrics (Das, 2019). However, stationarity is a necessary condition for time series analysis to prevent the chosen statistical sample time series from non-stationary issues. One of the solutions is to use the integration. As a result, using the cointegration model is to build a stationary relationship between the chosen variables which have a non-stationary relationship between them to ensure there are no non-stationary among the variables within the sequences. In addition, the model is used to avoid false regression, and to differentiate between long-term stability and short-term volatility relationships among variables.

When variables are integrated at 1(0) or 1(1), the 2-period-residualbased Engle-Granger and the maximum-likelihood-based Johansen methods may produce biased results regarding long-run interactions among variables (Engle & Granger, 1987; Johansen, 1988). Relating to this issue, Autoregressive Distributed Lag (ARDL) method proposed by Pesaran and Shin (Pesaran & Shin, 1998) which give unbiased estimations regardless of whether 1(0) and 1(1) variables exist in the model will be used in such situation. ARDL model in analyzing time series data has 2 components: “DL” (Distributed Lag)-independent variables with lags can affect dependent variable and “AR” (Autoregressive)-lagged values of the dependent variable can also impact its current value. Going into detail, the simple case ARDL(l,1) is displayed as:

$$Y_1 = \alpha_0 + \alpha_1 - Y_{t-1} + \beta_0 - X_1 + \beta_1 - X_{t-1} + \varepsilon_1 \quad (3.7.1)$$

ARDL (1, 1) model shows that both independent and dependent variables have the lag order of 1. In such case, the regression coefficient of X in the long-run equation is as follows:

$$\frac{K = \beta_0 - \beta_1}{1 - \alpha_1} \quad (3.7.2)$$

ECM model based on ARDL(1, 1) can be shown as:

$$\Delta Y_1 = a_0 + (a_1 - 1) - (Y_{t-1} - K - X_{t-1}) + \beta_0 - X_{t-1} + \varepsilon_t \quad (3.7)$$

The general ARDL model for one dependent variable Y and a set of independent variables $X_1, X_2, X_3, ..., X\eta$ is denoted as ARDL $(P_0, P_1, P_2. P_3, ..., P\eta)$, in which p0 is the lag order of Y and the rest are respectively the lag orders of $X_1, X_2, X_3, ..., X\eta$ ARDL $(P_0, P_1, P_2, P_3, ..., P\eta)$ is written according to Pesaran and Pesaran (1997).

ARDL methods begins with bound test procedure to identify the cointegration among the variables in other words the long-run relationship among the variables (Pesaran & Pesaran, 1997).

Post Estimation Test

Normality Test

Normality tests are statistical procedures used in ascertaining whether the errors or residuals in a regression model follow a normal distribution or not. The assumption of normality is very crucial in most econometric models as it gives room for hypothesis testing and valid statistical inference. One of the commonly used normality tests in econometrics is Jarque-B era test. According to Jarque and Bera (1987) the Jarque-Bera test is a goodness-of-fit test that evaluates whether the skewness and kurtosis of the residuals in a regression model are consistent with those of a normal distribution. It is based on the null hypothesis that the residuals are normally distributed. The test statistic is computed as the sum of squared skewness and kurtosis deviations from zero, scaled by the sample size. If the test statistic is greater than the critical value, the null hypothesis of normality will be rejected but if the test statistic is less than the critical value, the null hypothesis of normality will not be rejected. The Jarque-Bera test is widely used in

econometrics due to its simplicity and ability to capture departures from normality in the tails and shape of the distribution.

3.8.2 Serial Correlative Test

Serial correlation is also known as autocorrelation, refers to the correlation between the error terms or residuals in a regression model at different time periods. The Breusch-Godfrey test, also known as the LM test, is adopted in detecting higher-order serial correlation in the residuals of a regression model. It is commonly used when there is a suspicion of higher-order autocorrelation in the model. The test involves augmenting the original model with lagged values of the dependent variable and independent variables. The null hypothesis is that there is no serial correlation up to a specified lag order. The test statistic is calculated based on the sum of squared residuals from the augmented model and follows a chi-square distribution. If the test statistic is more than the critical value, it indicates the presence of serial correlation but if the test statistic is less than the critical value, it indicates the absence of serial correlation. The Breusch-Godfrey test is more flexible than the Durbin-Watson test because it permits testing of serial correlation at higher orders.

IV. RESULT AND DISCUSSION

Presentation of Data

Time series data on annual real gross domestic product (RGDP), oil export (OEXP), non-oil export (NOEXP), refined oil import (ROIMP) and non-oil import from 1981 to 2023 used for this study are presented below.

