Regional Economic Integration: Implications on Economic Growth in Nigeria

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Omolehinwa Linda Udo Chineye[1]
Alwell Nteegah[2] ⊙
Sylva Ezema Kalu[3]

(⊙ *Corresponding Author*)

[1,2,3]*Institute of International Trade and Development University of Port Harcourt, Nigeria.*
[1]*Email: linda.omolehinwa@gmail.com Tel: +233246398758*
[2]*Email: nteegah@yahoo.com Tel: +2348069284958*
[3]*Email: sylva.kalu@uniport.edu.ng Tel: +2348033365787*

ABSTRACT

This study investigated the implications of regional economic integration on economic growth in Nigeria over the period 2001 - 2019 using the ARDL methodology. Exports by Nigeria to WAMZ's member countries as a percentage of total exports, imports to Nigeria from WAMZ's member countries as a percentage of total import and degree of openness of Nigeria's economy to WAMZ's economy are the independent variables while growth rate of GDP was the dependent variable. The findings from the study show that regional economic integration has less implication on economic growth in Nigeria. This is evidenced in the negative relationship between exports to WAMZ member countries by Nigeria and economic growth and the negative relationship between imports from WAMZ member countries to Nigeria and economic growth. Though the degree of openness of Nigeria's economy to WAMZ's regional economy was positively related to economic growth in Nigeria both in the short and long runs, the negative link of exports and imports with economic growth and their insignificance show that trade a crucial variable in regional integration has retarding implications on growth in Nigeria over the period. The study attributed similarities in exports and imports among the integrating countries as one major factor that had contributed to the low gain from regional integration by Nigeria and other countries in the region. Based on these findings, the study recommends: openness of the Nigerian economy to WAMZ member countries and the industrialisation of the Nigerian economy as possible measures of increasing gains from regional economic integration.

Keywords: Economic growth, Export as percentage of total exports, Import as percentage of total imports, Degree of openness, Regional economic integration.

> **Highlights of this paper**
> - This study investigated the implications of regional economic integration on economic growth in Nigeria over the period 2001 - 2019 using the ARDL methodology.
> - This study recommended openness of the Nigerian economy to WAMZ member countries and the industrialisation of the Nigerian economy as possible measures of increasing gains from regional economic integration.

1. INTRODUCTION

The collapse of Bretton Woods Institutions had encouraged most countries in the world to find alternative institutional arrangements to advance their economic and political interests. Accordingly, regional economic integration, even at its most elementary stage of Free Trade Area, has been identified as an important platform that countries can leverage to accelerate economic growth and improve standards of living through increases in productivity and economic growth (Lopez-Cordova & Moreira, 2003).

Regional integration efforts culminate in the formation of economic or monetary union, which offers prospects for member states to strengthen macroeconomic conditions by meeting a range of convergence criteria, such as inflation, budget deficits, central bank financing and foreign exchange reserves. Through regional integration arrangements, member states can strengthen trade and financial linkages, which promote the development of the domestic financial markets and facilitate cross-border financial flows, thereby contributing to enhancing productivity and economic growth of member countries and the region at large.

In recognition of the potential benefits of regional integration, several scholars have conducted research to identify the channels through which economic integration could influence productivity and economic growth in Member States. The empirical literature, however, shows mixed evidence on the growth effects of regional integration. Several studies have reported a casual positive relationship between economic integration and economic growth (e.g. (Campos, Coricelli, & Moretti, 2018; Ibrahim, Mazlina, Azman–Saini, & Zakaria, 2016; Klein & Olivei, 2008; Levine, 2001; Schularick & Steger, 2010; Shen, Lee, & Lee, 2010)). In particular, some studies illustrate the positive effect of trade integration (Dabla-Norris, Kochlar, Ricka, Suphaphiphat, & Tsounta, 2015; European Central Bank, 2015) Conversely, negative relationships were recorded between economic integration and growth level from works done by Ahmed (2013); Ahmed (2016); Gourinchas and Jeanne (2013). A few studies have shown that the growth effects of financial integration may not be linear and depends on domestic absorption capacity such as the level of financial development (Coulibaly, 2015; Masten, Coricelli, & Masten, 2008).

