Policy Effectiveness and Structural Transformation of Nigeria in a Global Economy in Crisis

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Nigeria's Economic Performance in the Global Economy A Small Macroeconometric Analysis

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Abstract
Despite enormous resource endowment, both human and natural, Nigeria's growth experiment has not matched its potential. In terms of African and global standards, Nigeria's economic performance has been nothing but dismal. This has remained a cause for concern for the various governments, the public and policymakers generally. This study, using aggregate data from 1970 to 2006, investigates Nigeria's economic performance in the global economy by specifying a small macroeconometric model to analyse the various channels through which economic performance could be enhanced. The empirical model identified trade, foreign direct investment and financial sector development as the various networks which drive growth of the economy. The simultaneous model was analysed using system estimation technique of three stage least square (3SLS) rather than the conventional ordinary least square (OLS) to overcome simultaneity bias. The result showed that per capita income, which measures the level of development, based on general welfare improvement in the economy, has persistently resulted in a positive and significant effect on economic performance. The implication is that if fairness and equity prevail in Nigeria, real trade, foreign direct investment and financial sector development would necessarily act as a transmission channel through which the country's economic performance is enhanced.

1. Introduction

Nigeria is a large economy in Africa contributing 10.15 percent of African GDP and constituting even a much higher proportion (14.54 per cent) to African population. Nigeria's economic performance is therefore an important growth driver for the African economy. However, at the global level, Nigerian economy is a small one– its share of world output and trade are very low compared to Western European, North American, Japanese and even other South East Asian emerging economies. This seeming contradiction about the relative size of the Nigerian economy viswhich is meant to place the Nigerian economy in perspective with the global economy.

No country is an island in global economic relations. In the face of globalization, countries are increasingly interacting in economic sphere; movements of financial instruments, goods and people have increased sporadically as a result. The world's aggregate income has risen greatly due to intensification of the degree of freedom to trade. Countries draw varying level of benefits from global economic relations. The magnitude of gains from globalization, as from trade, depends on a number of factors, which can mostly be consolidated into the question of: 'What articles (commodities) does a country have for exchange in global market?' Despite the increased degree of freedom of trade, of movement of people, and of information circulation that characterize the global economy under the current globalization, it should be noted carefully that there is still no free trade– trade is still subject to various rules and regulations in various countries. World Trade Organisation (WTO) has an array of standard regulations, movements of people and information that are still regulated. The extent of gains drawn from trade depends on a country's ability to regulate and trade beneficiary as well as her ability to adapt to international standard/regulations and participate on trade.

History of trade has proved that countries which are less developed, with low technological capabilities and weak institutional framework gain less from trade. Nigeria belongs to this group of countries. Nigeria is less developed; there is hardly any sector or even an industry in the country that has attained 75 percent domestic reliance on its capital (machines and equipment) requirement. Given the interdependence and interconnectedness of economies in the wind of globalization, policy effects easily spill over from one economy to another. Rewards from good policies are gained and penalties from bad policies are suffered, not only by the economy that undertakes them but also, through intensified trade and investment flows among economies. The recent cases are the benefits derivable from internet and global system of mobile phones; and the losses emanating from the current global financial crisis; all of which originated from the developed countries.

The global economy simply means not just the aggregation of economic activities that take place in all countries but, much more also, the integration of such activities. Such integration is depicted by co-movement and convergence of prices of commodities and bonds, interest and exchange rates across countries. This networking of economies under the influence of globalization has far-reaching effects on the economic policy, performance, attainment of growth, development and stabilization of goals of economies, especially of the less-developed countries facing various constraints of planning and development.