Table 4.1: Time series data on annual real gross domestic product, oil export, non-oil export, imported refined oil import and non-oil import for Nigeria covering the period from 1981 – 2023:

YEAR	RGDP (N Billion)	Oil Export (N Billion)	Non-Oil Export (N Billion)	Refined Oil Import (Billion Litres)	Non-Oil Import (N Billion)
1981	19748.53	10.6805	0.3428	0.835	12.7198
1982	18404.96	8.0032	0.2032	0.942	10.545
1983	16394.39	7.2012	0.3013	1.05	8.7321
1984	16211.49	8.8406	0.2474	1.16	6.8959
1985	17170.08	11.2237	0.4971	1.27	7.0108
1986	17180.55	8.3685	0.5521	1.38	5.0697
1987	17730.34	28.2086	2.152	1.49	14.6916
1988	19030.69	28.4354	2.7574	1.6	17.6426
1989	19395.96	55.0168	2.9544	1.71	26.1886
1990	21680.2	106.6265	3.2596	1.82	39.6448
1991	21757.9	116.8581	4.6773	1.43	81.716
1992	22302.24	201.3839	4.2278	1.59	123.5897
1993	22765.55	213.7788	4.9913	1.75	124.4933
1994	21897.47	200.7102	5.349	1.93	120.4392
1995	21881.56	927.5653	23.0961	2.11	599.3018
1996	22799.69	1286.216	23.3275	2.29	400.4479
1997	23469.34	1212.499	29.1633	2.47	678.8141
1998	24075.15	717.7865	34.0702	2.65	661.5645

1999	24215.78	1169.477	19.4929	2.83	650.8539
2000	25430.42	1920.9	24.8229	2.43	764.2047
2001	26935.32	1839.945	28.0086	2.73	1121.074
2002	31064.27	1649.446	94.73185	3.04	1150.985
2003	33346.62	2993.11	94.77644	3.38	1681.313
2004	36431.37	4489.472	113.3094	3.73	1668.931
2005	38777.01	7140.578	105.9559	4.13	2003.557
2006	41126.68	7191.086	133.595	4.53	2397.836
2007	43837.39	8110.5	199.2579	4.98	3143.726
2008	46802.76	9861.834	525.8592	5.43	3922.664
2009	50564.26	8105.455	500.8646	4.38	4047.715
2010	55469.35	11300.52	710.9538	5.15	5857.516
2011	58180.35	14323.16	913.5113	5.51	7191.578
2012	60670.05	14259.99	879.3352	5.93	6020.199
2013	63942.85	14131.84	1130.171	3.1	6378.727
2014	67977.46	12006.97	955.0618	3.2	7582.383
2015	69780.69	8184.481	660.6783	6.29	8588.564
2016	68652.43	8178.818	656.794	5.36	6446.528
2017	69205.69	12913.24	1074.902	6.0	7464.238
2018	70536.35	17281.95	1425.374	10.2	8884.003
2019	72094.09	16703.43	3207.1	20.89	16152.18
2020	73219.9	11058.15	1555.441	5.26	17802.18
2021	74083.4	16737.34	2466.831	19.45	15171.96
2022	75109.25	24221.6	3029.976	15.81	16078.45
2023	76121.72	25132.36	3745.404	10.39	19411.53

Source: Nigerian Ports Authority, National Bureau of Statistics and Central Bank of Nigeria Statistical Bulletins

The descriptive statistics which summarize and organize the characteristics of the variables are presented in table 4.2 below:

Descriptive Statistics

Table 4.2 Summary of Descriptive Statistics of the Variables

	RGDP	OEXP	NOEXP	ROIMP	NOIMP
Mean	39941.20	6187.327	567.3111	150368.2	4058.661
Median	31064.27	1920.900	94.73185	318114.7	1150.985
Maximum	76121.72	25132.36	3745.404	117912	19411.53
Minimum	16211.49	7.201200	0.203200	51.8000	5.069700
Std. Dev.	21702.68	7086.743	940.4825	253420	5493.509
Skewness	0.484904	0.987950	2.031713	2.617630	1.483637
Kurtosis	1.586204	3.053730	6.367209	9.987674	4.146139
Jarque-Bera	5.266327	7.000159	49.89706	136.5887	18.12871
Probability	0.071851	0.030195	0.000000	0.000000	0.000116
Observations	43	43	43	43	43

Source: Author's computation using E-views software

From table 4.2 above, it was observed that real GDP has a mean value of 39941.20, a minimum value of 16211.49, a maximum value of 76121.72, and a standard deviation of 21702.68, indicating that the data is clustered around its mean since the standard deviation is lower than the mean value. Contrariwise, the mean, minimum, maximum and standard deviation for port oil export (OEXP) are 6187.327, 7.201200, 25132.36 and 7086.743 respectively suggesting that the observations are dispersed around its mean. In the same manner, the mean values for non-oil export (NOEXP), refined oil import (ROIMP) and non-oil

import (NOIMP) are 567.3111,1503682 and 4058.661 respectively with corresponding standard deviation of 940.4825, 2534208 and 5493.509 respectively. As observed, their standard deviations are greater than their mean values indicating that the data for each of the variables are scattered around their respective mean values.

In addition, the skewness values of all the variables are positive indicating that the data are skewed to the right of the normal distribution curve with long right tail. Furthermore, the kurtosis which measures the peakness or flatness of the distribution of the series revealed that RGDP is platykurtic since its kurtosis value is less than 3 showing it has broad curve and thick tail. Also the kurtosis of OEXP is mesokurtic given that the value is approximately 3 indicating that the distribution mirrors normal distribution while the kurtosis of NOEXP, ROIMP and NOIMP are lepokurtic since their kurtosis values are greater than 3 suggesting their curves are more peaked. Furthermore, the probability values of the Jarque-Bera statistics revealed that RGDP is normally distributed at 5 per cent significance while OEXP, NOEXP, ROIMP and NOIMP are not.

The trends of the series which spanned through the study period (1981-2023) are presented to provide more insights into the data distribution in Figure 4.1-45.

