EFFECT OF TRADE LIBERALIZATION ON ECONOMIC DEVELOPMENT IN NIGERIA, 1980-2013

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ABSTRACT: *The study explores the relationship between trade liberalization and economic growth in Nigeria. Two equations were estimated in which index of industrial production proxied as yearly average capacity utilization as a function of degree of openness, terms of trade and real export. Similarly, in the second equation, real gross domestic product as a function of degree of openness, terms of trade, real export and trade liberalization dummy was estimated. A vector error correction model was employed for the study in which results show that openness of the foreign sector and trade liberalization dummy have positive significant impact on both industrial performance and economic growth in Nigeria within the period under review. The paper therefore recommended for the removal of all known impediments to trade such as excessive import levies and arbitrary tariffs.*

KEYWORDS: Trade Liberalization, Index of Industrial Production, Real Gross Domestic Product, Cointegration , Vector Error Correction Model

INTRODUCTION

The process of trade liberalization and market-oriented economic reform that had started in many developing countries in early 1980s intensified in the 1990s. The reform undertaken varied in ownership and contents in different countries. The reforming countries can be classified into three groups. The first group consists of a number of countries in East Asia which continued their own dynamic industrial and trade policies initiated in 1960s. The second group includes a large number of countries, mostly in Africa, which have gone through the reform programmes designed and dictated by the IFIs. The third group comprises a number of Latin American countries that undertook economic reform since early 1980s, initially under the pressure from international finance institutions (IFIs).

Nevertheless, in 1990s they intensified their reform process without having been necessarily under pressure of those institutions in all cases. The contents and philosophy of their reform programmes were, however, similar to those designed by the IFIs which in turn have been referred to as the "Washington Consensus" since the early 1990s. Universal and uniform trade liberalization was a part of that "Consensus". "Universal" implies that all developing countries are to follow the same trade policy regime (trade liberalization) irrespective of their levels of development and industrial capacities. "Uniform" implies that all sectors and industries are to be subject to the same tariff rates-preferably zero rate, or low rate. Apart from trade liberalization, such reform programmes included mainly: capital account liberalization, devaluation at the early stages of reform to compensate for trade liberalization, fiscal and financial reform through contractionary macroeconomic policies such as budget cuts, increase in interest rates and privatization (Shafaeddin, 2005).

Trade liberalisation has been a prominent component of policy advice to developing countries for the last two decades. Among the benefits claimed to spring from it, economic growth is probably the most important. And yet economists continue to argue about, and conduct research on the connection between them. A number of empirical studies have been carried out on the nexus between openness of trade regime and economic growth (World Bank, 1987). Several studies have shown that there is a positive relationship between openness and economic performance (see for example Matin, 1992). However, others have found no significant relationship (Adebiyi, 2006).

The conventional views that trade liberalisation is necessary and has positive effects for development and on the growth performance of the industrial sector constitute an increasingly controversial issue. According to Adenikinju and Olofin (2000), trade policy might affect industrial growth through several channels. First, a less protectionist trade regime increases scale efficiency by enlarging the domestic market which otherwise might be too small for the efficient production of goods that show increasing returns to scale. Second, a more liberal trade regime leads to increased competition from abroad, forcing domestic firms to adopt newer, more efficient technology to reduce inefficiency and waste. Third, it is argued that a freer economy eases foreign exchange constraints faced by most developing countries and hence enables a country to import needed raw materials and capital goods. Finally, a more open economy results in a faster rate of technological progress.

