INTERNATIONAL TRADE AND ECONOMIC GROWTH IN NIGERIA 1985 - 2022

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ABSTRACT

This paper examined the impact of international trade on economic growth in Nigeria for the period 1985 to 2022. The independent variables are export of goods and services, import of goods and services, trade openness, exchange rate and foreign exchange. The test for unit root, co integration, autocorrelation, bounds and Auto regression Distributive Lag (ARDL) were conducted in this study. The researchers concluded that international trade has profound impact on economic growth in Nigeria and it was also recommended among other things that monetary authorities should ensure the stability of exchange rate in Nigeria.

INTRODUCTION

International trade can be referred to as the exchange of goods, services and capital across international borders or territories because there is a need or want of goods or services. Such trade represents a significant share of gross domestic product (GDP) in most countries. International trade is more of a complex process when compared to that of domestic trade. It is the trade that takes place between two or more nation's factors which include government policies, currency, economy, laws, judicial system, and market influences trade. International economic organizations were formed to smoothen and justify the process of trade between two or more countries. Example of this international trade organization is the World Trade Organization. These organizations are aimed at the growth of international trade (Abraham, 2020).

Imports and exports are accounted for in a country's current account in the balance of payments. International trading may give consumers and countries the opportunity to be exposed to new markets and products. Almost every kind of product can be found in the international market, ranging from food, clothes, spare parts, oil, jewellery, wine, stocks, currencies, and water. Services such as tourism, banking, consulting, and transportation.

International trade is very crucial to the continuance of globalization. Countries would be limited to the goods and services produced within their own borders without international trade. The benefits of international trade have been the major drivers of growth for the last half of the 20th century.

Nations with strong international trade have become prosperous and have the power to control the world economy. International trade can become one of the major contributors to the reduction of poverty. It is important to assert that no country in the world can sustain itself or survive without exchanging goods and services with other countries in the world. It is also important to know that the economic growth and development of a country largely depends on how its imports exchange for its exports.

Taking Africa as a case study with particular emphasis on Nigeria, the economic growth of Nigeria depends on her trade with other nations to a large extent. Nigeria as a developing country has been struggling with realities of developmental process not only politically and socially but also economically.

Government earns revenue through international trade activities. International trade has made an increasingly significant impact to economic growth. The openness of a nation determines a country's growth rate by impacting upon the level of economic activities and facilitating the transfer of resources across borders. Nigeria is an open economy with international transactions contributing a significant proportion to her output.

In 1960s, agriculture happened to be one of the main stays of the economy and the greatest foreign exchange earner. But since the advent of oil as a major source of foreign exchange earning in Nigeria in 1974, the picture has almost become that of general stagnation in agricultural exports. This then led to loss of Nigeria's position as an important producer and exporter of palm oil produce, groundnut, cocoa, and rubber.

According to the data from Nigeria Bureau of Statistics on Foreign Trade in Goods (Q3, 2022), the value of total imports stood at ₦5,664.30 billion in the third quarter

of 2022, this was an increase of 4.22% when compared with the value recorded in Q2, 2022 (₦5,435.01 billion); and by 6.16% compared to the value recorded in the corresponding quarter of 2021 (₦5,335.86billion). The value of agricultural imports in the third quarter of 2022 stood at ₦512.91 billion showing an increase of 10.44% when compared to the value recorded in the second quarter of 2022 (₦464.45 billion) and by 6.37% when compared to the value recorded in the corresponding quarter of 2021 (₦482.21billion). The value of raw material imports stood at ₦649.21 billion in Q3, 2022. The value fell by 6.74%, when compared to the value in Q2, 2022 (₦696.12 billion) but rose by 23.90% when compared to the value recorded in Q3, 2021 (₦523.97 billion). The value of solid minerals imports in the third quarter of 2022 stood at ₦37.66billion, this value was 2.58% lower than the value recorded in Q2, 2022 (₦38.66 billion) and 28.60% higher than the value recorded in Q3, 2021 (₦29.93billion). The value of energy goods imports stood at ₦4.28billion in Q3, 2022 which was (-58.49%) lower than the value recorded in the second quarter of 2022 (₦10.31billion) and (-20.34%) lower than the corresponding period value of 2021 (₦5.38 billion). The value of imported manufactured goods in the quarter under review stood at ₦2,849.96 billion with an increase of 3.41% against the value recorded in Q2, 2022 (₦2,756.02 billion). This value also increased by 9.33% compared to the value recorded in Q3, 2021 (₦2,606.79 billion). The value of other oil products imports in the third quarter of 2022 stood at ₦1,614.56billion indicating an increase of 9.11% from the value recorded in Q2, 2022 (₦1,479.76 billion) but declined by 4.63% compared to the value recorded in the corresponding quarter of 2021(₦1,692.95 billion).

The value of total exports in Q3, 2022 stood at ₦5,933.63 billion indicating a decline of (-19.89%) when compared to the value of exports in Q2, 2022 (₦7,406.53 billion) and rose by 15.52% when compared to the value recorded in

Q3, 2021 (₦5,136.56 billion). The value of agricultural goods exports stood at ₦84.21 billion in Q3, 2022 indicating a sharp decline of (-40.60%) when compared to the value recorded in Q2, 2022 (₦141.77 billion) and an increase of 6.03% when compared to the value recorded in Q3, 2021 (₦79.41 billion). The value of raw material goods exports in Q3, 2022 was valued at ₦186.02 billion showing a drastic decrease of (-49.87%) and an increase of 23.58% than the value recorded in Q2, 2022(₦371.10 billion) and Q3, 2021 (₦150.52billion) respectively. The value of solid minerals exports in Q3, 2022 were valued at ₦22.47billion indicating an increase of 7.07% compared to the value (₦20.99 billion) recorded in Q2, 2022, this also increased by 22.69% compared to the value recorded in the corresponding quarter in 2021(₦18.31billion). The exports value of energy goods in Q3, 2022 stood at ₦13.84billion indicating a decrease of -36.20% when compared to the value recorded in Q2, 2022 (₦21.70 billion); and decreased by -28.21% compared to Q3, 2021 (₦19.28billion). The value of manufactured goods exports was valued at ₦131.46billion in Q3, 2022 showing an increase of 9.98% compared to the value recorded in Q2, 2022 (₦119.53 billion) and decreased by (-53.87%) compared to the value recorded in Q3, 2021 (₦284.99billion). The value of crude oil exports in Q3, 2022 stood at ₦4,658.30billion showing a decrease of (- 21.15%) compared to ₦5,907.97 billion, the value recorded in Q2, 2022; and it rose by 15.70% compared to the corresponding period of 2021(₦4,026.18billion). The value of other oil products exports in Q3, 2022 was ₦837.33 billion, this marginally increased by 1.68% compared to the value recorded in Q2, 2022 (₦823.48 billion), but grew by 50.10% when compared to the value in the same period of 2021 (₦557.85billion). (NBS, 2022).