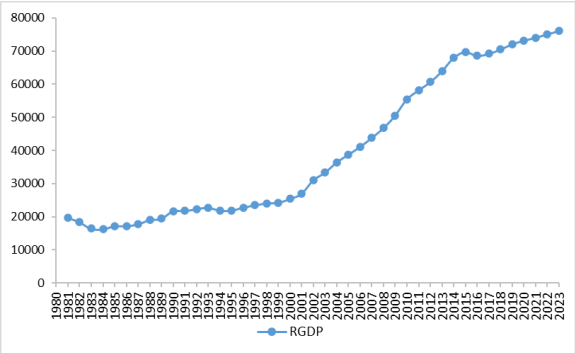

Figure 4.1: Trend of Real GDP in Nigeria (1981-2023)

Sources: Central Bank of Nigeria (CBN) and National Bureau of Statistics (NBS)

The graph clearly shows that Nigeria's real GDP has fluctuated over time. In 1981, RGDP stood at ₦19,748.53 billion but fell steadily to ₦16,211.49 billion by 1984. This decline was largely due to the global oil glut of the early 1980s and falling crude oil prices. The value of the country's real GDP increased from ₦17,170.08 billion in 1985 to ₦22302.24 billion in 1992 indicating an increase in economic activities. This was followed by a steady decline from 1993 to 1995. However, the Nigerian economy benefited from rising world oil prices in the late 1990s which saw a continuous rise in the country's economic growth as reflected in the values of real GDP throughout the early 2000s. From 2000 (₦25,430.42 billion) to 2014 (₦67,977.46 billion), Nigeria experienced its longest period of sustained growth which was driven by rising global oil prices. Furthermore, Nigeria's real GDP peaked at ₦69,780.69 billion in 2015 but fell to ₦68,652.43 billion in 2016 due to a sharp decline in global oil prices and oil production shocks, which spilled over to the non-oil sector (Word Bank, 2017). However, growth resumed in 2017 (₦69,205.69 billion) but at a slower pace and between 2018 and 2019 the country's real GDP grew modestly from ₦70,536.35 billion to ₦72,094.09 billion.

Again, Nigeria entered its worst recession in over 30 years in the third quarter of 2020 which was caused by the COVID-19 pandemic and a significant decline in oil prices which stalled global economic activities for months (NBS, 2021). However, the country's economy rebounded in 2021 as real GDP increased to ₦74,083.40 billion from ₦73,219.90 billion in 2020 and has continued on an upward trend since then. The variations in Nigeria's real GDP provides an explanation on how the size of the country's productive capacity changed over the research period.

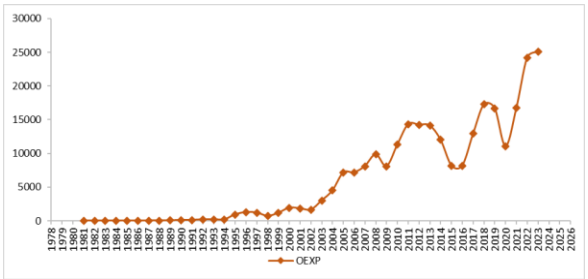

Figure 4.2: Trend of Oil Export in Nigeria (1981-2023)

Sources: Central Bank of Nigeria (CBN)

The graph 4.2 above showed that from 1981 to 1988, oil exports were relatively low, ranging between ₦7.20 billion in 1983 and ₦28.43 billion in 1988 which was as a result of global oil glut and falling crude prices. However, Nigeria's oil export experienced a sharp increase from ₦28.43 billion in 1988 to ₦55.02 billion in 1989 and followed a sustained upward trend until 1997 where it stood at ₦1212.49 billion before declining to ₦717.78 billion in 1998. Oil export rose significantly to ₦1169.47 billion in 1999 and ₦1920.90 billion in 2000 followed by a decrease to ₦1839.94 billion in 2001 and ₦1649.44 billion in 2002 then increased steadily to ₦9861.8344 billion in 2008 before decreasing sharply to ₦8105.45 billion in 2009. Nigeria's oil export rebounded in 2010 to ₦11300.52 billion and by 2013 it recorded ₦14131.84 billion. Oil export fell sharply between 2014 (₦12006.96 billion) to 2016 (₦8178.81) due to fall in global oil prices and militancy in the Niger delta region cutting production. Nigeria oil export trended upward in 2017 to ₦12913.24 billion and ₦16703.43 billion in 2019 before plunging downward to ₦11058.15 billion in 2020 owing to COVID-19 Pandemic Shock which affected global oil demand. However, Nigeria's oil export rebound in 2021 to ₦16737.34 billion and by 2023 it reached a record high of ₦25132.36 billion. Nigeria's oil export trend is highly cyclical, driven largely by global oil price movements, external shock (global crises), production capacity, and political/security stability in Nigeria.

