

Trade Openness (Globalization) and Economic Growth Question in Nigeria: An Empirical Evaluation

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Key Words

Economic Growth, Globalization, Nigeria, Trade Openness and Gross Domestic Product

Abstract

The interest in this paper is to investigate the role played by globalization, which is measured by trade openness in the economic growth in Nigeria since the impact of globalization varies from country to country depending on the level of social, economic and political development. In Nigeria, economic growth rate is not justified by the presence of poverty, unemployment and inequality. Using quarterly data from the Central Bank of Nigeria and National Bureau of Statistics between 1981-2009, economic growth and globalization were measured by changes in real Gross Domestic Product (GDP) and trade openness respectively. Using the Engle and Granger co-integration procedure, the absolute value of the Augmented Dickey Fuller (ADF) test statistic is higher than the 95% critical value. This implies that residuals are stationary. Thus, the variables are co-integrated and therefore, only a long-run positive relationship exists between economic growth and globalization. It is therefore recommended that expenditure that harms the growth of the economy should be shaved for expenditure that promotes it. It concludes that Nigeria should embrace globalization, without being in a hurry to reap any immediate benefit, but with the readiness to be patient enough and allow a gestation period for this positive impact. It is the lack of this realization that often results in oppositions to globalization and openness among developing countries.

Background of the Study

Economic growth can be used to mean the continuous accumulation of capital for development. Indeed, before the outburst of Seer, economists did not really see a major difference between growth and development. It was only after Seer and later Sen, that interest in the subject was highly intense. It was seen that a country could experience growth – an accumulation of capital- without this twinkling down in the form of reduced employment, poverty and inequality. However, Igberaese (2004) points out that without growth, development is impossible. Hence, economists are nowadays interested in controversy of the economic growth of Less Developed Countries (LDCs) because it has proven that the above scenario is abundant because despite the increase growth rate, those three Seer’s criteria for measuring development are growing worse because a clique has laid hold to nation’s wealth. Interest generated on this subject is a different study.

Given that the economic growth rate in Nigeria has increased to warrant attention of why there has not be development and reduction in poverty, the interest in this paper is to investigate the role played by globalization since the impact of globalization varies from country to country depending on the level of social, economic and political development. Since no country lives in isolation, globalization becomes the need of Less Developed Countries (LDCs), who have gained as well as suffered from globalization in the growth of their economies (Afzal, 2007).

Conceptual Issues in Globalization

Many authors have used trade openness to measure globalization. Oaikhenan’s and Udebunam’s (2012) empirical result shows a short-run positive and significant impact on Nigeria economic growth (See also Obadan 2008). Hence, both terms are used interchangeably in this paper since the interest rest only on economic globalization. There is dominant feature of global economic trend in contemporary world. Akingboye (2008) maintains that this is being driven particularly by a new wave in information technology that is unparallel in the history of mankind. The Nigeria economy is an open economy in that

it has businesses to do across the national borders with its production and distribution networks on the global scale. The country is then parts of the “global village” given the unprecedented level of inter-connectedness of economic, social, political and technological forces that drives the economy.

Many non-economists believe that in attempt to harness whatever benefit of globalization for the growth of the economy, the country exposes its economy to external aggressions and the adverse effects of globalization, while others emphasis caution and complete restructure and transformation of the economy in order to confront contemporary global challenges. Goldberg and Paverik (2006) note that one uncontroversial insight of trade theory is changes in a country’s exposure to international trade, and world markets more generally, affect the distribution of resources within the country and can generate substantial distributional conflict. The authors note that while globalization was expected to help the less skilled who are presumed to be the locally relatively abundant factor in developing countries. There is overwhelming evidence that these are generally not better off, at least not relative to workers with high skill or education levels. Thus, globalization has a mechanism in which it affects inequality since there are other forces at work that could override the effects of globalization, such as “too stylized” to capture the reality in the developing world like Nigeria (Goldberg and Paverick, 2006).

However, it has also been argued that the consequence of globalization for inequality has improved and that such effect depends on many factors, several of which are country and time specific; a country’s trade protection pattern prior to liberalization, the particular form of liberalization and the sector it affects, the flexibility of domestic market or its ability to adjust to changes in economic environment, especially the degree of labour and capital mobility within the country and available skill based on technology in the country (See Afzal, 2007 and Obadan, 2008).