Developments in the global economy are therefore posing serious challenges to development plans of the emerging economies like Nigeria and others in sub-Saharan Africa. Generally, it has been noted that virtually all developed economies came through decades (or even centuries) of economic regulations to trade flows and protection of their infant (manufacturing) sector. The efficacy of the protection of infant industry has led to the development of truly self-dependent economies in Western Europe, North America, Japan and China, which recently joined the club of developed countries after centuries of restriction. The welfare consequence of running an open economy may not be doubtful, provided that openness would not compromise balance of payments and aggravate debt burden. But it is seriously doubtful if an open developing economy can attain self-reliance and self-sustenance in development, taking into account the question of nationalization in the process of development.

There are many questions that the topic discussed here could answer. But this paper is restricted to two: What role does Nigeria play in the global economy (the question of Nigeria's contribution to the global economy)? How does the global economy affect the Nigerian economy (issues of global influence in Nigerian economic development)? Before attempting to answer these two questions, it is pertinent to have a brief overview of issues in globalization and development.

Following this introduction is literature review and theoretical framework in section two. Section three focuses on stylized facts on Nigeria in the global economy. In section four, we develop a small macroeconometric model specifying trade, foreign direct investment and financial development as growth drivers in the Nigerian economy. The paper is concluded in section five.

2. Literature Review and Theoretical Framework

The relationship between Nigerian economy and the global economy can hardly be fully appreciated without contextualizing such relationship under globalization. Globalization as a concept has gained very rapid spread in academic exercise and among policymakers within the short period of its introduction as a concept – this rapid adoption of the concept is itself part of the concept of globalization which has to do with the spread of knowledge and idea of doing things (production). The concept of globalization is not a new one. It is the increasing interaction among and integration of activities, especially economic activities, in human societies around the world (Mussa, 2000). As the IMF puts it, 'globalization refers to the growing economic interdependence of countries worldwide through the increasing volume and variety of cross-border transactions in goods and services and of international capital flows and also through more rapid and widespread diffusion of technology' (IMF, 1997:45). Globalization has to do with the intensification in economic interactions (in both production, distribution (trade) and consumption). The geographical boundaries among countries are increasingly becoming lines of demarcation that indicate the domain of political authority rather than barriers to trade flows and information circulation.

As observed by Ajayi (2000), globalization cannot be stopped neither can its effects be avoided. However, several scholars have asserted that all countries are not likely to gain equally from globalization. Kwanashi (1998) argued that the interdependence that is intensified in globalization magnifies vulnerability of countries, especially the less-developed countries. This is because of the speed with which economic opportunities and problems are transmitted among countries, and the extended lags in adjusting to changes in the less developed economies due to structural rigidities in LDCs. Countries, whether developed or under-developed, have embraced globalization against the former policies of protection of import substituting or export-promoting industrialization which has been considered wasteful compared to the competitiveness

focus in globalization. Nevertheless, the goal of increase in competitiveness by LDCs so as to reap optimal gains from globalization is not an easy one to attain either. The intensified competitiveness confers that movement of factors of production across the globe is based on the profitability of capital. This consideration places LDCs at some disadvantage over developed countries in receiving foreign direct investments. If uncompetitive economies have capital losses and speculative investors buy past winner bonds and sell past losers, based on global competitiveness, capital flight would take place in less developed economies (Wei, 2000). Even if herding behaviour is adopted by investors, FDI will still move more into competitive economies and less to uncompetitive ones.

There are other issues which have aroused anxiety in the spread of globalization. The problem of underdevelopment include poverty, prevalence of widening gap of inequality, concentration of supply of services among developed countries (which deepen balance of payments problems for the LDCs), contagion of effects of economic system failure, and the driving of investments by trans-national syndicate of investors who are not concerned with human centred development of their host economies. Globalization can lead to crowding out of investment in an economy that has some indication of economic crisis, thus intensifying the rapidity of its occurrence and the gravity of the envisaged problem (Akpan 2002). Despite the potential threats to economic relations under globalization, the process of globalization cannot be stopped and many gains await participating countries.