The empirical literature provides scanty evidence on the impact of economic integration on economic growth in Nigeria. While a few studies have attempted to fill the gap in the literature (e.g. Jones (2002)), it is not clear how the various structural reforms adopted to promote trade and financial integration could affect productivity growth in Nigeria. Given this mixed evidence on the regional integration-economic growth relationship, this paper takes a different perspective to determine the extent to which regional trade and financial integration policies pursued in the WAMZ may have contributed to promoting productivity and economic growth in Nigeria. we shall continue discussion by reviewing relevant literature that are related to the topic, this will be followed by the methodology adopted to achieve the purpose of the study, results and discussion and concluding remarks and recommendations.

2. REVIEW OF LITERATURE

Existing literature provides various channels through which economic integration can potentially influence economic growth, such as trade and regional integration, capital accumulation and productivity growth (Ehigiamusoe & Lean, 2019). Promoting trade integration is an integral aspect of the efforts to harmonizing monetary and fiscal policies to ensure economic integration of member states. Trade integration is enhanced

through the removal of both tariff and non-tariff barriers on trade between countries. A range of theories exists that explain the linkages between trade and financial integration and how trade integration could potentially accelerate productivity and economic growth.

Scholars have employed the literature on neoclassical and endogenous growth theories to explain the benefits of economic integration in member states. Within these growth theories, the trade literature makes a clear distinction between a one-shot gain (level effect) of economic integration and the permanent change in growth rate (growth effects) that stem from economic integration (Rivera-Batiz & Romer, 1991). The traditional neoclassical growth model (Solow, 1956) assumes an exogenous technology process and there are diminishing returns to physical capital inputs. Within this framework, trade will only have a level effect but not a long-term impact on productivity or economic growth. Under neoclassical growth theory, economic integration, economic policy measures and other institutional aspects have no effect on the steady state growth rate, which is solely determined by the exogenous rate of technological progress. Institutional change increases in efficiency or changes in investment ratios following economic integration have only temporary effects on the growth rate. Temporary (medium-term) growth effects occur as a consequence of shifts in the general level of productivity attributed to the formation, deepening or widening of a regional integration agreement. The productivity shift in turn induces accelerated physical capital formation that gradually diminishes towards its long-term steady state. Hence, economic integration is seen as any other major economic policy change that affects economic growth only on the transition path leading towards the steady state. Based on the perspective of the neoclassical growth theory, the trade literature suggests that the comparative advantage gains will only translate into a one-time increase in the level of productivity or level effects as international trade facilitates the reallocation of resources to take advantage of comparative advantages across countries. It predicts that there are no growth effects since the comparative advantage is not created endogenously to allow for sustained improvements in productivity. This view of the level effects of trade is echoed in Helpman and Krugman (1985).

The endogenous growth models, on the other hand, by assuming non-diminishing returns to the accumulation of broadly defined capital predict permanent or long-term effects of economic integration (Walz, 1997). Through the introduction of human capital and if it keeps up with other investment and knowledge flows freely, returns can be sustained and trade patterns can transfer technology. The access to larger technological base through integration arrangements may in turn speed up growth. Economic integration is also seen as expanding the consumer base, which may also increase the necessary competition and hence mitigate redundancy in research and development required to generate growth. Economic integration may also lead to inter-sectorial and international reallocation effects or trigger economic geography forces (Krugman, 1991).

At the macro-level, there is evidence suggesting the positive effect of trade integration on productivity growth. For example, Dabla-Norris et al. (2015) use aggregate productivity growth data to investigate the effects of structural reforms on productivity growth. The study finds that trade liberalization accelerates productivity growth in the lower income countries. At the firm level, the study by the European Central Bank (2015) uses a panel fixed effects model on a sample of 13 manufacturing industries to explore the effect of international trade, through the imports and exports channels and global value chains related trade on productivity in 40 countries (advanced and emerging countries). The results show strong positive effect of international trade on labour productivity. Similarly, Lopez-Cordova and Moreira (2003) finds strong trade related gains especially through imports.

