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Trade Liberalization Economic Growth and Poverty Reduction in Nigeria

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Abstracts

This paper examines the causal relationships between trade liberalization growth of the Nigerian economy and poverty. This study applied time series data for Nigeria. We employed the recently introduced Pesaran et al (2001) ARDL approach. Evidence from the study suggest that trade liberalization does not cause poverty reduction, implying that the benefit of trade liberalization does not trickle down to the poor in Nigeria. This suggests that countries with high propensity to import and poor commodity prices need not to strictly follow the one size fit all trade liberalization policies rather each country need to focus on trade policies peculiar to its own environment, which can deliver growth and translate growth into a meaningful poverty reduction.

Keywords: trade, poverty, liberalization

1. Introduction

Until recently there was a common understanding that trade liberalization is the engine of growth (Shahbaz 2012). However, this idea has been contested; debates in this perspective try to point out that the nexus relationship between growth and liberalization of trade is not in question, but whether trade liberalization, actually translate economic growth into sustainable development and poverty reduction (Wacziarg, 2011). This may not be unconnected to the increasing occurrences of increase in the level of poverty, and the marginalization, and going concomitantly with the trade liberalization regime in most Sub-Saharan Africa (Adhikery, 2011).

The state of concern is precisely, how such underdeveloped countries structure their exports and import, because, a country with diversified export based benefit from trade liberalization, on the contrary, countries with a high marginal propensity to import suffer from deterioration of their balance of payment and worsening poverty (Wacziarg, 2011). This paper raises the very crucial question, on the ongoing debate, on how a country like Nigeria with little non oil to export and experiencing high marginal propensity to import, deteriorating product prices and balance of payment difficulties, benefit from trade liberalization and ensure poverty reduction? The objective of this study is determined whether trade liberalization can improve growth and ensure poverty reduction.

This paper differs significantly from the previous studies by attempting to integrate poverty into the trade liberalization and economic growth studies, since some of the methodological problems with previous attempt in this dimension is the missing variables such as poverty which may influence the possible linkages mediating between the liberalization of trade and growth performance of the Nigerian economy. Even those who attempted to address these problems end up with the difficulty of proxy selection to adequately measure trade liberalization, while some of the studies suffer from conceptual vagueness (Adhikery, 2011). Other reasons may be due to over reliance on cross- sectional data analysis without being context specific.

Following the introduction which constitutes section one, of the paper the remaining section is structured in the following ways, section two, and analyzed trade liberalization policies in Nigeria. Section three constitutes theoretical as well as empirical literature review. While section four includes presentation and analysis of the data and final section five includes discussions and conclusion of the study.

1.1 Trade Liberalization Policies in Nigeria

From 1986 to the current period the Nigerian trade policies has been liberal in perspective. However, they're two important changes that took place within this period, which includes the institutions of a flexible, exchange rate mechanism and the implementation of a broad based and a comprehensive tariff system. This led to raised in the

classification of tariff from 1,560 of the 1980 regime to 4,960 in addition, the decline in wide spreads of the tariff burden which was delivered in the trade-weighted and average nominal tariff from 33% to 23%, however, certain agricultural and industrial imports products, which compete with major domestic producers, remained subject to high nominal rates up to 60% and some luxury goods such as major vehicles were subjected to rates of 100% or more.

The outcome performance of the growth of the Nigerian economy from the trade liberalization policy indicates that the contribution of agriculture increase from 30 percent in 1998 to phenomenally 36 percent in 2000 and move again to 42 percent in 2007. Thus the contribution of the petroleum sector to GDP also increases with the liberalization period. However, it should be noted that despite raised in the two sector contribution to GDP there is no structural linkage of this sector with industrial sector, the industrial sector unemployment continues to soar, and the industrial sector productivity continues to stagnate (Onyeiwu, Lorgulecu, and Polimeni, 2009).

However, the exchange rate also appreciates during the reform period against international exchange rate but that cannot translate as an improving in the export based on the economy, because despite the increase in the exchange rate, the industrial sector performance continued to be sluggish, falling from the initial level of 21.33 percent by the closing period of 1999 to 17.66 quantity by the closing end of 2000. Even though there is an increase in the foreign reserved from us 4 billion in 1999 to US 43.5 billion as at 2006 decaying condition of infrastructure facilities and other social amenities continue to soar.

