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Working Paper

Toward the path of economic expansion in Nigeria: The role of trade globalization

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Toward the path of Economic Expansion in Nigeria: The Role of Trade Globalization [1]

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Research Department

Toward the path of Economic Expansion in Nigeria: The Role of Trade Globalization

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Abstract

There are debates regarding the effect of globalization on national economies, and whether or not trade openness has a significant positive or negative influence on economic expansion and development. Thus, this study is aimed at investigating the relationship between trade globalization and Nigeria's economic advancement. The autoregressive distributed lags (ARDL) model was employed for the time series data: real GDP, openness, foreign direct investment and population growth over the period 1981-2017. The findings of this estimation revealed that population growth is significant but inhibitor of economic prosperity (real GDP) in the short-term. However, the significant and long-run determinants of the real GDP are population growth and trade openness but not foreign direct investment. Furthermore, the Granger Causality test revealed that real GDP granger causes population growth. The study therefore concluded that trade openness and globalization are necessary for Nigeria's economic expansion and development. Consequently, the study opined that the land border closure policy recently implemented by the Nigerian government might necessitate a significant reassessment so that the economic development projections of the country are not hindered.

Keywords: Economic Expansion; Trade Globalization; Nigeria

1. Introduction

The issue of whether or not economic openness would lead to economic expansion has generated a serious debate for both pro-traders and protectionists. Traditionally, trade is

believed to have acted as an active agent for promoting economic prosperity for countries under various stages of development, by transmitting growth from one part of the world to another besides contributing to a more efficient allocation of resources within countries. For instance, Batuo et al., (2018) examine the interaction between financial instability, financial liberalization, financial development and economic growth in 41 African economies. The result proved that financial development and financial liberalization affect financial instability, while economic expansion causes a reduction in financial instability. The paper concludes that the level of the reduction in financial instability is higher in the pre-liberalization period, than in the post-liberalization period. The work of Asongu and Kodila-Tedila (2013) dwells on the relationship between trade, foreign aid and terror. Revelations from the findings show that bilateral aid does not significantly affect trade, while multilateral and total aid do so positively. The overall result indicates that foreign aid is a necessary but not a sufficient condition in tackling the effect of terrorism on trade which is related to Nyasha and Odhiambo (2017). Basically, the main purpose of trade globalization is to allow countries to export those goods and services that they can produce efficiently, and import the goods and services that they are at a disadvantage comparatively. According to Cicowiez and Conconi (2008), poverty is a public policy challenge that needs to be addressed. As such, globalization is perceived to be an important part of a policy package that can be used to spur economic growth and potentially reduce poverty. However, empirical evidences abound with conflicting interest as to whether or not trade-led growth hypothesis is a reality. For instance, several studies opined that trade openness or globalization affects output growth positively (see Alsamara 2019; Guei & Le Roux 2018; Rahman & Mamun 2016; Jadoom et al., 2015). Some studies with similar empirical results include: Siddiqui and Iqbal (2005), Nugent (2002), Ahmed & Anoruo (2000), Wacziarg (2001), Yanikkaya (2003), and Cloutier *et al* (2008).

Policy makers for example argued that trade globalization is good for the country as there are development opportunities that accompany free trade, such as transfer of technology which improves productivity and hence results in economic growth (see Umer 2014; Cloutier *et al.* 2008). On the contrary, Maune (2019) found that the relationship between goods and service imports and economic expansion was negative and significantly concretized. In some related studies, the civil society holds the position that trade globalization does not result in much gains for segments of the population such as farmers, who tend to be the greatest causalities of globalization (Morrissey and Mold 2006; Utkulu *et al.* 2004; Moon 1997; Greenaway and

Sapsford 1994; Shafaedin 1994; Agosin 1991). In Nigeria, the idea of openness embraced by the government as far back as 1980s seems to be a good step towards actualizing economic prosperity of the nation. From 1986, the Nigerian trade policies have been liberal in perspective with the exception of the most recent time where the government began to introduce some restrictions.

Furthermore, the Nigerian main trade policy instrument shifted remarkably away from tariffs to quantitative import restrictions, particularly import prohibition and import licensing from the mid 1970s. Today Nigeria is trading with so many economies both the developed and the developing ones which include China, UK, Japan and so on. Interestingly, scholars have established that relationship exists between globalization and Economic Growth in Nigeria vis-à-vis facilitation of bilateral trade and investment from international organizations among others (Olaifa et al. 2013). The study of Nwafor *et al.,* (2007) explains that with trade globalization there is a positive effect on urban household income.

