GLOBALIZATION AND ECONOMIC GROWTH: EVIDENCE FROM NIGERIA

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ABSTRACT

Globalization has over the years been widely celebrated as one of the keys to economic growth and development. The international competitiveness resulting from the integration of the world into a global village has brought tremendous progress to the world economy. Regrettably, since the integration of the Nigerian economy into the global economy, the growth pattern of the economy has remained below expectation when compared with other countries of the world. This had in the recent time generated hearted debates among the Nigerian economic researchers on whether globalization is actually a key to economic growth. Thus, the study uses the contemporary econometric techniques of cointegration and error correction mechanism within the framework of the Pesaran et al. (2001) ARDL model to examine the impact of globalization on economic growth in Nigeria. Using annualized secondary time series data from 1970 to 2015, the study reveals that trade openness; financial integration and foreign direct investment have significant positive impact on economic growth in Nigeria. Thus, adequate mechanism should be put in place to ensure that globalization brings about the desired pace of economic growth.

Keywords: Globalization, Economic Growth, ARDL Bound Test.

1. INTRODUCTION

One of the widely pursued macroeconomic goals of an economy has been the attainment of high and sustained output growth (economic growth) with low inflation. Globalization has over the years been widely celebrated as one of the keys to economic growth and development. The
integration of the world economy through the progressive globalization of trade and finance has reached unprecedented level most especially in the recent times, surpassing the pre-world war I peak (Lall, et al. 2007). The international competitiveness brought by the new wave of globalization has brought tremendous progress to the world economy. The global economy has continued to witness vigorous expansion since the first half of 2007 with growth running above 5 percent (IMF, 2007). In the face of the new wave of globalization, no country wishes to be left out in the distribution of the benefits resulting from trade, foreign investment and financial integration (international capital flows).

However, Adesoye, Ajike and Maku (2015) have argued forcefully that many highly globalized developing countries have not been able to profit from globalization and are still facing the same problems they have been facing for many decades. For instance, Nigeria had embraced globalization since the 1980s with the expectation that enhanced free trade, competitiveness, financial integration, foreign investment and technological advancement would ensure the achievement of rapid growth of the economy. Contrary to expectation, the growth pattern of the economy since the 1980s has been very disappointing with poverty incidence escalating. According to the World Bank (2002) report, about 65 percent of the Nigeria population lives below the poverty line, with Nigeria being ranked among the poorest countries of the world, despite its vast economic potentials as well as its attendant natural resources.

Globalization is often blamed for the rising incidence of poverty and inequality observed in most third world countries and regions. This therefore raises a fundamental question on the distributional effects of globalization which is often polarized between two points of view. While the proponents of globalization argue that globalization leads to a rising tide of income which raises all boats, the opposing group argues that although globalization may improve the overall income level, its benefits are not equally shared amongst individual countries of the world. However, while there is a general consensus that the third world countries (Nigeria inclusive) can benefit from integration with the global economy, an unresolved issue is that of why the global poverty and stunted growth remain predominantly a third world phenomenon.

It is against this background that this paper examines the impact of globalization on economic growth in Nigeria. Specifically, the paper examines the impact of trade openness, financial integration and foreign direct investment on economic growth in Nigeria. The rest of the paper is structured as follows: following the introduction in section one (current section); section two brings the review of related literature while section three outlines the methodology of the study; section four presents the empirical results and discussion of findings while section five brings the concluding remarks.
2. LITERATURE REVIEW

According to Albrow, Martin and King (1990), globalization is the process of international integration arising from the interchange of world views, products, ideas and other aspects of culture. Todaro and Smith (2011), views globalization as a process by which the economies of the world become more integrated, leading to a global economy and increasingly, global economic policymaking.

The question of whether globalization is the cause of inequality in income within a country and among countries of the world or whether poverty in third world countries is the result of their integration with the world economy has been the core issue of debate in most development literature. In a study of globalization and inequality, Lall et al. (2007) presents two schools of thought. While one school of thought argues that globalization can bring about a rising tide of income, the opposing schools maintains that even though globalization may bring improvement in overall incomes, the benefits are not equally shared among nations as well as individuals of a particular nation.