Lending rate also improved from 21.33 to 17.66 but it is still considered high and with a majority Nigerian cannot afford to take loans from the government. Before the trade liberalization policy in the 1980 the resulted outcome was the share of the manufacturing sector which constituted 17percent of the total GDP, IN 2006 continue falling to the 3 percent of GDP and it operate below capacity utilization in fact it fall down to 560 from the previous 938 units in 1980, and felt more to 450 units in 2006, productivity in the industrial sector continue to fall. The unemployment also continues to decline falling from 18% in 1990 to 5.3% in 2006, poverty also decline from 70% in 1990 to 54% in 2006 but continue to rise to 94% in 2010, the 5 number of people falling into poverty continue to sink (NBS, 2010).

However, this culminated into a phenomenal increased in the import from 8.18 percent to a higher of 37.4 percent in 2001. Thus it should be noted that this sudden increase was also associated with marginal increase 42.3 percent in 1999. However, even though governments have targeted ad national revenue from the oil export but unfortunately it does not materialize, but at the same period the import continues to rise higher. This indicates an increase in import at a time when export is falling. This raised a very important question on how can the marginal imports be financed, if the revenue based which is exported is dwindling.

The argument here is that in an environment where there is a virtual absence of basic infrastructures, efficient productive based, and well trained labor force trade liberalization may create unfavorable effects on economic growth of Nigeria. This in turn may explain why the locally manufactured good cannot survive the international competition against the foreign firm.

The argument goes that trade liberalization in a condition of high marginal propensity to import, without sound diversified export based, may not be sustained.

2. Literature Review

The benefit of trade liberalization on economic growth and poverty reduction have generated more light than heat, some studies believe that it is beneficial to growth and poverty reduction, while some argued against.

One of the pioneering works in this respect is the work of Ahmed (2000), and Balassa (1971) and they came up with a conclusion that trade liberalization is positively correlated to growth.

Dollar and Kraay (2003) investigated the effects of trade liberalization and institutions on economic growth and reported that more open economies with better institutions develop faster and countries trade more with better institutions. Chang and Ying (2008), analyzed the causal linkage between the liberalization of trade and growth by adding cooperating freight as an additional variable. Their findings suggest a significant relationship between trade liberalization and economic growth on the air freight variable,

Wacziaring (2011), examine whether trade policy regime have affected economic growth using data of 57 countries using tariff barriers and dummy for trade liberalization and came up with a significance resulting indicating that trade policy do affects economic growth.

Kim et al (2000), re examined trade-growth nexuses by applying the threshold regression approach in low and high income countries. Their analysis indicated that trade liberalization boost financial development, productivity

growth in high income countries. Adhikery, (2011), supported the literature by investigating the relationship between trade liberalization and economic growth by incorporating FDI, capital formation as other motivating of economic growth of case of Bangladesh economy, his study suggests a long run relationship and reported that trade liberalization impedes economic growth while FDI and capital formation has significant impact on economic growth.

One of the recent country case studies was the work of Sanusi (2010) who examine the linkage between trade openness and economic growth drawing data of the selected case study country as well as a cross sectional study of some selected sub-Saharan Africa. His study addressed the issues of the indicator of openness by using broader alternatives constructed indicators by Sach and Wanner (1995), in both his cross- sectional analysis and country case study he draws the conclusion that trade liberalization is positively correlated with growth. Shahbaz et al (2008), examine trade openness and long run growth by incorporating financial development as an additional determinant of economic growth. His study confirms Co integration in the long run and openness promotes economic growth. However, the problems with these studies they did not treat the issues of causality between trade liberalization and economic growth, and they omit poverty variable which may affect their results.

The opposite views in the literature argued that trade liberalization does not benefit growth and poverty reduction example one of the famous work that become the critiques of the role of trade liberalization in developing country came from (Chang 2000), where he pointed out that Most of the successful developed countries in the World today are exercising the protectionist policies and they are not hundred percent open, but yet they make it compulsory on developing countries to remain open.

Wade et al (2012), in his work on trade liberalization and economic growth pointed out that even though export is a desirable thing to promote, but prioritization in terms of which sector would be the leading sector in export, important for faster ways of achieving a higher level of output.

Ehigiene (2007), provide intensive discussions on the linkage between liberalization and growth of the Nigerian economy. He pointed out the fundamental role of basic infrastructures, for sustainable development, without which he noted trade liberalization may say next to nothing.