Nigeria is a developing economy basically characterized by a high degree of subsistence production with low application of modern technology. This has

resulted into a higher volume of importation over export. Export trade is a sub-division of international trade where goods produced in one country are transported to another country for sale. Exportation is a crucial element of a country's economy as it stimulates economic growth. Some of the world's biggest exporting countries are China, United States, Germany, Japan, Netherlands etc. However, this export trade is something we take for granted in this country as we are largely dependent on importation for survival. Nigeria has small-scale industries which are insufficient for producing export goods as these industries also cannot meet with the local needs. Export trade facilitates economic expansion, promotes international cooperation, improves the balance of payments and boosts foreign currency earnings.

Statement of the Problem

The trade theories have emphasized on attaining economic growth via international trade on the foundation of comparative economic advantages and disadvantages. Harnessing the principles of this trade theory, Nigeria was expected to be a foremost agricultural economy based on her enormous abundant labour resources and unexploited cultivatable land. Regrettably, since the oil price windfall of the early 1970s, the nation side-lined the industrial and agricultural sectors of the economy. The economic agents of both public and private sectors of the economy channeled their resources in the oil and gas sector so much that the key sectors of the economy are deprived of funding, managerial capabilities and even required investment. Thus, the keystone economy has been rendered uncompetitive internationally while the nation has become a trading settlement for foreign firms (Sanusi, 2010).

The oil sector in Nigeria is characterized by wastage, unchecked dominance of foreign multinationals low productivity and corruption (Hassan, Olawoye and Nnadozie, 2002)

as cited in (Babatunde, Jonathan and Muhyideen, 2017). The economy has been relegated to a mono-product economy with a major part of government revenues resulting from oil exports which is prone to fluctuations and shocks in the oil market internationally. Besides, several other solid minerals with which the nation is abundantly blessed remain generally undeveloped. More fundamentally, the economy has excessively focused on the primary sector with the absence of any significant value addition to the economic growth. In view of this, the growth recorded in the economy is negligible which has thus far been devoid of corresponding positive attitudinal change, employment, equitable income distribution, and value re-orientation, to mention but a few (Babatunde, Jonathan and Muhyideen, 2017). Based on the theory of factor proportion, Nigeria, for many decades, has stupendously been expending on the importation of technologically oriented goods mainly from Western Europe, even though the nation was not aggressively exporting agricultural and industrial output.

In as much as Nigeria has benefited from foreign trade, it has also felt a negative impact of foreign trade on her economy and this is because, Nigeria is not industrialized, hence Nigeria imports much more than it exports. Though foreign trade should be highly encouraged but, there should be a balance of trade meaning that the aggregate imports should equal the aggregate exports, to have a balanced economy and good exchange rate.

Objectives of the Study

The main objective of the study is to examine the relationship between international trade and economic growth in Nigeria with specific focus on investigating the following; the impact of export of goods and services on gross domestic product in Nigeria, the effect of import of goods and services on gross domestic product in Nigeria, the effect of trade openness on gross domestic product in Nigeria, how exchange rate

affects gross domestic product in Nigeria; and the effect of foreign exchange disbursement on gross domestic product in Nigeria.

Research Questions

In line with the specific objectives of the study the study will answer the following questions.

1. To what extent does export of goods and services impact on gross domestic product in Nigeria?

2. What is the relationship between import of goods and services and gross domestic product in Nigeria?

3. What is the degree of impact of trade openness on gross domestic product in Nigeria?

4. To what extent does exchange rate affect gross domestic product in Nigeria?

5. How does foreign exchange disbursement affect gross domestic product in Nigeria?

Research Hypotheses

Accordingly the hypotheses to be tested in this study are as follows:

H_{01}: There is no significant relationship between export of goods and services and gross domestic product in Nigeria

H_{02}: Import of goods and services does not have any significant relationship with gross domestic product in Nigeria

H_{03}: Trade openness does not have any significant effect on gross domestic product in Nigeria

H_{04}: There is no significant relationship between foreign exchange rate and gross domestic product in Nigeria

H_{05}: Foreign exchange disbursement does not have any significant effect on gross domestic product in Nigeria

Scope of the Study

The crux of this study is international trade and economic growth in Nigeria using data from Central Bank of Nigeria Statistical Bulletin 2022 for the period, 1985 to 2022. The variables covered in this study include gross domestic product (GDP) as the dependent variable and export trade, import trade, trade openness, foreign exchange rate and foreign exchange disbursement as the explanatory variables.

Significance of the Study

The findings and recommendations of this study will provide useful and beneficial information to: the monetary authorities, financial institutions, researchers and students, public to better understand the policies of the government and how they impact on them.

LITERATURE REVIEW

International Trade

International trade is concerned with the relationship amongst nations in both the economic and financial sense; it plays a life-sustaining role in coordinating socio-economic performance and the possibilities for less developed countries (Adeleye, Adeteye and Adewuyi 2015).

Awojobi (2019) defines international trade as the exchange of capital, goods and services across international borders or territories. In most countries, such trade represents a significant share of gross domestic product (GDP).