A number of empirical studies have been carried out on the impact of globalization on economic growth; poverty and inequality in Nigeria and across countries of the world. However, the findings of the previous studies especially those carried out in developing countries have been conflicting. For instance, Feridun, Olusi and Folorunso (2006) examined the effect of globalization on economic growth in Nigeria over the period 1986 – 2003. The study employed the econometric techniques of Johansen cointegration and error correction modeling (ECM) in carrying out its objectives. The results show that trade openness has significant positive effect on economic growth in Nigeria whereas financial integration has negative but insignificant effect on economic growth in Nigeria.

Onwuka and Eguavoen (2007) studied globalization and its implications for the growth process of the Nigeria economy for the period 1985 – 2001. Using descriptive method of analysis, the study revealed that Nigeria has not benefited from globalization due to mono-cultural export, inability to attract increased foreign investment and huge indebtedness.

Omolade, Morakinyo and Ifeacho (2013) investigated the nexus between globalization and economic development of Nigeria over the period 1980 – 2011. The study employed Johansen cointegration and Granger causality tests and revealed that trade openness relates negatively with economic development in Nigeria. The study further revealed that a unidirectional causality flows from economic development to globalization without such in reversed order and that trade partners appear to be gaining more than the country especially the developed trade partners.
Sede and Izilein (2013) examined the causal relationship between economic growth and globalization in Nigeria. In carrying out the study, Johansen cointegration, Granger causality and variance decomposition tests were employed. The study found that globalization does not Granger-cause economic growth in Nigeria.

Nwakanma and Ibe (2014) examined the causal relationship between globalization and economic growth in Nigeria from 1981 to 2012. In carrying out the study, Johansen cointegration and Granger causality tests were employed. The results show that there is a positive and insignificant relationship between financial integration, human resource development and trade openness, while gross fixed capital formation was negative and insignificant. The results further revealed that a unidirectional causality runs from financial integration to gross fixed capital formation.

Okpokpo, Ifelunini and Osuyali (2014) through their study interrogated globalization as a potent driver of economic growth in Nigeria using the non-oil (agricultural and manufacturing) export as reference point from 1970 – 2011. The study employed the ADF unit root test and OLS technique and found that globalization has no significant impact on non-oil export and that globalization has not been a potent driver of growth of the non-oil export in Nigeria.

Shuaib, Ekeria and Ogedengbe (2015) examined the impact of globalization on the growth of the Nigerian economy over the period 1960 – 2010. The study employed the Johansen cointegration and error correction model and found that growth of external debt ratio was inversely related to economic growth in Nigeria.

Utuk (2015) analyzed the impact of globalization on economic growth in Nigeria in terms of trade and capital flows from 1970 – 2011. Using descriptive method of analysis, the study found that increased trade and capital flows engendered by globalization can enhance the country’s growth performance.

Adesoye, Ajike and Maku (2015) examined the impact of economic globalization on output growth of the Nigerian economy over the period 1970 – 2013. The study employed Engle-Granger cointegration and error correction model and found that a higher exchange rate and inflation rate, an increase in foreign direct investment, growth in trade and openness and a lesser interest rate enhance the growth rate of output in Nigeria.

It is clear from the foregoing that a number of empirical studies have been carried out on either the relationship between globalization and economic growth, or impact of globalization on economic growth in Nigeria. These studies mostly relied on the traditional econometric methods in carrying out their various empirical investigations. Given the flaws of the traditional econometric methods used in the previous studies coupled with the divergent results offered by
these studies, there is need for further researches on the impact of globalization on economic growth using contemporary econometric techniques. Based on the need to ensure good and consistent estimates of both longrun and shortrun elasticities as well as reliability of findings, the current study finds the Pesaran et al. (2001) ARDL framework worthy for cointegration and error correction modeling. This is part of the contributions of this study to knowledge.