However, the perceived positive impact of the increasing openness adopted by the Nigerian government on the economy seems to be a presumption or rather fallacy, as a result of constant economic downturn and backwardness of the Nigerian economy. Put differently, it appears that the more the Nigerian economy adopts the policies of trade openness, the more it experiences economic fluctuations such as recession (see Nurudeen *et al.* 2012; Ogujiuba *et al.* 2004). Thus, in recent times Nigeria has begun to embark on some measures that seem anti-globalization in nature such as placement of ban on selected imported products such as rice with the view to building a self-reliant and self-sustaining economy. Most recently, particularly in the year 2019, the Nigeria Government has enforced a policy of border closure which has attracted so much attention at the local and international levels. Many essential foreign goods are being restricted by the authority from flowing into the country with a view to produce substitutes locally. Unfortunately, the locally-made or substitutes are not available, thereby exerting untold constrain on Nigerians as regards free choice and taste of goods and services which is raising many unanswered questions in the minds of the Nigerians, especially as to whether or not to support the government's latest trade policy.

The above motivation informed the decision to revisit the trade-led growth nexus at this critical time in an attempt to provide an empirical policy direction and in light with the recent border closure policy of the government. Additionally, this study is also important because it

covers a longer time span as most recent studies could not seek to explain the relationship between trade globalization and economic prosperity in Nigeria beyond 2015 (Nwafor *et al.,* 2005; Babatunde 2009). To achieve this novelty, the study adopts the dynamic ARDL bound test to estimate time series data from 1981 to 2017. Therefore, it is believed that the current study will serve as a road map for Nigerian policy makers at this difficult time that requires crucial policy direction that is expected to correct the economy. The empirical evidence from the study is also expected to serve other African economies which may be in the same dilemma.

The rest of the sections are arranged as follows. In section two and three, the relevant literature that encapsulates the theoretical underpinning of trade openness and data description and modelling are respectively presented. While the empirical findings are subsequently discussed in section four, the last section (5) presents the concluding remarks with relevant policy pathway for policy makers.

2. Theories of Trade Openness and Empirical Review

Scholarly debate on trade openness has been informed by two strands of research with opposing perspectives. The first group of scholars known as the Modernists posited that the modernization theory favours outward-oriented economic strategies or the exponents of export promotion. The Modernist proponents further argued that free trade amongst nations of the world would equally benefit the less developed countries (LDCs) by expanding their activities through trade that would not have been possible if dependent only on their domestic economies. Another theory in support of trade globalization includes a theory credited to Eli Heckscher and Bertil Ohlin (the Heckscher-Ohlin model). The model provides an explanation for the rationale behind trade among countries. The theory emphasized on relative abundance of resources among countries and the need for trade between countries. The Heckscher-Ohlin model also attributes specialization among nations to trade. A country will specialize in producing a commodity with which it has abundant resources to produce and import commodities it has limited resources to produce. Thus, Khobai *et al.* (2018) are authors of one of the recent studies that lend empirical support to these theories. Specifically, Khobai *et al.* (2018) opined the relationship between openness and economic expansion in Nigeria and Ghana from 1980-2016. The results confirmed the trade-led growth hypothesis only for Ghana economy.

In addition, Batuo et al., (2018) examined the linkage between financial instability, financial liberalization, financial development and economic growth in 41 African economies. The findings revealed that financial development and financial liberalization exert a positive impact on financial instability, while economic expansion causes a reduction in financial instability. The result suggested that the level of the reduction in financial instability differs for pre-liberalization to that of post-liberalization. Thus, in the post-liberalization period, the reduction is comparatively higher. Similarly, the study of Asongu and Kodila-Tedila (2013) examined the relationship between trade, foreign aid and terror. The findings from the study show that bilateral aids do not significantly affect trade, while multilateral and total aid do so positively. The overall result indicates that foreign aid is a necessary but not a sufficient condition in tackling the effect of terrorism on trade. In a related study, Nyasha and Odhiambo (2017) examine the relationship between market-based and bank-based financial development in Kenya using the dynamic ARDL bound test. The results show that neither the bank-based nor the market-based financial development exerts a positive impact on the economic growth. Thus, the study recommended the pro-market-based financial development policies for the Kenyan economy.