His study went further to suggest for successful trade liberalization in Nigeria emphasis most be geared towards the provisions of basic infrastructures in the country.

3. Methodology

Our hypothesis is that the growth rate of GDP and poverty reduction is dependent on trade liberalization along with other variables like foreign direct investment, international export.

Therefore, the dependent variable is In GDP in the country over the period of 1980-2011. Here the main independent variable of interest is trade liberalization. If we can measure In GDP on trade liberalization then we must find that the coefficient estimate for the interaction dependence and trade liberalization is positive and significant.

Both the static and dynamic versions of the traditional trade theories suggest that trade liberalization leads to higher national income. Liberalization of trade in the form of lower barriers generates welfare improvements as the specialization gains and exchange gains manifest themselves into higher output than would have been possible under a restrictive trade regime. The second channel is based on the Schumpeterian approach in the endogenous growth theory. Here, trade liberalization raised growth by reducing the impediments to the free movements of goods and these factors of production (Grossman and Helpman, 1991).

Some interesting studies e.g. Sanusi (2008), Sach and Warner (1995), and Welch (2003) include foreign direct investment as a proxy of technology transfer. Importantly, the poor role of technology transfer to Nigerian sectors is a questionable factor to growth. To model our hypothesis we follow the Sanusi (2008), the relationship between growth and trade liberalization and poverty reduction is specified as:

$$InGDP=\beta 0+\beta 1FDI_t + EX_t + TL_t + PO_t + \mu_t \quad (1)$$

Where In GDP is the natural log of real per capita GDP, FDI is the proxy for foreign direct investment, EX is the proxy of international trade, TL is the total trade to GDP ratio, while PO is the poverty rate and μ is the disturbance terms.

3.1 ARDL Approach to Co-Integration

Since our main objective is to examine the causal links between trade liberalization, economic growth and poverty reduction, we employed recently introduce other techniques of establishing causal linkage among variables, popularly known as an Autoregressive Redistributive Lag model (ARDL) approach to co- integration,

introduce by Pesaran et al, (2001). Why we apply ARDL here is because it enables us to bypass other approaches to causality analysis suffering from various methodological problems, such as the difficulty of handling small sample data, and structural break problems commonly in the economic data. In the ARDL approach estimation is made possible without achieving order of 1 (0) and 1 (1). However, though it is necessary that the series must satisfy the stationery order, because if the series are found to be stationary in order of 1 (2) the computed F statistics become invalid.

$$\Delta InGDP = \beta 0 + \sum_{j=i}^{m} \beta 1 \Delta InFDI\ t\text{-}1 + \sum_{j-i}^{n} \beta 2 \Delta EXt\text{-}1 + \sum_{j-i}^{n} \beta 3 \Delta TLt\text{-}1 + \sum_{j-i}^{n} \beta 4 \Delta InPOt\text{-}1\ \beta 5 \Delta InFDIt\text{-}1 + \beta 6 InEXt\text{-}I + \beta 7 TLt\text{-}1 + \beta 8 POt\text{-}1 + et \quad (2)$$

We equally examine the hypothesis of no long run relationship through the pound test using OLS and the test of the computed F- test of joint significance of the lagged variables

Ho: β4, β5, β6, β7, β8, =0 against the alternative hypothesis

Hi: β4□0, β5□0, β6□0, β8□0

It is noted that if there exist a long run relationship there must be a causality to appear in a particular direction, to determine the direction the causality may appear we estimate error correction representation of the lag dependent variable as recommended by (Pesaran, Shin and Smith, 2001).

$$\Delta InGDP = \beta 0 \Delta InGDP = \beta 0 + \sum_{j=i}^{m} \beta 1 \Delta InFDI\ t\text{-}1 + \sum_{j-i}^{n} \beta 2 \Delta EXt\text{-}1 + \sum_{j-i}^{n} \beta 3 \Delta TLt\text{-}1 + \sum_{j-i}^{n} + ECM + \mu_t \quad (3)$$

However, after estimation if the computed F- value of joint significant test is greater than the upper critical values and does not fall below the lower critical values obtained from the calculated table, at a given level of significance we reject the null hypothesis of no Co integration at a given level of significance.

A test of the fitness of the model is performed through two steps, one through the diagnostic test of the serial correlation, normality test, functional form and finally, hetrodesticity test. The second step involves the stability test introduced by Pesaran Pesaran (1997), through the Brown et al (2005) stability test of cumulative sum CUSUM and the cumulative sum of square CUSUMSQ. This enables us to identify the stability of the coefficient in the model.