Soete and Van Hove (2017) worked intensively on the impact of trade on the European economic integration arrangement and reported that economic integration of the European Union has a huge impact on the growth and

development of the union. The study illustrated that both the import and export growth were positively affected over time due to the influence of financial and economic integration of European body.

Mevel, DeAlba, and Oulmane (2016) examined the effect of regional economic and trade integrations on reindustrialization (free trade agreement and facilitators) in the Northern Africa Zone. The study revealed on the long run that trade integration stimulated and caused the export of the North African countries to significantly increase from the major industries and finally that integration supports African industrialization.

Jooji and Oguchi (2017) analyzed the total benefits of international economic integration in Nigerian perspective. The study pointed out that economic integration is occasioned to remove artificial barriers and unifications of common economies. The paper checked the history and evolution of global economic growth and traces back the circumstance behind the development and establishment of ECOWAS and the benefits member states have derived from the body. One of the findings in the study is that West Africa Countries such as Nigeria have immensely gained from the formation of ECOWAS.

Gao (2005) reported that economic integration granger spurs foreign direct investment, research and development (R&D), increase industries activities and thus enhance the general performance of the economy. The study stated directly that the causal link between foreign direct investment (FDI) inflows and growth level does not necessitate any causal link between them but they respond independently due to economic integration.

Mwaba (2000) investigated the effect of trade liberalisation on economic growth of East African countries using panel analysis. The finding shows that removal or relaxation of quantitative import and export restrictions and lowering of tariffs stimulated export and economic growth in the region. Rodrik (1992) found that foreign trade spur price level, brings about balance of payment problems and may reduce domestic investment cumulating into very low economic growth and development.

Onyekwena and Oloko (2016) used descriptive technique to examine the implications of regional trade on the exclusive development of West African region. They found that despite the rising level of economic growth in the region, poverty and unemployment remain unabated due to non-inclusive growth.

Okoro, Ujunwa, Umar, and Ukemenam (2020) investigated how regional and non-regional trade affect economic growth in ECOWAS sub region over the period 2007 − 2017 using the system GMM method. They found that regional trade spurred economic growth significantly while non-regional trade retarded economic growth in the region. Findings from the study further show that exchange rate, unemployment level, population growth and gross capital formation have mixed implications on economic growth in ECOWAS. Specifically, the study reveals that population growth, unemployment level and exchange rate retarded economic growth while gross capital formation promoted growth in the ECOWAS sub region over the period of the study.

Onafowora and Owoye (1998) studied the impact of export trade on economic growth of selected 12 Sub-Saharan African countries using panel analysis and found a direct and significant impact of exports on economic growth in the countries. In a similar study, Fosu (1990) examined the impact of export trade on the economies of 28 less developed African countries and reported a positive relationship between export trade and economic growth.

The results from findings of studies reviewed indicate mixed results. Most of these empirical works consulted in this study centred on the impact of regional integration on the economy of the region. They are scanty on the contributions of regional economic integration on the economy of specific member country. Given the increasing quest for common currency and the removal of trade barriers from member countries as a result of regional economic integration, it is pertinent, we analyse how the integration of Nigeria's economy into the regional economy of West Africa has affected the growth of the economy.

3. RESEARCH METHODOLOGY

This study is anchored on the endogenous growth model. The theory identified technical progress as a major driver of long-term economic growth. The proponents of this theory; Rivera-Batiz and Romer (1991) illustrate that the growth effects of economic integration would stem from expansion of the size of the market. In particular, through the trade and financial channels, regional economic integration can influence long-run rate of growth through learning-by-doing and innovation gains (Lopez-Cordova & Moreira, 2003). Similarly, Young (1993) considers an endogenous growth model that explains improvements in productivity through learning by doing, which assumes that productivity gains generated by learning can potentially spill over across sectors in the economy. Another potential mechanism through which trade improves productivity and economic growth is via innovation gains generated from foreign trade. It is argued that foreign trade facilitates the flow of technology knowledge, which accelerates innovation and promotes productivity and growth (Grossman & Helpman, 1991; Grossman & Helpman, 1994).