Furthermore, the study of Asongu and De Moor (2017) was centred on the financial globalization dynamic threshold for financial development of 53 Africa economies by using a generalized method of moments. The findings revealed that financial globalization is an engine for financial development. In essence, it means that financial globalization such as FDI inflow increases money supply in the host country, thus the study is consistent with the work of Ajide et al., (2019). Similarly, Asongu et al., (2018) investigated the globalization and governance nexus for 51 selected African economies. The empirical evidence shows that the effect of social and general globalization on general governance is positive. Further findings from the study show that only economic globalization promotes regulation quality. This is similar to the work of Iyke and Ho (2017) that examined the real exchange rates, the Ghanaian trade balance and the J-curve hypothesis. The findings revealed non-effect of the exchange rate changes on the trade balance of Ghana both in the short-and long-run.

Moreover, Rani and Kumar (2019) investigated the relationship among the variables of interest by adopting the ARDL bound test approach. The result validates the long run co-movement among economic expansion, trade openness and gross capital formation. Also, on

the other hand, the causality test confirmed a one-way drive running from trade openness to economics advancement in India and Brazil. While a mutual link exists between economic transformation and international trade in China, the result further revealed a one-way causal effect from economic progress to trade openness in South Africa. However, the overall finding reaffirmed the trade-led expansion hypothesis. In the same vein, Hassouneh (2019) employed the Johansson cointegration test and found the existence of long run co-movement between the series as well as affirming a two-way interaction between export, import and economic prosperity. The result further confirmed the import-export-led growth hypothesis in Palestine.

Also, Tang et al., (2019) investigate economic expansion as a product of openness for the Mauritius economy. The result revealed a positive but weak contribution of openness to economic expansion and is similar to the study of Maune (2019).In a related study, Alsamara (2019) revealed that trade openness and financial development contributes positively to the economic advancement in Turkey. This evidence is consistent with a handful of previous studies (see Gungor et al., 2014; Gungor & Katircioglu 2010). The study of Maturure (2019) examined this hypothesis for the Zimbabwean economy using the dynamic ARDL approach. The finding revealed that there is a significant and positive contribution of trade openness to economic prosperity in the long run. Other supporting empirical studies include Guei and Le Roux (2018), Rahman & Mamun (2016), Jadoom et al (2015), Sebri & Ben-salha (2014), Azharuddin & Paramanik (2014), Olubiyi (2014), Gnoufouogou (2013), and Gomez et al (2011).Specifically, Keho and Wang (2017) confirmed a positive linkage between trade openness and economic growth in Cote D'Ivoire over the period of 1965 to 2014. By employing a panel data estimation approach, Hozouri (2016) and Khobai *et al.* (2018) confirmed the trade-led growth hypothesis. Also, Thirlwall (2000) opined that entry into foreign market will require the acquisition of new and modern technology for effective competition at the international market which is the product of international trade through diffusion.

Importantly, Krueger (1978), Bhagwati (1978) and Kalu *et al.* (2016) argued that trade globalization encourages specialization in sectors which have economies of scale, thus contributing to the improvement of efficiency and productivity in the long-run. The new endogenous growth models explain a positive relationship between trade openness and economic advancement as the result of the international diffusion of advanced technologies

(see Grossman & Helpman 1991a). On this note, the study of Harrison (1990) established the trade-led growth hypothesis for some firms in Cote d'ivoire. In the same approach, the study of Edwards (1992) finds evidence of a positive relationship between trade openness and economic prosperity. Edwards (1998) argued that the cost of imitation is a significant factor in the trade-growth relationship. If the imitation will cost less in the quest for innovation in the poorer economies relative to the advanced economies, then the poorer countries will definitely grow faster, thus a tendency toward convergence is ensued. However, Kim (2000) found evidence of positive and non-significant influence of globalization on productivity. The findings attributed the low level of impact to shallowness of the globalization policy in Korea.