3. METHODOLOGY

3.1 Theoretical Framework and the Model

Globalization has been identified in literature as a key to economic growth. Also, a vast empirical literature concludes that globalization contributes significantly to economic growth. Three variables namely: trade openness; foreign direct investment and financial integration have been identified in both theoretical and empirical literature to be the major drivers of that contribution. Thus, the framework of this study is anchored on the growth model developed by Mankiw, Romer, and Weil (1992), henceforth known as MRW growth model. According to this model, economic growth is a function of physical capital (K), human capital (H) and labour (L). Therefore, the model is:

\[ Y = A K^\alpha H^\beta L^{1-\alpha-\beta} \]  \hspace{1cm} \text{ Equation (1)}

Where A is the index of technical change that varies overtime but for this moment held constant, K is the capital stock, L is the labour supply and H is the stock of human capital. It is important to point out here that the parameters \( \alpha \) and \( \beta \) are assumed to lie between 0 and 1 and that \( (\alpha + \beta) < 1 \), implying that there are decreasing returns to all capital. Theoretically, the aggregate increase in human capital accumulation would likely improve the productivity of workers which will translate to economic growth.

In line with the above, our model is fully specified in its natural logarithm form as follows:

\[ LGDP = \beta_0 + \beta_1 LGCF + \beta_2 LLAB + \beta_3 LHCA + \beta_4 LOPN + \beta_5 LFDI + \beta_6 LFIT + \mu \]  \hspace{1cm} \text{ Equation (2)}

Where \( LGDP \) = natural log of real gross domestic product; \( LGCF \) = natural log of gross fixed capital formation; \( LLAB \) = natural log of labour force; \( LHCA \) = natural log of human capital (tertiary school enrolment); \( LOPN \) = natural log of trade openness (ratio of export plus import to GDP); \( LFDI \) = natural log of foreign direct investment; \( LFIT \) = natural log of financial integration (international capital flows); \( L \) = natural log notation; \( \mu \) = stochastic error term; \( \beta_0 \) = intercept term and \( \beta_1 - \beta_6 \) = partial regression coefficients.

A Priori Expectation: \( \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6 > 0 \)
3.2 Estimation Technique

In a Single-Equation Multiple Regression Model (SEMRM), the study regresses real GDP (a proxy for economic growth) on gross fixed capital formation, labour force, human capital, trade openness, foreign direct investment and financial integration using Nigeria data. The Ordinary Least Squares (OLS) was used as the estimation technique. However, applying OLS directly without accounting for the time series properties of the relevant variables may result to spurious regression. In order to overcome the impending problems associated with time series, the study engaged in some pre-test analysis.

One of the important types of data used in most empirical works is time series data. These empirical works that are based on time series data always assume that the underlying time series are stationary. However, it is widely known that most economic time series are non-stationary and the regression of a non-stationary time series on another non-stationary time series may lead to spurious regression. In order to overcome the problem of spurious regression, there is need for unit root test (that is, to test whether a variable is stationary or not). However, it should be noted that stationarity test is not a customary practice when using ARDL bound test for cointegration analysis, but the need to carry out stationarity test in this study is to ensure that none of the variables is I(2) as ARDL becomes meaningless in the face of I(2) variables. For stationarity test, the study employed the Augmented Dickey-Fuller (ADF) and Philip-Person (PP) tests. The ADF test consists of estimating the following equation:

\[ \Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \sum_{i=1}^{m} \alpha_i \Delta Y_{t-i} + \epsilon_t \]  \hspace{1cm} (3)

Where \( \epsilon_t \) is a pure white noise error term; \( t \) is time trend; \( Y_t \) is the variable of interest; \( \beta_1, \beta_2, \delta \) and \( \alpha_i \) are parameters to be estimated; and \( \Delta \) is the difference operator. In ADF approach, we test whether \( \delta = 0 \). The PP test is based on estimating the following statistic:

\[ t_a = t_a \left( \frac{Y_0}{f_0} \right)^{1/2} - \frac{T(f_0-\gamma_0)(se(\hat{\alpha}))}{2f_0^{1/2}s} \] \hspace{1cm} (4)