Given these theoretical arguments, the study specifies a growth model that hinges on trade and ease of trading as the major proxy for economic integration by a country. Hence while economic growth is proxy by growth rate of real gross domestic product (GDPR) of Nigeria, Nigeria's export with WAMZ countries as percentage of total export (EWAMZ), Nigeria's import with WAMZ countries as percentage of its total imports (IWAMZ) and the degree of openness of the Nigerian economy to other WAMZ countries (OWAMZ) are proxies for economic integration. Thus the functional relationship between economic integration and economic growth in Nigeria is stated below:

$$GDPR_t = f(EWAMZ_t, IWAMZ_t, OWAMZ_t) \tag{1}$$

In order to enhance the estimation of the functional Equation 1, the error term "U" is introduced into the model and further stated in mathematical form thus:

$$GDPR_t = \alpha_0 + \alpha_1 EWAMZ_t + \alpha_2 IWAMZ_t + \alpha_3 OWAMZ_t + U \tag{2}$$

Where: α_0= economic growth independent of economic integration in Nigeria; $\alpha_1 - \alpha_3$ = parameter estimates; $GDPR_t$ = growth rate of GDP in Nigeria; $EWAMZ_t$ = Nigeria's export with WAMZ countries as percentage of its total exports; $IWAMZ_t$ = Nigeria's import from WAMZ countries as percentage of its total imports; $OWAMZ_t$ = degree of openness of Nigerian economy with WAMZ countries and U = disturbance term. Apriori theoretical expectation is that $\alpha_1 > 0$; $\alpha_2 > 0$ and $\alpha_3 > 0$. Data on the above variables were sourced from the West African Monetary Zone (WAMZ) and ECOWAS country's reports and the World Bank from 2001 to 2019.

The unit root test result reported in Table 3 reveals a mix order of stationarity for the variables under consideration. For instance, growth rate of GDP and degree of openness were stationary at first difference while Nigeria's exports to WAMZ and imports from WAMZ were stationary at level. This result informs the use of Autoregressive and Distributed Lag (ARDL) model approach. Hence the ARDL equation for the variables under investigation in this paper is stated thus:

$$\Delta GDPR_{t-1} = \sum_{i=1}^{n} \alpha_0 \Delta GDPR_{t-1} + \sum_{i=1}^{n} \alpha_1 \Delta EWAMZ_{t-1} + \sum_{i=1}^{n} \alpha_2 \Delta IWAMZ_{t-1} + \sum_{i=1}^{n} \alpha_3 \Delta OWAMZ_{t-1} +$$
$$+_{\delta_0} \Delta GDPR_{t-1} + \delta_1 \Delta EWAMZ_{t-1} + \delta_2 \Delta IWAMZ_{t-1} + \delta_3 \Delta OWAMZ_{t-1} + \mu_t \tag{3}$$

Where: δ_i i=1,2 & 3 are long-run multipliers; δ_i i =1,2 &3 are coefficients of the short-run dynamic of the ARDL model. u_t is serially uncorrelated stochastic term with zero mean and constant variance, and Δ is the first

difference operator. Since the long-run relationship amongst the variables has been established, we proceed to estimate the long-run equation of economic growth thus:

$$GDPR_t = \delta_0 + \delta_1 GDPR_{t-1} + \delta_2 EWAMZ_{t-1} + \delta_3 IWAMZ_{t-1} + \delta_4 OWAMZ_{t-1} + \mu_t \tag{4}$$

The Akaike Information Criterion (AIC) was used to determine the lag length of the ARDL model by using a lag length of two (2) both for the regressors and regressand. In estimating the short-run dynamics, the ARDL error correction equation was formed thus:

$$\Delta GDPR_{t-1} = \sum_{i=1}^{n} \alpha_0 \Delta GDPR_{t-1} + \sum_{i=1}^{n} \alpha_1 \Delta EWAMZ_{t-1} + \sum_{i=1}^{n} \alpha_2 \Delta IWAMZ_{t-1} +$$

$$\sum_{i=1}^{n} \alpha_3 \Delta OWAMZ_{t-1} + \sum ECM_{t-1} + \mu_t \tag{5}$$

Where: α_i i=1,2&3 are the short-run parameters. ECM is the lagged error correction term estimated from the long-run dynamics. It shows the adjustment in the coefficient, and it is usually negative and most times statistically significant in order to confirm the existence of cointegration relationship.