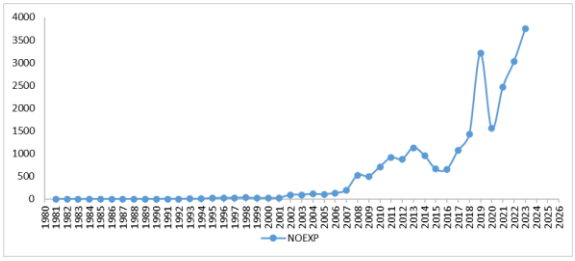

Figure 4.3: Trend of Non-Oil Export in Nigeria (1981-2023)

Sources: Central Bank of Nigeria (CBN)

As observed from the graph above, Nigeria's non-oil exports grew modestly from ₦0.34 billion to ₦5.35 billion between 1981 and 1994. This period was characterized by overdependence on crude oil revenues, neglect of agriculture, and limited manufacturing output (Adewuyi, 2020). A significant jump occurred in 1995, when non-oil exports reached ₦23.1 billion and by 2001, it reached ₦28.0 billion, reflecting modest but sustained growth. From 2002, non-oil exports rose sharply to ₦94.73 billion and nearly doubled by 2007 (₦199.26 billion). Furthermore, Nigeria's non-oil exports increased to ₦525.86 billion in 2008 and a peak of ₦1.13 trillion in 2013 and in 2015, non-oil exports fell to ₦660.68 billion due to the oil price crash, foreign exchange shortages, and Nigeria's 2016 recession (NBS, 2017). A recovery began in 2017, reaching ₦1.07 trillion, spurred by government policies under the Economic Recovery and Growth Plan (ERGP), which prioritized non-oil sectors. Nigeria's non-oil exports surged to ₦1.43 trillion in 2018 and ₦3.21 trillion in 2019, driven by agricultural exports (e.g., hibiscus, sesame, cashew) and increased manufactured goods output (CBN, 2020). The COVID-19 pandemic disrupted production and trade, leading to a drop in exports to ₦1.56 trillion. Port congestion and global supply chain disruptions worsened the decline (UNCTAD, 2021). However, non-oil exports rebounded strongly to ₦2.47 trillion in 2021, ₦3.03 trillion in 2022, and reached a record ₦3.75 trillion in 2023. Non-oil exports in Nigeria have experienced significant fluctuations over the past four decades. The historical trend of Nigeria's non-oil exports reflects a shift from near stagnation in the early 1980s to exponential growth in the 2000s and beyond. Key drivers have included policy reforms, diversification incentives, and changing global market conditions. However, challenges such as infrastructure deficits, quality control issues, and global economic shocks have periodically constrained growth.

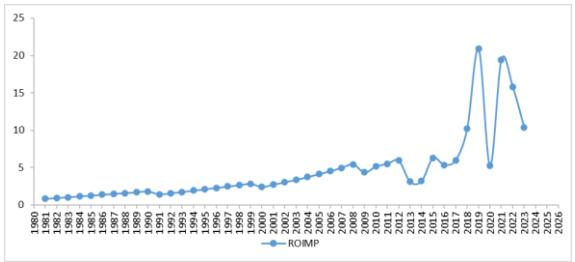

Figure 4.4: Trend of Refined Oil Import in Nigeria (1981-2023)

Sources: Nigerian Ports Authority (NPA)

© JAN 2026 | IRE Journals | Volume 9 Issue 7 | ISSN: 2456-8880
DOI: https://doi.org/10.64388/IREV9I7-1713473

As observed from Graph 4.4 above, Nigeria's refined oil imports have shown a generally upward but volatile trend over the period 1981–2023. Between 1981 and 1994, refined oil imports rose from 0.835 billion litres to 1.93 billion litres. This period coincided with the gradual deterioration of Nigeria's state-owned refineries, forcing the country to rely more on imports despite being a major crude oil producer (Nwokeji, 2007). From 1995 to 2007, imports increased steadily from 2.11 billion litres to 4.98 billion litres. This was driven by population growth, increased motorization, and industrial fuel needs. Frequent refinery shutdowns due to poor maintenance and vandalism of crude supply pipelines made importation the primary means of meeting domestic fuel demand (CBN, 2008). Refined oil imports reached 5.43 billion litres in 2008 but dropped to 4.38 billion litres in 2009 then increased to 5.93 billion litres in 2012 and experienced a slight dip to 3.1 billion litres in 2013 and 3.2 billion litres in 2014.

The period 2015–2019 saw a dramatic rise in refined oil imports, peaking at 20.89 billion litres in 2019. This was largely due to persistent refinery inactivity, currency depreciation, and increasing demand for petrol (PMS) as the dominant transport fuel (NBS, 2020). In 2020, imports fell sharply to 5.26 billion litres due to COVID-19 lockdowns, restricted mobility, and global supply chain disruptions. A strong rebound followed, with imports surging to 19.45 billion litres in 2021, reflecting post-pandemic economic reopening and pent-up demand. However, imports dropped to 15.81 billion litres in 2022 and further to 10.39 billion litres in 2023, partly due to policy shifts towards subsidy removal, forex constraints, and expectations of increased local refining capacity from the Dangote Refinery and rehabilitated state refineries (NNPC, 2023). The trend in refined oil imports over the last four decades reflects Nigeria's paradoxical dependence on imported petroleum products despite its status as Africa's largest crude oil producer. The persistence of this pattern underscores the structural weaknesses in the oil sector, policy inconsistencies, and the fiscal burden of fuel subsidies.

