IMPACT OF EXPORT ON ECONOMIC GROWTH IN NIGERIA

(1981 TO 2022)

BY

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UIVESIRTY OF BENIN

BENIN CITY, NIGERIA.

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BEING A PROJECT SUBMITTED TO THE DEPARTMENT OF ECONOMICS, FACULTY OF SOCIAL SCINCES, UIVESIRTY OF BENIN, BENIN CITY, IN PARTIAL FUFILMENT OF THE REQUIREMENT OF THE AWARD OF BACHELOR OF SCIENCE (B.SC) DEGREE IN ECONOMICS.

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CERTIFICATION

This is to certify that the project work titled "**THE IMPACT OF EXPORT ON ECONOMIC GROWTH IN NIGERIA"** is an original research work that was carried out by **Akpa Ebiola Valentina** with matriculation number **SSC1909315** and that the research work is sufficient in the scope and content in partial fulfillment for the award of Bachelor of Economics, Faculty of Social Sciences, University of Benin, Benin City

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DEDICATION

This project is dedicated to o God almighty who in his infinite grace has brought me this far in my in my academic pursuit and also to my loving parents Mr. and Mrs. Akpa.

ACKNOWLEDGEMENT

All praises to God and His blessing for the completion of this project.To my project supervisor Prof.(Mrs.) E.I.Izilein,I sincerely thank you for your immense support to make this project a huge success.

Everything we accomplish in life is a synergistic product for many people who have contributed to what we have done and who we have become .This work is no different. I am eternally grateful to all the people who have inspired, encouraged throughout my development over the years .To my dearest family (The Akpa's), My sincerest gratitude and appreciation goes to my parents (Mr and Mrs Akpa) to my siblings Miss Oyintare Akpa, Mr. Akpoebi Akpa, Mr. Priye Akpa. I am grateful for all the sacrifices made to help me succeed. To my friends and colleagues who has made my stay In school worthwhile; Blessing, Iwinosa, Favour, Dorcas,Gift, Onomen, Destiny, Queen, Perstige, Angel I love you all.

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CHAPTER TWO:LITERATURE REVIEW

CHAPTER THREE:THEORETICAL FRAMEWORK AND MODEL

RESEARCH METHODOLOGY

ABSTRACT

The study employed OLS to determine the impact of export on economic growth in Nigeria .The study used time series data from 1981-2022.The study revealed that export has a positive and significant impact on economic growth in Nigeria (RGDP)Non-oil export was found to be positive but insignificant impacting to economic growth in Nigeria (RGDP)Import has negative and insignificant impact on economic growth. And also, Trade openness was found to have a negative and insignificant impact on economic growth (RGDP).The result R squared (94..37percent)shoes that the line of best fit was highly fitted. The study found that export-led growth hypothesis is valid in Nigeria context. Therefore we recommend that the government should take active steps to diversify the economy so as to improve export contribution to the growth of Nigerian economy. The government should increase the capital investment in the oil sector. Trade and foreign exchange policies in favor of export expansion should be encouraged as proper implementation of import control measures that will certainly sharpen the understanding of the determinant of import behavior should also adopted in other to growth of the economy.

CHAPTER ONE

INTRODUCTION

1.1. Background of the study

Without referring to trade as a source of economic growth , the study of economic growth cannot be complete. Over the years, government use various means to improve the economy situation of their domestic economy. It has, therefore, become imperative for every Government to pay keen attention to matters relating to trade especially how to attain a higher real productivity in the export sector. Exports are goods and services produced domestically and purchased by foreigners. According to Afolabi (2011) Export can be defined as surplus of goods and services of a county that is sent to other countries in the world for sale. Export expansion can be seen as a boost to economic development (Agosin, 1999; Giles and Williams, 2000; gross man and help-man, 1991). Verdoorn (1949) continues to argue that export growth can result in specialization in the production of export commodities. Specialization, would result in higher productivity gains in the export industry due to the increase in skills acquired by doing. In the process, resources would flow from the less productive and

non-trade sector to the highly competitive exports sector, resulting in economic development.

Agriculture was the main economic sector until Nigeria gained independence in 1960.Nigeria major agricultural produce include cocoa, cassava, groundnut, palm oil, rubber among others, It supplied the country with both food and cash crops and accounted for most of the country's foreign exchange. However, the discovery of oil changed the structure of Nigeria's economy. This led to the neglect of agriculture thereby making the economy heavily dependent on crude oil in the 1970's which constituted 90 percent of total export. However, the global oil market collapsed in the 1980s. The collapse resulted in a drought in oil production and budgetary revenues, without a significant decrease in fiscal and external deficits. Government resorted to massive borrowing from the banking system, international financial institutions, and the depletion of external reserves in an attempt to finance the national and international deficits. The resulting decline in foreign exchange earnings also triggered an unperfected economic crisis (Omotor and Jike,2006). In the late 1980s, the structural adjustment program (SAP) was introduced in response to these major challenges. This initiative was aimed at liberalizing and diversifying the economy. SAP was

developed to pay more attention to exports, particularly in the agricultural sector, which was the hardest affected by the recession. Following the adoption of SAP, a number of export promotion plans and policies were developed, focusing on manufacturing export. Onwualu (2012) states that the Agricultural sector alone has the ability to open up the economy and execute various activities that are contributive to employment and industrialization, ensuring that the non-oil sector holds the keys to a sustainable Nigerian economic development.

A well-developed export sector of the Nigerian economy will provide employment opportunities for the people with the attendant reduction in the social cost of unemployment. Earnings from export will reduce the strain on the balance of payment position and even improve it. A rewarding export drive can turn a hitherto underdeveloped economy into a prosperous economy.

1. 2 Statement of the Problem

Nigeria is richly endowed with natural resources such as crude oil, columbite, limestone, cole, lead, iron-ore, as well as a whole lot of agriculture products, among which cocoa, rubber and timber. All of these resources, if properly and effectively utilized, would contribute to Nigeria's economic growth and

development. A key problem emanating from national export in Nigeria has been the prevalence of the “Dutch Disease”, which on one hand is the changes in a nation’s productive structure which reflects a dynamic change accruing to sudden natural resource discovery, innovations, or a rise in the foreign value of a locally produced goods or services. In a peculiar case like Nigeria where the natural resources unearthed are crude oil or minerals, a shrinkage or stagnation of the agricultural or manufacturing base could follow the blind-folding effects of the shock which engulfed Nigeria as a result of its oil boom (Odularo, 2008).

In Nigeria, within the period 1960-70, the Gross Domestic Product (GDP) recorded 3.1 percent growth annually. During the oil boom era, roughly 1970-78, GDP grew positively by 6.2 percent annually which was quite remarkable. Gani (2011) noted that with the oil boom in the 1970's, the country's foreign exchange earning dramatically increased, leading to a higher economic growth. However, in the 1980s, GDP had negative growth rates. In the period 1988-1997 which was the period of structural adjustment the GDP grew at positive rate of 4 percent .Real GDP growth was estimated at 7.1 percent in 2003 and reached its peak in 2010 at 8.4 percent. Nigeria's real GDP growth rate dropped to 6.2 percent in 2013. Real GDP growth was 3.86 percent at the end of the year 2015, relative

to 5.94 percent in the previous year (NBS, 2015). Contrarily, the Nigerian economy increased by 2.84 percent year on year in the third quarter of 2015, up from a 2.35 percent increase in the previous year. The oil industry, which accounts for almost 11 percent of total production, reacted well, while the services industry saw its grew slowly . Non-oil exports account for only 2.4 percent of total exports in 2007, according to an analysis of the trend and patterns in Nigeria's balance of payments, while the remaining 97.6 percent comes from oil exports. Non-oil exports increased from 2.5 percent of total exports in 2008 to 7.2 percent in 2013 and 7.1 percent in 2014. Nigeria exported N7,246.5 billion in 2005, out of which N7,246.5 billion was spent on tourism. It grew to N11,966.5 billion in 2010 and reached N12,988.3 billion as of December 2014.

The type of product (oil and non-oil)exported by Nigeria to other countries of the world is also important in terms of the country's growth. This is in keeping with Feder (1983) and Wörz (2005)'s findings that cost, knowledge transfer, and cost-effectiveness are different across different export segments. This, in turn, implies that their growth-boosting abilities are actually different. The issue of interest from a policy standpoint therefore extends beyond the effect of aggregate exports on growth and focuses on whether export components have a different

stimulating effect on Nigeria's growth. Aiming for effective policy formulation, analysis, and advocacy is to gain insight into the different impact of export components on growth.

1.3. Research Questions

1:Does trade openness have any impact on Nigeria economy?

2:To what extent do Oil exports affect the Nigerian economy?

3:To what extent do Non-oil export affect the Nigerian economy?

1.4: Objective of the study

1:To examine the impact of trade openness on the Nigeria economy.

2:To determine the impact of Oil export on Nigeria economy.

3: To examine the effect of Non-oil export on Nigeria economy.

1.5: Statement of hypothesis

The following hypothesis are formulated to guild the study:

H01: Trade openness have no impact on the economy.

H02:There is no significant relationship between Oil export and Nigeria economy.

H03:There is no significant relationship between Non-export and Nigeria economy.

1.6: Significance of the study

The effect of export earnings fluctuations on a nation's long-term growth cannot be overstated; since an increase in export earnings (compared to its counterpart, import) would make any nation more competitive in trade with other nations. This work will therefore be of utmost importance to the government and its departments, as well as the general public. It would be of great benefit to the ministry of commerce and industry, investors, as well as financial intermediaries and institutions. In this study, attempts will be made to highlight other key areas of the economy that, if funds are channeled to and fully utilized, will greatly contribute to the total foreign exchange utilisation.

1.7: Scope of the study

This research will analyze the impact of export in Nigeria economy, taking proper analysis on various ways and means put by the government of Nigeria to improve export since 1981-2022. This period covers all phases of Nigeria's growth, from

the time when it was an agrarian economy to the discovery of oil, the reliance on oil as the primary source of foreign earnings and the development of other industrial sectors that support economic growth.

1.8 Limitation of the study

The research work, is not without constraints as the researcher encountered a variety of challenges as a result of this work. Due to the poor nature of information management in Nigeria, there are issues with data sourcing as well as data inconsistency. However, a slew of other obstacles impede the researcher from presenting a better work than this. Time and financial constraints are among the main factors that make up the most prominent list.

CHAPTER TWO

LITERATURE REVIEW

2.1 Conceptual review

An export in international trade is a good produced in one country that is sold into another country or a service provided in one country for a national or resident of another country. The seller of such goods or the service provider is an *exporter*; the foreign buyers is an *importer*. Services that figure in international trade include financial, accounting and other professional services, tourism, education as well as intellectual property rights. The term 'exports' describes goods and services created in one nation and bought by residents of another. Essentially, if a product is made domestically and sold to a foreign market, it's considered an export. This can be done in various ways, such as shipping, e-mail, or even physically transporting the goods in personal luggage on a plane.

Exports are a key component of international trade, with the other being imports - goods and services that a nation's residents purchase from foreign sources. The relationship between a nation's exports and imports shapes its trade balance. When a nation exports more than it imports, it experiences a trade surplus. Conversely, when a nation's imports exceed exports, it has a trade

deficit. Export trade is a fundamental aspect of international business, involving selling and transporting goods and services across national borders. It is pivotal in fostering economic growth, creating employment opportunities, and facilitating global commerce. In this exploration, we will delve into the concept of export trade, examining its significance, processes, and impact on the global economy

2.2 Conceptual clarification

Exports are explained as the goods and services manufactured in one country and acquired by citizens of another country. The export of good or service can be anything. This trade can be done through shipping, e-mail, transmitted in private luggage on a plane. Basically, if the product is manufactured domestically and traded in a foreign country, it is known as an export. In International trade, exports are one of the components. The other

component is imported which means the goods and services purchased by a country's citizens that are manufactured in a foreign country. Both the export and import combined contribute to the country's trade balance. Whenever the country's export is more than the import, it is called a trade surplus. However, when the import is more than the export, it is known as a trade deficit, (Akeem, 2011).

International trade is simply known as the exchange of goods and services between nations of the world. At least two countries should be involved in the activities, that is, the aggregate of activities relating to trading between merchants across borders. Traders engage in economic activities for the purpose of the profit maximization engendered from differentials among international economic environment of nations (Adedeji, 2006).

Theory of comparative advantage make us to understand that countries trade with each other in goods and services because of the concept of differentials in the natural resources, human capital, financial capital and technical capabilities endowment of nations. Some countries are more endowed in these resources than others, even, many countries that are adequately blessed with good resources may not have the ability to manage and channel them to their advantage, hence, denying them the opportunity of achieving the necessary growth, development and good standard of living for their citizenry.