4. RESULTS AND DISCUSSION

The trend analysis reported in Figure 1 indicates that growth rate of real GDP in Nigeria outweighed the country's exports to WAMZ, imports from WAMZ and the degree of openness from $2001 - 2015$. Economic growth dropped drastically in 2016 due to the economic recession in Nigeria. From 2016 export to WAMZ by Nigeria dominated economic growth. Nigeria exports mostly crude petroleum to most countries of WAMZ. However, the dominance of agricultural products (primary products) produced by West African countries have made intra trade within the region weak and gain from trade among member countries marginal over the years.
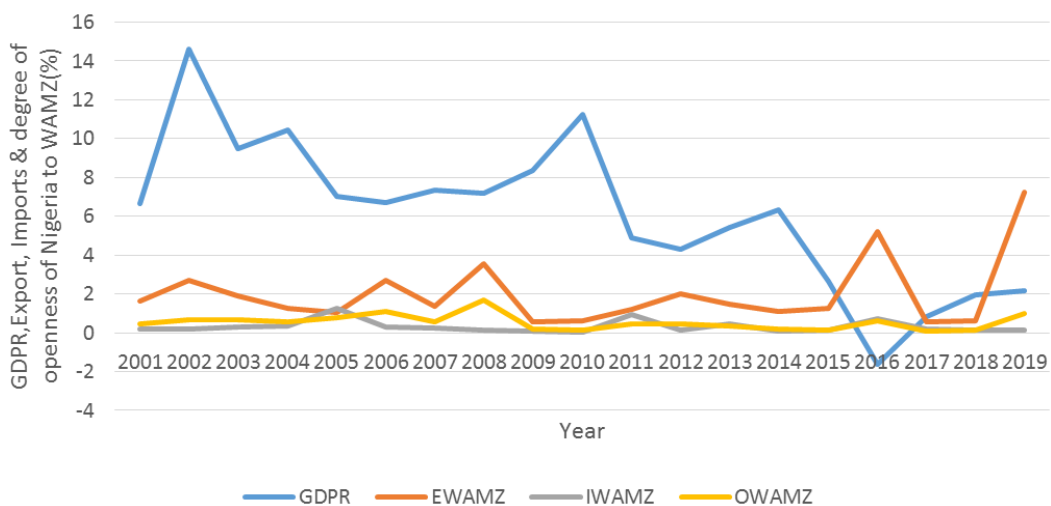

Figure-1. Trend in growth rate of GDP, Nigeria's exports to WAMZ, Nigeria's Imports from WAMZ and degree of Openness of Nigeria's economy to WAMZ $2001 - 2019$.

The descriptive statistics result reported in Table 1, indicates very wide deviation in economic growth and the degree of openness of Nigeria's economy to WAMZ countries. Though very marginal deviation could be seen in Nigeria's exports to WAMZ and its imports from WAMZ. Also with a mean economic growth rate of 6.09 percent

and a mean export, import and degree of openness proportions of 1.99%, 0.32% and 0.54% respectively, it suggests that trade within the West African sub region has less implication on economic growth in Nigeria.

Table-1. Descriptive statistics.

Statistic	GDPR	EWAMZ	IWAMZ	OWAMZ
Mean	6.09	1.99	0.32	0.54
Median	6.66	1.35	0.19	0.48
Maximum	14.60	7.22	1.28	1.66
Minimum	-1.62	0.55	0.02	0.09
Std. Dev.	3.92	1.72	0.33	0.40
Skewness	0.09	1.86	1.80	1.17
Kurtosis	2.86	5.87	5.36	4.24
Jarque-Bera	0.04	17.46	14.73	5.58
Probability	0.97	0.00	0.00	0.06
Sum	115.87	37.91	6.00	10.19
Sum Sq. Dev.	276.41	53.32	1.96	2.93
Observations	19	19	19	19

The correlation result reported in Table 2, indicates negative and weak correlation between export to WAMZ countries by Nigeria, import from WAMZ countries by Nigeria and economic growth while a positive but weak correlation was reported between openness of Nigeria's economy to WAMZ countries and economic growth. In summary, the correlation result reveals no possibility of multicollinearity problem among the independent variables.