Following the stationarity tests, cointegration test was carried out using the Autoregressive Distributed Lag (ARDL) bound testing approach to cointegration as proposed by Pesaran et al (2001). This procedure has numerous advantages over the alternative methods (ie Engle-Granger (1987), Johansen and Juselius (1990), and Philip and Hansen (1990)). Apart from its better small sample properties, other advantages of ARDL framework include: (i) it is based on estimating an unrestricted ECM which seems to take satisfactory lags that captures the data generating process in a general-to-specific framework of specification (Nwogwugwu, Maduka & Madichie 2015; Laurenceson & Chai, 2003); (ii) unlike other cointegration techniques (e.g., Johansen’s
procedure which require certain pre-testing for unit roots and that the underlying variables to be integrated of the same order), the ARDL model provides an alternative yet a simple test for examining a long-run relationship irrespective of whether the underlying variables are purely I(0) or I(1), or fractionally integrated; (iii) while the traditional cointegration methods may also suffer from the problems of endogeneity bias, the ARDL method can distinguish between dependent and explanatory variables in a single-equation set-up. Thus, estimates obtained from the ARDL method of cointegration analysis are unbiased and efficient, since they avoid the problems that may arise in the presence of endogeneity bias. In line with the model of this study, the ARDL bounds testing procedure consists of estimating the following generic form of an unrestricted error correction model:

$$
\Delta LGDP_t = \alpha + \sum \beta_i \Delta LGDP_{t-i} + \sum \delta_j \Delta LGCF_{t-j} + \sum \gamma_k \Delta LLAB_{t-k} + \sum \phi_l \Delta LHCA_{t-l} + \sum \lambda_m \Delta LOPN_{t-m} + \sum \theta_n \Delta LFDI_{t-n} + \sum \pi_p \Delta LFIT_{t-p} + \delta_1 LGDP_{t-1} + \delta_2 LGCF_{t-1} + \delta_3 LLAB_{t-1} + \delta_4 LHCA_{t-1} + \delta_5 LOPN_{t-1} + \delta_6 LFDI_{t-1} + \delta_7 LFIT_{t-1} + \mu
$$

(5)

The above equation shows the unrestricted ECM version of ARDL model specification. The bounds test is mainly based on the joint F-statistic whose asymptotic distribution is nonstandard under the null hypothesis of no cointegration (Pesaran et al. 2001). The first step in the ARDL bounds test approach is to estimate equation (5) by OLS, which tests for the existence of a long-run relationship among the variables by conducting an F-test for the joint significance of the coefficient of the lagged level of the variables. Thus, the null hypothesis of no cointegration for equation (5) is stated as follows:

$$
H_0: \delta_1 = \delta_2 = \delta_3 = \delta_4 = \delta_5 = \delta_6 = \delta_7 = 0, \text{against } H_1: \delta_1 \neq \delta_2 \neq \delta_3 \neq \delta_4 \neq \delta_5 \neq \delta_6 \neq \delta_7 \neq 0
$$

Our F-statistic which normalizes on LIMP is denoted with $F_{LIMP}^{LGD}$ (LGDP, LGCF, LLAB, LHCA, LOPN, LFDI, LFIT). The F-test has a nonstandard distribution which depends upon: (i) whether variables included in the ARDL model are I(0) or I(1); (ii) the number of regressors; and (iii) whether the ARDL model contains an intercept and/or a trend. Two sets of critical values are reported in Pesaran et al. (2001): one set is calculated assuming that all variables included in the ARDL model are I(0) and the other is estimated considering that the variables are I(1). We reject the null hypothesis of no cointegration when the F-statistic exceeds the upper critical bounds value. We do not reject the null hypothesis if the F-statistic is lower than the lower bounds. Finally, the decision about cointegration is inconclusive, if the calculated F-statistic falls between the lower and upper-bound critical values.

