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Exploring the Efficacy of Economic Openness and FDI Entry in Enhancing Economic Growth in Nigeria

Augustine Adebayo Kutu¹

Abstract

The aim of this study is to examine the potency of economic openness and FDI entry in enhancing economic growth in Nigeria. Employing the dynamic ARDL method and an annual data spanning from 1986 to 2022, the result shows that economic openness does not in any way plays a key role in promoting economic growth in Nigeria. Although this finding negates our a priori expectation, it strengthens the stand point of the protectionists. According to the protectionists, any government that opens up its economy for global integration should be ready to face economic distress. This describes the true picture of the Nigeria economy at the moment. Similarly, the finding revealed that FDI entry is detrimental to growth process in Nigeria, aligning with the dependency theory. According to the dependency theory, FDI entry is a distraction to the economy of the recipient nations. Thus, the study concludes that economic integration is hazardous to the national economy of Nigeria, hence, recommendation is made for the government to embrace import substitution industrialization trade policies to replace imports with the domestic products.

Keywords: Economic Openness, FDI-entry, Economic Growth, ARDL Model

Jel Code: F13; F43; E61; C22

Introduction

Economic theories abound which asserts that the external sector generally plays a complementary role to the domestic resources in the quest to achieve economic growth. For instance, the comparative cost advantage among others is of view that countries that engaged in international trade will definitely derive some gains that will aid and induce their economic growth. In a related development, the MacDougall-Kemp Hypothesis as postulated by MacDougall (1958) and Kemp (1964) lent their support to economic openness through the medium of capital transfer across boards. They are of the opinion that financial transactions across board in the form of Foreign Direct Investment (FDI) entry is strong enough to induce economic growth. This still points to economic trade. According to this theory, the profit of foreign investment in the domestic economy will benefit both the investing country and the recipient nation. The critical role of trade openness is the freedom of transaction across the borders of the trading partners without any limit or minimum constrain Nteegah *et al.*, (2017). According to the study, economic openness could result in the diffusion of innovation and technical know-how with which to amplify the local resources for greater output and performance. Similarly, the Keynesian model of national income recognised the potency of economic openness in achieving economic growth in the domestic economy. The proponent of the model maintained that the domestic economy gains significantly particularly when export

¹ Faculty of Economic & Financial Sciences, Walter Sisulu University, South Africa, Email: ade_kutu@yahoo.com & akutu@wsu.ac.za



exceeds import. More importantly, the Solow (1956) growth model postulate the necessity aggregate output which account for economic growth to economic factors such as technology, labour and capital. Thus, both trade openness and FDI entry cause the inflow of both capital and technological transfer to the domestic economy. And these factors are crucially needed to achieve the desired economic growth of the domestic economy. The implication is that the domestic economy cannot advance successfully in isolation of the foreign economies.

From independence up until the early 70s, Nigeria's economy was among the African countries that were not fully open to global economies, particularly the Western world. Most of its trading partners were within Africa and the West Africa sub-region, in particular. The trade restriction was a deliberate move by the then governments to achieve self-sustenance and, thus, economic growth (Joshua *et al.*, 2020). In fact, the drive was to depend solely on domestic resources in order to induce the desired level of economic advancement. This attempt failed as the government soon discovered that the nations that are engaged in economic openness seem to be growing significantly against its view on openness. The government was propelled to open its economy for global integration. This led to the adoption of various global economic strategies for globalization, which include the Structural Adjustment Programme (SAP) in 1986, as reported by Nteegah *et al.* (2017). Under the SAP arrangement, the national foreign exchange system witnessed significant reforms, in addition to the reforms that took place in trade policies, businesses and agriculture regulations. From this time forward, the national economy began to open for international interaction in a significant way. The economy was open to transactions with many economies, including developed and developing nations. Both the international and the local trade experienced significant expansion in the country.

This prompted a lot of FDI flows into the country. The national economy began to favourably gain accelerated momentum in the FDI inflow over other economies in sub-Saharan Africa. Particularly, from the 1980s up until 2019, during the COVID-19, Nigeria's economy has been the leading recipient economy in Africa and in the West Africa sub-region UNCTAD (2020). In particular, the oil price glut in 1980 compelled the government to buy the idea of economic diversification resulting in the revolution of the external sector. A lot of trade-growth-driven strategies were put in place. This includes the Green Revolution of 1980 and the Export Promotion Strategy, which aimed to promote export among various countries Ojeyinka and Adegboye (2017).

The successive governments have made significant efforts to liberalize the national economy to obtain the said gain from openness. Nevertheless, the economy is still wallowing in a low level of growth characterized by inadequate savings, underutilization of national resources and unemployment (Umoru, 2013). This is worrisome as the national economy is still experiencing a sluggish growth rate.

During COVID-19, the volume of trade across the economic border experienced a significant decline, thereby weakens demand and stiffening labour conditions CBN (2021). This was also the case with the Nigerian's economy as her export and import declined by 67% and 30.4% in 2020 relative to 2019. The effect of COVID-19 was short lived as the national borders was reopened in 2021 thereby integrating the national economy back to the global market.

In the most recent time, the total merchandise trade stood at N31.8trn, representing an increase of 46.27% compared to 2023Q4 and 145.58% compared to 2023Q1. Exports accounted for 60.25% of total trade in 2024Q1, with a value of 19.167trn, an increase of 51% compared to the value recorded in 2023Q4, which was N12.6trn NBS (2023). Despite the improvement in the

trade transaction and the increase in the level of openness, the desired growth has not been achieved. For instance, the GDP grew steadily from low level in 1991 from \$59.15 billion to \$574.26 billion in 2014. Unfortunately, this did not last as the economic recession of 2015 sets in causing the GDP to drop to \$493.6 billion. The decline continued up to 2017, when the economy recorded its worst performance in the most recent time, with a GDP value of \$118.5. This raises a lot of concern even among the international organization about the fate of the Nigeria economy. Subsequently, the national economy bounced back from its recession where a steady growth was witnessed. Notably, economic growth witnessed a significant improvement in 2018. For instance, in 2017, the GDP stood at 118.5 billion. This experienced a drastic improvement with a record of \$421.7 billion achieved in 2018. Interestingly, by 2022, the GDP witnessed a significant shift to \$472.7 billion NBS, (2023).