Certain level of stability internally and externally is required for reaping some benefits from globalization. Ojo and Obaseki (1998) noted that an internally stable economy, which is not beset by inflationary pressure or facing serious unemployment, is better positioned to attract foreign investment. Similarly, considerate external sector stability is essential for favourable trade flows. There is a need to maintain fiscal, monetary, exchange rate and trade policies that promote flexibility. Such an economy is more competitive and is more supportive of gainful participation in globalization. Monetary integration and regionalization,[41] though not required as a factor for beneficial participation, are conditions which could enhance gains from global economic expansion.

There is some level of infrastructural build-up required to make a country benefit from global economic integration. Physical infrastructure accumulation, in general, acts as investment incentive, because infrastructure services enter the production function, impacting positively on output. Institutional variables, such as good governance, as measured by enthronement of rule of law, efficient civil service system, and reduced corruption, are necessary requirements for effective and increased gaining from globalization. The strength of institutional factors and infrastructure is the determining factor of the level of confidence investors would have on any country's economy.

Diversification of exports is an important factor for participation on sustainably beneficial basis in global economic relations. Mono-cultural economies, especially primary producers of mono-cultural LDCs, cannot withstand external shocks that globalization is capable of generating, such as the one currently experienced in the world.

When the factors that should engender effective gains from global integration of economic activities are not adequately available in a country, she will not derive optimal benefits from participating in globalization. Soludo (2006a) prescribed that careful economic policy plan, which is based on deregulation principles and designed to transform the economy, is necessary to address these problems.

It is thus obvious that globalization is not an all-benevolent economic phenomenon; some bad effects are also associated with it. Stiglitz (2002) contended that leaving every activity to the market cannot ensure optimal benefits from globalization for all participants. Collective action from the global community is required to contain the externalities and safeguard global public goods in spite of globalization. These global public goods include global security, economic stability, knowledge,

[41] Regionalization is not to be seen as a step toward globalization unless there is removal of barriers to non-member participation in economic interaction with hitherto economic union members (Kwanashi, 1998).

environment, humanitarian assistance (for famine, earthquake victims, etc), and global health (considering contagious diseases). These are clearly areas in which global market failure can occur and not paying attention to them and managing them well outside the market mechanism is equated to preparing for global crises which can be avoidable or minimized.

Drawing from Auboin (2004), foreign portfolio investment, for an investor, is generally more a variable than FDI, because portfolio investments have a shorter maturity date and are easily liquidated. This, however, does not necessarily imply that foreign portfolio investment is inherently more volatile. If the foreign capital inflows are volatile, then their effect on the domestic investment environment can be destabilizing and highly detrimental to growth, development and macroeconomic management in the host country. The activities of foreign portfolio investors can contribute to both the timing and amplitude of the financial crises, due to herding behaviour of the investors as was the case in the late 1990s in the emerging Southeast Asian economies. Monetary, fiscal and exchange rate policies can be weakened by sudden and significant changes in foreign investment. Eventually, this will affect the availability of finance and consequential changes in its cost and in asset prices, making investment planning difficult. It should, however, not be concluded that financial crisis is necessarily the consequence of allowing increased flows of foreign portfolio investment, for the level of vulnerability depends on the magnitude of speculative activities in the market.

Trade expansion depends on appropriate mix of domestic macroeconomic management and foreign financing that would contain balance of payments disequilibria and prevent its spilling over and exerting pressure on governments to resort to restrictive trade and exchange policies. It has been ascertained by studies that trade and financial liberalization policies minimize inefficiency in the production process and influence economic growth positively. Again, countries with more openness in trade and more liberal financial policies have the propensity to grow faster than those with restricted policies in trade and finance. An increasing openness would have positive impact on economic growth (Khan and Qayyum, 2007; Shaw, 1973). Financial development has been reckoned as a factor that contributes to economic growth and expansion, dating back to the work by J.A. Schumpeter, which appreciated that financial intermediation fosters growth in economic activities and development. However, these growth drivers require the presence of a conducive political environment encapsulated by legal development and democratic principles as important preconditions for economic growth (Bordo and Rousseau, 2009). Khan and Qayyum (2007) reviewed that:

> Financial development can affect growth through three main channels (Aziz and Duenwald, 2002): (i) it can increase the marginal productivity of capital by collecting information to evaluate alternative investment projects and by risk sharing; (ii) it can raise the proportion of savings channelled to investment via financial development– by reducing the resources absorbed by financial intermediaries and thus increasing the efficiency of financial intermediation; and (iii) it can raise the private saving rate.