Nevertheless, Rodriguez (2000) found a significant empirical support for a positive relation between per capita GDP and trade openness which is also supported by the work of Olufemi (2004) and Nwafor *et al.* (2007). Similarly, the studies of Manni *et al* (2012), Afaha and Njogo (2012), and Manni and Afzal (2012)found that there is a non-significant and positive relationship between trade openness and economic expansion in Sri Lanka over the period 1960-2010. In addition, Olaifa *et al.* (2013) opined that trade globalization has a long run significant and positive relationship on economic prosperity in Nigeria. Also, in study of Sikwila *et al.,* (2014) found a positive and significant relationship between globalization and real GDP growth in the long run for the case of South Africa. For the case of Pakistan, Umer (2014) applied an autoregressive distributed lag (ARDL) and found a significant co integration between trade globalization policies and economic prosperity. In a related study, Brueckner and Lederman (2015)found that trade openness promotes economic advancement both in the short and long run for 41 Sub-Saharan African countries which is similar to the case of Hozouri (2016) for 17 MENA countries. Specifically, the case of Cote D'Ivoire and investigated by Keho and Wang (2017) found a significant linkage between trade openness and economic growth over the period of 1965-2014. Keho and Wang (2017) employed the ARDL bounds test and the Toda and Yamamoto Granger causality test and found that trade openness has a positive short run and long run effect on economic growth. Kalu *et al.* (2016) also asserted that export has a positive and significant effect on economic expansion in Nigeria over the period of 1991-2013 while Yanikkaya (2003) confirmed that there is a positive impact of trade openness on economic prosperity.

In general, many of the aforementioned studies are reflections of the dependency theory which argues that trade between nations is a mechanism by which the wealthy nations exploit the poor ones through extraction of economic surpluses. Others are of the opinion that although trade between countries may not necessarily exert negative impact on the domestic country, it impacts however is too weak to provide the essential stimuli that is expected to generate economic expansion. These groups of scholars prescribed that nations should look inward for solutions to their development challenges. This claim is backed by some empirical evidence such as the work of Maune (2019) who found that the relationship between import and economic expansion is significant but negative. Moreso, the study of Khobai *et al.* (2018) confirmed a negative and insignificant effect of openness on economic performance in Nigeria. The work of Harrison (1990) failed to establish the trade-led growth hypothesis for some firms in Cote d'ivoire while Ogujiuba *et al.* (2004) opined that there is no concrete relationship between trade openness and economic expansion but that unrestricted openness could have effect especially on the growth of local industries. In addition, Nurudeen *et al.* (2012) affirmed that trade openness negatively affects economic enhancement in the long run while Yusuf *et al.* (2013) see trade openness as a none-beneficial factor to economic prosperity. Also, while Olaifa *et al.* (2013) found that export exerts a negative effect on economic expansion in Nigeria, Vamvakidis (2002) find no support for the trade-led growth hypothesis.

3. Data Source and Methodology

3.1 Data Description and Model

This research used a time series data ranging from 1981-2017 and sourced from the World Bank database (2019). Economic expansion is proxied by the GDP, foreign direct investment (FDI) as net inflow of income, trade openness (TOP) as the summation of import and export and employment. In order to examine the dynamic of openness in Nigeria, the model incorporated population and FDI as intervening variables for the purpose of avoiding the case of variable omission and mis-specification of model. Thus, the empirical model is stated below as:

$$\text{GDP} = f(POP, TOP, FDI) \qquad 1$$

$$\ln GDP = \beta_0 + \beta_1(\ln Pop) + \beta_2(\ln TOP) + \beta_3(\ln FDI) + \varepsilon\mathbf{t} \qquad 2$$

Where:β_o: is the constant term, t is the time trend, ε is the error term. The β_1, β_1, *and* β_2 are the coefficients of EMP, TOP, and FDI respectively in a logarithmic transformed expression as indicated in equation 2.

It is pertinent to state here that data on labour force is not available especially in the case of Nigeria (Ramirez, 2006), thus earlier studies such as Li and Liu (2005), Vamvakidis (2002), and Pattillo *et al* (2002) had employed population in lieu of labour force. On this note this study aligns itself with the above empirical model expressed in equation 2.

3.2 Unit Root Test

Testing for stationarity of time series data is critical because it is believed that most macroeconomic variables are not normally distributed in their level. Thus, to carry on with estimation with the non-stationary data is liable to produce spurious regression that might misguide in terms of policy implication (Wooldridge, 2010, 2016). To avoid this major empirical consequence, this study relies on the ADF and PP by Dickey and Fuller (1981) and Phillips and Perron (1988) unit root approaches respectively to ascertain the level order of integration of the variables.

The ADF and the PP test formula for the estimation is as follows:

$$\Delta Y = \beta^1 D_t + \pi Y_{t-1} + \sum_{j=1}^{p} \varphi \Delta Y_{t-1} + \varepsilon t \qquad 3$$

Where $\pi = \phi - 1$ for the null hypothesis Δyt is I(0) which indicates that $\pi = 0$, D is a vector of Deterministic terms (constant, trend), the error εt is serially uncorrelated with error term which is also assumed to be homoscedastic.

