

## Nigeria's Economic Growth and International Trade – An Econometric Analysis

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### ABSTRACT

*International trade has been regarded as an engine of growth for developing nations as it contributes greatly to the improvement of human capacity and expands opportunities for industrialization, advanced transportation and outsourcing etc. Hence this study through the means of econometric analysis examined “the Nigerian Economy in Relation to International Trade”. The study employed secondary data sourced from the Central Bank of Nigeria (CBN) and World Bank Database for world development indicators from 1985 – 2021. The data were checked for stationarity using the Unit Root Test. And the Ordinary Least Square (OLS) regression analysis (through the E-view package) was carried out to ascertain how international trade has contributed to the growth of the Nigerian economy. From the stationarity result Gross Domestic Product (GDP) and Foreign Direct Investment (FDI) were integrated of order  $I(0)$  while Export (EXT) and Import (IMP) were integrated of  $I(1)$ . The regression analysis was carried out following the order of integration of the variables. The results showed that EXT and IMP were not rightly signed while FDI was rightly signed. However, only FDI had significant relationship with GDP – proxy of economic growth. It was observed that the joint effect of the explanatory variables (depicted by the  $R^2$  Adjusted) on GDP was very poor. The study concluded that, there is a weak relationship between economic growth and international trade in Nigeria, which could be attributed to poor management of the gains of international trade. Therefore the study recommended among others that the government should endeavour to invest the proceeds of international trade wisely, possibly invest greater part of it in the real sector of the economy.*

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**Keywords:** *International trade, Exports, Economic growth, Stationarity and Imports.*

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### 1. INTRODUCTION

International trade is one of the oldest branches of economics. From the ancient Greek to contemporary times, governments, intellectuals, and economists have pondered on the determinants of trade between countries; they have also asked series of questions such as: “Is trade beneficial or harmful to a nation?”, “Which is preferable, Free Trade or Trade Protectionism?”. Also they have tried to determine what trade policy is most suitable for a nation that chooses to have trade protection policies. (Yakubu & Akanegbu, 2015)

International trade is the exchange of capital, goods and services across the international borders or territories. It enables nations to sell their domestically produced goods to other

countries of the world. No advanced economy has grown without reaping from the advantages of international trade. In most countries it represents a significant share of their economic wealth. As such it has been an area of interest to policy makers as well as economists.

To Adewuyi, (2002), international trade is an engine of growth, which leads to steady improvement in human capacity by expanding the range of people's standard and preferences. While international trade has been present throughout much of history, its economic, social, and political importance have increased in recent centuries, mainly because of industrialization, advanced transportation, globalization, multinational corporations, and outsourcing. This type of trade gives rise to a world economy, in which prices or supply and demand affect and are affected by global events.

The trend of international trade in Nigeria from the periods of 1981 – 2018 has been rather sporadic. It is observed that over this period export has been significantly larger than imports, which signifies a favourable balance of trade. The dominance of oil in the Nigerian economy is evident. The share of oil in Gross Domestic Product (GDP) and exports rose sharply after 1970 – 1973. This rendered the Nigerian terms of trade virtually synonymous with the price of oil deflated by the import index. In all those years except those immediately following the two oil shocks, domestic absorption exceeded gross domestic production (GDP) and national disposable income (Brian, 1987). This is evident in the drastic decline in export value from 1981 – 1983 resulting in a corresponding decline in the gross domestic growth of the economy given the fact that the economy was greatly dependent on oil exports, such that the fall in oil price greatly affected the economy of Nigeria at that time.

Nigeria is basically an open economy with international transactions constituting a significant proportion of her aggregate output. The Nigerian government like many other developing countries considers trade as main engine of its development strategies. This is because of the fact that trade, mainly international trade can create more jobs, expand markets, raise incomes, facilitate competition and disseminate knowledge across the world. Nevertheless, while trade between countries may generate growth globally, there is no guarantee that its aggregate benefits are distributed equitably among trading partners. The trading partner's gain differs. Many factors determine the extent to which a country may benefit from a trading relationship. These include the terms of trade between a country and its trading partners, the international exchange rate among the traded goods and the market characteristics of the country's exportable goods. Some of these factors might have prevented Nigeria from recording sound benefits in international trade. However, regardless of the benefits situation, foreign trade has been an area of interest to decision makers, policy makers as well as economists. (Elias, Agu, & Eze, 2018)

## **II. LITERATURE REVIEW**

### **II.1 Conceptual Framework**

#### **II.1.1. The concept of international trade**

In the historical trend, the existence of trade has been traced through the sands of time, from the moment when people started to communicate among themselves. Initially, people were trying to produce everything they needed through subsistence, however, with the development of civilization came product diversification and expansion of want and needs horizon, resulting to a correspondent increase in the satisfaction horizon. And this satisfaction

could only be met via the medium of exchange. This category of trade was referred to as 'trade by barter'; which involves direct trade of goods and services and was mainly within countries. Barter trade is considered the world's oldest form of exchange. Compared to monetary exchanges, barter trade is often regarded as an inefficient way of trading (Portia & Mpinganjira, 2011).

International trade evolved as a result of wants and needs and the advent of civilization and globalization. It is a field in economics that applies microeconomic models to help understand the international economy. Its content includes basic supply-and-demand analysis of international markets; firm and consumer behaviour; perfect competition, oligopolistic, and monopolistic market structures; and the effect of market distortions. The typical course of International Trade describes economic relationships between consumers, firms, factory owners, and the governments of different nations.