The importance of international trade stems from the fact that no country can produce all goods and services which people require for their consumption largely owing to resources differences and constraints. As a result, this trade relationship suggests that economies need to export goods and services in order to

generate revenue to finance imported goods and services which cannot be produced domestically. However, Nigerian economy has grossly underperformed relative to its economic endowment and her peer nations. With about 37 solid minerals types and a population estimates of over 160 million people, one of the largest gas and oil reserves in the world, the economic performance of the country is rather weak when compared to the emerging Asian countries such as Thailand, Malaysia, China, India and Indonesia and even Brazil. These countries had by far lagged behind Nigeria or at par with Nigeria in terms of GDP per capital in 1970s, but later they were better able to transform their economies to emerge as major players on the global economic arena. In 1970, for instance, Nigeria had a GDP per capital of US$233.35 and was ranked 88th in the world, when China was ranked 114th with a GDP per capital of US$111.82 (Sanusi 2010). Today, China occupied an enviable position even as the second largest economy after the United State of America, largely owing to her self-esteemed trade position.

2.3 Nigeria trade policy and export promotion

The overall objective of Nigeria's trade policy Is to diversify the country's export base and to continue to liberalize the import trade. Export diversification strategy is multi-dimensional in terms of promoting the traditional non-oil exports

of cocoa, rubber and palm produce and the non-traditional exports namely, manufactures which emphasise value added to export production. The Import policy on the other hand has seen progressive liberalization since the last trade review in 1991. Besides the WTO agreements to which Nigeria is a signatory and ECOWAS in which Nigeria is a dominant partner, three other factors which influence Nigeria's trade policy are the desire to promote non-traditional (value-added) exports, the need to integrate the informal trade into the mainstream formal trading activities, and the reaction of Nigeria's neighbours to her trade policies.

Under the policy of "guided de-regulation", Nigeria attempts to pursue a balanced policy of encouraging non-oil export promotion and graduated import-liberalization without encouraging the growth and expansion of the informal trade. Since 1995, Nigeria's macroeconomic and trade policies have evolved in a generally positive manner, although implementation has been uneven. In the face of persistent political and institutional uncertainty, the growing international confidence in Nigeria's economy noted in the first Trade Policy Review of Nigeria in 1991 has ebbed. Attempts to use the country's large oil revenue to expand the economic base have been mostly unsuccessful; the

economy remains highly vulnerable to fluctuations in oil prices, and large segments of the population are yet to see improvements in their living standards. GDP per capita is estimated at US$370, however non-oil GDP per capita is only about US$210.

The present military government has recently given priority to improving macroeconomic management, and re-launched efforts to liberalize the foreign exchange and investment regimes. Steps have also been taken to streamline Nigeria's trade regime and establish a long-term, predictable tariff structure. However, concerns remain about tariff changes and the use of quantitative restrictions. A wide array of export incentive schemes has failed to offset the anti-export bias resulting from the import regime, cumbersome export procedures, and failing infrastructure.

Economic Environment

Nigeria is Africa's most populous nation, endowed with abundant hydrocarbon resources and offering large potential opportunities for international trade and investment. During the 1990s, the commitment to structural reforms weakened and economic growth has slowed to an average of 2.5% a year in 1991-94 from 5.3% during 1986-90. After a period of stagflation up to 1994,

growth increased and inflation declined, helped by a sound macro-economic policy stance and an increase in world oil prices until 1997. Although fiscal policy has been tightened, resulting in budget surpluses in 1996 and 1997, the Government's heavy reliance on oil revenue continues. Crude petroleum represents over 95% of export receipts and over three quarters of government revenue. Efforts to maintain both economic growth and the fiscal balance could therefore be jeopardized by the current weakness in oil prices.

The high level of external public debt and the continuing accumulation of arrears remain important obstacles to much needed foreign investment outside the oil sector, notably in infrastructure. Resumption of external funding for new projects is largely conditional on the regularization of Nigeria's relations with the Paris Club of official creditors.

Since 1995, access to foreign exchange at close to market rates and the lifting of most restrictions on current and capital transfers have significantly improved the trade and investment environment. However, several foreign exchange documentary and approval requirements remain and have the potential to restrict imports. Eliminating those requirements, together with the unification

of the exchange rates and full reliance on market forces for foreign exchange would provide a more secure business environment.

In 1996, Nigeria was the 34th largest exporter and 43rd largest importer worldwide. Furthermore, it is the third largest trading nation in Africa. The long-term decline (since 1980) in its share of Africa's exports continued during the period 1991-96. Crude oil is the only significant recorded export, shipped mostly to the Americas and Western Europe. Nigeria appears to be also a sizeable exporter of refined oil products according to partners' import data. Among other exports, only cocoa beans, rubber, and cotton exceeded US$10 million in 1996.

Between 1990 and 1996, Nigeria's import structure changed significantly, with the share of food and petroleum products returning to its level of the early 1980s. Petroleum products constitute a major import. The greatest falls in imports have been recorded in machinery, notably transport equipment, and clothing. The United States, the United Kingdom and Germany remained the three most important recorded sources of imports. This recorded trade, however, excludes prolific informal commerce with neighbouring countries.

In the early 1950s, before the discovery of oil in commercial quantities, agriculture was the mainstay of the Nigerian economy, contributing more than 70

per cent of the country's export earnings. With the discovery of oil in commercial quantities in 1956 and the subsequent commencement of its production in 1958, the emphasis shifted from agricultural sector to the oil sector for the foreign exchange earnings. The country's excessive reliance on earnings from the oil sector and the failed attempts to achieve any meaningful economic diversification led to poor economic performance of the country (Suberu, Ajala, Akande& Adeyinka, 2015). However, the decline in the earnings from the oil exports in the 1980s and the loss of market share in the non-oil trade globally saw the need for promotion of the non-oil export sector of the economy.

Hence, since the beginning of trade liberalization in 1980s, Nigeria has continued to promote export growth strategy in order to prevent deterioration of the economic performance of the country. This is because export of goods and services represent one of the most important sources of foreign exchange earnings that can ease the pressure on balance of payments and invariably create employment opportunities in the country. For instance, in 1982, Nigeria under the civilian regime in power implemented restrictive trade policy when the Economic stabilization Act was introduced. This policy resulted to increases in tariffs on certain commodities and more stringent foreign exchange regulations. With the

introduction of structural adjustment programme (SAP) in 1986, efforts were geared towards shifting away from total dependence on oil sector to the diversification of non-oil sector of the economy. This policy is being sustained by the current democratic government in Nigeria, which was ushered in since 1999 to date.

An Overview of Non-Oil Export Promotion Policies

It would be useful to specify clearly the key instruments of the post 1986 non-oil policy. What least, five decrees were promulgated between 1986 and 1988 as means of promoting non-oil exports in Nigeria. All the decrees sought to improve price and non-price incentive to exporters of non-oil products. In 1986, the three key decrees were promulgated as follows:

i. Export (incentives and miscellaneous provision) Decree 18.

ii. Second

iii. Customs and Excise etc miscellaneous provision Decree No. 37.

Similarly, in 1988 two decree were promulgated, which are:

i. The Nigerian Export Promotion Decree No41.

ii. Export Credit Guarantee and Insurances Scheme Decree No. 13.

The SFEM Decree was targeted on non-oil export prices through exchange late depreciation. Thus, the action system introduced in September 1986, led to the depreciation of Naira against the convertible currencies of Nigeria's Major trading partners its dollars; British Pound; Japanese Yen, Dutch Guilder, and so on. Most of the inputs used in manufacturing are imported. The depreciation of naira rather made imports costly while farmers were not producing enough to meet demand. The customs and excise etc miscellaneous provision decree among others abolished export license for prohibited products on those subjected to special restrictions. It also exampled non-oil products from duties. Thus, removing theoretical tax on non-oil exports, which the Breton woods school believed to be a cause of decrease in level of Nigerians nonoil exports. In addition, it allowed non-oil export to retain 100% of export proceeds, which could be lodged in domiciliary accounts that could be opened for such purpose in Nigerian Banks.

To further deregulate the domestic mechanism for non-oil trade, commodity boards which hitherto before 1986 organized the domestic trade of agricultural tradable and also undertook their exportation were scrapped ostensibly to allow farmers and private exporters of agricultural tradable goods, a direct access to the

international market so that they could derive the full advantages and disadvantage of international trade. The apart (incentives and miscellaneous provisions) Decree provided for:

i. Tax free interest earned on export loans

ii. Currency retention scheme of 25% later 100% in consonance with SFEM (Decree No. 18) for non-oil exporters.

iii. A development found, that is the Export Development Fund (EDF) to provide direct financial assistance to non-oil exporters to meet part of their expenses in promoting their products in the international Market.

iv. A duty drawback suspension scheme which exempts export industries from import duties and excise duties.

v. The establishment of an Export Expansion Fund (EEF) to provide cash grants to exporters of semi manufacturers and manufacturers to enable them increase their export.

vi. Higher capital tax depreciation allowance for manufactured exports. Even though all these incentive were put in place export volumes still remained low.

The Nigerian Export Promotion Council (NEPC) decree established the NEPC and charged it with the responsibility of spearheading the export promotion drive.

The decree also provided for the creation of three Zonal Offices in Lagos, Kano and Port-Harcourt and the creation of Form Commercial Desks in London, New York, Abidjan and Jeddah. These international commercial desks are expected to promote the export of made in Nigeria goods to the various sub-regions. NEPC again suffered the normal government bureaucracy.

It depended on government for virtually everything. The council was not set up to recover some of its cost. There were delays in releasing funds meant for carrying out export related activities. The Export Credit Guarantee and Insurance Scheme Decree provided for the establishment of an Export Credit Guarantee and Insurance Corporation under the provision of the CBN. The corporation was to:

1. Issue guarantee to banks for preshipment financing required by exporters to enable them produce to meet export orders.

2. Provide post-shipment export financial for exporters to enable them extend credit facilities of foreign importers of Nigerian products.

3. Provide foreign exchange revolving loans to exporters in order to import raw materials and spare parts required to specific export production.

It is not possible in this study to evaluate precisely and in detail the extent to which the provision of the decrees havebeen implemented. However, the value of

the Naira in relation to the dollar has depreciated persistently since 1986. In addition, the commodity boards have been abolished since 1986 white non-oil export products are largely, no longer subjected to quantitative or tariff restriction. It could therefore, be inferred that the Major sources of disincentives according to the Breton woods school exchange rate overvaluation, the commodity board quantitative and tariff restriction on non-oil exports have since 1986 been removed. If the underlying premises of reform policies are valid, then the trade liberalization should generate positive and significant response from non-oil exports.

Export promotion strategy is essentially a trade strategy, which encourages production for exports and in which them is an embedded bias for exports rather than import-substitutes. Whatever the incentive exist must favour production for exports as much as production for the domestic market. It major feature of export promotion strategies that they provide at least as much incentives to earn as well as to save foreign exchange. Export promotion strategy is invariably accompanied by incentives to domestic manufactures and companies producing

for exports. The incentive thus, provided may be fairly uniform and may sometimes be discriminatory across commodity groups.

Depending on the immediate objectives of the country involved. In addition, export promotion drive has the tendency to reduce dependence on the third country in the sense that foreign exchange earnings grow rapidly, market become increasingly diverse and the economy increasingly flexible.

2.4 Export Diversification

Doki and Tykokohol (2019) define export diversification as the expansion of exports to new products or new markets (extension margin), as well as having balanced mix of existing products (intensive margin). This definition is in line with the various definitions given by IMF (2014), Siope, Spence, Mevel and Karingi (2012) and Amurgo-Pacheco and Pierolu(2007).

In trade literature, two types of diversification that are common include horizontal and vertical diversifications. Horizontal diversification entails alteration of primary export mix in order to neutralize the volatility of global commodity price. Vertical diversification, on the other hand, entails contriving further uses for existing and new innovative commodities by means of value-added ventures such as processing and marketing.

According to Prebisch Singer (1950) thesis, vertical diversification can reduce declining terms of trade for commodity-dependent countries. It is expected

that vertical diversification can augment market prospects for raw materials that may complement economic growth. This, in turn, will lead to further stability as the processed commodities tend to have stable prices than raw materials.

Nigeria, which depends on export of primary commodities, suffers from export instability arising from inelastic and unstable global demand. This makes export diversification for the country necessary since according to Ghosh and Ostry (1994), Bleaney and Greenaway (2001), diversification of export can help to stabilize export earnings in the long run.