The latter point has been the focus of the endogenous growth literature (Romer, 1990). These works show how trade liberalization may raise growth rates in the long run by generating economies of scale, operating through research and development (R&D) and knowledge spill-overs, human capital accumulation and learning-by-doing. Within the Nigerian context, there has been a considerable amount of discussion on the inter-relationship (if any) between trade policy reforms, economic performance and industrial growth. In recent times, however, there appears to be a dearth of empirical studies (except perhaps Adebiyi, 2006) on the impact of trade liberalization policy on industrial growth performance in Nigeria. Besides, a striking similarity of existing empirical works is that the problem of spurious estimates has not been satisfactorily addressed. Thus, the interpretation of such regression results has been considered inadequate for economic analysis and forecasts. It is against this background, that the present study is germane. The main purpose of trade liberalization is to allow countries to export those goods and services that they can produce efficiently, and import the goods and services that they produce inefficiently (Ricardo, 1817). This will resort in lower prices and consumers will be purchasing more goods and services with their salaries.

The main aim of this paper therefore, is to provide an empirical insight on the effects of trade liberalization policy on the industrial sector in Nigeria, using an error correction mechanism (ECM) technique on annual data spanning between 1980 and 20013. The rest of the paper is organized as follows: Section two provides a brief review of related studies, while section three deals with the methodology, including model specification and econometric technique. In section four, the result of findings is presented and interpreted while the conclusion and policy recommendations are discussed in the last section.

LITERATURE REVIEW

The policy of trade liberalization was advocated long way by Smith (1776). He considered this policy to be the best for economic development. It is always safe to leave th*e economy to be propelled by an* 'invisible hand', i.e., the forces of competition motivated by individual self-interest. He builds his case for trade liberalization on the role which division of labour plays in economic progress. Expansion of international trade is an important method of widening the market and of promoting the division of labour. Restrictions on international trade limit the size of the market. Trade restrictions diminish the scope for international specialization and thereby lower domestic productivity. It is worth quoting Smith directly*, "*between whatever places foreign trade is carried on, they all of them derive two distinct benefits from it. It carries the surplus part of the produce of their land and labour for which there is no demand among them, and brings back in return something else for which there is a demand. It gives value to their superfluities, by exchanging them for something else, which may satisfy part of their wants and increase their enjoyments. By means of it, the narrowness of the home market does not hinder the division of labour in any particular branch of art or manufacture from being carried to the highest perfection. By opening a more extensive market for whatever part of the produce of their labour may exceed the home consumption, it encourages them to improve its productive powers and to augment its annual produce to the utmost, and thereby to increase the real revenue of wealth and society"

In the 19th century, Smith's productivity doctrine of the benefits of trade developed into an export drive argument, particularly in the colonies, which explains why classical trade theory is often associated with colonialism. Ricardo (1817) developed the theory of comparative advantage and showed rigorously in his book that on the assumptions of perfect competition and the full employment of resources (although not made explicit), countries can reap welfare gains by specializing in the production of those goods with the lowest opportunity cost and trading the surplus of production over domestic demand, provided that the international rate of exchange between commodities lies between the domestic opportunity cost ratios. These are essentially *static gains* that arise from the reallocation of resources from one sector to another as increased specialization, based on comparative advantage, takes place.

These are the *trade-creation* gains that arise within Customs Unions or Free Trade Areas as the barriers to trade are removed between members, but the gains are once-for-all. Once the tariff barriers have been removed, and no further reallocation takes place, the static gains are exhausted (Thirlwall, 2000).This is in contrast to the *dynamic gains* from trade which continually shift outwards the whole production possibility frontier of countries if trade is associated with more investment and faster productivity growth based on scale economies, learning by doing and the acquisition of new knowledge from abroad, particularly through foreign direct investment. It is the dynamic gains from trade that are focused on in modern trade theory (see Helpman and Krugman, 1985) and in "new" growth theory (see Grossman and Helpman, 1991), and which constitute a vital link in the causal chain between exports and growth.

There can be little doubt that, historically, trade has acted as an important engine of growth for countries at different stages of development, not only by contributing to a more efficient allocation of resources within countries, but also by transmitting growth from one part of the world to another. Not all countries, however, necessarily share equally in the growth of trade or its benefits. This will depend on: the production and demand characteristics of the goods that a country produces and trades; the domestic economic policies pursued, and the trading

regime it adopts. For example, in the Nigerian economy, the volume of exports has grown slower than for developed countries since her independence. This is because the country still largely produce and export primary commodities and low value-added manufactured goods with a relatively low income elasticity of demand in world markets.