On the whole, there exist two contracting paradigms about globalization; interdependence and imperialism. The interdependence paradigms is of liberal persuasion and sees it as a frame work of complex and growing interdependence among nations that will lead to economic growth (See Obadan, 2008). The imperialism paradigm is of radical persuasion and insists that globalization represents nothing but capitalism and neo-colonialization, a way of transformatory capitalist project, which impoverish the already underdeveloped countries (see Ake, 1995; Omotola, 2010 and Aina, 1996). Obadan (2001) and Obadan (2008) observe that the phenomenon of globalization has numerous implications for both developed and developing countries, with powerful force of shaping world economics for good or for ill.

Literature Review

Meaning of Globalization

According to Fischer (2000), globalization has tended to mean different things to different people and different things to the same people across time and space. It therefore means that very many definitions have been given to the word globalization. Caselli (2004) cited in Obadan (2008) sees globalization as a set of processes, which **(a)** increase the number and heighten the intensity of contacts, relations, exchanges and dependence and inter-dependence among various parts of the world; **(b)** transfer the importance of “space” and “time” with respect to those relations and relationships, as well as of their importance for their personal lives.

However, Obadan (2008) is of the view that globalization is not just an economic phenomenon, which integrate world economics but also of culture, technology and governance. Nevertheless, economic globalization is of most importance. Thus, the author defines it as the process of change toward greater international economic integration through trade, financial flows, exchange of technology and information and movement of people, with its most dramatic feature being trade liberalization, and unrestricted flow of capital. Accordingly, openness and markets constitute the platforms of economic globalization while trade, finance, investment and entrepreneurs are the heart. But the major key of competitiveness among nations with respect to wealth creation and distribution is trade and development.

Onotok (2000) cited Obadan (2003) explains globalization as follows:

“The growing interdependence of the world’s people... it is about increasing interconnectedness and interdependence among the world’s regions, nations, government, business institution, communities, families and individuals... it fosters the advancement of global mentality and conjures the picture of borderless world, through the use of information technology to create partnerships to foster greater financial and economic integration”

Surely, this of the liberal persuasion; It means a process of connectivity and interdependence of world’s markets and businesses, in which the mutual benefit depends on both how well each partner receives it, and respect such integration and independence concepts.

Dimension and Measurement of Globalization and Economic Growth

Throughout the paper, globalization is seen as describing the process of searching networks of connections among actors of multi-continental distance, mediated through a variety of flows including people, information and ideas, capital and goods. It is a process that erodes national boundaries, integrate national economic (Clark, 2000 and Norris, 2000 in Dreher, 2003).

However, there exists other dimensions of globalization besides economic. Dimension of globalization consists of the followings:

- Economic globalization, characterized as long distance flows of goods, capital and services as well as information about the global market exchange.
- Political globalization, characterized by a diffusion of government policies are; and
- Social globalization, characterized as the spread of idea, information, images and people (Obadan 2008; Goldberg and Paverick, 2006 & Akinboye 2008).

Dreher (2003) constructed two indexes to measure the degree of economic globalization. One is actual flows: trade, foreign direct investment (all in percentage of GDP). Income payment to foreign nationals and capital employee (in percentage of GDP) are included to proxy for the extent a country employs foreign people and capital in its production processes. The second index the author employed measures restrictions on trade and capital using hidden import barrier, mean tariff rate, taxes on international trade (as a share of current revenue) and an index of capital controls. So that given a certain level of trade, a country with higher revenue form trade taxes is more globalized. Since openness should not be dummy (as it is not a yes-or-no question), Dreher employs an index based on IMF’s Annual Report on Exchange Arrangements and Exchange Restriction and included 13 different types of capital controls. The index, the author explains, is constructed by subtracting the number of restriction from 13 and multiplying the result by 10.

Theoretical Framework and Model Specification

Economic Globalization and other Variables:

The concept of economic globalization has very sound theoretical framework. The promotion of trade as the foundation of the wealth of nations was propounded by the mercantilist. This was before the emergence of Adam Smith’s and David Ricardo’s theses. The radical theorists later criticized the neo-classical model of economic growth. Looking at the present developments in the world economies, it has been proven that it is impossible for countries to separate or isolate themselves in a rapidly integrating world. Globalization has come to stay (Loto, 2011). Fischer (2000) postulates that globalization has tended to mean different things to different people at the same time. But economic globalization is of most importance, and it is change towards greater international economics through trade, financial flow and foreign direct investment (Obadan, 2008 and Omotola, 2001 in Obadan 2003). Most economists however noted that trade openness and market constitute the platforms of economic globalization (Obadan, 2008).