Common measures of export diversification

Although there are many indices that are used to measure the degree of export diversification, this study discusses the two indices that are commonly used namely, Hirschman-Herfindahl index and IMF Theil index. The Hirschman-Herfindahl index is a measure of export diversification which takes values between 0 and 1. In this measure, a country with a perfectly diversified export portfolio will have a value of 0 while a country with an absolute degree of concentration will have a value of 1. Since the inverse of the index is usually used, higher values indicate higher degrees of diversification and vice versa.

International Monetary Fund (IMF, 2014) adopted a modified version of Theil index to measure the degree of trade/export diversification of countries. The IMF Theil index is composed of two components namely: the extensive and intensive margins. This index is "negative entropy" in the sense that it gets smaller as the disorder gets larger. Hence, it is a measure of order rather than disorder. This implies that the smaller the value of the index, the greater the degree of diversification and vice versa. This index is always positive. This study uses this index in the measurement of export diversification. Export diversification is seen as a good strategy that will enable low income countries (which Nigeria is among) to record greater earnings from external trade, thereby advancing their economic progress (Sannassee, Seetanah & Lamport. 2014).

Many empirical works involving cross country and country-specific studies have been conducted at both international and national levels. Al-Marhubi (2000), in a cross country study, includes various measures of export concentration to the basic growth equation. The finding shows that export diversification promotes economic growth.

In a cross country study on stages of diversification, Imbs and Wacziarg (2003) used production and labour data to

investigate the relationship between sectoral diversification and per capita income pattern across various countries. The empirical result reveals that the relationship follows an inverted U-Curve pattern. The important issue raised by the study arises from non-linearity between export diversification and economic growth and the question whether export diversification is still beneficial to High Income Countries (HICs) or not.

In line with the finding by Imbs and Wacziarg (2003), Kelinger and Lederman (2004), using disaggregated export data, found that overall diversification increases at low level of development but declines as the country matures beyond a middle-income point. Hence the study confirms that the inverted U-curve relationship between export diversification and economic growth is actually true.

Another study that confirms inverted U-Curve relationship between export diversification and economic growth was carried out by Cadot, Carrere and Strauss-Kahn (2011). In their study, they derived and revisited a decomposition of Theil's concentration index into the extensive and intensive (new products or new markets) margins of export diversification. To analyze how the two margins evolve as a function of GDP per capita, they constructed a data base covering 156

countries (both developed and developing). Their empirical result also confirms hump-shaped (inverted U-Curve) relationship between economic development and export diversification.

Contrary to the above findings, some studies could not confirm the existence of the inverted U-Curve relationship between export diversification and economic growth. For instance, Kaulich (2012) using data from UNIDO data base on 116 countries which include the UK, US, Germany, Nigeria, Algeria, Mali, Burundi, etc find, from the regression analysis a positive relationship between export diversification and economic growth. The study reveals that the evidence about the occurrence of a negative relationship between export diversification and economic growth at higher level of income per capita was inconclusive.

Besides the cross country studies reviewed above, country specific studies that contradict the inverted U-Curve relationship between export diversification and economic growth have equally been conducted. For instance, Arip, Yee and Abudulkarim (2010) analysed the long-term relationship between export diversification and economic growth in Malaysia for the period 1980 – 2007. The empirical result of the study shows that export diversification has a positive effect on economic growth of Malaysia.

In another study with similar outcome, Sannassee, Seetanah and Lamport (2014) employed the vector cointegration method to analyse exports diversification and economic growth in Mauritius. Adopting the inverse of Herfindahl index as a measure of diversification and real GDP per capita as the measure of economic growth, they found that a positive relationship between export diversification and economic growth exists.

In line with the above finding of Sinnassee *et al*. (2014), Mudenda, Choga and Chigamba (2014) analysed the role of export diversification on economic growth in South Africa for the period 1980 – 2011. Applying the Vector Error Correction (VEC) model in the estimation of the data, the results show that export diversification and trade openness have positive relationship with economic growth. On the other hand, real exchange rate, capital formation and human capital variables have negative long run relationship with economic growth. However, the study did not use diversification index which is a more direct measure of export diversification.

In a similar study, Esu and Udonwa (2015) examined economic diversification and economic growth in Nigeria. The study employed Error

Correction Model (ECM) to find out the extent to which Nigeria could gain from diversifying the economy. The empirical result indicates that diversification has a positive effect on the economy. Doki and Tyokohol (2019) examined the relationship between export diversification and economic growth in Nigeria for the period 1981 – 2016. The study used Theil export diversification index and GDP per capita (as a measure of economic growth). Applying the technique of Autoregressive Distributed Lag (ARDL) bounds testing procedure in the estimation, the empirical result shows that export diversification has positive, though insignificant, effect on economic growth in Nigeria both in the short run and long run.

Another recent study which confirms positive relationship between export diversification and economic growth was conducted by Amoro (2020). In the study, Amoro(2020) analysed the relationship between export diversification and economic growth for 15 countries of EOWAS states for the period 2005 – 2015. Using the dynamic panel data estimation method, the result show that export diversification has positive impact on economic growth in ECOWAS states sampled. However, the link between export diversification and economic growth is non-monotonic, which implies that countries in ECOWAS can intensify export

diversification in certain point at critical concentration export value of 0.52 level. At this level, income starts to fall with export diversification portfolio.

2.5 Export as a tool for economic growth

Growing the economy has become the major objective of most government in the developing economies of the world. Over the years, these governments have adopted a number of measures aimed at accelerating growth and development in their domestic economy. The need to improve the living standard of the citizenry, reduce unemployment, increase capacity utilization which leads to increased productivity as well as increase in Foreign Exchange Earnings, etc has led to the introduction of vibrant economic policies in Nigeria and other developing nations of the world.

According to Azam (2019), the drift from trade restricted economy to trade liberalization is attributed to positive relationship that exists between export and economic growth. Bhagwati (2018) noted that for efficient utilization of available scarce resources and for expanding global trade volume, freer trade in goods and services is highly beneficial. And so, to enjoy the advantage of this free trade, Nigeria has adopted trade liberalization policy with a view to increase export of

goods and services which increases capacity utilization as well as foreign exchange earnings. Economists often assert that trade liberalization improves social welfare and alleviates poverty, because it generates jobs opportunities, fosters economic growth and improves consumer choice and living standard of the societies.

There are several plausible theoretical arguments supporting the view that exporting activities and overall economic growth are positively associated. On the one hand, exporting implies that a country gains access to the wider external demand, which acts as a stimulus to domestic output and hence economic growth. Second, it is frequently argued that small domestic markets may not grow continuously and that any positive economic shock leading to the expansion of the domestic market is more likely to decay quickly. On the other hand, large external markets do not always encompass growth restrictions on the demand side, and this leads to the exploitation of economies of scale (Bbaale and Mutenyo, 2018). Therefore, export expansion can be argued to be a stimulus of economic growth (Agosin, 2019).

Additionally, Verdoorn (2015) dwells on the argument that export growth may generate specialization in the production of export commodities. By

extension, specialization is argued to lead to efficiency gains in the export sector owing to the rise in skills due to learning-bydoing. Consequently, resources would flow from the relatively less productive and non-trade sector to the highly productive exports sector, leading to economic growth. On the same vein, Futher, Chenery and Strout (2016), dwell on an indirect argument linking exporting to economic growth.

They argue that exporting activities generate foreign exchange that is required to import capital goods. Increase in capital goods imports in turn stimulate a country's capacity to produce. There exists enormous empirical evidence on the relationship between exports and economic growth tested in a number of countries, employing time series techniques. It is noteworthy that the evidence generated does not translate into a consensus on the direction of causality of the two series. For that matter, the relationship between exporting and economic growth remains controversial issue for both researchers and academics alike (Bbaale and Mutenyo, 2018). Some authors have argued that export growth precedes economic growth hence giving a stance to the export-led-growth (ELG) hypothesis (Arnade, 2015; Fosu2016; Thornton 2013). On the other hand, others have provided evidence in support of the growth-led-export hypothesis (GLE) by

arguing that economic growth precedes export growth (Lancaster, 1980; Krugman, 2014; Henriquesand Sadorsky 2016; Al- Yousif 2019; Kemal, 2017).

The stance of this argument is such that economic growth leads to knowledge and technological development in the various sectors of an economy through the learning-by-doing effect. This effect on the economy becomes a vehicle for export growth especially in those commodities where the country enjoys a comparative advantage. Other authors argue that there is a feedback relationship between export growth and economic growth (Anwar, 2000). The arguments presented along these lines are that exports may arise from the economies of scale effects of economic growth. At the same time, export expansion may propel further cost reductions leading to efficiency gains, and by extension, leading to economic growth. At an extreme end, some authors find no causal relationship between the two series (Anwar 2019).

So many researchers have looked at single country effect of export on economic growth, while there are also substantial authors who have examined cross-country empirical literature on the effects of exports on growth. However, it is important to note that most of the recent and earlier literature on exports and economic growth concentrated on aggregate exports only. The major deficiency

of this approach is that it limits our understanding of the important differences between dissimilar export components and their influence on economic growth. It is argued that even if there is a growth enhancing or growth-limiting effect of a particular export component, it may not be reflected at the aggregate level, and this may lead to unauthentic conclusions and implications for policy (Ghatak in Bbaale and Mutenyo, 2018). All the cross-country studies cited above do not explicitly investigate the effect of

disaggregated exports on economic growth.

However, there is quite scanty literature investigating the role of export composition on economic growth (Giles and Williams (2020); Bbaale and Mutenyo, 2018; and Worz(2015). Additionally, the literature addressing the subject, apart from Bbaale and Mutenyo, (2018) is overly concentrated on Asia, Latin America, and Europe.

2.6 Structure of Nigeria Export

Nigerian exports were basically categorized into two broad categories namely oil and non-oil exports. Oil exports are basically crude which are exported across the shores of the country, while non-oil exports are mostly agricultural products, solid minerals and the manufacturing sector.

Export trade has remained a major means of foreign exchange earner over the years; therefore the need to harness its potentials to its fullest is of paramount importance to the economy so as to provide the necessary revenue base needed for economic growth. It is therefore worthy to note that before a country can embark on export of any commodity, it must have produced enough first of all for domestic consumption. The desire to promote oil and non-oil exports was necessitated not just by its huge potentials for foreign exchange earnings, but also for its employment generation and poverty reduction capabilities through the extensive backward linkages it offers as well as the desire to diversify the country's production base. Lyakurwa (1991) argues that export diversification is important in the sense that it will play an important role in reducing the variability of the export earnings of developing countries and raising the growth rates of both exports and domestic output. He, however, warned that a country in the process of diversification will find its export growth affected not only by the growth of activity in the individual country but also by externalities, such as changes in international prices of traditional commodities relative to those of non-traditional products, the composition of its exports, the income elasticity of demand of its exports, its geographical location and the export prices of its competitors. Another

important issue of concern is the country's domestic policy framework (revolving around exchange rate and trade policies).

Jiang (2001) is of the opinion that the capacity of a country's business sector in exporting competitive products to the international market on a sustainable basis has become one of the major determinants of economic growth as the global economy tends towards interdependency. He stressed that at macroeconomic level, the economic and social development performance of a country is linked to its exposure to international trade. The employment effects associated with broad-based export growth with backward linkages to small and medium scale enterprises can have a significant impact on poverty reduction, by creating jobs. He therefore advocated for the support of export diversification programs which have special bearing on poverty reduction.

2.7 Structure of Nigeria economy

The Nigerian economy is dualistic in nature, that is, the formal economic system co-exists with the informal economic system. The formal system is more developed, efficient and productive because of the utilization of modern productive technique. The informal system is traditional, relatively inefficient and producing for subsistence. The informal sector has continued to increase in

Nigeria and plays a major role in income generation through employment creation and production. The structural dualism is common in the financial sectors, industrial sectors and agricultural sectors.

The Nigerian financial system is characterized by both the formal and informal intermediaries, though the informal financial system is subordinate to the formal financial system. The informal financial system is characterized by ease of entry and exit making it possible for them to mobilize small scale deposits with little or no organized record keeping, it is also dominated by cash transactions with high interest lending and this lending could even be on personal recognition. The activities of the informal sector make it possible for a lot of cash to be outside the formal financial institutions. The formal financial institutions consist of development banks, insurance companies, commercial banks, the financial markets and all their regulatory authorities.