3.3 The ARDL Bound Test Model

This study adopted the Autoregressive Distributed Lag (ARDL) bounds test approach for cointegration as developed by Pesaran et al (2001). The choice of this study is informed by the result of different orders of integration as revealed through the stationarity test. Several studies have further maintained that the ARDL method is superiors to the traditional method in the sense that it helps in estimating both the short and long run impacts of independent variables on the dependent variables (Alola, 2019a & b; Alola, et al., 2019; Saint Akadiri, Alola &Akadiri, 2019; Saint Akadiri & Alola, 2020). Finally, the Error Correction Model

(ECM) can be estimated from ARDL model through a simple linear transformation. From the given expression below (equation 4), the transformation indicates that there exists a short run adjustments in order to arrive at long run equilibrium without losing long run information. The complete form and step-by-step procedure of the ARDL bound test[2] is not provided here for lack of space.

$$\Delta \ln GDP_t = \alpha_0 + \sum_{i=0}^{p} \delta i \Delta \ln GDP_{t-i} + \sum_{i=0}^{q} \varphi i \Delta \ln Pop_{t-i} + \sum_{i=0}^{r} \gamma \Delta \ln TOP_{t-i} + \sum_{i=0}^{S} \beta_1 \Delta \ln FDI_{t-i}$$
$$+ \delta_1 \ln GDP_{i-1} + \delta_2 \ln Pop_{i=1} + \delta_3 \ln TOP_{i=1} + \delta_4 \ln FDI_{i=1} \varepsilon i \qquad 4$$

The first part of the equation represented with δ_i φ_i γ_i and β_i denotes the short run dynamics of the model and parameters $\delta_1, \delta_2, \delta_3 and\, \delta_4$ represent the long run relationship

Thus, the null hypothesis of the model is;

$H_0 : \delta_1 = \delta_2 = \delta_3 = \delta_4 = 0$ (there is no long run relationship)

$H_1 : \delta_1 \neq \delta_2 \neq \delta_3 \neq \delta_4 \neq 0$

4. Empirical Analysis

In this section, the outcomes of these empirical estimations are presented in the subsequent Tables. Table 1 details the summary statistics of the variables, which effectively summarize the trends represented in Figure 1. From the trend movement of real GDP, the economy of Nigeria appears to increase from 1981 to 2017. Contrary to the trend movement of real GDP, trade openness increases from the minimum value of N9.14 billion in 1987 and progresses relatively irregularly until it clocked at about N21 billion in 2017. The average during this period was shown in Table 1 to be about N32.8 billion. For population growth, the minimum value of 2.49% was recorded in 1997, whereas the highest growth spurt of about 2.71% was recorded in 1981, averaging at about 2.58%. With foreign direct investment, a minimum of -0.02% was recorded in 1982, against the maximum of 1.92% which was recorded in 1993. Furthermore, foreign direct investment from 1981 to 2017 averaged at 0.37%. Table 1 also includes the Jacque-Bera statistics which summarizes the trend movement of time series by comparing them with a normal distribution (Gujarat, 2007). In simple terms, the statistics evaluates the probability that the movement of a variable over a speculated period is not

[2] The detail and step-to-step procedure of the ARDL is available in Pesaran, M. H., Shin, Y., & Smith, R. J. (2001).

random but regular except for foreign direct investment which is the only variable whose trend movement is random and irregular, and can be used directly in econometric analysis. The correlation coefficient results as presented in Table 2 shows that only trade openness and population correlate with the GDP as expected. This shows that the population explosion of Nigeria has the potential to drive economic expansion if properly harnessed. Trade openness on the other hand is indicated to be a key driving force behind the working of the Nigerian economy.

Table 1: Descriptive Statistics of Time Series Data

Statistic	*LNRGDP*	*LNTOP*	*LNPOP*	*LNFDI*
Mean	3.20854	32.8386	2.58207	0.37024
Median	4.23006	34.4578	2.58569	0.25091
Maximum	15.3292	53.278	2.70984	1.91949
Minimum	-13.1279	9.13585	2.48879	-0.0189
Sum	379.066	1215.03	95.5364	13.6988
Observations	37	37	37	37
Jarque-Bera	3.57306	2.23332	2.80826	53.7233
Probability	0.16754	0.32737	0.24558	0.0000

Source: Researcher's Computation

Note: The lnRGDP, lnTOP, lnpop, lnFDI are the logarithmic of the real Gross Domestic Product, the trade openness, Population, and the foreign direct investment.