International trade can be seen as the transfer of goods and services including capital goods from one country to another (Danjuma, Habakuku & Amos, 2014). This definition was in agreement by Economic Concepts (2012) which defined it as trade across international boundaries. In other words, the activity of international trade involves two or more nations in a contest for economic growth as well as development. The globalization of trade is simply the ideology that International trade presents.

In most countries proceeds from international trade represents a significant share of their Gross Domestic Product (GDP); Nigeria for instance has its proceeds from oil export to constitute a significant portion of its Gross Domestic Product (GDP). It is important to note that international trade has been present all the way throughout history, and as a result, its economic, social and political importance has been on the rise in recent times. Therefore, without international trade, nations would be limited to the goods and services produced within their own borders: meaning that items in the scale of preference will be scanty or limited to few goods, which may retard development.

. This type of trade gives rise to a world economy, in which prices, or supply and demand affect and are affected by global events. For instance political change in Ghana could result in an increase in the cost of labour, thereby increasing the manufacturing costs for a Nigerian Juice company based in Accra, which would then result in an increase in the price that one has to pay to buy a bottle of Juice at the local mall. A decrease in the cost of labour, on the other hand, would result in you having to pay less. (Reem, 2018).

This implies that international trade is influenced by the political as well as socio-economic position of any nation involved. This is attainable since international trade generates an interconnection between trading nations.

Trading globally gives consumers and countries the opportunity to be exposed to goods and services not available in their own countries. Almost every kind of product can be found on the international market: food, clothes, spare parts, oil, jewellery, wine, stocks, currencies, and water. Services are also traded: tourism, banking, consulting and transportation. A product that is sold to the global market is an export, and a product that is bought from the global market is an import. Imports and exports are accounted for in a country's current account in the balance of payments, which however constitute the foreign sector of any nation.

### **II.1.2 The Concept of Economic Growth**

Economic growth means the steady process by which the productive capacity of the economy is increased overtime to bring about rising levels of national output and income. It could be said to comprise of three components via:

- ◆ capital accumulation
- ◆ growth in population
- ◆ technological progress

Capital accumulation results when some proportion of personal income is saved and invested in order to augment future output and income. Capital accumulation involves a trade-off between present and future consumption, giving up a little now so that more can be had later. It is property which a nation leaves behind for generation yet unborn.

Population growth, and the associated increase in the labour force, has traditionally been considered a positive factor in stimulating economic growth. A larger labour force means more productive workers, and a large overall population increases the potential size of domestic markets.

Technological progress results from new and improved ways of accomplishing traditional tasks. Technological progress could be neutral, labour-saving, and capital-saving (Elias, Agu & Eze (2018), Edward, 2009).

### **II.1.3 International Trade and Economic Growth**

Economists have long been interested in the factors which cause different countries to grow at different rates and achieve different levels of wealth. One of such is International trade. This issue is especially relevant today. The historical record shows a broad range of outcomes in achieving sustained economic growth. Some countries have achieved high incomes while others remain at lower levels. Recent history particularly highlights these facts with some countries, particularly East Asian, achieving very rapid growth rates and catching up with already wealthy countries while others, particularly Sub-Saharan Africa, have achieved little or no growth. Determining the reason for these differences remains an important theoretical and empirical task (Dilyara and Askar, 2017).

Economic growth occurs whenever people take resources and rearrange them in ways that are more valuable. A useful metaphor for production in an economy comes from the kitchen. To create valuable final products, producers mix inexpensive ingredients together according to a recipe – recall the activities of the early capitalists that resulted in mass production of goods and services, and eventually in search of territories for export. However, the cooking one can do is limited by the supply of ingredients, and most cooking in the economy produces undesirable side effects. If economic growth could be achieved only by doing more and more of the same kind of cooking, we would eventually run out of raw materials and suffer from unacceptable levels of pollution and nuisance. Human history teaches us, however, that economic growth springs from better recipes, not just from cooking. New recipes generally produce fewer unpleasant side effects and generate more economic value per unit of raw materials (Paul, 2018).

Economic growth exist as a result of an increase in the capacity of an economy to use new recipes and produce new and better goods and services, compared from one period of time to another. This capacity is often made available by international relations.

## **II.2 Theoretical Literature Review**

Different theories have been proposed to determine the best perspective of trade for a nation. We shall discuss few of the theories and from there build our theoretical framework.

### **II.2.1 Mercantilism**

During the 17<sup>th</sup> and 18<sup>th</sup> centuries the dominant economic philosophy was mercantilism. This is the theory of early philosophers who advocated severe restrictions on import and aggressive efforts to increase exports. Mercantilism appeared in the 16<sup>th</sup> century together with the new relations of capitalist production. It focuses in the quantities of precious metals available to countries, obtaining them, being achieved on the basis of promoting exports and restricting imports. This implies that free trade was not a criteria during the reign on this economic ideology, rather the focus was on the promotion of export and imposition of restrictions on imports.

Considering the fact that at the time this theory appeared, monarchies were in power in most countries, mercantilism seemed to represent a sound economic thinking. It was based on two main pillars;

- Wealth was made up of precious metals, money was made of these metals;
- The profit was obtained from foreign trade, with export constituting a means of increasing the national wealth (Elena, 2016).