The structure of the industrial sector is also dualistic characterized by a large number of informal small enterprises and a few formal modern firms. There are indicators that micro, small and medium scale enterprises account for about 70% of employment and 10% to 15% of manufacturing output in Nigeria. Micro and small scale enterprises are mostly rural based engaging in the production of

consumer goods such as food products, furniture and other personal services. The medium scale enterprises are more developed and employ higher technology than micro and small scale enterprises. They dominate the pharmaceutical products, textiles, footwear and the garment industry. The large scale enterprises engage in large scale and mass production due to the use of modern technologies. They also have multinational linkages which helps them to engage in exportation of their products. The Nigerian industrial sector shows that large scale enterprise constitutes only 2.5% while medium scale and small scale constitute 32% and 65.5% respectively (World Bank Enterprise Survey, 2014).

2.8 Empirical Literature

Abou-Stait, (2015) and Opara, (2020) found out that exports have been instrumental to some countries' growth performance thereby positing that export-led growth hypothesis holds in these countries.
But Olayiwola and Okodua (2019) examined the applicability of the export-led growth (ELG) hypothesis to Nigeria and found that empirical evidence from available data failed to support the export-led growth hypothesis in the country. In a study conducted by Usman and Salami (2008), they concurred to the fact that

exports, both oil and non-oil is an engine of growth in the sense that it enhances growth of an economy.

UNIDO (2019) reports that since oil exporting countries control neither the quantity of oil to be exported, which are subject to the Organization of Petroleum Exporting Countries (OPEC) quotas, nor the price of oil in international markets and the purchasing power of the dollars earned, it then follows that the promotion and expansion of non-oil exports will increase their foreign exchange earnings and invariably enhance economic growth. It was also stated that non-oil exports is a means of achieving industrial expansion, economies of scale, technological innovation, and the creation of new jobs as well as creating employment opportunities.

Homayounifar and Rastegari (2018) analyzed the economic-political factors affecting non-oil exports of Iran and found that non-oil export growth and factors affecting it are important. They identified income per capita, population, consumer price index and exchange rate as the political factors while the political factor is political instability. Fasanoand Wang (2001) carried out an investigation of the short-run and long-run relationships between fiscal expenditure policy and non-oil real GDP growth in member countries of the Gulf Cooperation Council

(GCC) using a multivariate co-integration approach and error-correction model with data covering the period 1980-1999. Their findings revealed that increases in fiscal expenditure do not strongly affect non-oil real growth in those countries. They however recommended the creation of business-friendly environment, privatization, and the opening up of the economy to foreign direct investments to bring the much needed expertise and new technologies that will enhance industrialization.

Osuntogun and Edordu (2017), noted that one major characteristic of Nigeria's export trade is the continued reliance on developed countries as markets. They argued that the export promotion policy stance, which also emphasizes the diversification of markets, seem not to be yielding desired results because exports to Organization of Economic Cooperation and Development (OECD) countries still dominate their trade. They further explained that what appears to be happening is a shift from exporting to European countries to exporting to USA and Japan. The West African sub-region Economic Community of West African States increased its shares of Nigeria's exports minimally while other regions including other near African markets import a smaller proportion of Nigeria's exports than it was before. This market concentration has been blamed, in part, for

the country's misfortunes, as recessions in developed countries are consequently fully transmitted to Nigeria.

Osuntogun and Edordu, (2017) maintain that the negative effects from such shocks can be brought to a minimal level by diversifying export markets, especially since the level of economic activities may vary across regions.

Rodgers, (2014) investigated the nexus between Indonesia's growth, debt, and trade performances from 1970 to 1990. He observed that Indonesia's remarkable macroeconomic and trade performance in the 1970s and 1980s has motivated comparison with the high performance Asian tigers and has subsequently provided strong rationale for economic reform contributions to export led growth. He also noted that the non-oil export growth in the 1980s constituted the highlight of Indonesia's recent trade experience. He further argued that the diversification of both export commodities and markets allowed Indonesia to gain more stable foreign exchange earnings to finance external debt as well as import payments.

The export of primary products particularly agricultural products account for a large proportion of Nigeria's non-oil export earnings. The mix of traded non-oil merchandise is not only narrow but made up of goods that are highly competitive

in the world market. Hence Nigeria's share of the non-oil merchandise in the world market particularly manufactures is relatively small according to Uniamikogbo (1996).

Thirlwall, (2019) noted that the demand for developing a country's traditional export is inelastic relative to the demand for industrial goods. The domination of the export trade of Nigeria and other developing countries by primary products and the associated retardation of growth of traditional exports owes credence to three distinct factors in the developed countries. First is the global shift of the pattern of demand to goods with relatively low import content of primary commodities; secondly, technological changes which has led to the development of synthetic substitutes of raw materials; and lastly, the pursuance of protectionist policies by the developed countries retarding the growth of imports of primary commodities and industrial goods from developing countries.

Uniamikogbo (2016) further argues that since, the price elasticity of demand of most exports of developing countries is low, with slow expansion of demand; it is therefore irrational to continue allocating resources to these export activities. He continues that a further increase in production of these exports would result in reduction of prices, thereby leading to worsening terms of trade. In the light of

this therefore, it should however be noted that Uniamikogbo'sargument is not against trade, rather, a call to examine the non-oil product mix of the export with a view to specializing in the production and export of those goods that would ensure favourable terms of trade with developed countries. However, among the non-oil export merchandise, the elasticity of demand may defer. For instance, agricultural export commodities have been said to tend to be characterized by a low price elasticity of demand while mineral export commodities are said to have high price elasticity of demand which corroborates what Ogun (1995)noted, that agricultural exports are likely to generate less income than mineral exports during an export boom. The implication of this is that policies such as exchange rate devaluation may reduce the price of Nigerian exports but may not raise the volume of agricultural export merchandise which happens to be Nigeria's major export product group in the non-oil sub sector

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter is devoted to the theoretical framework, model specification and methodology of the research. The study adopts an econometric method to find out the relationship between export and economic growth. Time series data were employed for this empirical analysis.

3.1 THEORETICAL FRAMEWORK

There is a positive correlation between export and economic growth, according to numerous empirical research on developing nations that looked into the relationship between the two. These studies also provided empirical support for the export-led growth hypothesis.

Many important research studies examine the relationship between exports and developed countries economic growth and uncover empirical evidence in favour of the export-led growth hypothesis Palley T.I (2011), Lim, Chia and Man,(2009). Either regard to estimation technique there is difference in the empirical literature used.

The export-led growth hypothesis (ELGH) Postulates that export expansion is one of the main determinants of growth. Many developing countries pursued import substitution strategy for growth and development. There are three endogenous growth model which are the AK model, Product variety model, the schumpeterian Growth model. for the sake of this research we will be focusing on the AK model of the endogenous growth modem. Eliminating diminishing marginal returns to capital has a significant impact on the models that anticipate the sources of growth, demonstrated by the basic model. The savings ratio favorably influences the steady-state growth rate, while the depreciation rate negatively affects it. Neither of these factors affects the long-term growth of the Solows model.

Furthermore, the relationship between growth rate and technological efficiency has significant ramifications. Even if A grows infinitely, government action may still have an impact on A's level. As a result, compared to the Solow model, the AK model depicts a very different picture of growth and makes the connection between government activity and growth much clearer. The AK model gained popularity in policy discourse because to its ability to influence growth rate based on savings ratio.

The above study can be used to illustrate how exports and economic growth are related. Using A to stand for economic growth, which is subject to a number of variables in this study, such as import, trade openness, export, and non-oil export. Economic growth (RGDP) may rise or fall in response to an expansion in any of these factors.

Export will be divided into two categories for the purpose of better analysis: oil and non-oil export. Real Gross Domestic Product (RGDP) is defined as the endogenous variable in the model as the function of Oil Export (OEXP), Non-Oil Export (NEXP), Import (IMP), and Exchange Rate (EXR), which stand in for the exogenous variables.

3.2. MODEL SPECFICATION

Koutusoyiannis (1997) opined that the specification of an appropriate econometric model centers around on the prevailing economic circumstances and the availability of relevant economic data relating to the variables being examined. A model was drawn up for the purpose of this study based on an earlier work by Edoumiekumo and Opukri (2013) which will be adopted in this work with slight modification. The model specifies the endogenous variable as Gross Domestic

Product(GDP)as a function of import (IMP),export (EXP),and trade openness (OPEN) represents the exogenous variables. We state the model as follows:

RGDP=f(OEXP,NEXP,IMP,OPN)

RGDP=Real Gross Domestic Product

OEXP=Oil Export

NEXP=Non-Oil Export

IMP=Import

OPN=Trade Openness

The econometric form of the model above is stated as:

RGDP=ß0+ß1OEXP+ß2NEXP+ß3IMP+ß4EXR+Ut

Where:

ß0=intercept of the relationship in the model

ß1-ß4=coefficients of exogenous variables

Ut =error term

ß0>0,ß1,ß2>0,ß3<0,ß4<or>0

The a priori expectation is the relationship that the each exogenous varia**3.3 METHODOLOGY**

ble is expected to have either the endogenous variable,ß1,ß2>0 implies that oil and non oil export are expected to have a positive relationship with real gross domestic product,and ß3<0 implies that import is expected to have a negative relationship with the endogenous variable,ß4<0> implies that trade openness either have a positive or negative relationship with the endogenous variable.

The research would employs a specific static econometric model to capture the relationship between oil revenue and economic growth in Nigeria using regression analysis. The Ordinary Least Squares (OLS) regression analysis is used as a method of estimation to ascertain the direction and magnitude of the relationship between these variables. The Co-integration analysis would also be adopted to ascertain the long-run relationship between oil revenue and economic growth in Nigeria. The Error Correction Model (ECM) would be used to establish the short-run dynamics between the dependent and independent variable.

3.3.1 The Stationarity Test

Many economic and financial time series exhibit the behaviour of non-stationarity in the mean. An important econometric table is determining the most appropriate form of the trend in the data. It has become imperative to examine the stationarity state of time series variables since we are ignorant of the data generating process. A time series variable is said to be non – stationary if its joint and conditional distribution displaces with time (Iyoha, 2004). Econometric literatures are replete with dangers inherent in utilizing non – stationary series in regression analysis (see Yule, 1926; Box-Jenkins, 1970; Granger & Newbold, 1974).

The Augumented Dickey – Fuller unit root test is employed as a prior diagnostic test before the estimation of the Error Correction Model (ECM) to examine the stochastic time series process properties of oil price volatility, exchange rate instability, foreign reserves, inflation rate and broad money supply.

3.3.2 Sources of data

The data used in this research are secondary data sourced from CBN publications such as the annual report and statement of accounts, national bureau

of statistics from the period (1981-2021).

3.3.3 Data Processing Technique

The expected relationship is that export should have significant effect on the Nigerian economy. This work used OLS multiple regression analysis to determine the effect of the independent variables on the dependent variable, the OLS is used based on the BLUE (Best, Linear, Unbias, Estimate) properties and it is easy to understand In this thesis, E-view econometric package (version 8.0) was used in running all regressions. The standard test of parameter estimate will be conducted using their standard error, t-test, F-test, R squared and adjusted R squared. The emphasis would be to know whether the variables adopted in this study are well behaved or not. The study aims to ascertain their respective level of statistical significant or not.

CHAPTER FOUR

PRESENTATION OF DATA AND INTERPRETATION OF RESULTS

4.1 Introduction

In this section, the various variables employed in this study are tested, their parameters estimated, presented and results interpreted in line with economic theorizing as it relates to their policy implications. The section starts with descriptive statistics, followed by the unit root test, Johansen co-integration test and then the long run and short run regression estimates of the models. Finally, the chapter ends with a summary of the results and its policy implications.