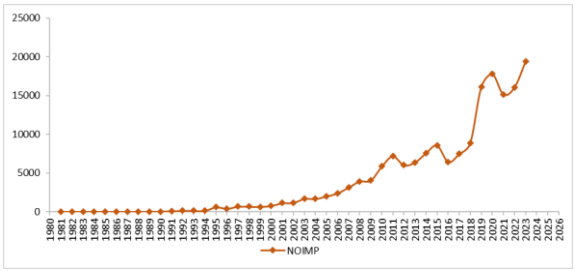

Figure 4.5: Trend of Non-Oil Import in Nigeria (1981-2023)

Sources: Central Bank of Nigeria (CBN)

The graph above showed that in the early 1980s, Nigeria's non-oil imports were relatively modest, falling from ₦12.7 billion in 1981 to about ₦5.1 billion in 1986. From 1987 onwards, imports began to increasing gradually, rising to over ₦124.49 billion by 1993. A sharp spike occurred in 1995, with non-oil imports increasing to approximately ₦599.30 billion followed by a significant decline in 1996, when non-oil imports dropped to ₦400.44 billion. From 1997 to 2008, non-oil imports grew steadily, rising from ₦678.81 billion in 1997 to ₦3922.66 billion by 2008, ₦4047.71 billion in 2009 and ₦7582.38 billion in 2014. However, Nigeria's non-oil import contracted from ₦8588.56 billion in 2015 to ₦6446.52 billion in 2016, followed by a significant increase with non-oil imports climbing to ₦16152.18 billion in 2019. In 2020, despite global disruptions, non-oil imports continued to rise, reaching ₦17802.18 billion which may be attributed to import dependence on healthcare products during COVID-19 lockdowns. Nigeria's non-oil import experienced a slight dip to ₦15171.96 billion in 2021, followed by an upward trend to ₦19411.53 billion in 2023 driven by inflationary pressures, currency depreciation, and persistent reliance on foreign goods.

4.2 Data Analysis

4.2.1 Unit Root Test

The need for stationary assessment is born out of the quest to ensure that the risk of running a spurious regression is avoided as much as possible. Unit root test is carried out to ascertain the stationarity of the variables examined in the model. Hence, the study employed Augmented Dickey-Fuller (ADF) unit root test to examine the order of integration of the variables. The outputs of the Augmented Dickey-

Fuller test of stationarity at level and first difference are presented in Table 4.3 below

Table 4.3: Unit Root Test Results

Variables	ADF Test Statistics				Integration Orders
	Level	Critical Value at 5%	1st_diff.	Critical Value at 5%	
$logrgdp_t$	-1.0422	-2.9369	-3.9731	-2.9350	I(1)
$logoexp_t$	-2.9616	-2.9389	-	-	I(0)
$lognoexp_t$	-0.8574	-2.9331	-4.4403	-2.9411	I(1)
$logroimp_t$	-1.7165	-2.9331	-7.9609	-2.9350	I(1)
$lognoimp_t$	-2.0303	-2.9389	-7.7300	-2.9350	I(1)

Source: Author's compilation from output of E-Views 10

The unit root test results depicted in Table 4.3 revealed that only oil export (OEXP) was stationary at level that is integrated of order zero I(0) while real GDP (RGDP), non-oil export (NOEXP), refined oil import (ROIMP) and non-oil import (NOIMP) were non-stationary in their level form but became stationary at first difference that is integrated of order one I(1). The result shows that oil export is stationary at level as the ADF statistics, in absolute term, is greater than the critical value at 5 percent. In view of the mixed order of integration of the series I(0) and I(1), the autoregressive distributed lag (ARDL) model was employed following the confirmation of the order of integration of the variables examined in the respective models.

4.2.2 Co-integration Test

With the verification of the order of integration of the variables, the co-integration test of long run relationship was carried out. Based on the integrated properties of the variables which resulted in the use of the ARDL method of estimation, this paper utilized the bounds cointegration test to establish whether there is a co-movement between the variables examine in the model in the long run in line with the propositions of Pesaran et al. (2001) that if the value of F. Statistic is above the upper bounds critical value at the chosen level of significance, there exists a long-run relationship. If the F- Statistic falls below the lower bounds test critical values, there is no long-run relationship and if it falls between the lower and upper bounds critical values, the model is inconclusive. The outcome of the bounds cointegration test based on the f-statistics is presented in tables 4.4 below.

Table 4.4 Bounds Cointegration Test

Test Statistic	Value	Signif.	I(0)	I(1)	Cointegration
F-statistic	5.575293	10%	2.45	3.52	Null Hypothesis: No cointegrating relationship
k	4	5%	2.86	4.01	
		2.5%	3.25	4.49	
		1%	3.74	5.06	

Source: Researcher's computation using Eview 10

The table 4.3 gives the summary of the ARDL bounds test of co-integration. The results revealed that the computed F-statistic (5.5752) is greater than the upper bound critical value of 4.01 at 5 per cent level of significance. This implies that the variables are cointegrated and as such the null hypothesis that no long run relationship exist is rejected. Hence, the study resolved that real GDP (RGDP) has a long run relationship with oil export (OEXP), non-oil export (NOEXP), refined oil import (ROIMP) and non-oil import (NOIMP). This, therefore, provides the empirical basis for estimating the coefficients using ARDL model.

4.3 Model Estimation

4.3.1 Long-Run and Short-Run ARDL Model Estimates

The behaviour of the variables in the long- and short-run and the speed of adjustment or convergence to long run equilibrium were estimated using the

© JAN 2026 | IRE Journals | Volume 9 Issue 7 | ISSN: 2456-8880
DOI: https://doi.org/10.64388/IREV9I7-1713473

autoregressive distributed lag (ARDL) method and the result of the estimation presented in Table 4.5.