The discrepancy in rates of growth of exports has been even wider in value terms because the terms of trade of developing countries has deteriorated vis à vis developed countries causing the country's share of the total value of world trade to have fallen drastically. Given the predictions of trade theory and the facts, the important point to make here is that the issue for developing countries in general, and Nigeria in particular, is not so much *whether* to trade but in *what* to trade, and the *terms* on which trade should take place with the developed countries of the world (or between themselves). There can be no doubt that there are both static and dynamic gains from trade, and that trade provides a vent for surplus production, as stressed by Adam Smith. What is in dispute is whether the overall gains to Nigeria could be greater if the pattern of trade was different from its present structure, and if the developed countries modified their policies towards the developing world.

Similarly, while the developed world preaches free trade for developing countries, it continues to protect its own markets from imports from developing countries, particularly agricultural produce and textiles. There is a double standard here. It should also be mentioned at this juncture that real trade theory based on the classical ideas of Smith and Ricardo, and also much of conventional modern trade theory, ignores the monetary or balance of payments consequences of trade. If a particular pattern of trade leads to balance of payments difficulties, and the balance of payments is not self correcting through relative price (*i.e.* real exchange rate) movements, the gains from trade can easily be offset by the reductions in output and the increase in unemployment necessary to compress imports (Thirlwall.2000). This is an important consideration in thinking about the potential role of strategic protection and the speed of trade liberalization. The balance of payments consequences of trade are also one of the important reasons, neglected by orthodox theory, for supposing a strong link between exports and growth. Export growth is the only component of demand that provides the foreign exchange to allow other components of demand in an economy to grow faster, such as investment, consumption and government expenditure, all of which have an import content which needs to be paid for in foreign exchange. Export growth relaxes a balance of payments constraint on demand, as well as impacting on growth from the supply-side.

Following the same line of reasoning, Adebiyi (2006) identifies four key points in discussing the beneficial effect of international trade on participating developing countries. First, trade provides material means (capital goods, machinery, raw and semi –finished materials) indispensable for economic development. Secondly, and even more important, trade is the means and vehicle for the dissemination of technological knowledge, the transmission of ideas, for the importation of know-how, skills, managerial talents and entrepreneurship. Thirdly, trade is the vehicle for the international movement of capital especially from the developed countries. Fourthly, free international trade is the best antimonopoly policy and the best guarantee for the maintenance of a healthy degree of free competition.

Empirical Literature

Dutta and Ahmed (2000) using the framework of an endogenous growth model, empirically analyzed the relationship between trade policies and industrial growth in Pakistan. The empirical results showed that there exists a unique long-run relationship among the aggregate growth function of industrial value added and its major determinants of the real capital stock, the labour force, real exports, the import tariff collection rate and the school enrolment ratio. The revival of endogenous growth theory has established a theoretical framework, which motivates the empirical study of trade liberalisation and economic growth. Excellent reviews of the studies showing relation between trade liberalisation and economic growth in developing countries, using the new growth model can be found in Ahmed (1999) and Dutta and Ahmed (2000).

Adenikinju and Olofin (2000) examined the quantitative effects of the role of economic policy in the growth performance of the manufacturing sector in Africa. The study used panel data for seventeen countries over the period 1976 to 1993. Their econometric results suggest that level of human capital; proxied by primary and secondary school enrolment rates; have a positive impact on growth in manufacturing. The competitiveness index, that is the unit of labour cost, has a negative impact on the growth performance of the manufacturing sector in African countries, though the improvement in terms of trade was found to have a beneficial impact on manufactures. The trade liberalisation policy, proxied by index of openness, has an insignificant effect on the growth in the manufacturing. On the other hand, some studies find little empirical evidence to support a link between trade liberalization and industrial growth (see Lucas 1988). For instance, in Adenikinju and Chete (1995), it is shown that in the Nigerian manufacturing sector, import liberalisation has had a negative impact on total factor productivity growth. The reason for this was adduced to the fact that domestic manufactures are unable to compete with better quality and often imported products. Several authors have also pointed to the example of Korea and Japan where some form of protections is allowed for rapid transformation of the industrial sector (Pack and Westphal 1986).