Furthermore, if a stable long run relationship is confirmed from the ARDL bound test, then we shall estimate the short run dynamic model through the following error correction model:
\[ \Delta LGDP_t = \alpha + \sum \beta \Delta LGDP_{t-i} + \sum \delta \Delta LGCF_{t-j} + \sum \rho \Delta LAB_{t-k} + \sum \phi \Delta LHCA_{t-l} + \sum \gamma \Delta LOPN_{t-m} + \sum \theta \Delta LFDI_{t-n} + \sum \nu \Delta LFIT_{t-p} + \Psi ECM(-1) + \mu_t \]  

where ECM\(_{t-1}\) is the error correction term resulting from the verified long-run equilibrium relationship and \(\Psi\) is a parameter indicating the speed of adjustment to the equilibrium level after any particular shock. The sign of ECM\(_{t-1}\) must be negative and significant to ensure effective convergence of short-run dynamics to the long-run equilibrium. The value of the coefficient, \(\Psi\), which signifies the speed of convergence to the equilibrium process, usually ranges from -1 to 0. The value of -1 signifies perfect and instantaneous convergence while 0 means no convergence after a shock in the process.

Also, as pointed out by Pesaran and Pesaran (1997), it is imperative to ascertain the constancy of the long-run multipliers by testing the above error-correction model for the stability of its parameters. The commonly used procedures for stability test are the cumulative sum (CUSUM) and the cumulative sum of squares (CUSUMQ), both of which have been introduced by Brown et al. (1975) and used extensively in many empirical researches.

### 4. EMPIRICAL RESULTS AND DISCUSSION OF FINDINGS

We present in this section the results of empirical analysis of annualized secondary time series data. Here, the discussion begins with the results of the unit root tests. It has been stated in the previous section that unit root testing is not a customary practice when using ARDL bound test for cointegration as the approach assumes that variables are either I(0) or I(1) or fractionally integrated. However, it becomes necessary to carry out this test to ensure that none of the variables is I(2) as ARDL bound test makes no meaning in the face of I(2) variables. Therefore, ADF and PP unit root tests have been carried out on levels and differences of the series. The tests assume intercept with no trend in both ADF and PP unit root specifications while the optimal lag length was determined based on SIC automatic selection. The results of the unit root tests are reported in Table 1 below.
Table 1: ADF and PP Unit Root Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>ADF</th>
<th>Order of Integration</th>
<th>PP</th>
<th>Order of Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level</td>
<td>1st Diff.</td>
<td>Level</td>
<td>1st Diff.</td>
</tr>
<tr>
<td>LGDP</td>
<td>-1.7657</td>
<td>-3.8697***</td>
<td>I(1)</td>
<td>-2.0965</td>
</tr>
<tr>
<td>LGCF</td>
<td>-2.6784*</td>
<td>-2.4770</td>
<td>I(0)</td>
<td>-0.4788</td>
</tr>
<tr>
<td>LLAB</td>
<td>-3.9730**</td>
<td>1.6082</td>
<td>I(0)</td>
<td>-8.7167***</td>
</tr>
<tr>
<td>LHCA</td>
<td>-0.6361</td>
<td>-6.8243***</td>
<td>I(1)</td>
<td>-0.6389</td>
</tr>
<tr>
<td>LOPN</td>
<td>-1.0515</td>
<td>-3.7742***</td>
<td>I(1)</td>
<td>0.8876</td>
</tr>
<tr>
<td>LFDI</td>
<td>-2.1277</td>
<td>-4.8898***</td>
<td>I(1)</td>
<td>-2.2859</td>
</tr>
<tr>
<td>LFIT</td>
<td>-1.6630</td>
<td>-8.4633***</td>
<td>I(1)</td>
<td>-1.4818</td>
</tr>
</tbody>
</table>

NB: ***, ** and * imply significant at 1%, 5% and 10% levels of significance respectively.

Lag length is based on SIC automatic selection.

Source: Authors’ computation using EViews 9.5

From the results in Table 1, it could be seen that variables such as LGDP, LHCA, LOPN, LFDI and LFIT are integrated at order one I(1), whereas LLAB is integrated at order zero I(0) according to ADF and PP unit root tests. However, ADF and PP tests were inconclusive about the exact order of integration of LGCF. While ADF shows that LGCF is integrated at order zero I(0), PP has shown that LGCF is integrated at order one I(1). However, it has been argued that PP unit root test has advantage over the ADF test in some ways which include: (i) ADF has weak power in the face of structural break and as such, its results could be biased and (ii) the ADF result is affected by the sample size. Thus, it is safe to conclude based on PP unit root test that the variable LGCF is I(1) variable. In passing, it should be noted that none of the variables is I(2) as all variables were either I(0) or I(1). This provides justification for the use of ARDL bound test for cointegration.