From these perspectives, mercantilists constantly demanded the intervention of the state in trade relations with foreign partners, with the objective however being a surplus in trade balance. – Therefore this theory could be represented functionally as  $NW = f(TDA)$ , where: NW is national wealth, TDA is trade activities.

## II.2.2 David Ricardo's Model of Comparative Cost Advantage

David Ricardo developed the theory of comparative advantage also known as the theory of relative advantage, to explain his perspective/opinion regarding international trade. His work which was a continuation on the path opened by Adam Smith, the new economic stage, at the beginning of the 19<sup>th</sup> century imposed the development of a new theory on international trade. The Ricardian theory of comparative advantage became a basic constituent of neoclassical trade theory. The theory assumed that the economy of the world would grow more if countries engage in international trade. It is simplified by using a two-commodity, two-country model.

In an attempt to determine what goods and services a country should produce; the theory of comparative advantage takes into account the concept of opportunity cost.

The Ricardian model focuses on comparative advantage, which arises due to differences in technology or natural resources. However it failed to consider factor endowments, such as the relative amounts of labour and capital.

This theory was appreciated by many countries advantaged by the liberal policy in international trade; however, it was rejected in the Central and European countries of the world, for instance the United States of America, USA.

According to Ricardo's theory of comparative advantage, countries gain from trade because they obtain goods and services more cheaply by specializing in activities in which they have a comparative advantage. (Ricardo, 1817).

## II.2.3 The Heckscher–Ohlin Model of International Trade

The classical theory of international trade explained trade by differences in the comparative productivity of labour. This approach has its modern followers, who have been surprisingly successful in explaining differences in the relative shares of different countries in world imports of different products by differences in their relative labour productivity in the relevant industries. The existence of the differences in comparative costs underlying



international trade, however, was merely assumed and not explained by the theory. Contemporary international trade theory attempts the more fundamental task of explaining these differences by differences in the ratios in which countries are endowed with factors of production. The theory originated with Heckscher, but was significantly elaborated by Ohlin. (Ohlin, 1933); In its contemporary form it owes a great deal to analytical techniques and propositions contributed by Samuelson. As commonly expounded and applied, the theory employs a simple but elegant model of production and distribution in the national economy, usually referred to as the Heckscher–Ohlin model, although its mechanics are, as mentioned, largely the work of Samuelson. The two Swedish economists, Eli Heckscher and Bertin Ohlin developed the Heckscher Ohlin Model; later known as Heckscher Ohlin–Samuelson (H.O.S) model, as a result of the significant contribution of Samuelson. The HOS model is based on the theory of production factors proportion, equating their prices between partner nations but also implies the hypothesis of equating the income from these countries, the latter being known under the name of “Samuelson’s Paradox”. Basically, the authors have taken over from Smith and Ricardo in their theories, but they rephrased their contents having regard to the production factors with which each country is endowed.

### **II.3 Theoretical Framework**

This work will adopt the theory of the Macanalists to achieve its objective(s). For the Macanalists, wealth is a function of trade. They noted that wealth was made of precious metal imported or exported to other nations. Also gain was realized from trading with other nations and export contributing significantly to the nation’s wealth. Therefore, theoretically,

$GDP = f( ITD)$ , where, GDP is Gross Domestic Product ( proxy of wealth), and ITD is international trade which may be represented by export, import, exchange rate, foreign direct investment, portfolio investment, etc.

### **II.4 Empirical Literature Review**

Many scholars have embarked on the study of International Trade with the view of understanding its various components, as well as determine statistically and econometrically the relationships that exist between International trade and its various components with respect to the economic growth of a nation. Few selected studies are:

Sun and Heshmati (2012) evaluated the effects of international trade on China’s economic growth through examining improvement in productivity. Both econometric and non-parametric approaches were applied based on a 6-year balanced panel data of 31 provinces of China from 2002-2007. The study demonstrated that increasing participation in the global trade helped China reap the static and dynamic benefits, stimulating rapid national economic growth. Also, it revealed that both international trade volume and trade structure towards high-tech exports resulted in positive effects on China’s regional productivity. Zahoor et al, (2012) researched on the Effects of International Trade on Economic Growth: The case study of Pakistan. The study examined the impact of total exports to GDP ratio, terms of trade, trade openness, investment to GDP ratio, and inflation on the economic growth of Pakistan. Using time series data from 1973-2010, the OLS (Ordinary Least Square) technique was used to examine the relationship between exogenous variables and the endogenous variables. The estimated results show that explanatory variables have positive and significant impact on the economic growth of Pakistan. The results also showed that by