In studying trade liberalization and industrial performance in Nigeria, Adebiyi (2006) employed the model developed by Lucas (1988) to explore the short run dynamics around the variables namely: index of industrial production lagged one period, the degree of openness (trade liberalization), trade liberalization dummy and real export which appear as significant determinants of index of industrial production. The findings show that there is no unique cointegral relation between the index of industrial production and its major determinants. However, the results of the error correction model (ECM) revealed that index of industrial production lagged one period, the degree of openness (trade liberalization), trade liberalization dummy variable and real exports emerged as significant determinants of index of industrial production in Nigeria. In his study on impact of trade liberalization on economic growth in the Gambia, Mododou (2007) using time series data from 1970 to 2004 employed the neo-classical growth model vis-à-vis the error correction model to capture both the short-run and long run impact of the variables in the model. The results of the estimation show that all the variables are significant except terms of trade (TOT) which have a negative sign, implying that the terms of trade in the Gambia are not favourable as imports outweighs exports.

METHODOLOGY

In this model, impact of trade liberalization is tested against economic growth proxied by the gross domestic product and against index of industrial production as one of the channels through which trade liberalization should affect growth. The link between trade liberalization and economic growth rate as well as growth of industrial production is verified using an aggregate production function framework. Following Lucas (1988), we specify an economic growth and industrial production function for Nigeria in the following way:

$$Y = f (K, L, H, TL) \dots \dots \dots (1)$$

where Y is economic growth and industrial growth; *K*, *L*, *H* and *TL* represent, respectively, capital and labour inputs, human capital and an index of trade liberalization. Thus, in equation (1) the Lucas model is modified by introducing *TL* variable. Based on the availability of time-series data and relevance to the industrial production function for Nigeria, we use three measures of trade liberalization in this paper: exports (EXP), terms of trade (TOT) and the degree of openness (DOP). In this measure, it is expected that depreciation of the domestic currency will raise the price of tradable relative to that of non-tradable goods and, thus, resources will move out of the non-tradable sectors into the tradable sectors. Consequently, exports would rise. Also, the degree of openness and terms of trade enter positively into the model. With trade liberalization, a country with high degree of openness and terms of trade tend to enjoy greater industrial and economic growth than a country with low degree of openness and terms of trade. To capture policy and structural changes, we introduce dummy variable. It takes the value of one in the period of structural adjustment and zero in other periods. Consequently, our aggregate (industrial) production function becomes:

$$IIP = f (TOT, EXP, DOP, DUM) \dots \dots (2)$$

Specifying the production function in log-linear form (with an error term, u_t), the following equation may be written:

$$LIIP_t = \alpha_0 + \alpha_1 LTOT_t + \alpha_2 LEXP_t + \alpha_3 LDOP_t + \alpha_4 DUM + U_t \dots \dots (3)$$

Similarly, the growth equation is specified in log linear form thus,

$$LGDP_t = \beta_0 + \beta_1 LTOT_t + \beta_2 LEXP_t + \beta_3 LDOP_t + \beta_4 DUM + V_t \dots \dots (4)$$

IIP = index of industrial production for Nigeria

GDP = gross domestic product at 1990 constant price

TOT = Nigerian terms of $_{trade}$

DOP = degree of openness

U and V = error terms

t = time trend

α_0, β_0, $\alpha_1 - \alpha_4$, $\beta_1 - \beta_4$ = parameters to be estimated

It is expected that all the elasticity parameters are greater than zero.