With respect to other variables that influence economic growth, which Oaikhenan and Udegbanan (2012) notes is measured by changes in real Gross Domestic Product (GDP), Nurudeen and Usman (2010) believe that government expenditure plays a vital role (Also see Olopade and Olopade, 2010). The simple theory of income stabilization also places government as the main factor influencing

aggregate investment and thus national income. Under the Keynesian three sector model, when there is liquidity trap, any government expenditure or taxation can push the economy. Fabayo and Ajilore (2006) find that inflation impact positively on economic growth if the economy is below full employment, since increase in spending by government would push income to full employment. But Loto (2011) finds that inflation rate has negative effect on the growth of Nigeria economy. Obadan (2006) reveals that exchange devaluation or depreciation will encourage export, and since export is an injection to the economy, exchange rate in the case of Nigeria is expected to have positive impact on economic growth.

Model Specification:

Besides the prime variable openness in trade, economic growth becomes a function of many variables as follows:

$$\Delta\text{RGDP} = f(\text{TOP}, \text{GOV EXP}, \text{Inf}, \text{Exr})$$

Where: ΔRGDP = Change in Real Gross Domestic Product

TOP = Openness in trade, measured as $\frac{X + M}{Y}$

Y

Where: X = Export

M = Import

Y = Income

Gov. Exp = Government Expenditure

Inf = Inflation

Exr = Exchange rate

Hence, the following econometrics model is specified:

$$\Delta\text{GDP} = \beta_0 + \beta_1\text{TOP} + \beta_2\text{GovExp} + \beta_3\text{Inf} + \beta_4\text{Exr} + u_i$$

Where: β_0 = Intersect

β_i = Coefficients (of the variables) to be estimated

u_i = Stochastic error term

Empirical Analysis

Presentation of Unit Root Test Results

The importance of testing for stationarity of time series data is to avoid spurious result.

The Augmented Dickey Fuller (ADF) test are conducted at first difference, this is presented below:

Unit Root Tests Results with Intercept between No Trend

Variable	ADF Test Statistics	95% Critical Value	Remarks
DRGDP	-21.8139	-2.8872	Stationary
DTOPEN	-8.1524	-2.8872	Stationary
DGOVEXP	-4.2371	-2.8872	Stationary
DINFL	-5.7005	-2.8872	Stationary
DEXRT	-7.0081	-2.8872	Stationary

Unit Root Test Results with Intercept and a Linear Trend

Variable	ADF Test Statistics	95% Critical Value	Remarks
DRGDP	-23.0577	-3.4501	Stationary
DTOPEN	-8.1020	-3.4501	Stationary
DGOVEXP	-4.8951	-3.4501	Stationary
DINFL	-5.6790	-3.4501	Stationary
DEXRT	-7.0646	-3.4501	Stationary

The results shown in the tables above provide strong evidence that in difference, there is stationary as confirmed by the value of the ADF for each variable whether with trend or no trend. In absolute terms, the value of the ADF is greater than the corresponding 95% critical value.

Indeed, each variable is integrated of order one. Since the variables are characterized as I(1) or unit process, we proceed to the test for co-integration.

Presentation of Co-Integration Result

Given that time series are integrated of the same order, any linear combination of such time series would yield a co-integrated series. The economic interpretation of co-integration is that two or more variables are linked to form an equilibrium or long-run relationship between them. Even though the series themselves in the short run deviate from equilibrium, they will move together in the long-run. It implies that the variables are co-integrated.

The Engle and Orange two-step method is employed for the test of co-integration. The result of the co-integration test is summarized below.

Co-integration Test Results

Variable	ADF Test Statistic	95% Critical Value	Remarks
Residual Vector	-8.2110	-4.5398	Stationary

From table, using the Engle and Granger co-integration procedure, the absolute value of the ADF test statistic is higher than the 95% critical value. This, implies that residuals are stationary. Thus, the variables are co-integrated and therefore, a long-run relationship exists between economic growth and the regressors used.