Table 4.1 Descriptive statistics and Graphical Exposition of the variables

	RGDP	OEXP	NEXP	IMP	OPN
Mean	38589.74	5736255	491642.2	5194325	27.85260
Median	28701.91	1880423	64401.02	1435438	28.14339
Maximum	74639.47	24221596	3207100.	27115109	42.93101
Minimum	16048.31	7201.200	203.2000	5983.600	8.729206
Std. Dev.	20854.23	6518006	808620.5	7108949	9.204874
Skewness	0.527287	0.905433	2.061721	1.528542	-0.166778
Kurtosis	1.639848	2.814910	6.707703	4.523062	1.993690
Jarque-Bera	5.183742	5.798609	53.81220	20.41458	1.966861
Probability	0.074880	0.055062	0.000000	0.000037	0.374026
Sum	1620769	2.41E+08	20648974	2.18E+08	1169.809
Sum sq. Dev.	1.78E+10	1.74E+15	2.68E+13	2.07E+15	3473.918
Observations	42	42	42	42	42

Source: Author's Computation using Eviews 9

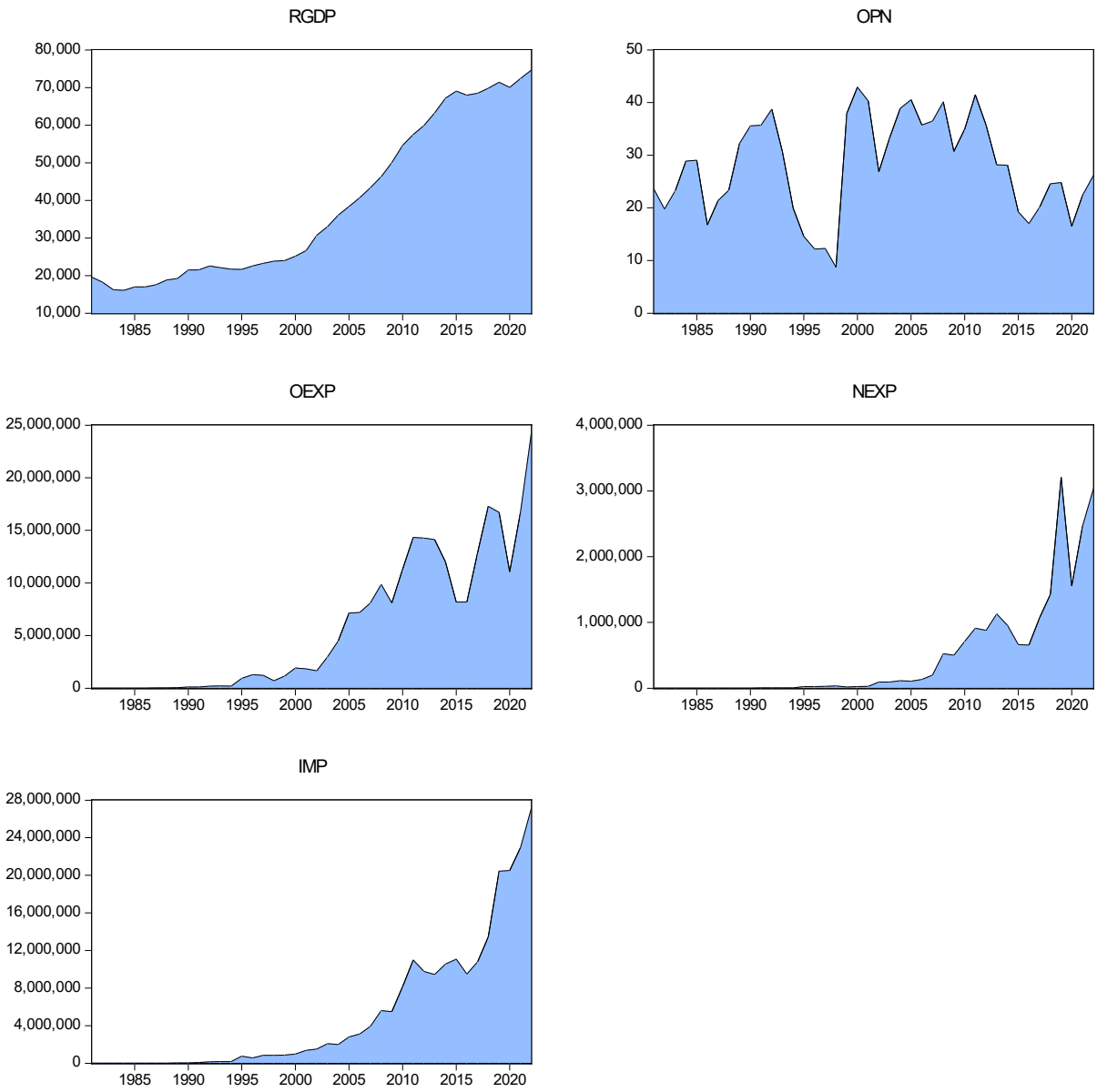
Table 4.1 shows that RGDP has a mean of 38589.74 billion naira, OEXP has a mean of 5736255 billion naira, NEXP has a mean of 491642.2 billion naira, IMP has a mean of 5194325, OPN has a mean of 27.85. The table also show that RGDP has a standard deviation of 20854.23 billion naira, OEXP has a standard deviation of 6518006 billion naira, NEXP has a standard deviation of 808620.5, IMP has a standard deviation of 7108949, OPN has a standard deviation of 9.204874.

The table also shows that RGDP is positively skewed with the value of 0.5273, OEXP is positively skewed with a value of 0.9054, NEXP is positively skewed with a value of 2.0617, IMPis positively skewed with a value of 1.5285, OPN is negatively skewed with a value of -0.1668.

4.2 Trend Analysis of Variables

Trend analysis is the widespread practice of collecting information about a variable and attempting to discern a pattern of behavior of the information collected.

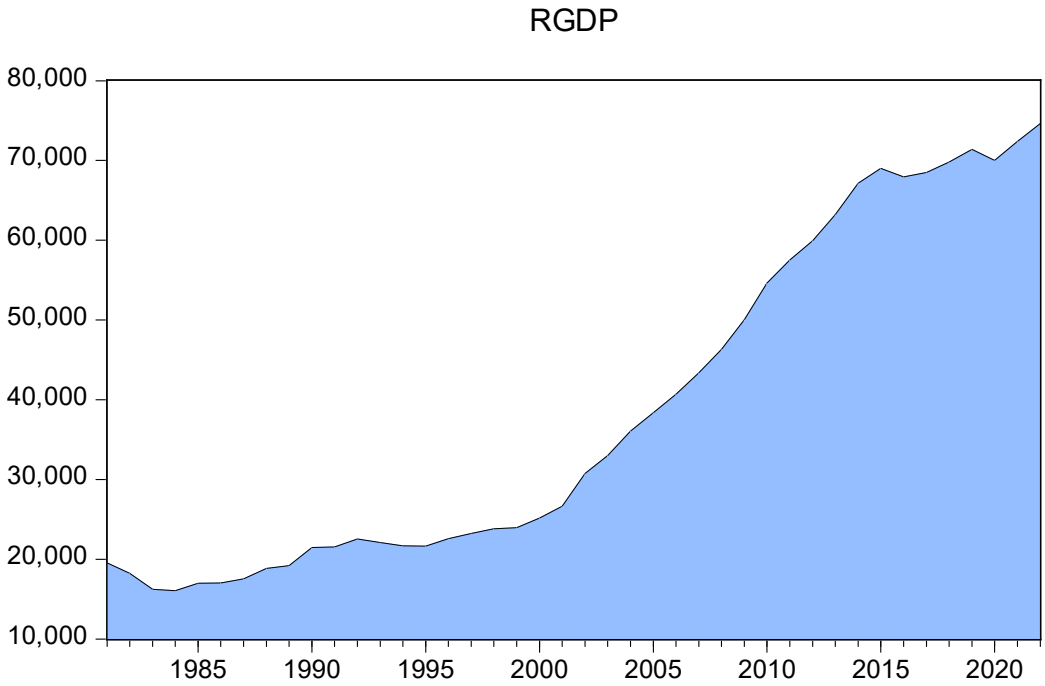
Fig 1



Source: Authors computation using E-views 9

The charts above show the trend pattern I which the various variables followed over time.

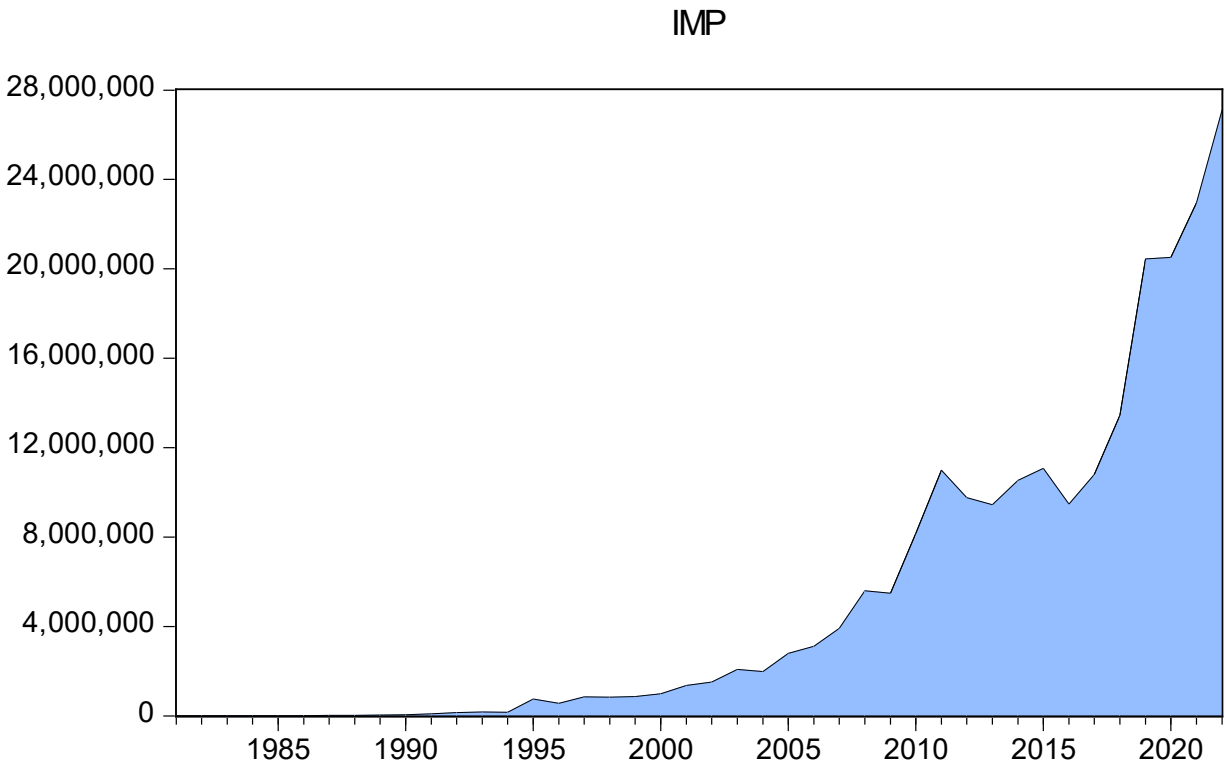
Fig 2.



Source: Authors computation Using Eviews 9

The graph above shows the trend in RGDP from 1981-2022. From the diagram above RGDP has a low performance until 2000 when it starts increasing geometrically. This is an evidence of an increase in productive economic activities starting from year 2000.

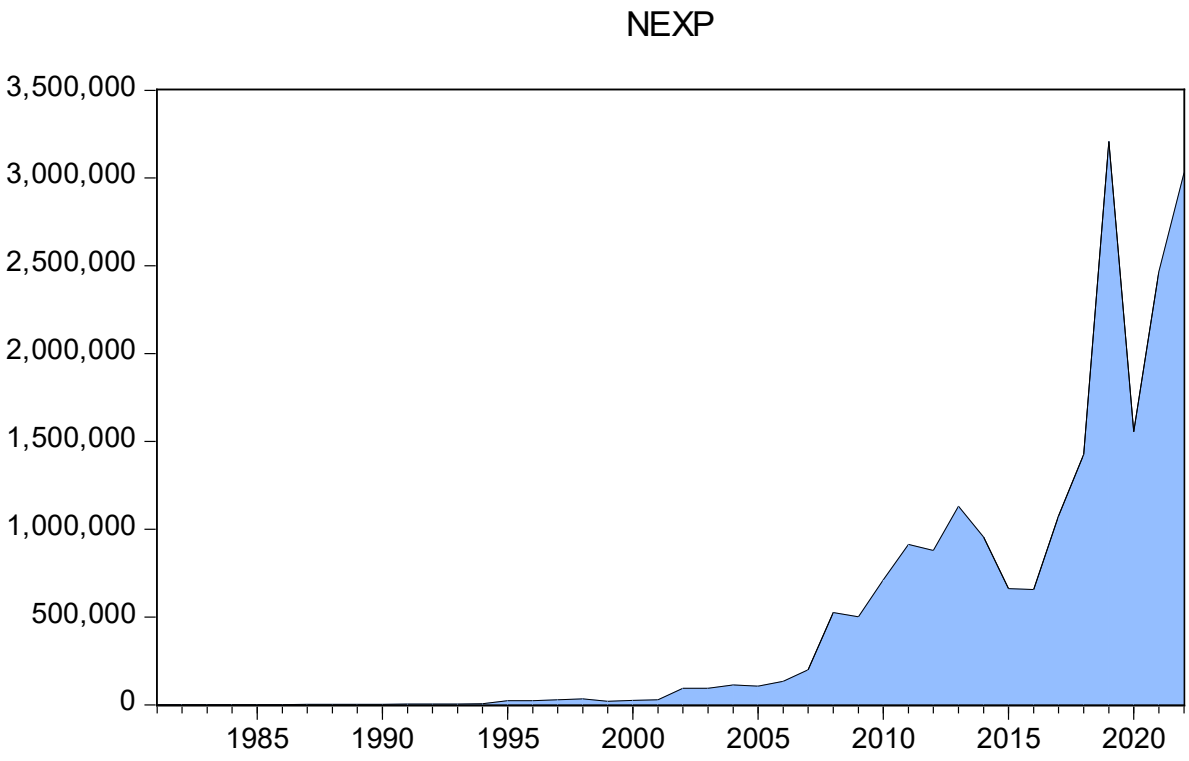
Fig 3.