Table-2. Correlation result.

Variable	GDPR	EWAMZ	IWAMZ	OWAMZ
GDPR	1			
EWAMZ	-0.299	1		
IWAMZ	-0.132	-0.015	1	
OWAMZ	0.144	0.619	0.158	1

Unit root test result presented in Table 3 shows that growth rate of GDP (GDPR) and degree of openness of Nigerian economy to other WAMZ countries economies were stationary at first difference while exports to the West African Monetary Zone by Nigeria and imports from WAMZ by Nigeria were stationary at level. These different orders of stationarity among the variables under investigation inform the use of the autoregressive and distributed lag (ARDL) approach for our analysis.

Table-3. Unit root test – philip perron procedure.

Variable	PP Statistic	1%	5%	10%	Decision
GDPR	-13.27	-3.89	-3.05	-2.67	Stationary@ i(1)
EWAMZ	-4.06	-3.86	-3.04	-2.66	Stationary@ i(0)
IWAMZ	-4.56	-3.86	-3.04	-2.66	Stationary@ i(0)
OWAMZ	--12.79	-3.89	-3.05	-2.67	Stationary@ i(1)

The ARDL bounds test reported in Table 4 indicates an F- statistic of 6.25, revealing the rejection of the null hypothesis of no long run relationship among the variables at all critical levels (lower and upper bounds). This implies that there exists a long run relationship between economic growth security and social expenditures in Nigeria. The confirmation of long run dynamics among the variables gives credence for the estimation of the extent of the relationship.

Table-4. ARDL bounds test.

Test Statistic	Value	K
F-statistic	6.25	3
	Critical Value Bounds	
Significance	I0 Bound	I1 Bound
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89
1%	4.29	5.61

Note: Null Hypothesis: No long-run relationships exist.

The long run result reported in Table 5 indicates that Nigeria's exports to WAMZ's countries have negative and insignificant impact on economic growth. This implies that exports to other WAMZ countries from Nigeria retarded economic growth in the country. This result deviated from outcomes from earlier studies by Fosu (1990) and Onafowora and Owoye (1998) which studies found exports to have positive and significant impact on economic growth. The negative implication of export on growth in Nigeria could be attributed to the similarity in export commodities among countries of WAMZ. WAMZ member countries produce mostly agricultural and primary products which either perish easily or have low value addition. This development has led to low trade among WAMZ countries and gains from trade among member countries.

The result also shows that imports from WAMZ member countries to Nigeria has a negative and insignificant relationship with economic growth. This implies that imports from West African Monetary Zone retarded economic growth and it is in consonance with the work by Rodrik (1992). This result also reveals the low level of trade among the integrating countries in the region. Economic integration helps to foster trade, enhance financial flows and movement of factors of production among the integrating countries. The low level of human capital development, production of primary products and the poor financial integration among member countries of WAMZ have led to very low level of investment among member countries hence poor economic growth.

Unlike export to and import from WAMZ countries by Nigeria, degree of openness of Nigeria's economy to WAMZ's member countries has positive and significant relationship with economic growth. This result is in consonance with earlier study by Mwaba (2000) who reported that trade openness stimulated growth. It implies that openness of Nigeria's economy to other economies in the West African Monetary Zone enhanced economic growth. Nigeria has a large market size with a population of about 200 million people. This makes Nigeria an investment haven despite its security and macroeconomic challenges.

Table-5. ARDL Cointegrating and Long Run Form Result for Selected Model (1, 0, 0, 2).