This leads to the specification of a general ECM of the industrial production function of the following form:

$$\Delta InIIP_t = a_0 + \sum_{i-1}^{n} a_{1t}\Delta IIP_{t-1} + \sum_{i-1}^{n-1} a_{2t}\Delta InTOT_{t-1} + \sum_{i-1}^{n-1} a_{3t}\Delta InEXP_{t-1} +$$

$$\sum_{i-1}^{n-1} a_{4t}\Delta InDOP_{t-1} + \sum_{i-1}^{n-1} a_{5t}\Delta DUM_{t-1} + \lambda ECM_{t-1}\ldots\ldots\ldots\ldots\ldots(5)$$

The short run dynamics of growth equation is model thus,

$$\Delta InGDP_t = \beta_0 + \sum_{i-1}^{n} a_{1t}\Delta LGDP_{t-1} + \sum_{i-1}^{n-1} \beta_{2t}\Delta InTOT_{t-1} + \sum_{i-1}^{n-1} \beta_{3t}\Delta InEXP_{t-1} +$$

$$\sum_{i-1}^{n-1} \beta_{4t}\Delta InDOP_{t-1} + \sum_{i-1}^{n-1} \beta_{5t}\Delta DUM_{t-1} + \lambda ECM_{t-1}\ldots\ldots\ldots\ldots\ldots(6)$$

where ECM_{t-1} = error-correction term lagged one period.

Sources of Data

The data for the study were culled mainly from the Central Bank of Nigeria statistical bulletin, annual report and statement of account and National Bureau of Statistics. All the variables were secondary data and measured in millions.

Econometric Framework

The findings that many macroeconomic time series may contain a unit root has spurred the development of the theory of non-stationary time series analysis. Engle and Granger (1987) pointed out that a linear combination of two or more non-stationary series may be stationary. If such a stationary, or integration of order is zero [I(0)], linear combination exists, the non-stationary (with a unit root), time series are said to be cointegrated. The stationary linear combination is called the cointegrating equation and may be interpreted as a long-run equilibrium relationship between the variables.

A vector error correction (VEC) model is a restricted vector auto-regression (VAR) that has co-integration restrictions built into the specification, so that it is designed for use with non-

stationary series that are known to be co-integrated. The VEC specification restricts the long-run behavior of the endogenous variables to converge to their co-integrating relationships while allowing a wide range of short-run dynamics. The co-integration term is known as the error correction term since the deviation from long run equilibrium is corrected gradually through a series of partial short-run adjustments.

Let us consider a two variable system with one co-integrating equation and no lagged difference terms. The co-integrating equation is

$$y_{1,t} = \beta_1 y_{2,t} + \varepsilon_t$$

$$y_{2,t} = \beta_2 y_{1,t} + \varepsilon_t \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(7)$$

and the VEC is

$$\Delta y_{1,t} = \gamma_1 (y_{2,t-1} - \beta_1 y_{1,t-1}) + v_{1,t}$$

$$\Delta y_{2,t} = \gamma_2 (y_{2,t-1} - \beta_1 y_{1,t-1}) + v_{2,t} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(8)$$

In Equation (6), the only right-hand side variable is the error correction term. In the long run equilibrium, this term is zero. However, if y_1 and y_2 deviated from long run equilibrium in the last period, the error correction term is nonzero and each variable adjusts to partially restore the equilibrium relationship. The coefficients Y_1 and Y_2 measure the speed of adjustment.

In this model, the two endogenous variables $\Delta y_{1,t}$ and $\Delta y_{2,t}$ will be nonzero, but the co-integrating equation will have a zero intercept. Despite the fact that the use of lagged differences is common, we have included no lagged differences on the right-hand side. (Peterson, 2000).