increasing the import of raw materials; production, employment and output of the country are boosted up. Similarly, trade openness has also positive and significant influence on the economy of Pakistan. Md. Hasnain (2018) analysed the Impact of International Trade on Economic Growth in Bangladesh. In a bid to examine this impact, the country's exports and imports were used as proxies to International trade, and Gross Domestic Product (GDP) of the Bangladesh was employed as proxy to economic growth. Pearson Correlation and Multiple Regression model were used to ascertain empirical findings. The study found that International trade (exports and imports) has a significant positive impact on economic growth (GDP) in Bangladesh and it was also found that international trade is strongly positively correlated with economic growth (GDP) in Bangladesh. Gulcin (2015) examined the relationship between foreign trade and economic growth in Turkey. In a bid to examine the relationship, export and import values of Turkey were used as the independent variables while GDP was used as the dependent variable. Time series data was employed from 1974 to 2011. Causality analysis was applied to the data. The result showed a bidirectional significant relationship between exports and GDP while unidirectional significant relationships were noted with the trend from GDP to import and from import to export. Nevertheless, the study concluded that there is no significant relation on the opposite trend from import to GDP, or from export to import. Abdullahi, O. A. Safiyanu, S. S. & Soja, T. (2016) examined International and Economic growth: an empirical analysis of West Africa. In the bid to analyse the effects of International trade on West African economies, export, import and exchange rate were used as the explanatory variables and proxies for International trade; however, Gross Domestic Product (GDP) is employed as the explained variable and proxy for economic growth. The Hausman test was used to select the appropriate model which could be fixed effect model or random effect model. The analysis was based on the panel data of 16 out of 17 countries in the region. The result indicated that a one percent rise in export variable will lead to GDP growth by 5.11 percent; and import on the other hand has positive but insignificant impact on GDP growth. Foreign exchange has a negative impact on GDP growth. Therefore, the study concluded that exports impact positively on economic growth of the region and recommended that West African countries should encourage indigenous enterprise for export promotion and import substitution. Arodoye and Iyoha (2014) studied the nexus between international trade and economic growth in Nigeria making use of quarterly time-series data for the period 1981 to 2010. The results indicated that there is a stable, long-run relationship between international trade and economic growth and they concluded that trade policies which are in favour of export expansion should be encouraged because exports are a driver of economic growth. Furthermore, an exchange rate policy which is favourable to export expansion and consistent with Nigeria's status as a small open economy could be considered for positive impact of International Trade on Economic Growth. Azeez, Dada, and Aluko (2014) examined the Effect of International Trade on Nigerian Economic Growth: The 21<sup>st</sup> century experience. In the bid to examine the effect, imports, exports and trade openness were used as proxies for International trade as well as the independent variables, while GDP was used as the dependent variable. Time series data from 2000 to 2012 was employed for the sake of the study. The Ordinary Least Square (OLS) estimation technique was employed to analyse the data. However, it was evidenced from the study that international trade has a significant positive impact on economic growth. Imports, Exports and Trade openness have significant effect on the Nigerian economy. The study recommended that the government should reduce over-dependence on oil exports and increase and diversify its export base to earn more revenue. Babatunde et al, (2017) examined the International Trade and Economic Growth in Nigeria. The study was directed towards

evaluating the impact of International trade on economic growth of Nigeria. Government expenditure, interest rate, foreign direct investment, imports and exports were used as the independent variables of the study, while Gross Domestic Product was used as the dependent variable of the study. Time series data was employed from 1981-2014. However, the Augmented Dickey Fuller (ADF) test and Philip – Perron (PP) test of Unit Root were employed to ascertain the stationarity properties of the variables. The Ordinary Least Square (OLS) technique was used to test for the significant relationship between the dependent variable and the independent variables. The result revealed that government expenditures, interest rate, import and export are all positively significant while exchange rate and foreign direct investment are negatively insignificant to the growth process of the Nigerian Economy. Elias, Agu & Eze (2018) studied the impact of International Trade on the Economic Growth of Nigeria. In the bid to ascertain the impact of export trade on the Nigerian economy and to determine the impact of import trade on the Nigerian economy, multiple regression analysis technique was employed to run estimates on the various components of international trade. Time-series data from 1980-2012 was used. The result from the study indicates that export trade has significant impact on the Nigerian economic growth. The result also indicates that import trade has no significant impact on the Nigerian economic growth. Further-more the researchers recommend the stimulation of foreign trade by engaging more on export trade which will in effect curtail activities on import trade which has a negative effect or strain on the Nigerian economic growth. Export diversification was also highly recommended to facilitate economic growth in Nigeria. Esther & Kamtochukwu (2017) studied the impact of international trade on Nigeria's Economic growth. In the bid to analyse the impact of international trade on the economic growth of Nigeria, imports, exports, balance of trade and trade openness were employed as proxies for International trade, while real gross domestic product was employed as a proxy for economic growth. Time-series data from 1985-2015 was used in this study. Unit root test was employed to establish stationarity of the variables; the Johansen Co-integration test was used to determine the long-run relationship between the variables while the Vector Error Correction Model (VECM) was used to analyse the data so as to determine the speed of adjustment of the variables. The result from the study indicates the existence of long-run relationship between international trade and economic growth; however, the study also indicated the insignificance of imports and trade openness in the short-run but significant in the long-run; while exports and balance of trade showed a high significance in both the short and long run. Nevertheless, the granger causality test showed that economic growth is independent of imports, exports and balance of trade, but it is unidirectional with economic openness. Therefore, it was recommended from the study that the government should increase its exploration of finished goods and reduce importation of finished goods to increase economic growth. Kehinde (2017) evaluated the Contribution of International Trade to Economic Growth in Nigeria. He considered real GDP as proxy for economic growth, while export volumes, import volumes, trade openness, gross capital formation and exchange rate were considered the independent variables of the study. Augmented Dickey Fuller (ADF) test was used for the unit root test and the variables were found to be stationary at levels. Granger Causality was also deployed to test the causality between the dependent and independent variables and a unidirectional relationship was established for some of the variables. The result from the analysis reveals that there is overall positive relationship between economic growth and international trade. Muhammad & Benedict (2015) examined the impact of 'International Trade on Economic Growth in Nigeria'. In the bid to analyse the impact of international trade on economic growth in Nigeria, degree of openness was used as proxy for International trade, other explanatory