The Error Correction Model and result are shown below:

$$\Delta \text{GDP}_{t-1} = \beta_0 + \beta_1 \text{TOP}_{t-1} + \beta_2 \text{GovExp}_{t-1} + \beta_3 \text{Inf}_{t-1} + \beta_4 \text{Exr}_{t-1} + u_i$$

Regressand	Regressors	Coefficient	T.Ratio
dDRGDP	dDRGDP ₋₁	0.8503	14.4110
	dDTOPEN	.42.1151	-0.6266
	dDTOPEN ₋₁	102.274	1.4266
	dDGOVEXP	-0.0500	-1.1943
	dDiNFL	-53.49	-0.7405
	dDEXRT	-108.81	-1.1371
	dINPT	-1685.6	-1.3152
	dTIME	75.4485	3.6582
	eCM(-1)	-1.9141	-22.9364

R² = 0.85

adjusted R² = 0.83

See = 6368.6

F(8,104) = 71.37

DW – statistics = 3.04

Analysis of Error Correction Results

The result of the error correction model above shows that all of the coefficients of the variables used conform to a-priori sign expectations. The error correction representation for the selected ARDL model was selected based on the R-Bar Square Criterion.

The result explains 85% of the systematic variation in rate of economic growth in Nigeria under the period of study as indicated by the value of the R-square. And, the “good of fit” is satisfactory with an adjusted coefficient of determination which stood at 83%.

The F-statistic of 71.37 provides a reinforcement of the overall statistical significance at the 1% level. Coefficient of ECM is negative (Rightly signed) and significant at an astonishing 1% level, thus its ability to correct long-run deviations is very high. The value of see is large. It shows that the predictive

ability of the model is low and the DW- statistics of 3.04 is in grey region about the null hypothesis of autocorrelation, but accepted. Given the t-ratio of the variables, one period lagged real gross domestic product ($RGDP_{t-1}$), passes the significant test at the 1% level and it indicates that the variable impacts positively with a lag. 10% increase in $RGDP_{t-1}$ will increase growth by 85%.

OPEN shows a negative but insignificant coefficient failing the two-test of 1% to 12% respectively. The negative coefficient is not statistically different from zero. But a one-period lagged openness (TOPEN) is only significant at the 10% level. This shows that openness does not actually profit developing nations – but with time the country (when capable) opens up to reap the benefit of globalization.

GOVEXP is negative and significant at the 12% level. It is argued that government spending is often geared with high taxation policy and this creates some kinds of disincentive case to the private investors and slows growth rate.

INFL is negative but its coefficient is not statistically different from zero. However, the sign conforms to expectation due to the negative effect it has on growth and other units of the economy.

EXR is significantly negative at the 12% level. It shows that an increase of 10% on exchange rate will fall growth by 108%. This is clearly informed by the deteriorating situation the currency faces in the trading places of the world since devaluation can only boost export in an industrialized economy.

Summary, Policy implications/Recommendations and Conclusion

Summary: Given the results, it can be said that trade openness impacts on the growth of the economy positively but with a lag. Hence, openness does not impact on economic growth in Nigeria in the short run.

Policy Implementation/Recommendations: The analysis of the regression results provides us the following policy implications:

- ❖ With the one-period lagged RGDP estimate, it shows that the country is working productively with regards to the rate of growth per annual. This calls for the vibrant policy makers, researchers to keep the ball rolling.
- ❖ TOPEN is positively related to growth as clearly indicated by the ecm, expenditures that harms the growth of the economy should be shaved for those that promote it.
- ❖ Taxation policy should be made in such a way that it doesn't discourage the private hands and helps to redistribute income properly and help investment. Tax holidays and incentives such as provision of infrastructure to argument the tax paid by investors should be ensured
- ❖ Exchange rate is negative. Its deteriorating condition in Nigeria is obvious. No further devaluation of the currency should be tolerated till Nigeria is able to meet its industrial goals. In short, the authority should a more stable exchange rate policy to improve the value of the currency.

Conclusion

There is only a long-run positive relationship between trade openness and Nigerian economic growth. This contradicts Oaikhena and Udegbanan, which find a positive relationship between openness and economic growth in the short-run. What this mean is that Nigeria should embrace globalization, without being in a hurry to reap any immediate benefit, but with the readiness to be patient enough and allow a gestation period for this positive impact. It is the lack of this realization that often results in oppositions to globalization and openness among developing countries.

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