There is no country which has grown without the useful tool of trade, however the significance of international trade to economic growth relies a great deal on the conditions in which it works and the purpose it serves. The relevance of international trade originates from evidence that there is no country that can produce all commodities in terms of goods and services which its population requires for their utilization and consumption largely owing it to resources differences and constraints. It is therefore concluded that trade relationship suggests that countries need to export commodities to create revenue to be able to import those commodities which cannot be made domestically.

Basically, international trade comprises export trade, import trade and entrepot trade. Export trade is the sale of goods and services to foreign countries, while import trade is the purchase of goods and services from other countries. Entrepot trade is the import of goods and services for re-export to other countries.

Economic Growth

Economic growth is measured by the Gross Domestic Product in Nigeria. GDP is the total monetary or market value of all the finished goods and services produced within a country in a specific period. It functions as a comprehensive measurement of the country's economic health. Nigeria has a GDP estimate of $410 million out of which the oil and gas sector accounts for 80 percent of this figure. (Phillips and Edun, 2021).

Atangana, Adamou, and Njie, (2017), see economic growth as the process whereby the real per capita income of a country increases over a long period of time. Economic

growth is measured by the amounts of goods and services produced in a country. It is a desirable goal for Nigeria. It is the long-term rise in capacity to supply increasingly diverse economic goods and services to its population. This growth capacity is based on advancing technologies, the institutional and ideological advancement that it demands. Economic growth can be regarded as an important macroeconomic objective of the government given the fact that it visibly impacts on the standard of living.

Economic growth occurs whenever there is a quantitative increase in country's input and output over a period. (Hameed, Khalid, and Sabit, 2012), posits that economic growth is an increase in the capacity of an economy to produce goods and services, compared from one period to another. It can be measured in nominal or real terms, the latter of which is adjusted for inflation. Traditionally, aggregate economic growth is measured in terms of Gross National Product (GNP) or Gross Domestic Product (GDP), although alternative measures are sometimes used. In the same vein, Ogunmuyiwa, and Ekone (2010), refers economic growth to an increase in aggregate productivity. Often, but not necessarily, aggregate gains in productivity correlate with increased average marginal productivity. This means the average labourer in each economy becomes, on average, more productive. It is also possible to achieve aggregate economic growth without an increased average marginal productivity through extra immigration or higher birth rates thereby making economic growth to be described as increase in output of an economy over a period.

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both public and private sectors of the economy channeled their resources in the oil and gas sector so much that the key sectors of the economy are deprived of funding, managerial capabilities and even required investment. Thus, the keystone economy has been rendered uncompetitive internationally while the nation has become a trading settlement for foreign firms (Sanusi, 2010).

Theoretical Review

Three theories are adopted in this study which include;

Mercantilism theory:

Developed in the sixteenth century, mercantilism was one of the earliest efforts to develop an economic theory. This theory stated that a country's wealth was determined by the amount of its gold and silver holdings. In its simplest sense, mercantilists believed that a country should increase its holdings of gold and silver by promoting exports and discouraging imports. In other words, if people in other countries buy more from you (exports) than they sell to you (imports), then they must pay you the difference in gold and silver. The objective of each country was to have a trade surplus, or a situation where the value of exports is greater than the value of imports, and to avoid a trade deficit, or a situation where the value of imports is greater than the value of exports.

Absolute Advantage theory:

In 1776, Adam Smith questioned the leading mercantile theory of the time in *The Wealth of Nations*. Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (London: W. Strahan and T. Cadell, 1776). Recent versions have been edited by scholars and economists. Smith offered a new trade theory called absolute advantage, which focused on the ability of a country to produce a good more efficiently than

another nation. Smith reasoned that trade between countries should not be regulated or restricted by government policy or intervention. He stated that trade should flow naturally according to market forces. In a hypothetical two-country world, if Country A could produce a good cheaper or faster (or both) than Country B, then Country A had the advantage and could focus on specializing on producing that good. Similarly, if Country B was better at producing another good, it could focus on specialization as well. By specialization, countries would generate efficiencies, because their labor force would become more skilled by doing the same tasks. Production would also become more efficient, because there would be an incentive to create faster and better production methods to increase the specialization.

Smith's theory reasoned that with increased efficiencies, people in both countries would benefit and trade should be encouraged. His theory stated that a nation's wealth should not be judged by how much gold and silver it had but rather by the living standards of its people.

Comparative Advantage theory:

The challenge to the absolute advantage theory was that some countries may be better at producing both goods and, therefore, have an advantage in *many* areas. In contrast, another country may not have *any* useful absolute advantages. To answer this challenge, David Ricardo, an English economist, introduced the theory of comparative advantage in 1817. Ricardo reasoned that even if Country A had the absolute advantage in the production of *products*, specialization and trade could still occur between two countries.

Comparative advantage occurs when a country cannot produce a product more efficiently than the other country; however, it *can* produce that product better and more efficiently than it does other goods. The difference between these two theories is subtle.

Comparative advantage focuses on the relative productivity differences, whereas absolute advantage looks at the absolute productivity.

Empirical Review

Ajayi and Atanda (2012) who empirically examined trade and capital inflow channels of globalization on macroeconomic stability of Nigeria between 1970 and 2009. They utilized an autoregressive model which indicated that the first lag of real output growth rate has a significant positive effect on real current growth rate, while the second autoregressive term is found to exert insignificant negative effect on current real output growth rate. As recommendation, the study posited that inflation should be targeted to encourage proper economic growth planning. This study failed to investigate the outflows of goods and services among which forms the context of international trade. Thus, it will be improved upon by including export trade as a variable and to employ the real GDP instead of the GDP growth rates.

Also, Arodoye andIyoha (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 OLS 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, the study recommended that an exchange rate policy which is favourable to export expansion should be encouraged. This study is based on quarterly data which are relatively volatile. Thus, the annual time series data will be used as an extension for the study.