The results of the unit root tests show that the chosen variables are a combination of I(0) and I(1) and that none is I(2). This implies that we can safely proceed to the ARDL bound test for cointegration analysis. The results of the ARDL bound tests are reported in Table 4.2 below.
From Table 2, the null hypothesis of no cointegration is rejected for all variables when they are made the dependent variables. This is because the F-statistic for the joint significance of the lagged of level variables is greater than the upper bound critical value at both 5% and 1% levels of significance. This shows evidence of cointegration when each of the variables is made the dependent, meaning that they are all endogenous variables. Although all variables seem to be endogenous by the cointegration results, there is no fear of endogeneity bias in reporting the longrun coefficients with respect to the variable of interest which is the dependent variable (LGDP), as ARDL has the advantage of distinguishing between endogenous and exogenous variables in a single-equation setting.

Furthermore, it is a customary practice to report the longrun cointegrating coefficients with respect to the variable of interest (LGDP). This result is based on ARDL automatic normalization process. It shows the longrun impact of each of the explanatory variables on the dependent variable (LGDP). This is reported in Table 3 below.
Table 3: ARDL Normalized Longrun Coefficients (Dependent Variable: LGDP)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficients</th>
<th>Std. Error</th>
<th>t-statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGCF</td>
<td>58.452788*</td>
<td>24.532811</td>
<td>2.382637</td>
<td>0.0364</td>
</tr>
<tr>
<td>LLAB</td>
<td>1.329754</td>
<td>9.493401</td>
<td>0.140071</td>
<td>0.8932</td>
</tr>
<tr>
<td>LHCA</td>
<td>44.657855*</td>
<td>14.986225</td>
<td>2.979927</td>
<td>0.0246</td>
</tr>
<tr>
<td>LOPN</td>
<td>28.312198*</td>
<td>12.126291</td>
<td>2.334778</td>
<td>0.0400</td>
</tr>
<tr>
<td>LFDI</td>
<td>59.188166*</td>
<td>21.038126</td>
<td>2.813376</td>
<td>0.0180</td>
</tr>
<tr>
<td>LFIT</td>
<td>86.895251*</td>
<td>43.335950</td>
<td>2.005154</td>
<td>0.0508</td>
</tr>
<tr>
<td>C</td>
<td>-2.371468</td>
<td>3.221018</td>
<td>-0.736248</td>
<td>0.4894</td>
</tr>
</tbody>
</table>

| R-squared          | 0.996937 |
| Adjusted R-squared | 0.983662 |
| F-statistic        | 75.10131|
| Prob(F-statistic)  | 0.000013 |
| Breusch-Godfrey Serial Correlation LM Test: |
| F-statistic        | 2.445278|
| Prob. F(2,4)       | 0.2024  |

Source: Authors’ Computation using EVIEW 9.5.
NB: * indicates significant at 5% level.

From Table 3 above, the longrun model is grossly robust, meaning that all the explanatory variables taken together have significant impact on the dependent variable (LGDP). This is occasioned by the fact that the F-statistic (with its p-value) is statistically significant at 5% level. Thus, all the explanatory variables (gross fixed capital formation, labour force, human capital, trade openness, foreign direct investment and financial integration) jointly explain variations in the dependent variable (gross domestic product). Also, there is goodness of fit as all the explanatory variables account for about 99.7 percent of total variations in the dependent variable (LGDP) based on the value of R-squared. The Breusch-Godfrey Serial Correlation LM Test (a test for the presence of autocorrelation in the residuals) confirms that the model is not plagued by autocorrelation of any order as the F-value with its associated p-value is statistically insignificant at any level. This implies that our model could be relied upon for drawing inferences.

Furthermore, the results in Table 3 reveal that all the explanatory variables conform to a priori expectation as they all have positive impact on the dependent variable. However, with the exception of labour force (LLAB), all other variables are individually statistically significant at 5% level of significance. This implies that gross fixed capital formation (LGCF), human capital (LHCA), trade openness (LOPN), foreign direct investment (LFDI) and financial integration (LFIT) individually have significant positive impact on economic growth of Nigeria in the
longrun. Thus, any policy action taken on LGCF, LHCA, LOPN, LFDI and LFIT will bring about significant positive change in economic growth of Nigeria over the longrun.