variables include: Foreign Exchange (FOREX) and Interest Rate. Gross Domestic Product (GDP) was used to proxy economic growth. The ordinary least square technique was employed to estimate the impact of International trade on GDP. Time series data was employed from 1981 to 2012 in the study. The result of the analysis shows that all the variables except interest rate were statistically significant. Therefore, the study recommended that policy makers should adopt policies on trade liberalization such as reduction of non-tariff barriers, reducing tariffs, reducing or eliminating quotas that will enable the economy to grow at spectacular rates

The empirical literature reviewed above in China, Pakistan, Bangladesh, Turkey and Nigeria, suggests that International trade has an overall positive and significant impact on the economic growth of any nation, in the short and long run.

### III METHODOLOGY

#### III.1 Sources and Method of Data Collection

Numerical data are raw materials for statistical investigation. To achieve the aim of this study information were sourced through various means. But for analytical purpose the use of secondary data was employed. The data used for analyses were sourced from Central Bank of Nigeria ( CBN ) statistical bulletin and World Bank Database for world development indicators.

#### III.2 Model Specification

Model specification is the expression of a relationship into precise mathematical form. The model specifies the dependent variable – Gross Domestic product (GDP) as a function of Exports (EXT), Import (IMP) and foreign direct investment (FDI) which are the independent variables. The generalized mathematical model for the determinants of economic growth as within the scope of this study is:

$$GDP = f(EXT, IMP, FDI)$$

Where;

GDP = Gross Domestic Product annual growth rate

EXT = Export

IMP = Import

FDI = foreign direct investment

The econometric model of the study is specified as:

$$GDP = \beta_0 + \beta_1 EXT + \beta_2 IMP + \beta_3 FDI + U_t \dots \dots \dots (1)$$

Based on the nature of the variables, we take log-log functional form.

Therefore, the model will be:

$$\log(GDP)_t = \beta_0 + \beta_1 \log(EXT)_t + \beta_2 \log(IMP)_t + \beta_3 \log(FDI)_t \dots \dots \dots (2)$$

Where;

$\beta_0$  = Constant term of the regression equation; expected to be greater than zero.

$\beta_1, \beta_2, \beta_3$  are parameters to be estimated, and are expected to be greater than zero.

And  $U_t$  is the stochastic variable

.

#### **IV. EMPIRICAL ANALYSIS**

##### **IV.I Justification of variables selected for empirical analysis**

###### **◆ Gross Domestic Product**

Gross domestic product is the dependent variable for this study. Gross Domestic Product may be defined as the total market values of goods and services within a nation's borders during a given period, usually 1 year. However, given that economic growth represents a steady growth in the productive capacity of the economy of a nation or the growth in the nation's income, hence Gross Domestic Product justifiably can be used as proxy for economic growth in Nigeria.

###### **◆ Exports**

This is the total number of goods and services produced within a country that is been sold to foreign countries. Export is an injection into the economy, it may increase competition; permit the realization of comparative advantage and leads to a country's favourable balance of payment. Thus, it serves as an explanatory variable in this study.

###### **◆ Imports**

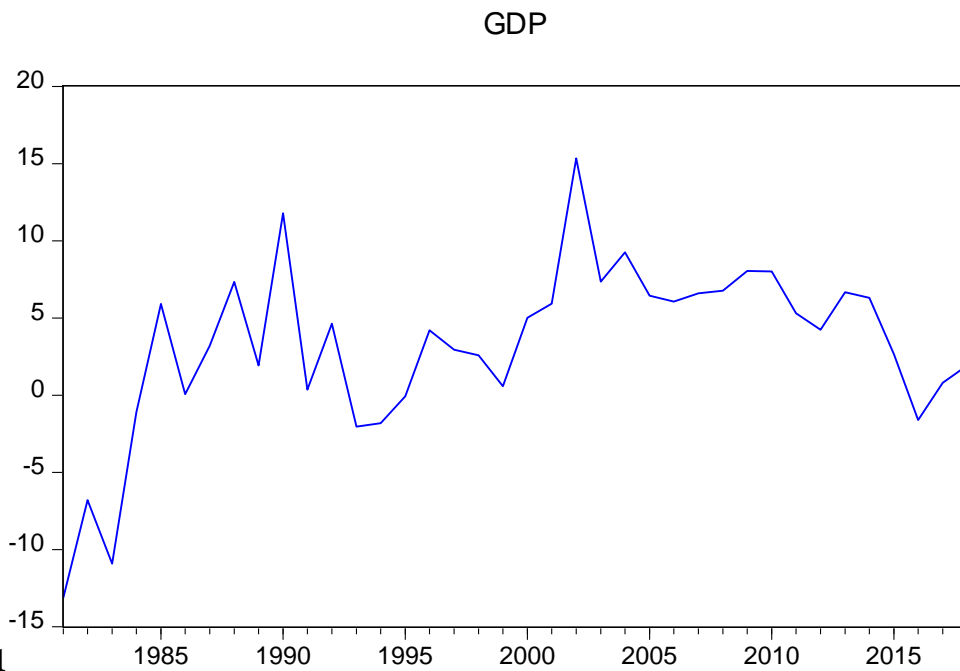
Imports are the goods and services that are bought by residents of a country from other countries. It doesn't matter what the goods or services are, or how they are sent. Import is a withdrawal from the economy, so it is expected to be negative. For a country to witness economic growth and favourable balance of payment its import should be less than the export. It is however a strong tool for economic growth, because no nation can develop without importing either raw materials or machines or finished goods for improvement of standard of living. It is therefore worthy to serve as an explanatory variable.