Cointegrating Form				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
D(EWAMZ)	-0.176568	0.396351	-0.445484	0.6655
D(IWAMZ)	-2.119793	1.402989	-1.510912	0.1617
D(OWAMZ)	0.019012	1.590005	0.011957	0.9907
D(OWAMZ(-1))	-3.392175	1.293413	-2.622653	0.0255
CointEq(-1)	-0.462384	0.126745	-3.648157	0.0045
Cointeq = GDPR - (-0.3819*EWAMZ -4.5845*IWAMZ + 11.2959*OWAMZ + 1.0303				
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
EWAMZ	-0.381864	0.839086	-0.455095	0.6588
IWAMZ	-4.584488	3.692415	-1.241596	0.2427
OWAMZ	11.295948	3.502317	3.225279	0.0091
C	1.030346	3.035565	0.339425	0.7413

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The short run error correction result reported in Table 6 indicates that all the variables under investigation are in tandem with the long run result. That is exports by Nigeria to WAMZ member countries and imports by Nigeria from WAMZ member countries all retarded economic growth both in the long and short runs. This implies that regional trade and economic integration is unfriendly to economic growth in Nigeria. These results are not in agreement with results by Fosu (1990); Onafowora and Owoye (1998). The similarity of trading products produced by member countries of WAMZ may have accounted for these results. Only trade openness was found to have positive impact on economic growth in Nigeria given its positive relationship with economic growth. The short run result further reveals that the error correction mechanism has the expected negative sign indicating that regional economic integration adjusts speedily to changes in economic growth in Nigeria. Also, the goodness of fit of the growth model indicates that about 75 percent of the total variation in economic growth is explained by changes in regional economic integration. This implies that regional economic integration has potentials for stimulating growth in Nigeria.

Table-6. Parsimonious error correction ARDL Result: Selected model ARDL (1, 0, 0, 2).

Variable	Coefficient	t-Statistic	Prob.
GDPR(-1)	0.685103	3.658522	0.0044
EWAMZ	–0.286576	–1.057554	0.3151
IWAMZ	–3.086775	–1.942504	0.0807
OWAMZ(-2)	2.811845	1.993952	0.0741
ECM(-1)	–0.077021	–0.170294	0.8682
C	1.431397	1.138950	0.2813
R^2 =0.83; $R^2_{adjusted}$ =0.75; F-statistic = 9.79: Prob(F-stat)=0.001; DW Statistic=1.59; AIC=4.3; SC = 4.5			

The result of the diagnostic test reported in Table 7 shows no evidence of autocorrelation given the Breush-Godfrey LM test statistic and its probability. Also, the result indicated that the error term is normally distributed, while the test for heteroscedasticity shows that it is absent in the model. Furthermore, the Ramsey RESET test indicated that no variable is missing in the model. The normality test revealed that the variables are normally distributed. These results provide evidence that variables/data conform to the basic assumptions of ordinary least squares estimation.

Table-7. Diagnostic test for economic growth model.

Test	Statistic	Prob	Decision
Serial Correlation (Breush-Godfrey LM test	3.54	0.08	Accept H_0
Breusch/Pagan-Godfrey heteroscedasticity test	0.26	0.93	Accept H_0
Ramsey RESET test (F)	0.03	0.98	Accept H_0
Jarque-Bera test for normality	1.07	0.58	Accept H_0

5. CONCLUDING REMARKS AND RECOMMENDATIONS

This paper investigated the implications of regional economic integration on economic growth in Nigeria over the period 2001 - 2019 using the ARDL model methodology. The results and findings from the study show that regional economic integration has less implication on economic growth in Nigeria and conforms with earlier studies and findings by Ahmed (2013); Ahmed (2016); Gourinchas and Jeanne (2013). This is evidence in the negative relationship between exports to WAMZ member countries by Nigeria and economic growth and the negative relationship between imports from WAMZ member countries to Nigeria and economic growth in Nigeria. Though the degree of openness of Nigeria's economy to WAMZ's regional economy was positively related to economic growth in Nigeria both in the short and long runs, the negative link of exports and imports with economic growth and their insignificance show that trade which is the crucial variable in regional integration has retarding

implications on economic growth in Nigeria over the period. The study attributed similarities in exports and imports among the integrating countries as one major factors that had contributed to the low gain from regional integration by Nigeria and other countries in the region. Based on these findings, the study recommends: openness of the Nigerian economy to WAMZ member countries and the industrialisation of the Nigerian economy as possible measures of increasing gains from regional economic integration.

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