Source: Authors computation using Eviews 9

The graph above shows the trend in IMP from 1981-2022. From the diagram above IMP has a low performance during the 1990s epoch then it starts increasing gradually from 2005. However, there were fluctuations within year 2009 to 2017 after which it keeps increasing. This might be due to more demand for foreign goods by citizens and the fact that Nigeria is tilt towards consumption more than production.

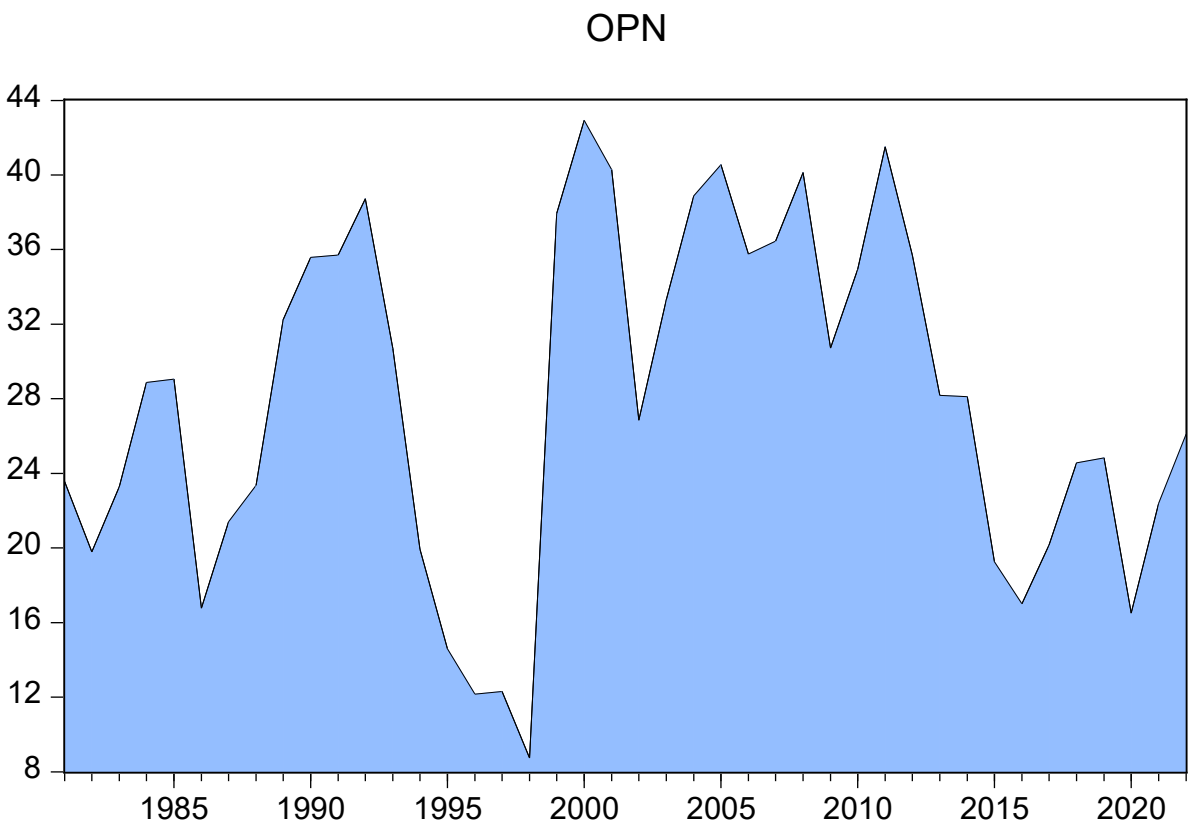
Fig 4



Source: Authors computation using Eviews 9

The graph above shows the trend in NEXP from 1981-2022. From the diagram above NEXP has a low performance during the 1990s epoch then it starts fluctuating with highs and lows around 2007 to 2016 before reaching its peak in 2019. later NEXP crashed down in 2020 this might be due to COVID 19 happening globally at the time which affected international trade, NEXP starts increasing again by 2021.

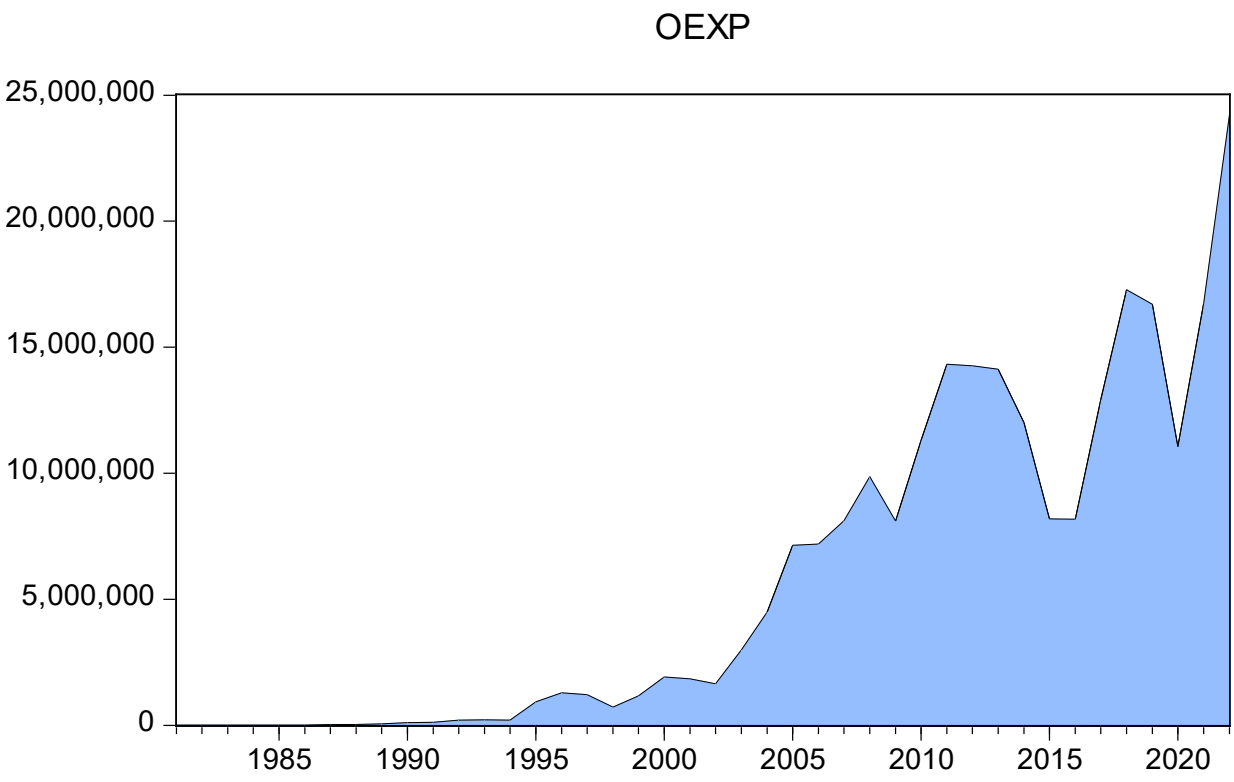
Fig 5.



Source: Authors computation using Eviews 9.

The chart above shows the trend of Nigeria trade openness. It can be seen that there have been fluctuations in Nigeria trade openness. There has been alternating boom and trough in trade openness over the years. This could be as a result of the various trade policies undertaken by the government in effort to achieve a favorable balance of trade.

Fig 6



Source: Authors computation using Eviews 9

The graph above shows the trend in OEXP from 1981-2022. From the diagram above OEXP has a low performance during the at early stages then starts fluctuating with highs and lows over years. this might be due to COVID 19 happening globally at the time which affected international trade, the inability of Nigeria to meet the production of barrel target set by OPEC and the activities of competitors in international market.

4.3 Analysis and Interpretation of Results

Stationarity is a time series property that asserts that the value of a variable does not change with time, i.e., temporal variation does not function as a factor that causes changes in the value of a variable. In this study, the Augmented Dickey Fuller unit root test was performed to check for stationarity, and the findings are shown below:

Table 4.2 Augmented Dickey Fuller Test

AT LEVEL			AT FIRST DIFFERENCE		
Variables	ADF Statistic	Prob at 5% Significance Level	ADF Statistic	Prob at 5% Significance Level	Order of Integration
LRGDP	-0.758414	0.8193	-3.397780	0.0173**	I(1)
LOEXP	-2.549022	0.1124	-5.148305	0.0001**	I(1)
LNEXP	-0.864254	0.7895	-7.982412	0.0000**	I(1)
LIMP	-1.087210	0.7116	-7.281232	0.0000**	I(1)
LOPN	-2.911004	0.0527	-6.450074	0.0000**	I(1)

Source: Author's Computation using Eviews 9

From Table 4.2, it can be seen that the absolute value of ADF Test Statistics for all the variables are greater than the critical values. Hence, we reject the null hypothesis implying that LRGDP, LOEXP, LNEXP, LIMP, and LOPN do not have unit roots and are stationary at first difference or of order I(1) at 1%, 5% and 10% level of significance.

4.3i Co-Integration Test

Having performed the unit root tests, the next test to be carried out is the co-integration test which tests if the two or more non-stationary time series are stationary over time and move in the same direction in the long run. It can therefore be seen as the statistical implication of the existence of a long run relationship between economic variables. The Johansen co-integration test results are given below:

Table 4.3a: Johansen Co-integration Test (Trace)

Unrestricted Cointegration Rank Test (Trace)

Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.620380	76.32214	69.81889	0.0138
At most 1	0.349401	37.57876	47.85613	0.3207
At most 2	0.317660	20.38427	29.79707	0.3972
At most 3	0.096199	5.095209	15.49471	0.7986
At most 4	0.025893	1.049352	3.841466	0.3057
Trace test indicates 1 cointegrating eqn(s) at the 0.05 level				

* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				
Table 4.3b: Johansen Co-integration Test (Maximum Eigenvalue) Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.620380	38.74338	33.87687	0.0121
At most 1	0.349401	17.19449	27.58434	0.5633
At most 2	0.317660	15.28906	21.13162	0.2691
At most 3	0.096199	4.045857	14.26460	0.8545
At most 4	0.025893	1.049352	3.841466	0.3057
Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

From Table 4.3b, the max-eigenvalue test indicates the presence of one co-integrating equation at the 0.05 significance level implying a long run relationship among the variables utilized in this study.

Having determined that the variables are co-integrated using the Johansen Co-integration Test, the long run model of this study is therefore estimated and presented below.