###### **◆ Foreign Direct Investment (FDI)**

FDI is an investment made by a firm or individual in one country into business interests located in another country. Generally, it takes place when an investor establishes foreign business operations or acquires foreign business assets in a foreign company. Though FDI and international portfolio investment are important means by which capital moves between countries, we will focus on FDI where the investor has ability to influence managerial decisions, Since it is a financial transaction across borders for the purpose of maximizing profits, it can justifiably serve as proxy for international trade, to aid in achieving the objective of this study

#### **IV. 2. TREND ANALYSIS OF THE DATA USED**

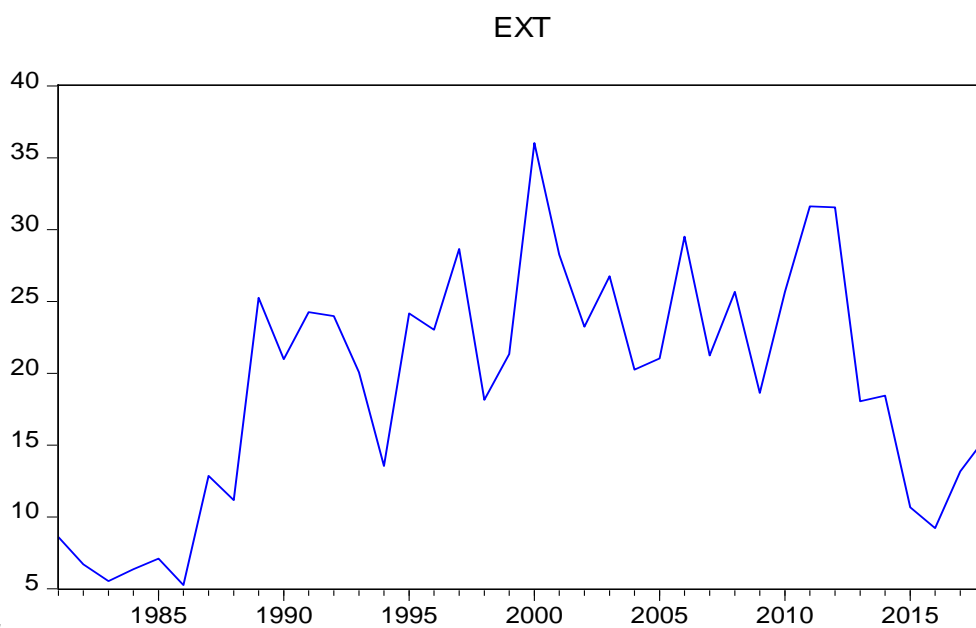
◆ Gross domestic product (GDP).



**Fig. 1.1**

From **Fig.1.1** above it is observed that GDP annual growth rate has been rather sporadic in nature. From 1981 to 1984, the annual growth rate of GDP experienced a negative growth. This is as a result of the fact the Nigerian economy has been greatly dependent on oil exports, and therefore vulnerable to any oil price shock. Apart from depending solely on oil proceeds, the proceeds have not been effectively managed because it does not spread so as to empower the people to boost economic activities through increase in productivity and effective demand. However, the highest GDP growth was experienced in 2002 while the lowest growth rate was experienced in 1981.