Thus, from the foregoing, the potency of economic openness and FDI entry in enhancing economic growth in Nigeria remain unclear as it appears that the full potential of Trade liberalization has not been witnessed in Nigeria. This in part is evidenced in the challenging issues ranging from the problem of balance of trade, poverty and high rate of unemployment. Thus, the need to reassess the influence of trade openness on economic growth in Nigeria to ascertain the claim of the endogenous theory, which asserts that economic openness serves as a means of transportation that aids the process of technological transfer for the benefit of the domestic economy. This study sets out to test this position given the current reality in Nigeria whose economy is favourably open.

Literature Review

This session will deal with the literature aspect of the research work by review both the empirical and the theoretical underpinning associated with the issue of interest.

Theoretical Review

The Neoclassical growth theory led by Solow (1956) postulate the necessity aggregate output which account for economic growth to economic factors such as technology, labour and capital.

The theory states that short-term equilibrium results from varying amounts of labor and capital in the production function. The theory also argues that technological change has a major influence on an economy, and economic growth cannot continue without technological advances. This suggest that an economy cannot survive independently considering the fact that trade openness is one of the most powerful tools for technological diffusion and advancement. The theory believes that trade is a medium through which foreign technology flow to amplify the domestic technology.

The Ricardian Model of International Trade Theory

In order to effectively explore the efficacy of economic openness and enhance FDI entry into Nigeria's economy in stimulating economic growth, this study is further rooted from the Ricardian model of international trade theory. As revealed by Massetti and Mendelsohn (2011), the Ricardian model focuses on the special role that trade liberalization, and economic openness will have on the global economy. The model introduced the concept of comparative advantage for trade to effectively take place. It explains how and why countries engage in trade (as well as the need to attract FDI) by focusing on differences in labour productivity and technology, and further highlighted the concept of the opportunity cost of increasing output in one country using the idea of specialization. As a result, trade liberalization or openness in goods and services can

yield benefits, by facilitating trade in goods, which are larger than one might expect from analysis of the goods and services without trade or openness (Deardorff, 2001). The principle of comparative advantage deals with ability of a country to produce a particular good at a lower opportunity cost while specialization allows countries to benefit mutually from trade (Chu-Shore, 2010). Given this understanding and the mutual benefits, economic growth can therefore be achieved through economic openness and the inflow of FDI into the country.

Empirical Review

The debate as to whether trade openness promote economic growth is an ongoing one. The protectionists think that trade restriction is majorly good to protect the local industries from unhealthy external competition. While free trade opines that trade openness will help drive economic growth of the domestic economy. Various methods have been used empirically, to examine the contending views about the trade-growth led nexus. For instance, Agbarakwe *et al.* (2024) examine the relationship between economic openness and economic expansion in Nigeria using the fully modified OLS approach. Finding from the estimation revealed that economic openness is a key determinant of economic advancement in Nigeria in the period under investigation. This implies that openness up of the Nigeria economy will benefit the process of growth. Ejeh (2019) lent support to the potency of trade liberalization in Nigeria as evidence in the strong favourable effect of economic openness on economic progress. According to the study which spanned from 1982 to 2012, trade liberalization is a key determinant of economic growth. The finding from the study validates the trade-led growth hypothesis in Nigeria. This shows that economic integration will enhance advancement of the national economy.

In contrast, a negative connection between economic growth and inflation was found. Yakubu and Akanegbu (2018) adopted the OLS techniques to intuitively investigate the influence of trade openness on economic progress in Nigeria from 1981 to 2017. The finding of the estimated model proved that that all the variables Degree of Openness (DOP), FX and Per Capita Income (PCI) demonstrate a strong favourable effect. Also, a one-way causal effect was found running from DOP to real GDP. Agbo *et al* (2018) found a strong positive effect of export trade on economic growth, while import trade was found to exert positive but weak influence on economic progress from 1980 to 2012 using OLS method. This suggest that export pays the economy more than import.

In contrast, some studies adopted the dynamic ARDL in an attempt to ascertain the potency of trade openness. Eberechukwu *et al.* (2024) adopted the dynamic ARDL approach to examine the relationship between trade openness in Nigeria from 1982 to 2021. Finding from the study revealed that trade openness enhances economic growth in the period investigated aligning with the finding from the OLS method. Navarro, *et al* (2024) examine the connection between trade openness and economic advancement in Peru using the dynamic ARDL approach and granger causality. The finding proved that trade openness exerts strong positive influence on economic growth in both the immediate period and future term, while a two-way causal link was found between trade openness and economic expansion. The work of Omoke and Opuala–Charles (2021) investigates the effect of economic globalization on economic progress by incorporating industrial quality as a control variable to check its role and relationship for the period spanning from 1984 to 2017 using ARDL model. It was found that the negative long run effects of import trade on economic growth in Nigeria reverses when institutional quality is enhanced. This suggest that despite the perceived negative effect of import trade, strong and quality institution base will convert the negative effect to positive outcome to stimulate economic growth.

Using the dynamic ARDL approach, Duru *et al* (2020) investigate the connection between trade liberalization and economic progress in Nigeria from 1981 to 2018 and found that trade openness is not a key determinant of economic expansion. The implication the outcome is that trade openness is not potent enough to drive economic growth in Nigeria, invalidating the previous finding from both the ARDL model and the OLS model. Shockingly, the existence of one-way causal effect was noticed running from real GDP to trade liberalization in Nigeria. This validate the Wagner's law which implies that economic growth is a promoter of state expenditure. The work of Alugbuo and Uremadu (2020) examine the influence of trade liberalization and trade entry in Nigeria spanning from 1981 to 2018 by using the ARDL model for the analysis of the model. Finding revealed evidence of a negation influence of trade openness in both immediate period and the future term. Similarly, import volume index proved to exerts a negative influence on real GDP for the current year and in the long run, while export volume index promotes economic growth in a weak manner in the previous year's lags. This is totally the opposite of the previous findings from the ARDL model and the OLS model respectively.