Based on the foregoing discussion, it is evident that globalization has longrun significant positive impact on economic growth in Nigeria. Therefore, it is safe to say that Nigeria has actually benefited from globalization through enhanced trade, investment and financial flows. This finding is consistent with that of Adesoye, Ajike and Maku (2015).

The result in Table 4 is the parsimonious ECM version of the ARDL model for the shortrun dynamics. The parsimonious model was arrived at through the automatic selection of SIC in ARDL model provided in EVIEWS 9.5, following a maximum lag length of 4. The result shows that GDP (a proxy for economic growth), on its longrun growth path, effectively adjusts to shortrun shocks by about 22.98 percent in each period. Also, the stability tests reported in Figure 1 show that the estimates of the ARDL model is dynamically stable over the longrun as the fitted line falls within the 5% critical regions for both cumulative sum and cumulative sum of squares.

Table 4: Parsimonious ECM version of the ARDL Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(LGDP(-1))</td>
<td>-0.428427</td>
<td>0.065297</td>
<td>-6.561240</td>
<td>0.0006</td>
</tr>
<tr>
<td>D(LGCF)</td>
<td>9.944965</td>
<td>1.060373</td>
<td>9.378742</td>
<td>0.0001</td>
</tr>
<tr>
<td>D(LGCF(-1))</td>
<td>5.748945</td>
<td>1.099785</td>
<td>5.227334</td>
<td>0.0020</td>
</tr>
<tr>
<td>D(LLAB)</td>
<td>-11637.28</td>
<td>1109.821</td>
<td>-10.485727</td>
<td>0.0000</td>
</tr>
<tr>
<td>D(LLAB(-1))</td>
<td>20524.89</td>
<td>1510.885</td>
<td>13.584683</td>
<td>0.0000</td>
</tr>
<tr>
<td>D(LHCA)</td>
<td>-11.06984</td>
<td>0.754845</td>
<td>-14.665047</td>
<td>0.0000</td>
</tr>
<tr>
<td>D(LHCA(-1))</td>
<td>5.405921</td>
<td>0.683026</td>
<td>7.914667</td>
<td>0.0002</td>
</tr>
<tr>
<td>D(LOPN)</td>
<td>7.855020</td>
<td>2.922921</td>
<td>2.687387</td>
<td>0.0362</td>
</tr>
<tr>
<td>D(LOPN(-1))</td>
<td>28.65204</td>
<td>2.143825</td>
<td>13.364921</td>
<td>0.0000</td>
</tr>
<tr>
<td>D(LFDI)</td>
<td>1.647923</td>
<td>0.315260</td>
<td>5.227178</td>
<td>0.0020</td>
</tr>
<tr>
<td>D(LFDI(-1))</td>
<td>-7.262326</td>
<td>0.808114</td>
<td>-8.986760</td>
<td>0.0001</td>
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<tr>
<td>D(LFIT)</td>
<td>4.094040</td>
<td>0.716782</td>
<td>5.711694</td>
<td>0.0012</td>
</tr>
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<td>D(LFIT(-1))</td>
<td>-0.229754</td>
<td>0.013746</td>
<td>-16.714648</td>
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</tbody>
</table>

Source: Authors’ Computation using EVIEWS 9.5.
5. CONCLUSION

The study examined the impact of globalization on economic growth in Nigeria. Specifically, the study employed the contemporary econometric technique of cointegration and error correction mechanism within the framework of the Pesaran et al. (2001) ARDL model to investigate the impact of trade openness; foreign direct investment and financial integration (which are driven by globalization) on economic growth in Nigeria. Using annualized secondary time series data from 1970 to 2015, the study reveals that trade openness; foreign direct investment and financial integration have significant positive impact on economic growth in Nigeria. Thus, adequate mechanism should be put in place to ensure that globalization brings about the desired pace of economic growth in Nigeria.

REFERENCES