Table 4.4: Long Run Model

Dependent Variable: LRGDP				
Method: Least Squares				
Date: 05/28/24 Time: 15:20				
Sample: 1981 – 2022				
Included observations: 42				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOEXP	-0.286482	0.066954	-4.278819	0.0001
LNEXP	0.237396	0.039530	6.005399	0.0000
LIMP	0.209639	0.078140	2.682885	0.0108
LOPN	0.172676	0.063795	2.706725	0.0102
C	8.427337	0.258763	32.56773	0.0000
R-squared	0.943711	Mean dependent var		10.41710
Adjusted R-squared	0.937626	S.D. dependent var		0.542014
S.E. of regression	0.135367	Akaike info criterion		-1.050314
Sum squared resid	0.677994	Schwarz criterion		-0.843449
Log likelihood	27.05659	Hannan-Quinn criter.		-0.974490
F-statistic	155.0816	Durbin-Watson stat		0.812490
Prob(F-statistic)	0.000000			

Source: Author's compilation using Eviews 9

The Table above shows that oil export is negatively related to real gross domestic product. This implies that a one percent increase in oil export will result

to 28.65 percent decrease in real gross domestic product. The results show that oil export is statistically significant factor that affects real gross domestic product in the long run at 5% level of significance. Non-oil export has a positive relationship with real gross domestic product. This is in line with a piori expectation and it implies that a 1% increase in non-oil exports leads to 23.74% increase in the real gross domestic product. Non-oil export is a statistically significant variable in determining the real gross domestic product at 5% significance level in the long run. There is a positive relationship between import and real gross domestic. It shows that a 1% increase in import leads to a 20.96% increase inreal gross domestic product. Import is a statistically significant variable in determining the real gross domestic product in the long run. Also, there is an existence of a positive relationship between openness of an economy and real gross domestic product in the long run. This is in line with a priori expectation, it shows a 1% increase in trade openness leads to 17.27%increase in real gross domestic product. Openness of an economy is a statistically significant variable in determining gross domestic product growth rate at 5% level of significance.

The co-efficient of determination (R^2) shows that 94.37% of the variation in gross

domestic product gross is explained by the explanatory variables in the model. The remaining 5.63% is due to the other factors captured by the error term. The F statistics is greater than 2 which indicate that all the explanatory variables taken together are statistically significant and properly explained the dependent variable. The model is therefore considered fit for the policy interpretation and recommendations.

4.3ii Error Correction Model

To determine the error correction model which is also referred to as the short run model, the variables need to be in differences in their stationary form. The error correction term, which are the residuals of the long run equation, are then incorporated into the model. The error correction term is however to be lagged one period. The results are shown in the table below:

Table 4.5: Short Run model

Dependent Variable: D(LRGDP)				
Method: Least Squares				
Date: 05/28/24 Time: 15:38				
Sample (adjusted): 1982 – 2022				
Included observations: 41 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.

C	0.026616	0.007527	3.535979	0.0012
D(LOEXP)	-0.021789	0.028310	-0.769656	0.4467
D(LNEXP)	0.045236	0.019760	2.289321	0.0282
D(LIMP)	0.001431	0.030410	0.047069	0.9627
D(LOPN)	0.006285	0.024744	0.254004	0.8010
ECM(-1)	-0.193510	0.055325	-3.497703	0.0013
R-squared	0.305504	Mean dependent var		0.032676
Adjusted R-squared	0.206290	S.D. dependent var		0.046434
S.E. of regression	0.041368	Akaike info criterion		-3.398157
Sum squared resid	0.059896	Schwarz criterion		-3.147390
Log likelihood	75.66221	Hannan-Quinn criter.		-3.306841
F-statistic	3.079248	Durbin-Watson stat		1.069051
Prob(F-statistic)	0.020879			

Source: Author's compilation using Eviews 10.0

The Table above shows the error correction model results. The co-efficient of the error correction term (ECM) is negative and the error correction term is statistically significant at 5% significance level. It shows that 19.35% of the discrepancies between the long run and short run model are corrected or removed in a year. The table also shows that oil export is negatively related to real gross domestic product. This implies that a one percent increase in oil export will result to 2.18percent decrease in real gross domestic product. The results show that

oil export is not a statistically significant factor that affects real gross domestic product in the short run at 5% level of significance. Non-oil export has a positive relationship with real gross domestic product. This implies that a 1% increase in non-oil exports leads to 4.52% increase in the real gross domestic. Non-oil export is a statistically significant variable in determining the real gross domestic product at 5% significance level in the short run. There is a positive relationship between import and real gross domestic product. It shows that a 1% increase in import leads to a 00.14% increase in gross domestic product growth rate. Import is not a statistically significant variable in determining the real gross domestic product in the short run at 5% significance level. Also, there is an existence of a positive relationship between trade openness and real gross domestic product in the short run. This is in line with a priori expectation, it shows a 1% increase in trade openness leads to 00.63 increase in real gross domestic product. Openness of an economy is not a statistically significant variable in determining real gross domestic product at 5% level of significance in the short run.

The co-efficient of determination (R^2) shows that 30.55% of the variation in gross domestic product gross is explained by the explanatory variables in the

model. The remaining 69.45% is due to the other factors captured by the error term. The F statistics is greater than 2 which indicate that all the explanatory variables taken together are statistically significant and properly explained the dependent variable. The model is therefore considered fit for the policy interpretation and recommendations.

CHAPTER FIVE

SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.1 Summary of findings

This study has explored the impact of export on economic growth in Nigeria. Extensive reviews of diverse literatures and existing works on the impact of export on economic growth were undertaken. The study is based on the endogenous growth theory and the model for the study was conducted based on the simple AK model. The study utilized annual time series data ranging from 1981 – 2022 with real gross domestic product as the dependent variable and oil export, non – oil export, import and trade openness as the explanatory variables. The descriptive analysis of the variables was carried out with the values of each variable. The Augmented dickey fuller (ADF) test was used in checking for stationarity among the variables. Further, the Johansen co-integration test was used to show the existence of a long run relationship among the variables employed. The long run and error correction model was estimated. The results of the analysis show that oil export is a significant factor in determining the real gross domestic product in the long run but an insignificant factor in the

short run. It is also negatively related to real gross domestic product in both the long run and short run, there is a positive relationship between non-oil export and economic growth in both the short run and the long run. The result also shows that non-oil export is a significant factor affecting economic growth in both the long run and short run. Import is positively related to real gross domestic product in both the short run and long run. However, import is a significant factor in the short run but not a significant factor in the long run.Trade openness is positively and significantly related to real gross domestic product gross in the short run but not significant in the long run. A long run relationship was established among the variables from the co-integration test and the speed of adjustment between the long and short run model was established to be 19.35% as seen from the co-efficient of the error term. The sign and statistical significance of the speed of adjustment represented by the coefficient of the ECM and seen as the converging force between the long and short run models were appropriate and in conformity with a priori and statistical expectations in all the models of the study.

5.2 Recommendations

Base on the findings resulting from the study of impact of export on economic growth in Nigeria, taking consideration of oil export, non-oil exports, import and trade openness the following recommendations are given;

1. **Increase in capital investment in the oil sector:** Government should channel more resource to the oil sector for the construction of a proper functioning refineries, provision of basic equipment needed for production and maintenance of the ones already available. This will aid continuous development of the Nigerian economy.

2. **Improvement in the level of Technology:** The government should make all necessary moves in other to ensure improvement in the level of technology as this will lead to the mechanization of agriculture in the country. The mechanization of agricultural process will lead to increase in agricultural productivity which as been seen to have a positive relationship with the growth rate of gross domestic product in the country.

3. **Import-substitution strategies and strengthened manufacturing sector:** Focus should also be channeled on how to substitute import for

domestic production to complement the shortfall in exports and ensure a favorable balance of payment. This can be achieved through the strengthening of the manufacturing sector by providing infrastructural facilities and incentives.

4. **Political stability:** The political instability in the country has contributed to the low level of investors. Investors are slow to invest in a country they perceive to lack peace and stability as it brings about high uncertainty and risk for their investments. The government should therefore strive to ensure peace and political stability in the country.

5. **Enabling environment:** The government is saddled with the responsibility of providing an enabling environment for domestic producers to produce thereby stimulating trade and for foreign investors to invest. This can be achieved through certain incentives, tax holidays, provision of necessary facilities like power supply, good roads that aids the transportation of goods and services and so much more.

5.3 Conclusion

In conclusion, this study was an attempt to assess the impact of export on economic growth in Nigeria. An econometric approach was used to empirically assess the contributions of oil export and non-oil export as the key to economic diversification in Nigeria and real gross domestic product as the key indicator of a steady economy in Nigeria. The research findings revealed that although there exist a relationship between oil export, non-oil export and economic growth as shown by the co-integration test, the relationship is a negative one for oil export and a positive one for and non-oil export as well a significant factor in determining the growth rate of real gross domestic product. The significance of non-oil export as a factor affecting economic growth in Nigeria simply means that economic diversification is relevant for achieving sustained and stable economic growth in Nigeria. Diversification into Agricultural sector and manufacturing sector has been seen to have a positive relationship with economic growth. Therefore, diversification of Nigeria economy into agricultural sector and manufacturing sector for export purpose is key in accelerating economic growth in Nigeria. On the aspect of real gross domestic product was used to assess economic growth. The study empirically establishes a relationship

between trade openness as shown by the co-integration test. Trade openness was seen to be positively related to economy growth although the relationship is an insignificant one in the short run but significant in the long run.

Therefore, it can be said that investment in exportation of products should be encourage by the government because this will lead to an improvement in the real gross domestic product of Nigeria. The government should also ensure a reduction in the level of corrupt practice in the international trade and also the movement of goods across borders should be monitored and controlled by the government. As a result of these findings, proper recommendations have been given for policy implementation.

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APPENDIX I

Year	RGDP	OEXP	NEXP	IMP	OPN
1981	19549.56	10,680.50	342.80	12,839.60	23.54276
1982	18219.27	8,003.20	203.20	10,770.50	19.78436
1983	16228.81	7,201.20	301.30	8,903.70	23.28752
1984	16048.31	8,840.60	247.40	7,178.30	28.87689
1985	16997.52	11,223.70	497.10	7,062.60	29.05249
1986	17007.77	8,368.50	552.10	5,983.60	16.76646
1987	17552.1	28,208.60	2,152.00	17,861.70	21.40821
1988	18839.55	28,435.40	2,757.40	21,445.70	23.34815
1989	19201.16	55,016.80	2,954.40	30,860.20	32.24094
1990	21462.73	106,626.50	3,259.60	45,717.90	35.57457
1991	21539.61	116,858.10	4,677.30	89,488.20	35.69819
1992	22537.1	201,383.90	4,227.80	143,151.30	38.72782
1993	22078.07	213,778.80	4,991.30	165,629.40	30.70465
1994	21676.85	200,710.20	5,349.00	162,788.80	19.93542
1995	21660.49	927,565.30	23,096.10	755,127.70	14.5927

1996	22568.87	1,286,215.90	23,327.50	562,626.60	12.16334
1997	23231.12	1,212,499.40	29,163.30	845,716.60	12.30169
1998	23829.76	717,786.50	34,070.20	837,418.70	8.729206
1999	23967.59	1,169,476.90	19,492.90	862,515.70	37.94737
2000	25169.54	1,920,900.40	24,822.90	985,022.39	42.93101
2001	26658.62	1,839,945.25	28,008.60	1,358,180.33	40.28259
2002	30745.19	1,649,445.83	94,731.85	1,512,695.33	26.84998
2003	33004.8	2,993,109.95	94,776.44	2,080,235.27	33.30566
2004	36057.74	4,489,472.19	113,309.35	1,987,045.27	38.88712
2005	38378.8	7,140,578.92	105,955.88	2,800,856.33	40.54236
2006	40703.68	7,191,085.64	133,594.99	3,108,519.32	35.75056
2007	43385.88	8,110,500.38	199,257.94	3,911,952.63	36.45357
2008	46320.01	9,861,834.43	525,859.18	5,593,180.45	40.12799
2009	50042.36	8,105,455.12	500,864.60	5,480,656.12	30.72722
2010	54612.26	11,300,522.12	710,953.75	8,163,974.57	34.94233
2011	57511.04	14,323,154.65	913,511.34	10,995,863.63	41.49911
2012	59929.89	14,259,990.90	879,335.23	9,766,556.74	35.71344

2013	63218.72	14,131,843.08	1,130,170.52	9,439,424.71	28.1773
2014	67152.79	12,006,965.05	955,061.79	10,538,914.51	28.10947
2015	69023.93	8,184,480.52	660,678.29	11,076,068.34	19.2517
2016	67931.24	8,178,817.96	656,793.95	9,480,366.87	17.01079
2017	68490.98	12,913,241.32	1,074,901.87	10,804,845.85	20.15751
2018	69799.94	17,281,953.13	1,425,374.30	13,445,112.75	24.55403
2019	71387.83	16,703,434.07	3,207,099.74	20,449,968.39	24.82269
2020	70014.37	11,058,151.84	1,555,440.86	20,519,192.15	16.51416
2021	72393.67	16,737,339.63	2,466,831.25	22,954,835.52	22.4007
2022	74639.47	24,221,595.93	3,029,976.46	27,115,108.58	26.11502

LOGGED VARIABLE OF THE DATA

	LRGDP	LOEXP	LNEXP	LIMP	LOPN
1981	9.880708058766378	9.276174927897773	5.837147186723625	9.460289424110722	3.158818243137099
1982	9.810235104149602	8.987596740683300	5.314190715704327	9.284566194328156	2.984891556364853