Ejike *et al* (2018) and Ajayi and Araoye (2019) carry out separate studies on the influence of trade openness on economic growth in Nigeria. Findings from the two different studies confirmed the efficacy of economic globalization in enhancing economic expansion. Elijah and Musa (2019) in their quest to add to the ongoing debate, examine the dynamic effect of trade openness on economic progress in Nigeria from 1980 to 2016 using ARDL. Finding revealed that trade openness account for the negative variation in economic advancement in both the immediate term and the future term.

Abubakar (2023) examined the relationship between trade openness and economic growth in the sub-Saharan African economies by adopting the framework of the dynamic ARDL model and found that the former exerts a strong and positive influence on the later variable. Nteegah *et al* (2017) investigate the influence of trade liberalization and economic advancement in Nigeria from 1970 to 2012 using the ARDL model. Finding revealed that oil export and non-oil import demonstrate a positive significant effect on the performance of the economy both in the immediate term and future term. In contrast, both oil and non-oil imports exert a negative influence on economic progress in both the immediate period and future term.

Odebode and Oladipo (2021) using Vector Error Correction Model (VECM) examined the relationship between trade liberalization and economic expansion in Nigeria from the first quarter of 1981 to the fourth quarter of 2018. Finding reveals that the effect of trade openness on the national economy is strong and positive. According to the finding of Danladi *et al* (2021), trade liberalization is a key determinant of economic advancement in Nigeria. Specifically, results from the VECM analysis shows evidence of a one way long run strong influence of trade liberalization on industrialization. However, the Granger-causality test shows evidence of causal relationship running from trade liberalization to industrialization.

Ojeyinka and Adegboye (2017) conducted an empirical test on the connection between trade liberalization and the performance of the Nigerian economy, with specific focus on agricultural and manufacturing sectors from 1981 to 2014 using the Generalized Method of Moment (GMM) Technique. Exchange rate was found to exert a weak positive influence on agricultural output while, inflation exerts a strong influence on agricultural output.

In general, the finding from the previous which used ARDL model, OLS, VECM and GMM achieved a conflicting outcome without any reasonable conclusion. Hence, the need to further probe empirically into the trade-led growth hypothesis in the case of Nigeria. Besides, the data

time frame is one of the motivations for this study. In recent time, the economy of Nigeria is widely open for global integration. The country has entered into bilateral agreement with several country in an attempt to boost the shortfall in the domestic economy. However, the more the economy is exposed to the global market, the more economic distress confronting the economy. Therefore, this study is timely as it seeks to empirically ascertain whether or not the steps of the government to open up the domestic economy is healthy or not.

In a related development, the impact of FDI entry on economic growth is not certain as there are conflicting submissions. For instance, Okwu *et al.* (2020) investigate the impact of FDI entry and economic growth of 30 leading global economies during the period between 1998 and 2017. Other variables considered in the analysis were domestic credit to private sector (DCPS), gross fixed capital formation (GFCF), inflation–consumer prices index (INFPC), trade openness (TOPNESS), and youth unemployment (UEMPYT). Finding from the study revealed that indicate that FI entry in particularly exerts positive and strong effect on economic growth of the countries during the period. Thus, the research is of the opinion that FDI inflows induced economic advancement and emphasized the need to promote policies to woo more FDI into these countries for sustainable economic growth. Onigah (2024) examined the effects of foreign direct investment (FDI) on the economic growth in Nigeria 1985-2019). The study employed the use of Ordinary Least Square (OLS) regression technique to test the time series data from 1985 – 2019. Finding validate the extant literature which asserts that FDI entry is a strong determinant of economic growth in an economy aligning with the work of Amade and Oyigebe (2024) and Omang *et al.* (2024). in Nigeria.

Aleksandravičienė *et al.* (2024) were spurred to examine the role of international trade and foreign direct investment (FDI) on the growth- unemployment nexus of 28 EU countries from 200 to 2019. Result shows that import, export, inward FDI, and out- ward FDI exert a negative effect on the growth-unemployment nexus. This suggest that with an increased economic openness, the influence of gross domestic product (GDP) growth on unemployment becomes less significant. Thus, the potency of expansionary fiscal policy to reduce unemployment becomes less effective in more open economies.

Research Methodology

This study employs the ARDL approach for the estimation of the model to achieve the stated objective. The main objective of this study is to investigate the effect of trade liberalization on economic prosperity of Nigerian between the period of 1985 and 2022 using an annual data set. The starting and cut-off date for the data set are dictated by data availability and an attempt to stay current. The choice for using the ARDL model is based on the fact that it can be used irrespective of the order of integration of the variables Paul *et al.*, (2011). Secondly, the model can take a wide range of lags and is good for both small and large sample sizes McCann *et al.*, (2010). Finally, the dynamic Error Correction Model (ECM) can be generated from the ARDL model which can be employed for long run analysis. Details of the ARDL method adopted will be discuss in the subsequent subsection.

Model Specification

Generally, the neoclassical growth theory led by Solow (1956) postulate the necessity aggregate output which account for economic growth to economic factors such as technology, labour and capital. The expression for aggregate output according to the model is:

$$Y = f(A, K, L)$$

Where; Y= aggregate output

A= level of technology available

K= size of capital stock

L = labour quantity employed together with size of capital

Thus, this study leverage on the postulation of this theory to advance it model which is empirically supported by the extant literatures such as Duru *et al* (2020) among others. In essence, the linear model given its incorporated variable is stated as follows:

$$GDPG = f(TO, GGFCE, FDI, POP, EXR) \quad 1$$

Where; **GDPG** is gross domestic products growth rate, **TO** indicates economic openness, **FDI** is foreign direct investment, **POP** is population, **GGFCE** is general government final consumption expenditure, **EXR** is exchange rate. All variables were transformed to logarithm form except GDPG that was already in its natural log. Thus, trade openness represents technological advancement, FDI represent investment in the neoclassical growth theory, population stands for labour, while the general government expenditure is a necessary factor that stimulate economic growth even as supported by the Keynesian growth model.