Table 2: Pearson correlation coefficient results

Series	RGDP	TOP	POP	FDI
RGDP	1.000			
TOP	0.279*	1.000		
POP	0.599***	0.008	1.000	
FDI	-0.118	0.088	-0.238	1.000

Source: Researcher's Computation

Note: The lnRGDP, lnTOP, lnpop, lnFDI are the logarithmic of the real Gross Domestic Product, the trade openness, Population, and the foreign direct investment.

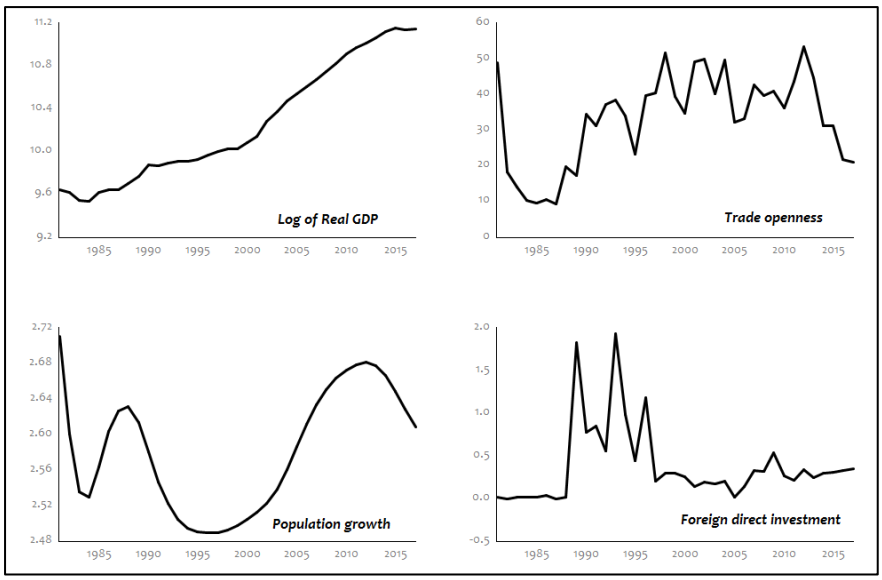

Figure 1: Trend Movements of Specified Variables

This study adopts the ADF and PP unit root test as presented in Table 3 below to ascertain the stationarity of the series in other to avoid spurious regression. The overall result shows a mixed order of integration. For the PP unit root test, only FDI became stationary at level. However, at first difference, all other series turned out to be stationary. The correlation coefficient result shows that only FDI is not normally distributed as indicated by the Jacque-Bera statistics. Furthermore, in line with econometric principles of model estimations, five diagnostic tests were carried out to check and determine the accuracy; reliability and stability of the estimated model (see Table 4). These tests are the residual normality which confirmed that the model is normally distributed. Others include serial correlation and heteroskedasticity test, which respectively indicates the absence of serial correlation problem and that the model is free from heteroscedasticity problem too. Similarly, Ramsey's Regression Specification Error Test (RESET) checks whether variables have been omitted or incorrectly specified. The result shows that the null hypothesis of misspecification is rejected, thus conclude that the model is free from the aforementioned challenges. Finally, model stability was determined using the cumulative sum of recursive residuals (CUSUM and CUSUMSQ). This test clearly indicates stability in the estimated equation during the sample period. Indicatively, from Figure 2, the estimated model parameters (represented by the blue lines) are found *within* the 5% critical lines, thus affirming the stability of the model.

Table 3: ADF & Phillips-Perron Unit Root Test for Series Stationarity

Variable	*PP- level I (0)*	*PP- 1st Diff I (1)*	*Integration*	*ADF level*	*ADF 1st Diff.*	*Integration*
RGDP	0.9937	0.0298	*I* (1)	*0.996*	*0.0205*	*I(1)*
TOP	0.0814	0.0000	*I* (1)	*0.398*	*0.0000*	*I(1)*
POP	0.1807	0.0015	*I* (1)	*0.005*	*0.0029*	*I(0), I(1)*
FDI	0.0036	0.0000	*I* (0), *I* (1)	*0.007*	*0.0000*	*I(0), I(1)*