Moreover, Ansari (2002) has noted that financial development contributes to economic growth in the following ways: (i) financial markets enable small savers to pool funds, (ii) savers have a wider range of instruments stimulating savings, (iii) efficient allocation of capital is achieved as the proportion of financial saving in total wealth rises, (iv) more wealth is created as financial intermediaries redirect savings from the individuals and the slow-growing sectors to the fast-growing sectors, (v) financial intermediaries partially overcome the problem of adverse selection in the credit market, and (vi) financial markets encourage specialization in production, development of entrepreneurship and adoption of new technology.

In line with these channels and effects of financial intermediation on development, Pietrovito (2008) summarizes that 'financial intermediaries and financial markets, by managing risk and mitigating asymmetric information, improve the allocation of savings and stimulate both capital accumulation and technological progress, promoting, through this route, long-run economic growth. By channelling resources to investments with the highest returns, financial intermediaries play a crucial role in long-run economic development.

3. Stylized facts on Nigeria in the global economy

The Nigerian population is currently put at over 140 million persons. The country has high population growth rate that average 2.92 percent in the period 1970-2005. As shown in figure 1, the growth rate of Nigeria's population is consistently higher than those of Brazil and China. This high population growth is a major issue that any plan to put Nigeria on development path must consider. This is because income-increasing forces must be made to rise at a higher rate than the population growth rate to enable the economy to realize a breakthrough from poverty.

Nigeria's share in the total world output is consistently less than one percent, with a paltry average of 0.27% in the period spanning 1970 to 2005, and average share in the first half of the 2000 decade of 0.17%. Of the four countries selected for comparison, Nigeria has the least share in the world GDP (figure 2). This poses an important concern of how to raise output across all sectors of the economy so as to increase Nigeria's share in the global output level.

Concerning Nigeria and the global economy, what readily comes to mind is trade flows. Nigeria may be an infamously dominant oil exporting country but her share of the world's total export is less than 1 percent on the average (in fact, 0.53%) in the period 1970 - 2005. Even when the share of Nigeria's exports in the less developed countries' exports is considered, Nigeria only accounts for 1.62% average for the same period (figure 3). The trend of Nigeria's contribution to world exports and to exports from LDCs has been declining. This may still be blamed on the mono-cultural exports, as the demand for Nigerian oil is subject to OPEC's quota placed on its oil supply. Again, export diversification guarantees the fact that earnings are drawn from various commodities rather than just one, which ensures increase in export earnings.

The comparative export performance of Nigeria and the emerging exporting economies of China, India and Malaysia are presented in ratio terms (figure 4). Nigeria's exports, as a ratio of the other countries' exports, can be interpreted in various ways. For instance, during the oil boom of mid-1970s and early 1980, Nigerian export earnings was over three times (or 300%) that of India, about twice that of Malaysia and about one and half times the Chinese export value. But since 1986 all that has become the stories of the good old days as Nigeria's exports as a ratio to those countries' have declined to less than 50% of their individual exports. Again, there are many factors that can explain this declining share of Nigeria exports but the improvement of economic activities and export penetration in the countries chosen for this comparison are major explanatory factors here.

The trend of export growth is another issue that is considered in this section. Nigeria's export performance is rather characterized by high moments of leaps and bounds cycles. The growth rate of its exports (figure 5) swung to 159.2% in 1974 and nose-dived to (-41.50) between 1980 and 1983. Compared to Malaysia, whose exports growth is more predictable and stable, Nigeria's export growth pattern is very unstable.