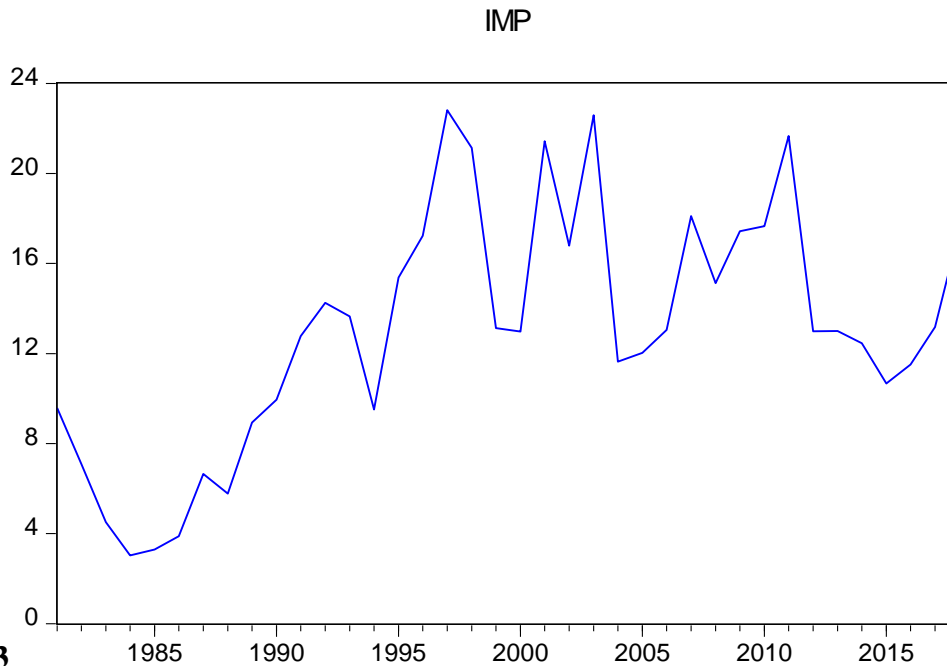
◆ **Export (EXT) as share of GDP**



**Fig. 1.2**

From **Fig. 1.2** above, a sporadic flow over time can also be observed. This implies that over years, export has had a fluctuation flow. That is; in 1981, Exports represented 8.59% of the nation's GDP. And in 2000, exports recorded about 36.02% of the nation's GDP, which represents more than a quarter of the nation's GDP at that time (This is the peak percentage share on GDP exports has attained with constraints restricted to stipulated time series). In 1986 however, it recorded its least percentage share on GDP: 5.25%. This signifies that exports have always been a significant source of the nation's GDP.

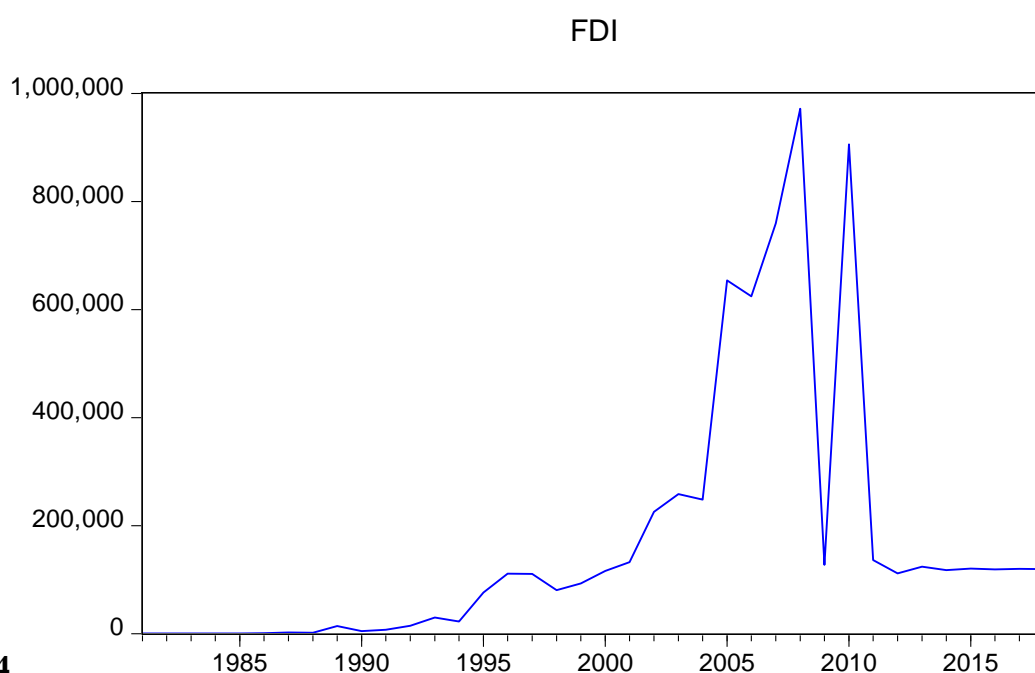
◆ **Import (IMP) as share of GDP**



**Fig. 1.3**

From **Fig. 1.3** above an irregular pattern is also observed with Import value on GDP over the stipulated time series. Imports recorded its highest percentage of GDP in 1997 with a whopping 22.81% share on GDP and its least share of GDP in 1984 with 3.03%. According to statistics the top imports of Nigeria are refined petroleum, cars, wheat, packaged medicaments and telephone. A rising level of imports and a growing trade deficit as noticed in the Nigerian economy recently can have a negative effect on a country's exchange rate.

◆ **Foreign Direct Investment (FDI)**



**Fig. 1.4**

From **Fig. 1.4** above, FDI attained its peak in 2008 with a whopping 971.5billion, with its trough in 1993.

### IV.3 Analysis of Data

#### IV.3.1 Test for Stationarity

**Table IV. 1. Augmented Dickey-Fuller (ADF) Test**

Variables	ADF Statistic	critical values at 5%	Order of Integration
Log(GDP)	- 4.105872	- 2.943427	I (0)
Log(EXT)	- 8.096190	- 2.945842	I (1)
Log(IMP)	- 7.610804	- 2.945842	I (1)
Log(FDI)	- 3.224608	- 2.943427	I (0)