1983	9.694543336810046	8.882002957783466	5.708106446136256	9.094222199665396	3.147917727322945
1984	9.683358827063998	9.087110026631569	5.511006459958388	8.878817865205884	3.363041731225343
1985	9.740822730043548	9.325782892986026	6.208791213100626	8.862568534604649	3.369104319118723
1986	9.741425577442314	9.032229935953692	6.313729189289999	8.696777672500305	2.819380315333701
1987	9.772928879855208	10.24738217497298	7.674152921281675	9.790414034671144	3.063774699377136
1988	9.843713662494776	10.25539012688127	7.922043485737529	9.973279438059662	3.150517807828516
1989	9.862725972857525	10.91539387211832	7.991050863538354	10.33722260677755	3.473237036174138
1990	9.974073221514065	11.57708735269034	8.089359767446064	10.73024518509532	3.571630960248811
1991	9.9776488446	11.668715657	8.4504762993	11.401862051	3.5750998887

	96885	20507	50615	9954	48321
1992	10.022918119 15662	12.212968315 65411	8.3494370421 81586	11.871657391 86819	3.6565582562 32016
1993	10.002340087 15032	12.272697114 56492	8.5154516758 57935	12.017508041 40749	3.4244140911 53297
1994	9.9840001497 9426	12.209617355 6156	8.5846649065 3125	12.000208934 11522	2.9924980152 29988
1995	9.9832451426 44436	13.740318475 29813	10.047419051 08747	13.534642153 00161	2.6805213892 64464
1996	10.024326802 09831	14.067215054 60307	10.057388201 10818	13.240371454 40368	2.4984265022 34113
1997	10.053248038 11922	14.008194406 94829	10.280666348 44378	13.647939594 28762	2.5097369233 41132
1998	10.078690498 70342	13.483927450 05152	10.436178380 90488	13.638079463 34245	2.1666744100 35418
1999	10.084457780 02911	13.972067112 78051	9.8778055756 86302	13.667608630 62053	3.6362001453 32942

2000	10.13338981223729	14.46830459241071	10.11952189319024	13.80041965086035	3.759594313829114
2001	10.19086782945222	14.42524637370768	10.24026688485577	14.12165636915378	3.695919260185149
2002	10.33348883823512	14.31594992764437	11.45880553731099	14.22940360435044	3.290265236252639
2003	10.40440828441658	14.91182352187677	11.45927616580279	14.54799155585791	3.505727352662218
2004	10.49287682147101	15.31724570047009	11.63787696783	14.50215930436451	3.660663201910778
2005	10.55526050278837	15.78130441226135	11.57077806003285	14.84543576053117	3.702347425173126
2006	10.61407378503367	15.78835271134483	11.80256803938154	14.94965706788856	3.576565970500493
2007	10.67788932153001	15.90867012332515	12.20235544529388	15.17954720116783	3.596039272116402
2008	10.743329328	16.104182757	13.172788741	15.537058636	3.6920740503

	13632	40739	48155	85447	74954
2009	10.820625125 73893	15.908047864 077	13.124091085 45439	15.516735382 22521	3.4251487537 30987
2010	10.908013678 65173	16.240359488 28484	13.474362654 25584	15.915241688 06068	3.5536989677 8575
2011	10.959732208 3558	16.477387992 18818	13.725051064 10976	16.213029726 04988	3.7256720851 10146
2012	11.000930657 97582	16.472968335 06478	13.686921478 24386	16.094474529 47876	3.5755270208 3631
2013	11.054355738 80728	16.463941183 87295	13.937879085 75744	16.060405594 23467	3.3385168376 65215
2014	11.114725749 85966	16.300997460 33799	13.769531318 02013	16.170585107 99129	3.3361064514 23735
2015	11.142208535 04836	15.917750299 5291	13.401022298 79477	16.220297333 68512	2.9575991800 11678
2016	11.126251296 10383	15.917058193 90156	13.395125626 15438	16.064733572 41101	2.8338476607 04199

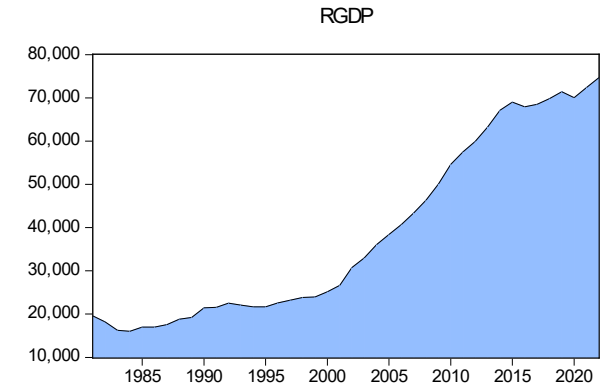
2017	11.13445733674778	16.37376380179338	13.88773993503136	16.19550528095814	3.003577144004404
2018	11.15338842915124	16.66517334334981	14.16994500298799	16.41412623330374	3.200876166119745
2019	11.17588268562046	16.63112488903175	14.98087757799719	16.83349189459378	3.211758104918208
2020	11.15645578567755	16.21867843677123	14.25726957557659	16.83687120861461	2.804217948520614
2021	11.18987414361227	16.63315268719622	14.71844498842881	16.94903917003829	3.109092004595928
2022	11.22042473474575	17.00275518692592	14.92406540997801	17.11560164208046	3.262510561807756

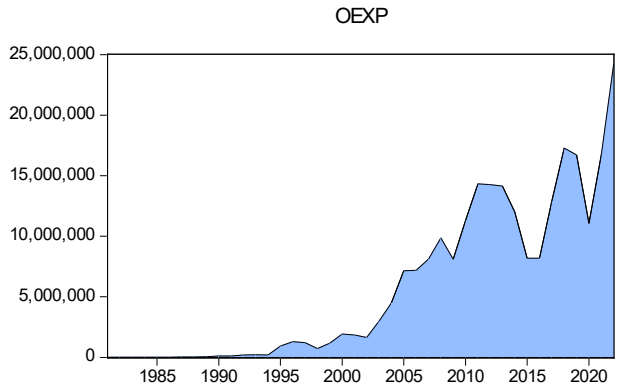
APPENDIX II

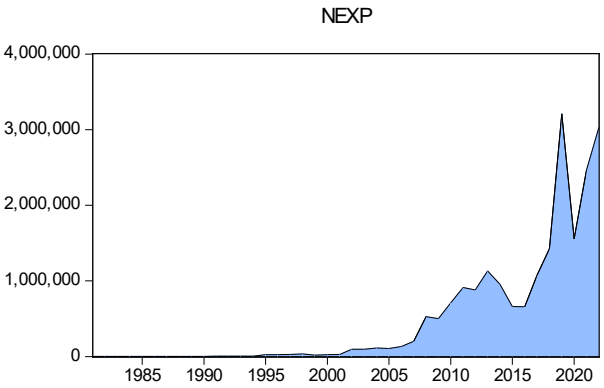
Descriptive Statistics

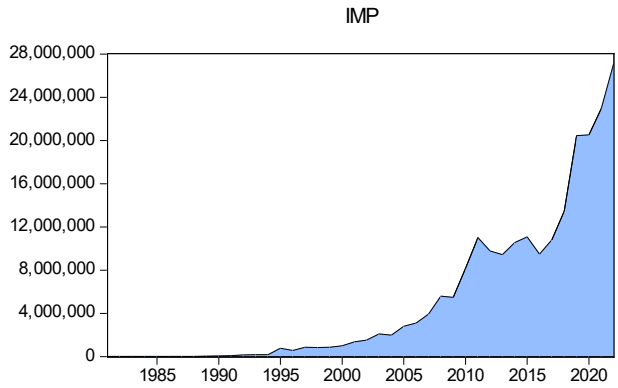
	RGDP	OEXP	NEXP	IMP	OPN
Mean	38589.74	5736255.	491642.2	5194325.	27.85260
Median	28701.91	1880423.	64401.02	1435438.	28.14339
Maximum	74639.47	24221596	3207100.	27115109	42.93101
Minimum	16048.31	7201.200	203.2000	5983.600	8.729206
Std. Dev.	20854.23	6518006.	808620.5	7108949.	9.204874
Skewness	0.527287	0.905433	2.061721	1.528542	-0.166778
Kurtosis	1.639848	2.814910	6.707703	4.523062	1.993690
Jarque-Bera	5.183742	5.798609	53.81220	20.41458	1.966861
Probability	0.074880	0.055062	0.000000	0.000037	0.374026
Sum	1620769.	2.41E+08	20648974	2.18E+08	1169.809
Sum Sq. Dev.	1.78E+10	1.74E+15	2.68E+13	2.07E+15	3473.918
Observations	42	42	42	42	42

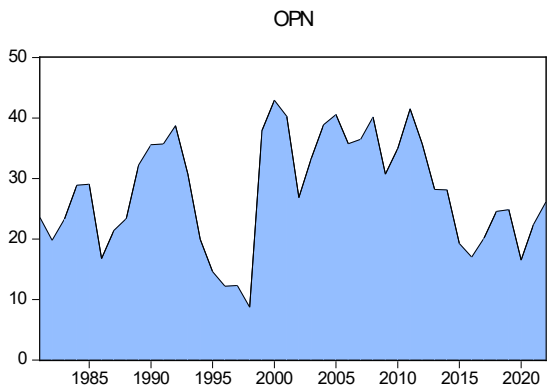
Trend Analysis of Variables











Johansen Cointegration Test

Date: 05/29/24 Time: 00:14				
Sample (adjusted): 1983 2022				
Included observations: 40 after adjustments				
Trend assumption: Linear deterministic trend				
Series: LRGDP LOEXP LNEXP LIMP LOPN				
Lags interval (in first differences): 1 to 1				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.620380	76.32214	69.81889	0.0138

At most 1	0.349401	37.57876	47.85613	0.3207
At most 2	0.317660	20.38427	29.79707	0.3972
At most 3	0.096199	5.095209	15.49471	0.7986
At most 4	0.025893	1.049352	3.841466	0.3057
Trace test indicates 1 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**

None *	0.620380	38.74338	33.87687	0.0121
At most 1	0.349401	17.19449	27.58434	0.5633
At most 2	0.317660	15.28906	21.13162	0.2691
At most 3	0.096199	4.045857	14.26460	0.8545
At most 4	0.025893	1.049352	3.841466	0.3057
Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

LONG RUN RESULTS

Dependent Variable: LRGDP		
Method: Least Squares		
Date: 05/29/24 Time: 00:16		
Sample: 1981 2022		

Included observations: 42				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOEXP	-0.286482	0.066954	-4.278819	0.0001
LNEXP	0.237396	0.039530	6.005399	0.0000
LIMP	0.209639	0.078140	2.682885	0.0108
LOPN	0.172676	0.063795	2.706725	0.0102
C	8.427337	0.258763	32.56773	0.0000
R-squared	0.943711	Mean dependent var		10.41710
Adjusted R-squared	0.937626	S.D. dependent var		0.542014
S.E. of	0.135367	Akaike info criterion		-1.050314

regression			
Sum squared resid	0.677994	Schwarz criterion	-0.843449
Log likelihood	27.05659	Hannan-Quinn criter.	-0.974490
F-statistic	155.0816	Durbin-Watson stat	0.812490
Prob(F-statistic)	0.000000		

SHORT RUN RESULTS

Dependent Variable: D(LRGDP)				
Method: Least Squares				
Date: 05/28/24 Time: 23:21				
Sample (adjusted): 1982 2022				
Included observations: 41 after adjustments				

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LOEXP)	-0.021789	0.028310	-0.769656	0.4467
D(LNEXP)	0.045236	0.019760	2.289321	0.0282
D(LIMP)	0.001431	0.030410	0.047069	0.9627
D(LOPN)	0.006285	0.024744	0.254004	0.8010
C	0.026616	0.007527	3.535979	0.0012
ECT(-1)	-0.193510	0.055325	-3.497703	0.0013
R-squared	0.305504	Mean dependent var		0.032676
Adjusted R-squared	0.206290	S.D. dependent var		0.046434
S.E. of regression	0.041368	Akaike info criterion		-3.398157

Sum squared resid	0.059896	Schwarz criterion		-3.147390
Log likelihood	75.66221	Hannan-Quinn criter.		-3.306841
F-statistic	3.079248	Durbin-Watson stat		1.069051
Prob(F-statistic)	0.020879			