From another perspective, Stephen and Obah (2017) adopted multiple regression estimation techniques to examine the impact of international trade on economic growth in Nigeria from 1981 to 2015. The model specified economic growth measured by gross

domestic product as dependent on international trade proxy by non-oil imports, oil imports, non-oil exports, and oil exports. The study discovered that international trade has a significant positive impact on economic growth in Nigeria. The study recommended that Nigerian government should give more emphasis to specialization in agriculture for diversification of her production and export base to enable the country to gain all the benefits of trade including economic growth. This study neglected to include a control variable as important as exchange rate, which is a key determinant of international trade volumes. Therefore, an inclusion of the exchange rate variable in our model will serve as an extension to the study.

Oladimeji and Muhammed (2017) investigated the effect of international business on SMEs growth in a competitive environment, particularly Nigeria. It was also revealed that the exchange rate has a significant effect on SMEs growth in Nigeria, and the level at which exchange rate affects SMEs growth is relatively high. Elijah and Ahmed (2019) examined trade liberalization as one of the drivers of economic development from 1986-2016, According to World Development Report, irrespective of under unfavourable or favourable environment open economies perform better compared with closed economy. The study findings revealed that trade liberalization did not cause growth during the period of the study.

Osidipe, Onuchukwu, Otto and Nenbee (2018) assessed the impact of Trade Liberalization on some selected manufacturing sectoral groups. The results of analysis led to the conclusion that trade liberalization do not have significant impact on FBT, CKM, and BM in Nigeria. FDI is positively signed and thus have direct impact on the three- sub-sectors.

Okeowo and Aregbeshola (2018) reviewed a study on trade liberalization and performance of the Nigerian textile industry. Findings revealed that the effect of simple

tariff rate on textile industry is negative and statistically significant in the long run while trade liberalization policy measure through simple tariff rate has a lag effect before it can be effective in the textile industry. In both short and long run, real effective exchange rate depreciation worsens the performance of the textile industry in Nigeria.

Agbo, Agu and Eze (2018) reviewed the impact of international trade on the economic growth of Nigeria in Enugu, Nigeria. The results of the study showed that there is a significant impact of export trade on the Nigerian economic growth. The study also revealed that there is no significant impact of import trade on the Nigerian economic growth.

Uzonwanne (2020) in his study of international trade and economic growth in Nigeria from 1981-2017 used real GDP as the dependent variable while imports, exports, capital formation, unemployment and exchange rate were the explanatory variables. Using econometric techniques of unit root, Johansen co integration test and Granger causality analysis, the study found short run impact of export trade on economic growth. Also, causality runs from imports and exports to economic growth in Nigeria. He recommended improvement in trade contents through exportation of labour-intensive products.

Babatunde, Emmanuel, Okodua and Oluwasogo (2020) empirically examine the effect of FDI inflows into Nigeria on real gross domestic product (RGDP) growth and how these external inflows can bring about achieving Goal-17.3 of mobilizing additional financial resources for developing countries from multiple sources. The study found that labour quality has a positive and significant effect on RGDP in line with theory.

METHOD

Research Design

This study adopted the ex-post facto research design. The reason for the adoption of the ex-post facto design is because it is the most suitable for secondary data analysis. The ex-post facto research therefore is a systematic empirical study in which the researcher does not in any way control the independent variables because the situation for the study already exists or has already taken place. (Olotu, 2015).

Sources of Data

This study used secondary data which were gotten collected from Central Bank of Nigeria statististical bulletin 2022 on the variables of the study for the period of 1985 to 2022.

Model Specification

Uzo nwanne (2020) studied international trade and economic growth in Nigeria using an auto regressive and distributed LAG bound test approach. He further employed GDP as the dependent variable, while imports, exports, gross fixed capital formation, unemployment rate and exchange rate were used as the explanatory variables. this study modified his specification by introducing trade openness as a key international trade variable while also introducing foreign exchange disbursement which has been largely neglected by numerous researchers resulting to the model below.

$GDP = f$ (Exp, Imp, Trop, EXR, FXD) ----------------------------3.2

The model is presented in mathematical form below.

$GDP = a_0 + a_1 Exp_t + a_2 Imp_t + a_3 Trop_t + a_4 ExchR_t + a_5 ForexD_t + e_t$

Where:

GDP = Gross Domestic Product

Exp = Export trade

Imp = Import trade

Trop = Trade Openness

EXR = Exchange rate

FXD = Foreign Exchange Disbursement

Where; a_1, a_2, a_3, a_4, a_5 are the unknown parameters of the model to be estimated

a_0 is the constant term or intercepts of the model.

t is the time 1985-2022

e is the error term or stochastic variable

Data Analysis

The data used in the estimation are time series and annual in nature and were subjected to stationary/unit root test using the Augmented Dickey-Fuller (ADF) unit root test to ensure their stationarity at levels or at first differencing, to avoid spurious regression. Moreover, to confirm the existence of long-run relationship among the variables, the ARDL Bounds test approach toco-integration was carried out at 5% level of significance. Also, a test of autocorrelation was carried out using the Breusch-Godfrey serial correlation LM test and the Durbin-Watson statistics Furthermore; the model was estimated using the Auto regressive Distributed Lag (ARDL) technique. These tests are further discussed below:

Results

Unit Root Test Result

The Table 1 below shows a summary of Augmented Dickey Fuller (ADF) unit tests carried out on each of the variables. The test is done at 5% critical value as follows:

Table 1: Summary of Unit Root Test Result

Variable		ADF Test statistics		Decision	Order of Integration
		At Level	1st Difference		
GDP		-0.6083	-3.9541	Stationary at 1st difference	I(1)
EXP		-2.3542	-4.7887	Stationary at 1st difference	I(1)
IMP		-4.3492	-7.9187	Stationary at Level	I(0)
TRO		-2.9845	-7.4386	Stationary at Level	I(0)
EXR		-3.1194	-5.4202	Stationary at Level	I(0)
FXD		-1.2861	-5.2619	Stationary at 1st difference	I(1)
Critical Values	1%	*-3.6267*	*-3.6394*		
	5%	*-2.9458*	*-2.9511*		
	10%	*-2.6115*	*-2.6143*		

Source: Researchers' Computation using E-Views 9.0

The unit root test above reveals that GDP, export (EXP) and foreign exchange disbursement (FXD) are all stationary at first difference and are said to be integrated at order one, I(1). Conversely, import (IMP), trade openness (TRO) and exchange rate (EXR) were stationary at level and are said to be integrated at order I(0). Since the data are stationary at both I(0) and I(1), it implies that the data have statistical properties that do not vary over time and thus can be used for the purpose of forecasting. Again, we shall consider the lagged values of the dependent variable having obtained a mixed order of integration. We can achieve this by applying the Auto regressive Distributed Lag (ARDL) model. However, we first confirm the existence of a long-run relationship or co integrating relationship amongst the variables using the ARDL Bounds test.