Table 4.5: ARDL Estimates for Short Run and Long Run

Dependent Variable: LOGRGDP

Variable	Coefficient	Std. Error	t – Stats	Prob.
Short Run Estimates				
D(LOGOEXP)	0.0226	0.0142	1.5926	0.0353
D(LOGNOEXP)	0.0444	0.0107	4.1493	0.0011
D(LOGROIMP)	-0.0487	0.0087	-5.5673	0.0001
D(LOGNOIMP)	-0.0039	0.0131	-0.3028	0.7668
CointEq(-1)	-0.3623	0.0600	-6.0377	0.0000
Variable	Coefficient	Std. Error	t – Stats	Prob.
Long Run Estimates				
LOGOEXP	0.1051	0.0619	1.6959	0.0137
LOGNOEXP	0.3093	0.0306	10.098	0.0000
LOGROIMP	-0.2991	0.0786	-3.8026	0.0022
LOGNOIMP	0.1095	0.0883	1.2405	0.2367
C	2.8274	0.4669	6.0552	0.0000

R-Squared	0.9104	Durbin-Watson Stat.	2.2240
F-Statistic	8.6428	Prob(F-Statistic)	0.000020

Source: Author's compilation from output of E-Views 10

Short Run Results

The short run results from table 4.5 above revealed that a 1 percent increase in oil export (OEXP) leads to a 0.0226 percent increase in Nigeria's real GDP in the short run. The effect is positive and statistically significant at 0.05 significant level indicating that oil exports have an immediate but relatively modest contribution to economic growth in the short run.

The estimated coefficient of non-oil export (NOEXP) showed it has a positive and significant effect on real GDP in Nigeria at 0.05 level. This implies that a 1 percent increase in non-oil export will increase real GDP by 0.0444 percent suggesting that non-oil exports are growth-enhancing in the short term.

Additionally, the short run result revealed that refined oil import (ROIMP) has a significant negative effect on real GDP in Nigeria at 0.05 level indicating that 1 percent increase in refined oil import will lead to a 0.0487 percent fall in GDP in the short run suggesting that dependency on refined petroleum imports drains foreign reserves and negatively impacts economic activity.

Furthermore, the short run effect of non-oil import (NOIMP) is negative implying that 1 percent increase in non-oil import will reduce real GDP in Nigeria by 0.0039 percent. However, the negative effect was found not to be statistically significant at 0.05 level of significance.

Long Run Results

The long run estimates revealed that oil export (OEXP) has a significant positive effect on real GDP indicating that a 1 percent increase in oil exports boosts real GDP in Nigeria by 0.1051 percent. The long-run effect is stronger than the short-run effect, indicating that oil export's impact accumulates over time.

For non-oil export (NOEXP), its estimated coefficient appeared positively signed and exert a highly significant effect on real GDP in Nigeria given the corresponding probability value of 0.0000. The result implies that a 1 percent increase in non-oil export will lead to an increase in real GDP by 0.3093 percent. This is the largest positive long-run coefficient, suggesting that diversifying exports away from oil is a more sustainable growth driver.

Also, the long run estimate revealed that refined oil import (ROIMP) has a negative and statistical significant on real GDP in Nigeria suggesting that a 1 percent increase in refined oil import reduces real GDP by 0.2991 percent highlighting the economic burden of refined oil import dependency.

Additionally, the result showed that non-oil import (NOIMP) has a positive and statistically insignificant effect on real GDP in the long run. This implies that 1 percent increase in non-oil import will lead to an increase in real GDP by 0.1095 suggesting that non-oil imports, especially of intermediate goods, capital goods and technology, can improve the efficiency of domestic industries and enhance their productivity, ultimately contributing to economic growth.

Furthermore, the R-squared value of 0.9104 signifies that 91.04 percent of the variation in real GDP is explained by the independent variables examined in the model (OEXP, NOEXP, ROIMP and NOIMP).

Additionally, Durbin-Watson statistic 2.2240 is within the acceptable range suggesting there is absence of serious autocorrelation in the residuals of a regression model.

The F-statistic value of 8.642802, which measures the joint impact of the explanatory variables (OEXP, NOEXP, ROIMP and NOIMP) on economic growth in Nigeria, is found to be statistically significant at 0.05 level as indicated by the corresponding probability value of 0.000020. This implies that the overall model is highly statistically significant.

Also, the significant negative error correction coefficient (-0.3623) with a corresponding probability value of (0.0000) demonstrates that any short-term deviations from long-run equilibrium are corrected at a speed of 36.23 percent. This confirms a stable long-run relationship between RGDP and the trade variables (OEXP, NOEXP, ROIMP and NOIMP).

4.3.2 Post-estimation Tests

The study carried out post diagnostic test to ascertain whether the empirical results are reliable and suitable for policy application and recommendation.

Table 4.6: Inspection of CLRM Assumptions

Tests	CLRM Problem	Test Stats.	Prob.	Decision
Breusch-Godfrey LM	Serial Correlation	3.9509	0.0668	Serial independence
Breusch-Pagan-Godfrey	Heteroscedasticity	16.827	0.8559	Constant Variance
Jarque Bera	Normality Test	2.3942	0.3020	normally Distributed
Ramsey RESET	Model Specification	4.6226	0.0626	Model is not misspecified
CUSUM	Stability	-	-	Model is Stable

Source: Author's compilation from output of E-Views 10

As presented in Table 4.5, the Breusch-Godfrey Serial correlation result shows there is complete absence of autocorrelation in the estimated stochastic term. The test illustrated that, the chi-square statistic value is 3.9509 with a probability value of 0.0668 which is higher than 0.05. Hence, the null hypothesis is accepted at 0.05 levels. Therefore, this implies that serial autocorrelation is not present in the stochastic term.