ARDL Bound Test

Majorly, the benefit of the ARDL approach to co-integration is that it serves as a means of resolving the problem of endogeneity. The single equation defining the individual underlying variables demonstrate a no existence of residual correlation, thereby cancelling the problem of endogeneity. Also, the Error Correction Model (ECM) can be derived from ARDL model through a simple linear transformation, which integrates short run adjustments with long run equilibrium without losing long run information. If the F-statistics shows evidence of a long run relationship, the ARDL error correction representation is confirmed to be comparatively more efficient and effective Joshua (2019). In accordance with the Pesaran *et al* (2001) and Wong and Hook (2018), the bound test for co-integration equation as adopted by this study given it variables is specified as follows:

$$\begin{aligned} GDPG_t = & \alpha_{01} + \beta_{11}GDPG_{t-i} + \beta_{21}TO_{t-i} + \beta_{31}GGFCE_{t-1} + \beta_{41}FDI_{t-1} + \beta_{51}POP_{t-i} \\ & + \beta_{61}EXR_{t-i} + \sum_{i=1}^p \alpha_{1i}GDPG_{t-1} + \sum_{i=1}^q \alpha_{2i}\Delta TO_{t-1} + \sum_{i=1}^q \alpha_{3i}\Delta GGFCE_{t-1} + \\ & \sum_{i=1}^q \alpha_{4i}\Delta FDI_{t-1} + \sum_{i=1}^q \alpha_{5i}\Delta POP_{t-1} + \sum_{i=1}^q \alpha_{6i}\Delta EXR_{t-1} + \mu_{it}. \end{aligned} \quad 2$$

Hypotheses:

H_0 (longrun relationship does not exists): $\beta_{1i} = \beta_{2i} = \beta_{3i} = \beta_{4i} = \beta_{5i} = \beta_{6i} = \beta_{7i}$

H_1 (longrun relationship does exists): $\beta_{1i} \neq \beta_{2i} \neq \beta_{3i} \neq \beta_{4i} \neq \beta_{5i} \neq \beta_{6i} \neq \beta_{7i}$ (i = 1, 2)

Decision rule: Reject H_0 if F-statistics is greater than the upper bound critical value. That is, there is a long run relationship between the explained and the explanatory variables.

3.3 Error Correction Model

The Error Correction Model (ECT) is generally referring to the speed of adjustment parameter which determine the extent to which short run disequilibrium can be corrected in the long run.

It explains the level to which any deviation experienced in the dependent variable (Y_t) has been adjusted in the previous period. This is critical because most time the policy maker look forward for the long run cointegration for policy formulation, thus, the co-integration test and error correction model becomes imperative (Joshua, 2019). An error correction model allows us to study the short run dynamics in the relationship between y and x (Wooldridge, 2015).

The ECM specification for the model of this study is given following the submission of Wooldridge (2015) as:

$$GDPG_t = \alpha_{01} + \sum_{i=1}^p \alpha_{1i} GDPG_{t-1} + \sum_{i=1}^q \alpha_{2i} \Delta TO_{t-1} + \sum_{i=1}^q \alpha_{3i} \Delta GGFCE_{t-1} + \sum_{i=1}^q \alpha_{4i} \Delta FDI_{t-1} + \sum_{i=1}^q \alpha_{5i} \Delta POP_{t-1} + \sum_{i=1}^q \alpha_{6i} \Delta EXR_{t-1} + \lambda ECT_{t-1} + \mu_{it}$$

Where;

- $\lambda = (1 - \sum_{i=1}^p \delta_i)$, speed of adjustment parameter with a negative sign.
- $ECT = (lngdp_{t-i} - \theta X_t)$, the error correction term
- $\theta = \frac{\sum_{i=0}^q \beta_i}{\alpha}$, is the long run parameter
- $\alpha_{1i}, \alpha_{2i}, \alpha_{3i}, \alpha_{4i}, \alpha_{5i}, \alpha_{6i}, \alpha_{7i}$ are the short run dynamic coefficients of the model's adjustment long run equilibrium.

If $\lambda > 0$ and $lngdp_{t-i} > \theta X_t$ then it implies that GDPG in the previous period has surpass the stable point. But since $\lambda > 0$, the error correction term works to reverse y backward toward the stable point. The same thing applies when $lngdp_{t-i} < \theta X_t$, the error correction term induces a positive change in GDPG back toward the equilibrium (Wooldridge, 2015). A negative coefficient of the EC_i indicates a convergence towards the dependent variable, while the opposite holds if the said coefficient is positive. If the coefficient of $ECT = 1$, then the speed of the adjustment is high at 100%. Similarly, 0.5 represents 50% in that order, $ECT = 0$, indicating the absence of adjustment without a long-run relationship Nkoro and Uko (2016).

Presentation and Analysis of Empirical Result

In other to ascertain the level of integration of the variable, a unit root test was carried out. One of the key advantages of the unit root test is avoid spurious result which is capable of misleading. To this end, this study employed the Augmented Dicky Fuller (ADF) unit root test to ascertain the level of integration of the variables incorporated in the empirical model. The conclusions and assertions that would be made in this section would be based on the rule of thumb which states that if the probability is less than 5% significant level then the variable is stationary. The unit root test estimated and reported in Table 1 shows that except for GDPG and GGFCE, all other variables passed stationarity test at level given 5% degree of freedom. In essence, trade liberalization, FDI entry, population and exchange rate achieve an $I(0)$ order of integration, while GDPG and GGFCE passed the unit root test at $I(1)$. This present a case of a mixed order of integration $I(0)/I(1)$ which suggested the adoption of the dynamic ARDL method of analysis.