Table 2: Summary of the ARDL Bounds test for Co integration

Statistic	Value	k
istic	.745140	5

cal Value Bounds

ficance	) Bound	1 Bound
	2.26	3.35
	2.62	3.79
	2.96	4.18
	3.41	4.68

Source: Researchers' Computation using E-view 9

The F-statistic of 7.745140 is greater than the critical value I(0) and I(1) bounds at 5%. We therefore reject the null hypothesis and conclude that there is long run relationship amongst the variables.

Short Run ARDL Model Estimation

Table 3: Summary of the short run estimates

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
GDP(-1)	0.828502	0.155389	5.331782	0.0002
GDP(-2)	-0.178337	0.142880	-1.248160	0.2358
EXP01	-0.006849	0.029161	-0.234861	0.8183
EXP01(-1)	-0.163173	0.031998	-5.099429	0.0003
EXP01(-2)	0.101732	0.030212	3.367309	0.0056
EXP01(-3)	0.054184	0.029875	1.813696	0.0948
IMP	-0.094558	0.037013	-2.554710	0.0252
IMP(-1)	-0.022405	0.048700	-0.460060	0.6537
IMP(-2)	-0.073879	0.032023	-2.307025	0.0397
IMP(-3)	0.106344	0.026524	4.009376	0.0017
TRO	0.076205	0.054734	1.392277	0.1891
TRO(-1)	0.155377	0.056186	2.765388	0.0171
TRO(-2)	-0.074271	0.054834	-1.354474	0.2005
TRO(-3)	-0.292874	0.041407	-7.073022	0.0000
EXR	-0.145882	0.031508	-4.630065	0.0006
EXR(-1)	0.012104	0.031057	0.389715	0.7036
EXR(-2)	-0.060091	0.028698	-2.093873	0.0582
FXD	0.098064	0.022666	4.326494	0.0010
FXD(-1)	0.033312	0.022224	1.498926	0.1597
FXD(-2)	0.024704	0.023209	1.064421	0.3081
FXD(-3)	0.060446	0.013754	4.394836	0.0009

C	5.097926	0.824828	6.180595		0.0000
CointEq(-1)	-0.349835	0.065848	-5.312727		0.0002
...red	0.911499	n dependent var			10.53938
...ed R-squared	0.898623	. dependent var			0.490826
...stic	1140.921	ike info criterion			-4.920898
...-statistic)	0.000000	bin-Watson stat			1.654730

Source: Researchers' Computation using E-view 9

The short run estimates above shows that lagged GDP exerts positive effect of 0.829 on itself. This means that previous year's growth in the economy transcends to current growth in the economy in the current year as well. However, there is negative effect of lagged export and current year export on GDP in Nigeria decreasing GDP by 0.1632 and 0.0068 units respectively.

Similar negative outcome is observed for import as the lagged coefficient and the current year's coefficient decreased GDP by 0.0224 and 0.0946 units respectively. However, trade openness followed a different pattern increasing GDP by 0.1554 and 0.0762 units in the lagged and current years respectively.

For exchange rate, the current year coefficient showed negative value of -0.1459 which implies that currently in the short run, exchange rate decreases economic growth by 0.1459 units. The lagged value of exchange rate was positive (0.0121) while the second period lag was negative (-0.0601). This means that there is observed fluctuation of exchange rate just as GDP increases and decreases in line with the fluctuations in exchange rate.

The coefficient of foreign exchange disbursement was positive for the current year and the entire lagged periods. This implies that there is short run positive effect of foreign exchange disbursement on economic growth of Nigeria. The constant in the short run is positive (5.0979) which means that there is positive movement in GDP occasioned by

other variables that affect GDP in the short run which are not captured in the model. The short run speed of adjustment was estimated at 34.98% annually.

Long Run Estimation of the ARDL Model

The estimation of the long run model is necessary in order to reconcile the short-run behavior of international trade variables with its long-run behavior, and to investigate the extent of relationship that exist between the two economic variables in the long run period. The ARDL model takes cognizance of both periods because of the focus on the lagged values of the regressor and regress and. The result is summarized below:

Table 4: Long Run ARDL Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXP	-0.040322	0.110579	-0.364645	0.7217
IMP	-0.241535	0.093157	-2.592768	0.0235
TRO	-0.387504	0.110661	-3.501707	0.0044
EXR	-0.554175	0.085586	-6.475074	0.0000
FXD	0.618939	0.105564	5.863139	0.0001
C	14.572385	0.839748	17.353278	0.0000

Source: Researchers' Computation using E-view 9

The Table 4 above shows that there is a negative long run effect of export, import, trade openness and exchange rate on economic growth in Nigeria. GDP decreases by 0.0403, 0.2415, 0.3875 and 0.5542 with a unit change in export, import, trade openness and exchange rate respectively. This is quite an interesting result as the long run effect of international trade variables on the economy is a decreasing effect. Not only a decreasing effect, the probability values of import ($p=0.0235$), trade openness ($p=0.0044$) and exchange rate ($p=0.0000$) imply that the negative long run effect these variables exert on the economy is very significant at 5% level. However, foreign exchange disbursement showed positive long run effect on the economy increasing GDP significantly by 0.6189 units (*p-value = 0.0001*). The intercept of the long run model is

also positive which means that there is a positive movement in GDP in the long run which is occasioned by the stochastic variables.