The heteroscedasticity analysis based on the Breusch-Pagan-Godfrey method demonstrated that there is no existence of heteroscedasticity in the stochastic term as the null hypothesis is upheld. The chi-square value 16.827 and probability value of 0.8559 led to the study failing to reject the null hypothesis.

The Jarque-Bera normality test results indicate that their residuals are normally distributed. Thus, the null hypothesis is not rejected as the probability value of the Jarque-Bera test statistic in the examined model exceeds 0.05 significance level.

The Ramsey RESET test result shows that there is no functional or specification error, given the F-Statistic of 4.6226 and a probability value of 0.0626.

The stability test conducted using the cumulative sum (CUSUM) indicates that the parameters are stable and no structural breaks exist in the series. Figure 4.6 shows that the respective plots of the cumulative sum (CUSUM) lie within the 5 percent critical level.

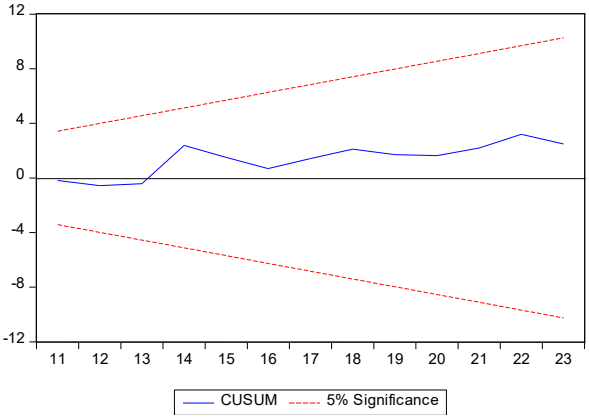

Figure 4.6: Plot of Cumulative Sum (CUSUM)

The ARDL model's short- and long-run analysis covering the period between 1981 - 2023 offer crucial insights into how the components of international seaborne trade; oil export (OEXP), non-oil export (NOEXP), refined oil import (ROIMP) and non-oil import (NOIMP) affect economic growth measured by

real GDP. The ARDL results were discussed to ascertain if the specified objectives of the study were achieved. The findings were equally discussed in line with the hypotheses tested to ascertain if the null hypotheses are to be rejected or not.

5.1 Oil Export Has No Significant Effect on Real GDP in Nigeria

The estimated ARDL model results showed that oil export (OEXP) has a significant positive effect on real GDP in Nigeria in the short run. It explained that 1 percent increase in oil export will increase real GDP by 0.0226 percent in short run suggesting that increased oil exports contribute to economic growth. This is because oil exports generate revenue, foreign exchange, and can stimulate related industries, ultimately boosting a nation's overall economic output. In the same manner, oil export exhibited a positive long-run effect on real GDP in Nigeria indicating that 1 percent increase in oil export will boost real GDP by 0.1051 percent. This finding is consistent with theoretical expectations and aligns with empirical findings of Fiwe and Turakpe (2017) and Adams and Olamide Bello (2022) who established that oil export significantly contributes to real GDP. Also, the positive effect of oil export was found to be statistically significant at 0.05 significance level given the probability value of 0.0353 and 0.0137 in the short run and long run respectively. Hence, the study rejects the null hypothesis since the probability values are less than 0.05. Based on the short and long run result, the study submits that oil export has a significant positive effect on real GDP in Nigeria.

5.2 Non-Oil Export Has No Significant Effect on Real GDP in Nigeria

The ARDL results showed that non-oil export (NOEXP) has positive effects on real GDP in Nigeria both in the short and long run. Specifically, 1 percent rise in non-oil export increases real GDP in the short run by 0.0444 percent while in the long run its impact grew even stronger, with non-oil export increasing real GDP by 0.3093 percent. The positive relationship between non-oil export and real GDP highlights the growing importance of diversifying Nigeria's export base beyond crude oil. Diversification makes the economy more resilient to fluctuations in global commodity prices and can create more stable and sustainable economic growth. Also, these findings conform to the theoretical expectation of the study and is in consonance with the studies of Idoko and Wada (2017), Usoro et al. (2020) and Ugwu (2017) which indicates that increased non-oil exports are associated with an increase in a country's overall economic output. This suggests that diversification of exports beyond oil can contribute to economic growth. In addition, the positive effect of non-oil export on real GDP was found to be statistically significant at 0.05 level both in the short and long run given the corresponding probability values of 0.0011and 0.0000 respectively. Hence, the study rejects the null hypothesis since the probability values is less than 0.05. In effect, the findings indicate that changes in non-oil export determine the extent of increase or decrease in real GDP in Nigeria. Based on the short and long run results, the study submits that non-oil export has a positive and significant effect on real GDP in Nigeria.