Source: Researcher's Computation.
The ADF and PP are respectively the Augmented Dickey Fuller (Dickey & Fuller, 1981) and Phillips and Perron Phillips (Perron, 1988) unit root approaches

Table 4. Diagnostic tests for model accuracy and reliability

Diagnostic F-tests	*Prob.*	*Remark*
Residual normality	0.9730	The residuals are normal
Serial Correlation	0.7646	No serial correlation in the residuals
Heteroscedasticity	0.5990	No heteroscedasticity in the model
Ramsey RESET	0.5538	Model is well-specified

Source: Researcher's Computation

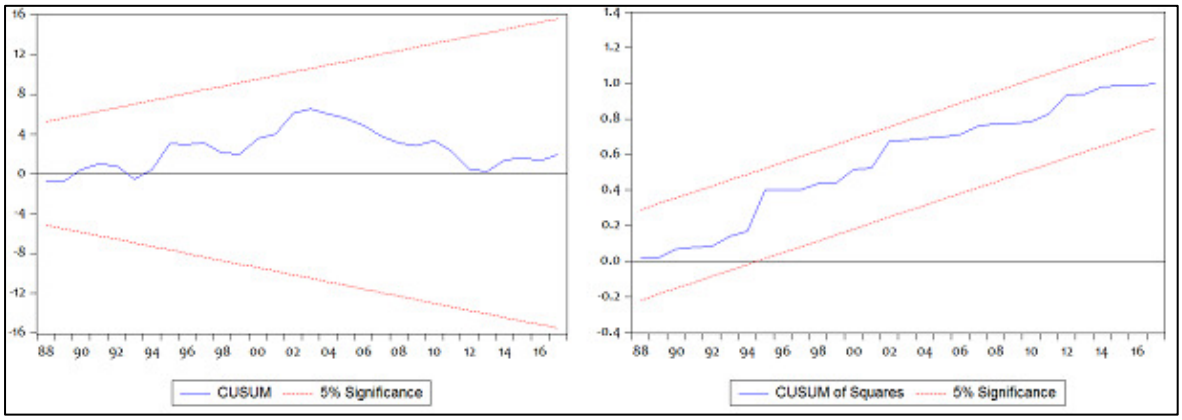

Figure 2: CUSUM & CUSUMSQUARE for Stability within 5% Critical Level

According to the findings from the objective of the study as indicated in Table 5, it is found that trade openness exhibits a statistically significant long-run interaction with the economic prosperity of Nigeria. Even more, this relationship is positive, meaning that increases in the real GDP of Nigeria correspond to increases in trade openness. This corroborates the findings of Afaha and Njogo (2012), Atoyebi et al., (2012) and Olaifa et al., (2013). For FDI inflow, no significant relationship in the long-run was detected by the ARDL model, implying that foreign direct investment did not influence the economic expansion of Nigeria. This is a curious finding considering that trade globalisation includes the operation of foreign direction investment. However, this finding may be justified by the fact that Nigeria's economic growth may be predicated on how much is imported and exported, but not the direct input of

international funding in the economy. Furthermore, population growth rate was shown to be a statistically significant exponent of Nigerian economic growth. The study found that population has a significant but negative and positive impact on the economy in the short-run and long-run respectively. The early stage of population growth is not desirable for the country because of the inability of the country to maximize the human capital strength. However, the long-run indication does not require a far-fetched justification as it is generally understood that populations increase predicates a nation's productive capacity. Although the Malthusian theory of adverse population effects is still relevant in many nations, the counter-effects of technology and other contemporary developments have helped to manage the human capita aspect of population growth. Finally, for this study, the ARDL *F*-Bounds test was used to determine the presence of a co-integrating equation among the specified variables. The result of this test as presented in Table 6 shows that there is a significant future co-movement among the variables as they have been specified within the study period.

Table.5 Estimated ARDL Model for Long-Short Run

Variable	***Coefficient***	***Std. Error***	***t-Statistic***	***Prob.***
Short-run				
$lnRGDP_{(-1)}$	17.8969	4.65937	3.84105	0.0012
lnTOP	-0.01	0.01008	-0.9889	0.3358
lnPOP	-24.303	7.43172	-3.2701	0.0043
lnFDI	-0.2035	0.19417	-1.048	0.3085
C	9.54325	0.23482	40.6406	0.0000
ECT(-1)	-17.085	6.32353	-2.7019	0.0146
Long-run				
lnTOP	0.05694	0.01312	4.34012	0.0003
lnPOP	3.73404	1.6453	2.26952	0.0345
lnFDI	-0.6103	0.51084	-1.1947	0.2462

Note: Researcher's Computation.
The lnRGDP, lnTOP, lnpop, lnFDI are the logarithmic of the real Gross Domestic Product, the trade openness, Population, and the foreign direct investment.