Post-estimation tests

The post-estimation result shows other tests that confirmed the robustness of the model. The test comprises of the Breusch-Godfrey serial correlation LM test, Durbin Watson test for autocorrelation, Cumulative Sum test and the Coefficient of determination (R-squared and Adjusted R-squared). These tests, as earlier stated, are necessary in order to ascertain the statistical robustness and predictive ability of the model. They are summarized as follows:

Table 5: Diagnostic Tests

S/N	Test	Probability	Decision
		Model 1	
1.	Breusch-Godfrey serial correlation LM test	F-stat = 1.1806 *p-value = 0.2286*	No serial correlation.
2.	Durbin Watson Statistic	1.6547	No Autocorrelation
3.	Cumulative sum (CUSUM) Test	Within bands of 5% significance level (See Appendix)	Model is stable
4.	R-squared and Adjusted R-squared	0.9115 (91.15%) 0.8986 (89.86%)	High explanatory coefficient

Source: Extracted from E-Views 9.0 output (See Appendix)

The post-estimation tests as presented in Table 4.6above shows that the error terms of the model are not serially correlated given the *p-value* of the Breusch-Godfrey Serial Correlation LM test which is greater than 0.05 critical values. Also, the Durbin Watson statistic suggests that there is no autocorrelation in the model since the DW value of 1.6547 tends towards 2 than to 0. Evidence from the cumulative sum (CUSUM)test affirms the stability and suitability of the model for forecasting since the CUSUM line falls within the upper and lower bounds 5% critical value lines.

The adjusted R-squared is more suitable for gauging the overall fitness of the model and it has a value of 0.8986 indicating that international trade account for up to 89.86 percent of the variations in Nigeria's economic growth for the period under review.

Discussion of findings

This research work investigated the nexus between international trade and economic growth in Nigeria for the period 1985 to 2021.The study examined the specific effects of total export trade, total import trade, trade openness, exchange rate and foreign exchange disbursement on foreign trades in Nigeria. The statistical properties of the time series data were examined through stationary test using the Augmented Dickey-Fuller (ADF) unit root test. The results showed that the variables were integrated of mixed order hence suggesting the possibility of an Auto regressive distributed lag model. This necessitated the test for long run relationship amongst the variables using the ARDL Bounds test for co integration. The result established the existence of a long-run relationship between international trade variables and economic growth in Nigeria.

The short run result showed that export, import, and exchange rate decreased economic growth in Nigeria. This implies that for every unit increase in export, import, and exchange rate, Nigeria's GDP will decrease accordingly. Thus, we can deduce from this that exports and import which makes up the core of international trade has not favorably encouraged growth in the Nigerian economy. Exchange rate, which is very vital in foreign trade transactions still did not enhance economic growth due to the inconsistencies of the monetary authorities and the spiraling effect of exchange rate in the economy. Still in the short run, trade openness and foreign exchange disbursement were positively related to economic growth. The positive effect of trade openness on growth in the short run explains why Agbo, Agu and Eze (2018) sees trade openness as an important short run economic variable that drives trade and growth.

The long run analysis gave a rather interesting result as the international trade variables (export, import, trade openness and exchange rate) all showed significantly negative effects on economic growth except export which was not significantly negative. This entails that Nigeria's international trade transactions still falls below expected as it remains a low contributor to growth. The works of Stephen & Obah (2017), Arodoye and Iyoha (2014), Agbo, Agu and Eze (2018) etc. all supported the stance that international trade enhances growth as against the current finding from this present study. The reason for the difference in findings is attributed to the updated data used in this study and the inclusion of some key intervening variables like foreign exchange disbursement and trade openness. This expands the knowledge frontier and explains the slow rate of economic growth witnessed in Nigeria today.

The long run analysis however, revealed that foreign exchange disbursement increased economic growth significantly. Thus, government focus on foreign exchange disbursement can further enhance economic growth in Nigeria. The test of hypotheses revealed that export, import, trade openness and exchange rate significantly decreased Nigeria's GDP while foreign exchange disbursement significantly increased GDP. The international trade variables jointly affected GDP accounting for as much as 89.86 percent of the variations in Nigeria's economic growth for the period under review.

SUMMARY OF FINDINGS

The study made some very key findings which were in line with the specific objectives of the study. Firstly, export trade decreased GDP both in the short and long run, but the decrease was not statistically significant. Secondly, import trade decreased GDP significantly in the short and long run periods. Thirdly, trade openness had negative effect on economic growth in the long run. However, the short run effect of trade openness on growth was positive but not significant. The positive coefficient of foreign

exchange disbursement in the short and long run periods meant that foreign exchange disbursement increased GDP significantly in both periods. The findings further revealed there was significant negative relationship between exchange rate and economic growth in the short and long run.

Based on the findings made, the study concluded that there has not been favorable effect of international trade variables on the growth of the Nigerian economy for the period under review. This was adduced to the negative short run effects of exports, imports, trade openness, and exchange rate on real gross domestic product. Thus, there remains a lot to be done by the government and the monetary authorities to enhance growth of the Nigerian economy through the intensification of international trade activities.

CONCLUSION

The conclusion emanating from the study is that international trade represented by export and import trade, trade openness, exchange rate and foreign exchange disbursement have not had the desired effect on growth of the Nigerian economy. The positive effect of foreign exchange disbursement was being overshadowed by the negative effects of export, import, trade openness and exchange rate. When total trade and exchange rate do not lead to growth in the economy, then the overall objective of trade has not been achieved. However, it can be inferred from this study that with increased intervention of the monetary authorities in the area of foreign exchange disbursement, Nigeria's openness to trade will be enhanced and this will have long run positive effect on international trade and the economy at large.

RECOMMENDATIONS

To fully explore the potentials presented by international trade to the Nigerian economy, the following recommendations which are stemming from the findings are very necessary to be considered:

1. Since from the study, export decreased growth, government can enhance export trade through the diversification of the economy to focus on agro-based exports which will put Nigeria on the map of world export traders and this has the potential of growing the local economy beyond the current rate.