4. Results and Discussion

Table 1. Unit root test

Variables	ADF statistics Levels	Critical value at levels	ADF statistics 1st diff.	Critical value At 1st diff.	NGLS At level	Critical value At level	NGLS At 1st diff.	Critical value At 1st diff.
Expo	0.821881	-2.967767	-6.866102	-2.967767	-1.023325	-1.952473	-6.675321	-1.952910
FDI	0.816100	-2.963972	-6.866102	-2.967767	-0.560016	-1.952475	-5.391264	-1.952910
GDP	-1.888279	-2.971853	-1.918459	-1.609790	-1.998459	-1.953381	-1.993526	-1.953381
INPO	-1.681411	2.963972	-4.977943	-2.967767	-6.675332	-1.952910	-5.055934	-1.952910
TL	-1.556530	2.963972	-6.483658	-2.967767	-6.483658	-2.967767	-6.600399	-1.952910

Note: * ** *** indicate critical values at 5%, 10%, 1% respectively

Table 1 indicates a unit root test for stationarity test of the series under consideration. The table above indicates that the series were not stationary at level. After first differencing all the series become stationary at 5% level of significance.

Table 2. F- statistics Wald test

Test statistics	Lags sig-level	Bound critical value no trend and intercepts	F- Statistics
EXP= 4.36	1%	5.754	6.483
FDI=4. 64			
GDP=4. 62	5%	3.993	4.533
INPO=3. 98			
TL=4. 20	10%	3.247	3.773

In table 2 we provide the computed F- test of joint significant of each lags variables. The F- value of being greater than the upper bound critical value at 10% level of significance; as such we reject the null hypothesis and conclude that the variables have a long run relationship, since also the F Value does not fall below the lower bound critical value.

The model shown in equation 2 above was estimated by ARDL model ordinary least squares (OLS) method, The estimated result will be used to provide answers to the following specific research questions (1) *How country like Nigeria with little to export and experiencing deteriorating product prices and balance of payment benefit from trade liberalization? And ensure poverty reduction.*

Table 3. Error correction model poverty as a dependent variable

Variables	Coefficients	T- statistics
ECM	-0.015541	-1.18588
D (LPO (-1)	-0.197432	0.94852
D (LPO (-2)	-0.58497	-0.58497
D (LGDP (-1)	-0.092057	0.15897
D (LGDP (-2)	-0.004573	0.03138
D (LTL (-1)	0.003917	0.02114
D (LTL (-2)	-0.129805	-0.71233
D (LFDI (-1)	-2.209130	-1.50120
D (LFDI (-2)	-2.209130	-1.50120
C	0.073071	210571
R-Squared = 0 .73217		
F (7, 28) = 7.4201 [. 000]		
DW-statistic 2.4101		
A: Serial Correlation $\square^2$ (1) =2. 9105 [. 088]		
B: Functional Form $\square^2$ (1) = .013369[.908]		
C: Normality $\square^2$ (1) = 8.0006 [. 018]		
D: Heteroscadasticity $\square^2$ (1) = 2.1996 [. 138]		

These statistics are distributed as chi-square variants, based on the following test below

A: Lagrange multiplier test of residual serial correlation

B: Ramsey's RESET test using the square of the fitted values

C: Based on a test of skewness and kurtosis of residuals

D: Based on the regression of squared residuals on squared fitted values

The result has passed a sensitivity test and has no problems of serial correlation, non normality, functional form and Heteroscadasticity.

The study attempted to answer the question whether Nigerian trade liberalization causes poverty reduction Table 4 indicated error correction representation, with poverty as dependent variable the result results from the dynamic poverty ECM is less than two which shows a weak relationship or statistically not significant meaning that trade liberalization does not granger causes poverty reduction in Nigeria. This result is consistent with the work of (Wacziaring, 2011). This also suggested that trade liberalization in Nigeria does not improve the well fare of Nigerian and does not empower the common man out of poverty. This study contributes in explaining, the important role of provisions of basic welfare improving infrastructures, for trade liberalization to translate into poverty reduction. The difficulty of the local industries to compete internationally and brings the dividend of trade liberalization to the table of the poor Nigeria may not be unconnected to the lack of basic infrastructures for proper function of a free trade economy.

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