**Source:** Authors Compilation

**GDP** is stationary at level, thus is integrated of order zero; that is: I (0).

**IMP** is stationary at first difference and therefore is integrated of order one; that is; I (1).

**EXT** is stationary at first difference and thus is integrated of order one; that is; I (1).

**FDI** is stationary at level and thus is integrated of order zero; that is; I (0).



### IV.3.2 Regression Result.

**Table IV.2**

<b>Dependent variable LOG(GDP)</b>			
<b>Variables</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>P-Values</b>
<b>C</b>	<b>-7.631451</b>	<b>3.276179</b>	<b>0.0261</b>
<b>D(log(EXT))</b>	<b>-0.088772</b>	<b>0.113666</b>	<b>0.4404</b>
<b>D(log(IMP))</b>	<b>0.021407</b>	<b>0.182154</b>	<b>0.9072</b>
<b>log(FDI)</b>	<b>1.060527</b>	<b>0.301456</b>	<b>0.0013</b>
<b>R<sup>2</sup></b>	<b>0.282668</b>		
<b>R<sup>2</sup> Adjusted</b>	<b>0.217455</b>		
<b>Prob(F-Stat.)</b>	<b>0.011081</b>		
<b>Durbin-Watson Stat.</b>	<b>1.294316</b>		

**Source: Author's Compilation from E-views regression result**

The estimated model can be shown as

$$\log(\text{GDP}) = -7.631 - 0.089\text{D}(\log(\text{EXT})) + 0.02\text{D}(\log(\text{IMP})) + 1.061\log(\text{FDI})$$

### IV.3.3. Interpretation of result

From the regression analysis it was found that, export has a negative relationship (and this is not in line with a priori expectation) with economic growth in Nigeria within the time examined. However, it was observed from the p-value associated with the export that, this negative relationship is insignificant at 5% level of significance, and therefore can be treated with less priority in relation with the economic growth of Nigeria. This negative relationship is most likely as a result of the dominance of oil exports in the cumulative export values; not just this, it may probably be as a result of the misappropriation of revenue generated from export. However, if these funds were rather invested in real productive assets or infrastructure that facilitates production, the result (export) could have behaved better by responding to macro-economic theory as an injection into the economy.

Import has a positive relationship with economic growth in Nigeria within the time of study. However, it was observed from the p-value associated with the import that, this positive relationship is insignificant at 5% level of significance, and therefore should not be treated with importance in relation to the economic growth of Nigeria. It also failed a-priori expectation; this may be as a result of inadequate policies of the federal government. Import is a withdrawal, and should be negatively related to GDP at least in the short run.

Foreign Direct Investment (FDI) from the regression estimation is seen to have a positive relationship with the economic growth of Nigeria within the time of analysis.

According to the p-value associated with FDI from the regression ran, this positive relation is significant at 5% level of significance. This is in line with the a-priori expectation. Given the fact that FDI comprises of direct investments on real productive assets, it's positive and significant relationship with GDP in Nigeria is evident of the huge investment made in the oil sector and few in the other areas of the economy (such as agriculture and manufacturing).

The F-Statistic and its Probability value proved the regression to be significant at 5% levels of significance, and therefore can be relied upon to make necessary predictions and forecasts. In other words, it implies that the explanatory variables have joint significance influence in economic growth in Nigeria. Furthermore, the co-efficient of determination  $R^2$  signifies that irrespective of the contributions of the explanatory variables in the economic growth of Nigeria, they still have weak explanatory power, thereby explaining very little of the changes in the economic growth of Nigeria.

## **V. CONCLUSION , POLICY IMPLICATION AND RECOMMENDATIONS**

### **V.1 Conclusion**

This study empirically investigated the relationship between international trade and economic growth in Nigeria. International trade has been present throughout much of history, it's economic, social, and political importance has increased in recent times, mainly because of industrialization, advanced transportation system, globalization, multinational corporations, and outsourcing. The empirical literature reviewed in this study from China, Pakistan, Bangladesh, Turkey and Nigeria suggests that international trade has a positive and significant impact on the economic growth of any nation in both short and long run. But from our empirical result, the Nigerian case is different. This might be the evidence of government inconsistency, among which are: misappropriation of revenue generated from exports trade, selfish interest as regards policy making and implementation, excessive market share owned by foreign expatriates in key industries (which results in capital flight), political instability which discourages plan implementation and economic restructuring, dependence on oil for exports and high import oriented which exposes the economy to vulnerability. These factors obviously, may have contributed to the weak relationship international trade has with economic growth in Nigeria.

### **V.2 Policy Implication and Recommendations**

The policy implication of our study is that the contribution of international trade to economic growth in Nigeria is weak and also not in line with economic theories. This means that Nigeria has not fully harnessed the benefits of international trade due to the inability to do the right thing in the right way. However, there are still opportunities for Nigeria to maximize her potential if the government can develop the will and zeal to adopt a strategy that can promote economic activities in international concerns, including adhering to and implementing recommendations by committees and researchers such as the few below:

- Redirection of revenue generated from exports trade, into investment in real productive assets or infrastructure, capable of boosting economic activities and facilitating rapid and fundamental changes in the economic growth of Nigeria.
- A break in the exportation of primary products required to facilitate further production which would have a greater impact on economic growth by boosting domestic production, which in turn facilitates a greater revenue margin from exports trade. And

promotion in the exportation of secondary / intermediary products is imperative to economic growth and development.

- There is the need to diversify the economy. If other sectors of the economy (such as agriculture, manufacturing, energy, human capital, etc) could be harnessed along with the oil sector the economy will be stronger in international outlook.
- The government could do more to improve the Nigerian economic growth through international business by creating conducive business environment for international investors.

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