2. In a similar manner, import trade statistics showed negative effect on growth and so the government can make import to be more service oriented and at the same time promoting locally produced products to boost the local economy. Focus on services rather than finished products will enhance the quality of imports and boost export potentials.

3. Nigeria's trade openness can be enhanced by way of increasing exports rather than imports through the focus on local manufacturing capacity.

4. Exchange rate policies should be stabilized in the long run by the monetary authorities.

5. The Central Bank of Nigeria should intensify efforts to make foreign exchange disbursements to reach every sector in Nigeria's export trade to enhance international trade.

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Appendix

pothesis: GDP has a unit root
ous: Constant
ngth: 1 (Automatic - based on SIC, maxlag=9)

	-Statistic	Prob.*
nted Dickey-Fuller test statistic	0.608296	0.8561
itical values: % level	3.632900	
5% level	2.948404	
0% level	2.612874	

nnon (1996) one-sided p-values.

pothesis: D(GDP) has a unit root
ous: Constant
ngth: 0 (Automatic - based on SIC, maxlag=9)

	-Statistic	Prob.*
nted Dickey-Fuller test statistic	3.954097	0.0044

itical values: % level   3.632900
                                  i% level   2.948404
                                  0% level   2.612874

nnon (1996) one-sided p-values.

pothesis: EXP has a unit root
ious: Constant
ngth: 0 (Automatic - based on SIC, maxlag=9)

	-Statistic	Prob.*
nted Dickey-Fuller test statistic	2.354249	0.1615
itical values: % level	3.626784	
i% level	2.945842	
0% level	2.611531	

nnon (1996) one-sided p-values.

pothesis: D(EXP) has a unit root
ious: Constant
ngth: 1 (Automatic - based on SIC, maxlag=9)

	-Statistic	Prob.*
nted Dickey-Fuller test statistic	4.788695	0.0005
itical values: % level	3.639407	
i% level	2.951125	
0% level	2.614300	

nnon (1996) one-sided p-values.

pothesis: IMP has a unit root
ious: Constant
ngth: 1 (Automatic - based on SIC, maxlag=9)

	-Statistic	Prob.*
nted Dickey-Fuller test statistic	4.349245	0.0015
itical values: % level	3.632900	
i% level	2.948404	
0% level	2.612874	

nnon (1996) one-sided p-values.

pothesis: D(IMP) has a unit root
ious: Constant
ngth: 0 (Automatic - based on SIC, maxlag=9)

	-Statistic	Prob.*
nted Dickey-Fuller test statistic	7.918724	0.0000

tical values: % level   3.632900
                                       5% level   2.948404
                                       0% level   2.612874

nnon (1996) one-sided p-values.

pothesis: TRO has a unit root
ous: Constant
ngth: 0 (Automatic - based on SIC, maxlag=9)

	-Statistic	Prob.*
nted Dickey-Fuller test statistic	2.984543	0.0459
tical values:	% level	3.626784
	5% level	2.945842
	0% level	2.611531

nnon (1996) one-sided p-values.

pothesis: D(TRO) has a unit root
ous: Constant
ngth: 0 (Automatic - based on SIC, maxlag=9)

	-Statistic	Prob.*
nted Dickey-Fuller test statistic	7.438558	0.0000
tical values:	% level	3.632900
	5% level	2.948404
	0% level	2.612874

nnon (1996) one-sided p-values.

pothesis: EXR has a unit root
ous: Constant
ngth: 0 (Automatic - based on SIC, maxlag=9)

	-Statistic	Prob.*
nted Dickey-Fuller test statistic	3.119394	0.0340
tical values:	% level	3.626784
	5% level	2.945842
	0% level	2.611531

nnon (1996) one-sided p-values.

pothesis: D(EXR) has a unit root
ous: Constant
ngth: 0 (Automatic - based on SIC, maxlag=9)

	-Statistic	Prob.*
nted Dickey-Fuller test statistic	5.420176	0.0001
tical values:	% level	3.632900

| | level | 2.948404 |
| | level | 2.612874 |

nnon (1996) one-sided p-values.

pothesis: FXD has a unit root
ious: Constant
ngth: 0 (Automatic - based on SIC, maxlag=9)

		-Statistic	Prob.*
nted Dickey-Fuller test statistic		1.286146	0.6254
itical values:	% level	3.626784	
	% level	2.945842	
	0% level	2.611531	

nnon (1996) one-sided p-values.

pothesis: D(FXD) has a unit root
ious: Constant
ngth: 0 (Automatic - based on SIC, maxlag=9)

		-Statistic	Prob.*
nted Dickey-Fuller test statistic		5.261953	0.0001
itical values:	% level	3.632900	
	% level	2.948404	
	0% level	2.612874	

nnon (1996) one-sided p-values.

dent Variable: GDP
l: ARDL
3/07/23   Time: 22:38
e (adjusted): 1988 2021
d observations: 34 after adjustments
um dependent lags: 3 (Automatic selection)
selection method: Akaike info criterion (AIC)
ic regressors (3 lags, automatic): EXP IMP TRO EXR FXD
egressors: C
r of models evaluated: 3072
ed Model: ARDL(2, 3, 3, 3, 2, 3)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
GDP(-1)	0.828502	0.155389	5.331782	0.0002
GDP(-2)	-0.178337	0.142880	-1.248160	0.2358
EXP	-0.006849	0.029161	-0.234861	0.8183
EXP(-1)	-0.163173	0.031998	-5.099429	0.0003
EXP(-2)	0.101732	0.030212	3.367309	0.0056
EXP(-3)	0.054184	0.029875	1.813696	0.0948
IMP	-0.094558	0.037013	-2.554710	0.0252
IMP(-1)	-0.022405	0.048700	-0.460060	0.6537
IMP(-2)	-0.073879	0.032023	-2.307025	0.0397