	ADF	ADF	Order of integration
Variables	Level	First Difference.	O(I)
<i>GDPG</i>	-3.4401*** (0.0162)	-4.3521*** (0.0005)	I(1)
<i>LnTO</i>	-1.3437*** (0.0086)	-9.0636*** (0.0000)	I(0)
<i>LnGGFCE</i>	-1.3437 (0.5981)	-6.1152*** (0.0000)	I(1)
<i>LnFDI</i>	-3.2900*** (0.0017)	-7.8613*** (0.0000)	I(0)
<i>LnPOP</i>	-3.71419** (0.0342)	-1.2020 (0.6622)	I(0)
<i>LnEXR</i>	-4.6297*** (0.0042)	-3.7399*** (0.0078)	I(0)

Table 1: ADF Stationarity Test Result

Source: Author's Computation.

As shown in Table 2, this study seeks to select a suitable lag length for the ARDL model, by considering the establishment of criteria in the literature, the Akaike information criterion (AIC) and Schwartz-Bayesian information criterion (SIC). These criteria are normally used to choose optimal lag in a distributed lag model having single variable Rotimi *et al.* (2019). The criteria for the lag selection suggests that the lag with the least criterion be considered. Consequently, the order of lag criteria is final prediction error (FPE), Schwarz information criterion (SC), and Akaike information criterion (AIC), and Hannan Quinn information criterion (HQ). For this model, optimal lag 1 is the most preferred by each criterion. It is specified using asterisks.

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1255.275	NA	1.31e+23	64.57823	64.74885	64.63944
1	-1126.841	16.919*	4.06e+20*	58.76988*	59.66546*	59.11844*
2	-1110.013	25.88952	4.12e+20	58.81235	60.30547	59.32084
3	-1097.323	223.9372	5.17e+20	58.93963	61.15771	59.73546

Table 2: Optimal Lag Length Selection Criteria

Source: Authors Computation

It was Pesaran and Shin (1999) and Pesaran *et al* (2001) that developed the ARDL bound as a better alternative to the Johansson cointegration test for the purpose of determining the existence of a long run relationship among variables. The advantage of the ADRL approach over other method is that it can be adopted irrespective of the order of integration, and it is inbuilt. Joshua (2019) asserts that the finding from this method is more reliable and more efficient for policy implication.

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	5.62009	10%	2.34	3.41
K	4	5%	2.52	3.72
		2.5%	2.84	4.68
		1%	3.41	4.68
Actual Sample Size	33		Finite Sample: n=35	
		10%	2.508	3.763
		5%	2.131	4.443
		1%	4.257	6.04

Table 3: Cointegration Test

Source: Researcher's Computation.

The result of the ADRL co-integration test presented in Table 3 shows that the F-Statistics is 5.62009 which is comparatively higher than both the lower and upper critical values of 2.131 and 3.72 respectively at 5% significances level. This confirmed the existences of a long run relationship between the variables. Given this finding, the null hypothesis of no existence of a long run relationship among the dependent and independent variables is rejected, and we conclude that there is evidence of a long connection between the variables of the model.

Table 4 reports the result from the short run estimation of the model which represent the immediate dynamic link between the series. Specific finding shows that economic openness exerts strong adverse effect on economic growth in the current year such that a 1% increase in economic openness would militate against economic expansion by 0.2%. This is similar to the finding of the previous year. In the previous year, 1% increase in economic openness will hurt economic growth by 0.1% in the period under investigation. Although this negate our appriori expectation, it aligned with the standpoint of the protectionist. Intuitively, Nigeria seems to be importing more than it export thereby resulting to the problem of balance of payment. Generally, Nigeria is tagged as a consuming economy. It relies on importation of almost every consumer's goods, thereby promoting the foreign economies. Similarly, a change in GGFCE explains a weak and negative variation in GDPG in the current year. This suggest that general government final consumption expenditure (GGFCE) is not a strong determinant of economic growth in Nigeria, invalidating the theoretical underpinning as propose by the Keynesians, as well as the empirically work of Joshua (2019) in case of Nigeria. According to the study, government expenditure is a key determinant of economic growth in the short run. In the previous year, the effect of government expenditure on economic growth is strong and negative, implying that the former militate against the later variable. The population endowment of the country exerts weak and positive impact on economic expansion in the current year. While in the previous year, the finding indicates evidence of weak and negative effect on economic growth. This implies that the population of the country may not have the pre-requisite, or the threshold needed to add to economic in the immediate term. Also, a change in FDI entry exhibit a negative impact on GDPG at 5% confidence level. This implies that FDI inflow is not a negative exponential determinant of economic growth in the short run. Specifically, a 1% increase in FDI will retard economic growth by 0.02% in the current year. The effect is opposite in the previous year. In

the previous year, a 1% increase in FDI entry will promote economic growth unnoticed by 0.02%. In contrast, exchange rate exerts weak impact on GDPG in the current year, but strong effect in the previous year. Thus, a 1% increase in Exchange rate would induce GDPG by 0.0004% in the current year. The effect in the previous year is strong such that a 1% improvement in EXR exerts a 0.0008% significant increase in economic growth.

Further finding validates the statistically significant negative coefficient of the error correction term (ECT) as captured by **CointEq(-1)** which represent the speed of adjustment in the long run. The implication is that in the long run, the deviation of the independent variables from the regressant will be corrected, and thus, the equilibrium position will quickly be restored at the speed of 76.5%.

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	10.5611	3.1097	3.3961	0.0060
D(LNTO)	-0.1538	0.0525	-2.9323	0.0136
LNTO(-1)	-0.1199	0.0571	-2.1007	0.0595
D(LNNGFCE)	-0.0001	0.0187	-0.0057	0.9956
D(LNNGFCE(-1))	-0.0435	0.0175	-2.4927	0.0299
D(LNPOP)	-14.6800	25.8008	-0.5690	0.5808
D(LNPOP(-1))	13.4371	38.9805	0.3447	0.7368
D(LNFDI)	-0.0298	0.0129	-2.3145	0.0410
D(LNFDI(-1))	0.0204	0.0106	1.9243	0.0806
D(EXR)	0.0004	0.0004	1.1215	0.2860
D(EXR(-1))	0.0009	0.0004	2.2738	0.0440
CointEq(-1)*	-0.7648	0.1080	-7.0799	0.0000

Table 4: Result of Short Run Estimation

Source: Researcher's computation.