Table 6. F-Bounds Test for co-integration

	Value	***Signif.***	***Lower Bound***	***Upper Bound***
F-statistic	7.6050	10%	2.72	3.77
k	4	5%	3.23	4.35
		2.50%	3.69	4.89
		1%	4.29	5.61

Source: Researcher's Computation

The result of the granger causality test presented in Table 7 shows that only the null hypothesis of *RGDP does not Granger-Cause POP* is rejected, thus implying that that *RGDP Granger-Causes POP*. In effect, it is only the relationship between the real GDP and population growth rate that exhibits Granger Causality. It then implies that the historical information of the real GDP is capable of explaining the present dynamics of the country's population.

Table2. Granger-Causality Results

Null Hypothesis:	***Obs***	***F-Statistic***	***Prob.***	***Remark***
TOP does not Granger Cause RGDP	34	0.59879	0.6213	*Not significant*
RGDP does not Granger Cause TOP		0.75546	0.5289	*Not significant*
POP does not Granger Cause RGDP	34	0.60298	0.6187	*Not significant*
RGDP does not Granger Cause POP		3.76961	0.0222	*Significant*
FDI does not Granger Cause RGDP	34	1.97411	0.1416	*Not significant*
RGDP does not Granger Cause FDI		0.916	0.4463	*Not significant*

Source: Researcher's Computation

5. Concluding Remarks

Following the nature of the results, several implications are imminent: the long run impact of openness on economic expansion implies that the Nigerian economy will flourish from trade openness and globalisation as supported by the work of Batuo et al., (2018) and Asongu and Kodila-Tedila (2013). Therefore, the government should open the 'border-gates' of the economy to allow more interaction with sister African countries and First-World economies. This will bring many economic benefits, including increased transfers of technology and skills, increased labour and total factor productivity, and an overall economic growth and development. This suggests that the policy of border closure embarked upon by the government of Nigeria in the most recent time (2019) is viewed in this study as anti-economic expansion. The authority concern is adviced as a matter of urgency to revisit that policy for possible reversal to allow free flow of goods and services across it border if the nation is determined to achieve its targeted economic prosperity in the near future. In essence, this study suggests that public policies to integrate into world dynamic economic system are a necessary condition to achieving economic expansion in Nigeria. However, in order to harness the full potential of benefits from trade globalization, the economy needs to achieve a minimum threshold by improving or developing the human capital and financial development. This will help improve the productive capacity of the economy which will

transcend into economic expansion in the long run as supported by some studies (see Umer 2014; Cloutier *et al.* 2008). These studies argued that trade globalization is good for the country as there are development opportunities that accompany free trade, such as transfer of technology which improves productivity and hence results in economic growth. Also, considering that there is no statistically significant evidence that foreign direct investment influences the Nigerian economy in the short term or long run, this then suggests a policy appetite for the policy makers.

Due to the evidence of the insignificant impact of the FDI on the country's economy, the policy makers should further moderate the operations and activities of foreign investors and multinationals. In so doing, such targeted policy is expected to yield more dividends to the economy rather than cause an adverse or redundant effect. Although some of the FDI-base activities could yield positive contributions to the communities and other medium-scale economies, they do not significantly contribute or improve the economy of Nigeria on the national scale. Alternatively, since foreign direct investment is unlikely to improve the economy on a large scale, large domestic businesses and conglomerates must be encouraged to invest substantially and extensively in the Nigerian economy. Whether in the communications sector, technology, agriculture or entertainment, these domestic investors in addition to the foreign counterparts could be encouraged via the provision of specified subsidies. Since the study showed that population growth is positively related to Nigeria's economic growth, thus the present growth trend of population of Nigeria should be further harnessed by the governments at different levels. This could be done by increasing and providing human capacity development programs that yield to the advancement of human capital in the country. In conclusion, the insignificant evidence of the impact of trade openness and globalisation on the economy of Nigeria is likely due to the fact that the economy is yet to be opened to international and potential global partners. Hence, this simply suggests that the government of Nigeria should further reassess the recently-implemented land border closure policy or rather put in place other measures such that the country's economic expansion is unrestricted.

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