This reinforces the argument of UNCTAD (2023) that resource-dependent economies must expand their participation in global trade beyond primary commodities to achieve sustainable growth. The persistent negative effect of refined oil imports suggests that Nigeria's reliance on imported petroleum products remains a structural bottleneck, eroding the gains from crude oil exports. Moreover, the insignificant role of non-oil imports in driving growth reflects limited domestic value-chain linkages, a finding consistent with World Bank (2020) observations on Nigeria's import structure. Overall, the study concludes that for international seaborne trade to serve as a sustainable engine of growth, Nigeria must prioritize export diversification, domestic refining capacity, and import substitution strategies within the maritime trade framework.

5.3 Refined Oil Import Has No Significant Effect on Real GDP in Nigeria

The ARDL results showed evidence of a negative effect of refined oil import (ROIMP) on real GDP in the short run. This implies that 1 percent increase in refined oil import will reduce real GDP by 0.0487 suggesting increased refine oil import exert downward pressure on real GDP in Nigeria. This also corresponds with the long run outcome which shows a negative relationship exist between refined oil import and real GDP in Nigeria with an estimated coefficient

of 0.2991. However, the impact in the long run is higher compared to its impact in the short run highlighting that heavy reliance on refined oil imports can create vulnerabilities to global price fluctuations, exchange rate pressures and trade imbalances. Also, the finding is in tandem with studies of Tamirisa (2004), Akinlo (2008) and Ohalezim and Ngang (2022) who found that higher oil imports negatively affect real GDP, causes exchange rate pressure, increases inflation, and undermines economic growth. Furthermore, the negative effect was also found to be statistically significant in both the short run and long run at 0.05 level given the associated probability values of 0.0001 and 0.0022 respectively. Hence, the study rejects the null hypothesis and submits that refined oil import has a significant negative effect on real GDP in Nigeria.

5.4 Non-Oil Import Has No Significant Effect on Real GDP in Nigeria

The ARDL short run result revealed that non-oil import has a negative effect on real GDP in Nigeria. This implies that a 1 percent rise in non-oil import leads to a decline in real GDP by 0.0039 percent suggesting that over-reliance on non-oil imports can stifle the development of local industries, hindering long-term economic growth and potentially leading to trade imbalances. Conversely, the long run estimated coefficient of non-oil import showed it has a positive effect on real GDP in Nigeria. This indicates that 1 percent rise in non-oil import will increase real GDP by 0.1095 percent highlighting that non-oil imports particularly of raw materials, machinery, and technology, that may not be readily available or produced domestically can enhance productivity and efficiency across various sectors of the economy, ultimately contributing to GDP growth. This finding is supported by (Nteegah & Mansi, 2017). However, the positive effect of non-oil import on real GDP was found not to be statistically significant given the associated of 0.2367 is greater than 0.05 significance level. This suggests that while imports can facilitate growth through technology transfer and access to capital goods, in economies with weak industrial bases like Nigeria, the benefits may not materialize fully in the long run because much of the value addition occurs abroad Uwubanmwen and Oseghale (2015). Similarly, the World Bank (2020) notes that in Nigeria, high import bills for non-oil goods have not translated into proportional GDP growth because imported consumer goods often displace domestic production rather than stimulate it. Furthermore, Adeniran et al. (2014) argue that the structure of Nigeria's imports is skewed towards finished consumer products rather than industrial inputs, limiting their role in enhancing productivity. When imports do not integrate into productive domestic value chains, their long-run effect on GDP is muted. Based on the long run result, the study submits that non-oil import has an insignificant positive effect on real GDP in Nigeria.

V. CONCLUSION

The empirical evidence underscores the pivotal role of international seaborne trade in shaping Nigeria's economic trajectory. While oil exports continue to contribute positively to growth, the stronger performance of non-oil exports in both short and long runs highlight the economic potential of a diversified export portfolio. The persistent negative effect of refined oil imports suggests that Nigeria's reliance on imported petroleum products remains a structural bottleneck, eroding the gains from crude oil exports. Moreover, the insignificant role of non-oil imports in driving growth reflects limited domestic value-chain linkages. Overall, the study concludes that for international seaborne trade to serve as a sustainable engine of growth, Nigeria must prioritize export diversification, domestic refining capacity, and import substitution strategies within the maritime trade framework.

In Nigeria, the oil trade has a significant but complex impact on economic development. While it has boosted GDP and export earnings, it has also led to over-reliance on a volatile global market, hindering diversification and causing economic instability. The country's reliance on oil revenue makes it vulnerable to price fluctuations, affecting government spending and overall economic growth.

i. The ARDL results revealed that oil export has a positive and statistically significant effect on RGDP both in the short and long run indicating that increase in oil exports contribute significantly to economic growth in Nigeria.
ii. In addition, the result showed that non-oil export has a statistically significant positive effect on

© JAN 2026 | IRE Journals | Volume 9 Issue 7 | ISSN: 2456-8880
DOI: https://doi.org/10.64388/IREV9I7-1713473

real GDP in Nigeria both in the short run and long run highlighting the growing importance of diversifying Nigeria's export base beyond crude oil.

iii. Also, the short run and long run results revealed that refined oil import has a negative and statistically significant effect on real GDP implying that heavy dependence on refined petroleum product imports constrains economic performance in Nigeria.

iv. Furthermore, the ARDL short run results showed that non-oil import has insignificant negative effect on real GDP while the long run result indicated that non-oil import has a positive but statistically insignificant effect on real GDP suggesting limited growth benefits from such imports over time.