The result of the long run estimation presented in Table 5 revealed that economic openness exert a strong negative impact on economic growth in Nigeria. A 1% improvement in economic openness will slow down the pace of economic growth by 0.15% in the long run and vice versa. Although this invalidate our apprior expectation, it aligned with the proponent of the protectionist. According to their argument, economic openness will pose danger to the domestic economy through weakening of the local or infant industries. This is the critical state of the Nigerian economy as a result of overdependence on the external economy instead of building the domestic productive capacity that will lead to self-reliance. The over reliance on foreign products has cause the closure of many of the local industries which were producing goods for export.

Today, Nigeria imports virtually everything including food products which could be produce locally given the vast and fertile agriculture land of the country. In fact, the economy has been classified as a consuming economy, expanding market for the foreign products at the detriment of the local products. According to the protectionists, a consuming economy like Nigeria should not expect any meaningful economic growth. The assertion of the protectionists is support by extant literature such as Omoke and Opuala–Charles (2021) and Duru *et al* (2020) in Nigeria. According to these studies, trade liberalization poses danger to economic advancement in

Nigeria. However, this contravened the stand point of the work of Agbarakwe and Bredino (2024), Eberechukwu *et al* (2024) and Abubakar (2023) who found strong positive influence of trade openness on economic growth in Nigeria.

Aligning with our apriori theoretical expectation, evidence shows that GGFCE exerts a strong positive influence on economic expansion in Nigeria. Specifically, a 1% improvement in government expenditure will result to a 0.17% improvement in economic growth. This aligns with the Keynesian theory of national income. According to the model, an increased government expenditure will naturally enhance the cause of economic advancement in a given economy. Empirically, the work of Joshua (2019) in the case of Nigeria lent support to the finding. Contrarily, population endowment proved to influence GDPG positively and insignificantly. Thus, a 1% increase in POP would promote GDPG by 0.48. This implies that the vast population of Nigeria does not significantly foster economic growth within the period under study. This might not be unconnected with the failure of the government to get the people engaged through domestic industries rather than overdependence on importation.

In addition, FDI entry demonstrates a strong negative effect on economic growth. Thus, a 1% increase in FDI entry would result in a decrease in GDPG by 0.08%, invalidating the FDI-led growth hypothesis. According to the hypothesis, foreign capital is needed to promote economic growth. Finally, EXR indicates a strong positive impact on economic progress. Precisely, a 1% improvement in the exchange rate accounts for an enhancement of GDPG by 0.001%, indicating that EXR would spur growth in the long run, as corroborated by Ejeh (2019) and Nteegah *et al.* (2017) in Nigeria.

Variables	Coefficient	Std. Error	t-Statistic	Prob.
TO	-0.156792	0.051289	-3.057058	0.0109
GGFCE	0.176084	0.026635	6.610969	0.0000
POP	0.486339	0.238112	2.042480	0.0658
FDI	-0.081813	0.027887	-2.933707	0.0136
EXR	0.001752	0.000502	3.493368	0.0050

Table 5: Output from the ARDL Long Run Result

Source: Researcher's computation.

In general, this study's finding revealed that the Nigerian economy in the period under review is positively and significantly induced by government expenditure and exchange rate only. In essence, the growth experienced during this period is government-spending-induced. This is instructive to the government and the stakeholders.

To ensure the validity, stability, and credibility of the model, this study conducted four diagnostic tests on the model. The results of these tests are depicted in Table 6. The residual normality test measures the normality of the variables' residuals. Findings show that the probability value of the Jarque-Bera Normality test (0.5092) is greater than universally accepted 5% significance level. By implication, the series are said to be normally distributed have fulfilled the condition to reject the null hypothesis. Similarly, Breusch-Godfrey Serial Correlation LM Test was carried out to ascertain whether or not a serial correlation exists in the model. Again, we failed to reject the null hypothesis assumption of no serial correlation, given that the probability value (0.6039) is greater than the 5% significance level. The case is similar with the

finding of the Heteroscedasticity test conducted which revealed a probability value (0.9852) greater than the standard 5% degree of freedom hence, we conclude that the models is reliable. Ramsey-Reset probability value (0.0948) is greater than the 5% significance level, thus, we conclude that the model is well specified, suggesting the invalidation of the assumption of misspecification of model.

TESTs	F. Statistics	PROB.	DECISION RULE
Normality Test	1.3494	0.5092	Residuals are normally distributed
Serial Correlation	0.5338	0.6039	Absence of Serial Correlation
Heteroscedasticity	0.3343	0.9852	Absences of heteroscedasticity
Ramsey- Reset	1.8448	0.0948	Model is well specified

Table 6: Diagnostics Tests

Source: Researcher’s Computation.

To ascertain the stability of the model, the study subjected the models to cumulative sum of recursive residuals (CUSUM) and the cumulative sum of recursive residuals of the squares (CUSUM of square) tests and the output presented in Figure 1. The result of the stability tests indicates that the plot of the CUSUM statistics and CUSUM of squares for both models are within the critical bound. Hence, the model is stable and fit for policy implications. In conclusion, the evidence from the findings shows that the estimated model is reliable, stable, valid and credible since the model passed all the diagnostics and stability tests.