If the two endogenous variables $\Delta y_{1,t}$ and $\Delta y_{2,t}$ have no trend and the co-integrating equations have an intercept, the VEC has the form:

$$\Delta y_{1,t} = \gamma_1 (y_{2,t-1} - \mu - \beta_1 y_{1,t-1}) + v_{1,t}$$

$$\Delta y_{2,t} = \gamma_2 (y_{2,t-1} - \mu - \beta_1 y_{1,t-1}) + v_{2,t} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(9)$$

Another VEC specification assumes that there are linear trends in the series and a constant in the co-integrating equations, so that it has the form:

$$\Delta y_{1,t} = \delta_1 + \gamma_1 (y_{2,t-1} - \mu - \beta_1 y_{1,t-1}) + v_{1,t}$$

$$\Delta y_{2,t} = \delta_2 + \gamma_2 (y_{2,t-1} - \mu - \beta_1 y_{1,t-1}) + v_{2,t} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(10)$$

Similarly, there may be a trend in the co-integrating equation, but no separate trends in the two VEC equations. Lastly, if there is a separate linear trend outside the parentheses in each VEC equation, then there is an implicit quadratic trend in the series.

Presentation of Results

Results of Phillips-Perron (PP) Stationarity Test

The results of the PP tests in table 4.1 below show that the series were non stationary at level but in their first level difference, stationary was achieved at either 1 or 5 percent level.

Table 4.1

Variable	Order	PP Test Statistics	Mackinnon Critical Value
LIIP	I(I)	-3.7816**	-3.5796
LRGDP	I(I)	-33.0515*	-4.3226
LDOP	I(I)	-5.9677*	-4.4691
LRTOT	I(I)	-6.8492*	-4.4691
LREX	I(I)	-9.4905*	-4.3226

*(**) denotes significance at 1%(5%) level.

Source: Authors' Estimation using Eview 4.0.

Contingression Test

The table below shows that both the trace and the max-eigenvalue tests have a long run relationship between the log values of IIP, DOP, RTOT and REX.

Table 4.2

Null	Alternative	Eigenvalue	Trace	5%	1%
r = 0	r = 1	0.92	93.81	54.6	61.2
r <= 1	r = 2	0.70	41.1	34.6	40.5
			Max-Eigenvalue		
r = 0	r =1	0.92	52.73	30.3	35.7
r <= 1	r = 2	0.70	25.38	23.8	28.8

The cointegration regression normalized on IIP is presented below:

$$InIIP = 1.00 + 0.14InDOP - 1.06InRTOT + 1.11InREX$$

$$(2.0) \qquad (-26.7) \qquad (18.5)$$

Log likelihood -4.71

The above results show that degree of openness (DOP), real terms of trade (RTOT) and real export (REX) are statistically significant in explaining index of industrial production (IIP) in Nigeria within the period under review. However, while DOP and REX have a positive relationship with IIP, the impact of RTOT on IIP is negative. This is not surprising since terms of trade to Nigeria is in most time unfavourable. Nigeria's exports are mainly primary

products and substitutes are usually available. Adebiyi (2006) and Adenikinju and Olofin (2000) have earlier reached a similar conclusion.

Short run Regression Results of IIP.

DInIIP = 0.33 − 1.03DInIIP(-1) − 0.51DInDOP − 0.46DInRTOT + 0.20DInREX

$$(1.0) \qquad (-0.3) \qquad\qquad (-0.5) \qquad\qquad (-0.7) \qquad\qquad (0.3)$$

$$-\quad 2.0ECM_{t-1}$$

$$(-1.6)$$

$$R^2 = 0.38, \ \text{F-Stat} = 1.8$$

In the short run, all the variables are statistically insignificant and with negative relationship with IIP except REX that is positively correlated with the dependent variable. However, the ECM has a coefficient with the usual negative sign and is also barely significant. Although, the F-statistic is significant, the individual t-ratios are insignificant. These results are contrary to the findings of Adebiyi (2006). Thus, openness of the foreign sector in the short run does not enhance industrial production. This may be due to the fact that foreign investors are not usually convinced of Nigerian foreign policy because of problems ranging from political to insecurity which characterized the Nigerian investment domain as unfriendly environment.