IMP(-3)	0.106344	0.026524	4.009376	0.0017
TRO	0.076205	0.054734	1.392277	0.1891
TRO(-1)	0.155377	0.056186	2.765388	0.0171
TRO(-2)	-0.074271	0.054834	-1.354474	0.2005
TRO(-3)	-0.292874	0.041407	-7.073022	0.0000
EXR	-0.145882	0.031508	-4.630065	0.0006
EXR(-1)	0.012104	0.031057	0.389715	0.7036
EXR(-2)	-0.060091	0.028698	-2.093873	0.0582
FXD	0.098064	0.022666	4.326494	0.0010
FXD(-1)	0.033312	0.022224	1.498926	0.1597
FXD(-2)	0.024704	0.023209	1.064421	0.3081
FXD(-3)	0.060446	0.013754	4.394836	0.0009
C	5.097926	0.824828	6.180595	0.0000

red	0.911499	n dependent var	10.53938
ed R-squared	0.898623	dependent var	0.490826
regression	0.018211	ke info criterion	-4.920898
quared resid	0.003980	varz criterion	-3.933253
elihood	105.6553	an-Quinn criter.	-4.584083
tic	1140.921	in-Watson stat	1.654730
-statistic)	0.000000		

p-values and any subsequent tests do not account for model
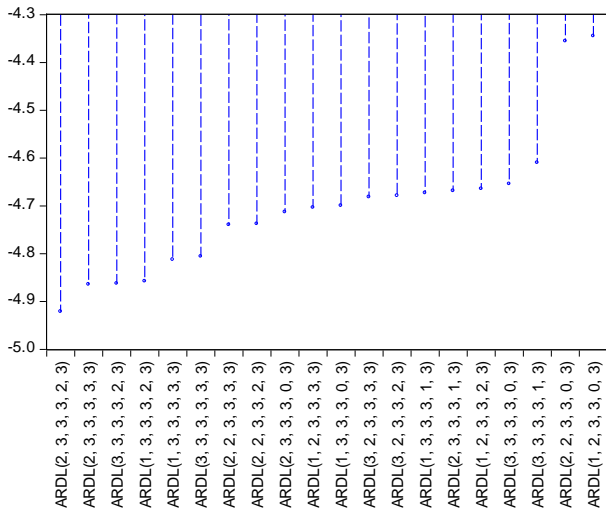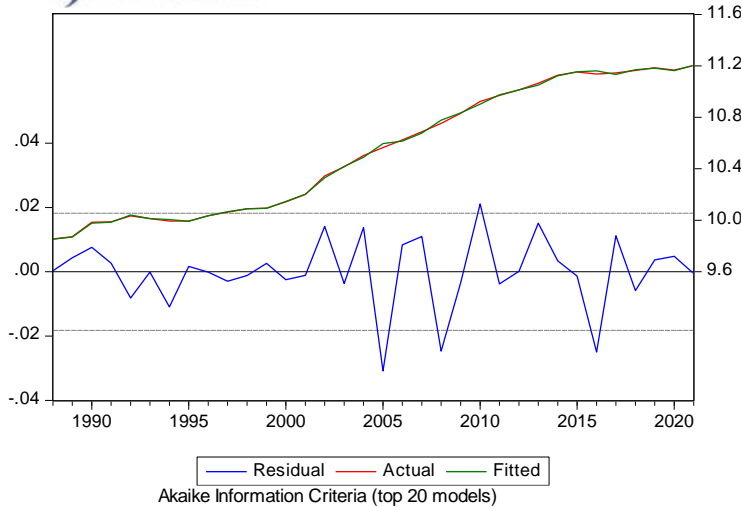lection.

Bounds Test
3/07/23   Time: 22:39
e: 1988 2021
d observations: 34
pothesis: No long-run relationships exist

atistic	Value	k
tic	7.745140	5

Value Bounds

ance	0 Bound	I1 Bound
	2.26	3.35
	2.62	3.79
	2.96	4.18
	3.41	4.68

Akaike Information Criteria (top 20 models)

Cointegrating And Long Run Form
dent Variable: GDP
ed Model: ARDL(2, 3, 3, 3, 2, 3)
3/07/23 Time: 22:39
e: 1985 2021
d observations: 34

Cointegrating Form			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP(-1))	0.178337	0.142880	1.248160	0.2358
D(EXP)	-0.006849	0.029161	-0.234861	0.8183
D(EXP(-1))	-0.101732	0.030212	-3.367309	0.0056
D(EXP(-2))	-0.054184	0.029875	-1.813696	0.0948
D(IMP)	-0.094558	0.037013	-2.554710	0.0252
D(IMP(-1))	0.073879	0.032023	2.307025	0.0397
D(IMP(-2))	-0.106344	0.026524	-4.009376	0.0017
D(TRO)	0.076205	0.054734	1.392277	0.1891
D(TRO(-1))	0.074271	0.054834	1.354474	0.2005
D(TRO(-2))	0.292874	0.041407	7.073022	0.0000
D(EXR)	-0.145882	0.031508	-4.630065	0.0006
D(EXR(-1))	0.060091	0.028698	2.093873	0.0582

D(FXD)	0.098064	0.022666	4.326494	0.0010
D(FXD(-1))	-0.024704	0.023209	-1.064421	0.3081
D(FXD(-2))	-0.060446	0.013754	-4.394836	0.0009
CointEq(-1)	-0.349835	0.065848	-5.312727	0.0002

teq = GDP - (-0.0403*EXP -0.2415*IMP -0.3875*TRO -0.5542*EXR
0.6189*FXD + 14.5724)

Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXP	-0.040322	0.110579	-0.364645	0.7217
IMP	-0.241535	0.093157	-2.592768	0.0235
TRO	-0.387504	0.110661	-3.501707	0.0044
EXR	-0.554175	0.085586	-6.475074	0.0000
FXD	0.618939	0.105564	5.863139	0.0001
C	14.572385	0.839748	17.353278	0.0000

h-Godfrey Serial Correlation LM Test:

tic	1.180597 . F(2,10)	0.2286
squared	17.30157 . Chi-Square(2)	0.0002