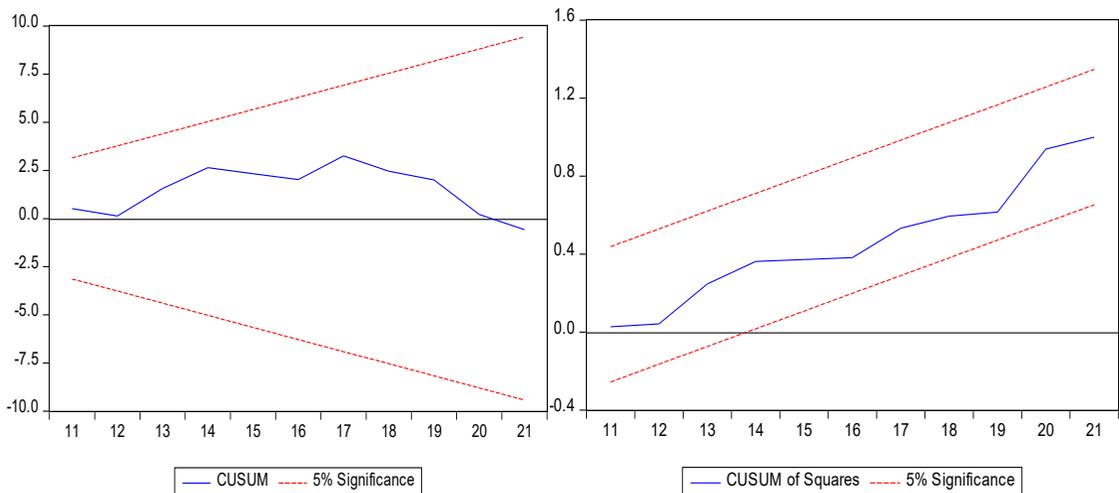


Figure 1: CUSUM Test and CUSUM of Square.

Conclusion and Policy Implication

The main objective is to ascertain the efficacy of economic openness and FDI entry in achieving economic prosperity for Nigeria within the specified period from 1986 to 2022. The finding

revealed that both trade openness and FDI entry exert strong negative influence on economic progress of Nigeria in the period under investigation. This invariably implies that a reduction in the level of openness and FDI entry will trigger improvement in economic growth. The shocking outcome negates our a priori expectation as well as the proponent of trade-led growth hypothesis and FDI-led growth nexus. However, it validates the theoretical claim of the protectionists. According to the protectionist, economic openness is detriment to the domestic economy as it robs the domestic economy the opportunity to attain the level of self-reliance. This is further supported by the extant literature such as Omoke and Opuala–Charles (2021) and Duru *et al* (2020). This calls for the adoption of import substitution policies to encourage local productivity. Thus, import substitution industrialization trade and economic policy should be revisited to replace foreign imports with domestic production.

The Nigeria government should drastically reduce its foreign dependency policies through the local production of industrialized products. The government should pay serious attention to the diversification policy put in place by the past administration in an attempt to revive other sectors of the economy especially the agriculture sector that has been neglected in favour of the oil sector. If this is done, the economy will attain the height of self-sustenance in the nearest future, thereby achieving the desired economic growth which is expected to translate to improving standard of living for the citizens. Also, the FDI entry should be discouraged. More effort should be made to amplify and develop the domestic technology for possible innovation that is capable to cause economic growth. The national economy should depend on the domestic resource by borrowing from the domestic money market rather than resorting to foreign resources. Intuitively, one possible way of harming the domestic economy by the foreign resources is capital flight – the repatriation of the profit from the domestic economy to the investing economy. In a clearer term, thus, the government should pay significant attention to human capital development by improvement the education system of the country. The finding also failed to establish the FDI-led growth nexus, meaning that the economy of Nigeria is not FDI-induce.

In contrast, government expenditure demonstrates strong positive impact on economic growth in the period reviewed. This implies that state spending in Nigeria serves as a catalyst that propel economic advancement which corroborate the work of Joshua (2019) and validates the Keynesian model stand. Government can still do more to improve the performance of government spending by ensuring close monitoring of the spending to avoid siphoning by corrupt government officials. Shockingly, population endowment from which workforce is drawn demonstrate weak positive influence on economic growth, suggesting that the teeming human capital of Nigeria may have lack the threshold required or fully engaged to convert other resource to economic growth. This contravened the Solow growth model which asserts that human capital is necessary to stimulate economic growth in any economy. Intuitively, Nigeria is endowed with population but lack the quality education or training to harness the human resources. The government need to do more in the areas of improving the educational system to harness the human resource to attend the minimum threshold needed to trigger economic growth. Finally, Exchange rate was found to exert strong positive influence on economic progress in Nigeria. This call for monetary authorities to monitor and ensure stability of the exchange rate at a manageable rate. That way, it will foster competitiveness and improve export growth rate for the economy.

References

Abubakar, M. (2023). Globalisation and output growth nexus in sub-saharan Africa: the critical role of