Cointegration Results of Real Growth.

Table 4.3 below also show that long run relationship exist between the log values of DOP, RTOT, REX and RGDP.

Table 4.3

Null	Alternative	Eigenvalue	Trace	5%	1%
r = 0	r = 1	0.75	71.84	54.6	61.2
r <= 1	r = 2	0.67	42.96	34.6	40.5
			Max-Eigenvalue		
r = 0	r =1	0.75	28.88	30.3	35.7
r <= 1	r = 2	0.67	23.38	23.8	28.8

Long run regression normalized on RGDP is presented below

logRGDP = 1.00 + 1.41logDOP − 3.29logRTOT + 3.27logREX

$$(2.5) \qquad\qquad (-6.5) \qquad\qquad (6.7)$$

$$\text{Log likelihood} = 0.95$$

Here again, the impact of RTOT is negative on real growth in Nigeria and thus the findings here is similar to that of index of industrial production, the only difference being the log likelihood that is insignificant.

Short Run Regression Results of RGDP

$$\Delta logRGDP = 0.06 + 0.04\Delta logRGDP(-1) - 0.02\Delta logDOP + 0.04\Delta logRTOT -$$

$$(0.2) \qquad\qquad (-1.1) \qquad\qquad (2.4)$$

$$0.03\Delta logREX + 0.20\Delta DUM - 0.07ECM_{t-1}$$

$$(-2.3) \qquad\qquad (3.8) \qquad\qquad (-4.8)$$

$$R^2 = 0.71, \ F\text{-stat} = 5.7$$

The results reveal that the R^2 and F-stat are fairly robust. The impact of DOP and REX on real growth is negative, but while REX is significant DOP is not. On the other hand, RTOT, DUM and a one year lag of RGDP have a positive relationship with current real growth in which RTOT and DUM are statistically significant in explaining economic growth in Nigeria. The negative sign of RTOT in the long run gave credence to the findings of Mododou (2007) in The Gambia. The ECM shows that whenever the system is out of long run equilibrium, it is returned back with a moderate speed of about 7 percent.

CONCLUDING REMARKS

The paper examines the impact of trade liberalization on economic growth in Nigeria. It employs a vector error correction model and testing the results using the Johasen cointegration approach and stationarity tests. Two equations were employed for the study: the first equation models index of industrial production proxied by a yearly average capacity utilization rate as a function of degree of openness, real terms of trade and real export. In the second equation, real gross domestic product as a function of degree of openness, real export, real terms of trade and a dummy of trade liberalization was estimated. In both equations, the long run results reveal that, terms of trade in Nigeria is unfavourable on industrial performance and by implication on growth rate while the impact of openness of the foreign sector is a positive phenomenon. In the short run, only real export has positive impact on industrial capacity, all other variables employed for the study including a one year lag of industrial production were negative and statistically insignificant. Similarly, the short run dynamics impact of the series on growth reveal that real terms of trade and government policy (dummy) have positive impact on growth while real export and degree of openness negatively correlated with real growth. A dummy variable could not be included on the short run equation of industrial production probably because of insufficient data.

In all the results, since the degree of openness is positive in most cases except the short run dynamics on growth, and since the dummy on growth is also positive, we will therefore conclude that trade liberalization is beneficial to Nigeria and the policy should be encouraged for the Nigerian economy. Consequently, every known impediment to foreign trade such as arbitrary tariffs and excessive import levies should be discouraged. Secondly, if Nigeria is to benefit more from trade liberalisation, it will have to look into its macroeconomic policies and create an enabling environment for investment in terms of proprty rights, adequate access

to credit, stable power supply, good roads, telecommunications and security. The government should control its fiscal policy which has over the year constituted a major obstacle to private investment. Finally, government should tackle the issue of excessive dependence on import. Over-dependence on the importation of consumer and capital goods is hurting the economy in many ways, including the continuing depreciation of the naira. Measures, which promote import compression, should be vigorously pursued.

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