- trade liberalisation. *Journal of the Knowledge Economy*, 1-23.
- Agbarakwe Ugochukwu Henry & Bredino Samson, M. (2024). Trade Liberalization & Economic Growth in Nigeria (1981–2022). *Cross Current Int J Econ Manag Media Stud*, 6(2), 48-52.
- Agbo, E. I., Agu, A. E., & Eze, L. O. (2018). Impact of international trade on the economic growth of Nigeria. *European Journal of Business and Management*, 10(18), 22-30.
- Aleksandravičienė, A., Butkus, M., & Kadisa, T. (2024). Assessing the effect of trade and FDI on growth-unemployment nexus. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 19(1), 59-91.
- Alugbuo, J. C., & Uremadu, S. O. (2020). Trade liberalization and trade inflows: A study of Nigeria's economy using ARDL model approach. *GSC Advanced Research and Reviews*, 4(1), 031-045.
- Amade, M. A., & Oyigebe, P. L. (2024). Foreign Direct Investment and the Nigerian Economy: An Empirical Analysis. *International Journal of Economic Behavior and Organization*, 12(2), 46-66.
- Central Bank of Nigeria (2021). *Economic Report*.
- Chu-Shore, J. (2010). Homogenization and specialization effects of international trade: are cultural goods exceptional?. *World Development*, 38(1), 37-47.
- Danladi, J. D., EJEKWOLU, C. C., & Falaye, M. H. (2021). Trade liberalization–Industrialization nexus; a case study of the nigerian economy.
- Deardorff, A. V. (2001). International provision of trade services, trade, and fragmentation. *Review of International Economics*, 9(2), 233-248.
- Duru, I. U., Okafor, B. O., Adikwu, F. O., & Njoku, F. C. (2020). Trade Liberalization
- Eberechukwu, O. C., Chinyere, I. M., & Ihenchukwukwu, E. D. (2024). Iterative effects of trade openness and foreign direct investment on economic growth in Nigeria. *World Journal of Advanced Research and Reviews*, 21(2), 633-646.
- Ejeh, D. O. (2019). *Trade Liberalization and Economic Growth in Nigeria (1982-2012)* (Doctoral dissertation, Dublin, National College of Ireland).
- EJIKE, D. C., ARINZE, A. S., & CHIDI, O. F. (2018). Trade liberalization and economic growth in Nigeria: a cointegration analysis (1980-2015). *GPH-International Journal of Business Management (IJBM)*, 1(1), 68-81.
- Ejike, D. C., Arinze, A. S., & Chidi, O. F. (2018). Trade liberalization and economic growth in Nigeria: a cointegration analysis (1980-2015). *GPH-International Journal of Business Management*, 1(1), 68-81.
- Elijah, S., & Musa, A. B. (2019). Dynamic impact of trade openness on the economic growth in Nigeria. *International Journal of Engineering and Advanced Technology*, 8(5), 609-616.
- Joshua, U. (2019). An ARDL approach to the government expenditure and economic growth nexus in Nigeria. *Academic Journal of Economic Studies*, 5(3), 152-160.
- Joshua, U., Salami, O. M., & Alola, A. A. (2020). Toward the path of economic expansion in Nigeria: The role of trade globalization. *Journal of Labor and Society*, 23(2), 205-220.
- Masseti, E., & Mendelsohn, R. (2011). Estimating Ricardian models with panel data. *Climate Change Economics*, 2(04), 301-319.
- McCann, C. M., Baylis, M., & Williams, D. J. (2010). The development of linear regression models using environmental variables to explain the spatial distribution of *Fasciola hepatica* infection in dairy herds in England and Wales. *International Journal for Parasitology*, 40(9), 1021-1028.
- National Bureau of Statistics (2023) <https://nigerianstat.gov.ng/elibrary/read/1241288>
- Navarro, C. E. B., Álvarez-Quiroz, V. J., Ruiz, J. D. M., Alvarado, J. F. C., & Silva, R. H. (2024). Natural gas, trade openness and economic growth in Peru: 1965–2022. *Energy Strategy Reviews*, 53, 101428.
- Nkoro, E., & Uko, A. K. (2016). Autoregressive Distributed Lag (ARDL) cointegration technique: application and interpretation. *Journal of Statistical and Econometric methods*, 5(4), 63-91.

- Nteegah, A., Nelson, M., & Owede, V. M. (2017). Trade liberalization and economic growth in Nigeria. *International Journal of Social Science and Economics Invention (IJSSEI)*, 3(01), 119-131.
- Odebode, A., & Oladipo, O. S. (2021). Does meaningful relationship exist between trade liberalization and economic growth? A case study of a small open economy. *Advances in Management and Applied Economics*, 11(2), 63-79.
- Ojeyinka, T. A., & Adegboye, A. A. (2017). Trade liberalization and economic performance in Nigeria: Evidence from agricultural and manufacturing sectors. *African Journal of Economic Review*, 5(3), 1-14.
- Okoye, L. U., Nwakoby, C. I., Modebe, N. J., & Okorie, U. E. (2016). Impact of economic liberalization on the growth of the Nigerian economy. *African Banking and Finance Review*, 2(2).
- Okwu, A. T., Oseni, I. O., & Obiakor, R. T. (2020). Does foreign direct investment enhance economic growth? Evidence from 30 leading global economies. *Global Journal of Emerging Market Economies*, 12(2), 217-230.
- Omang, N. S., Ahakiri, F. I., Kengne, F. P., Abang, S. O., & Ubi, P. (2024). Foreign Trade And Economic Growth In Nigeria: A Cointegration Approach. *Global Journal of Social Sciences*, 23(2), 209-227.
- Omoke, P. C., & Opuala–Charles, S. (2021). Trade openness and economic growth nexus: Exploring the role of institutional quality in Nigeria. *Cogent Economics & Finance*, 9(1), 1868686.
- Onigah, P. O. (2024). FOREIGN DIRECT INVESTMENT AND ECONOMIC GROWTH IN NIGERIA (1985-2019). *Journal of the Management Sciences*, 61(7), 194-204.
- Paul, B. P., Uddin, M. G. S., & Noman, A. M. (2011). Remittances and output in Bangladesh: an ARDL bounds testing approach to cointegration. *International Review of Economics*, 58, 229-242.
- Peasaran, M.H., Shin, Y., & Smith, R. (2001). Bounds testing approaches to the analysis of the level relationships. *Journal of Applied Econometrics*, 16, 289-326.
- Pesaran, M. H., Shin, Y., & Smith, R. P. (1999). Pooled mean group estimation of dynamic heterogeneous panels. *Journal of the American statistical Association*, 94(446), 621-634.
- Policy Review*, 8(3), 194-213.
- Qabhobho, T., Amoah, E. V. N., & Doku, I. (2022). Linkages between foreign direct investment, trade openness and economic growth in South Africa: Does exchange rate regime choice matter?. *Latin American Journal of Trade Policy*, 5(13), 59-86.
- Umoru, D., & Eborieme, M. (2013). Trade liberalization and industrial growth in Nigeria. *Journal of Poverty, Investment and Development*, 1(1), 148-156.
- UNCTAD (2020). *Handbook of Statistics*. <https://unctad.org/statistics>.
- Wooldridge, J. M. (2015). *Introductory econometrics: A modern approach*. Cengage learning.
- Yakubu, M. M., & Akanegbu, B. N. (2018). Trade openness and economic growth: Evidence from Nigeria. *European journal of Business, economics and Accountancy*, 6(4), 30-44.