In consideration of relationship of an economy with the rest of the world, the global economy, it is important to evaluate how much transaction takes place between the said economy and the global economy. This is usually captured by the concept of openness of that economy, and openness is measured by the value of total trade involving the country (i.e., the country's value of exports plus her value of imports) as a ratio of the country's GDP. The higher the openness indices for a country, the greater the interaction between that economy and the global economy. For proponents of globalization, higher openness of an economy is necessary for faster economic growth and competitive advantages. However, it is not incontrovertibly conclusive that higher relative openness would lead to faster rate of economic growth and development. In fact, economic history has higher support for the fact that countries require some level of trade restriction initially, for it to grow and develop pivot industries before opening itself up to unrestricted competitive trade. The latter has been true in economic development process of many West European economies, Japan and China.

Viewed in terms of the degree of openness, figure 9 shows that Nigeria is relatively more open to trade than Brazil, China and India, as her trend curve for openness lies consistently above those of these countries in the period 1970-2005. Yet these countries grow sustainably faster than Nigeria and, of course, they are faster in developing too.

Figure 1: Population growth rate of selected countries

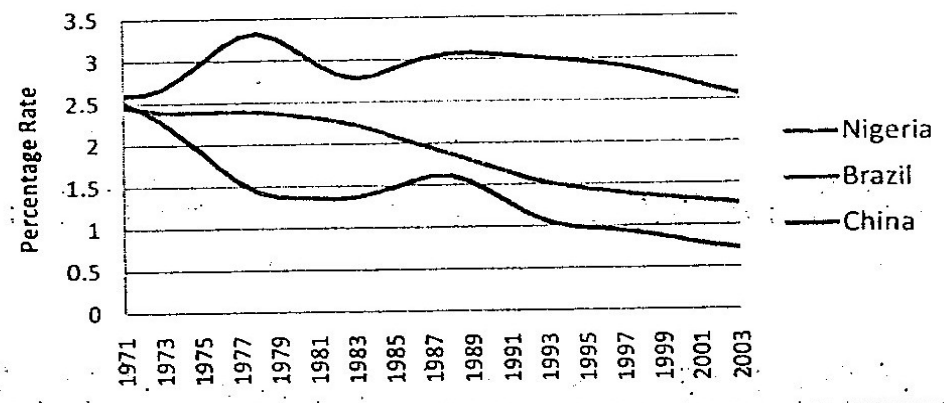


FIGURE 2 SELECTED COUNTRIES GDP AS RATIOS OF THE WORLD GDP

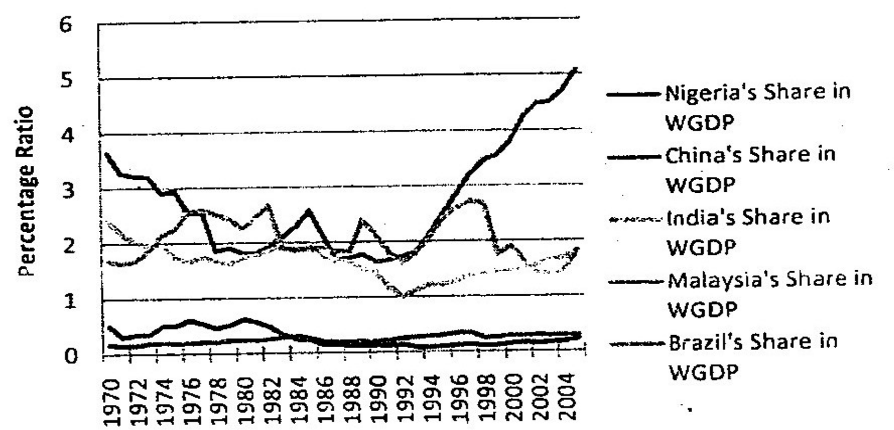


Fig. 3 Nigeria's Share in World, LDCs Exports

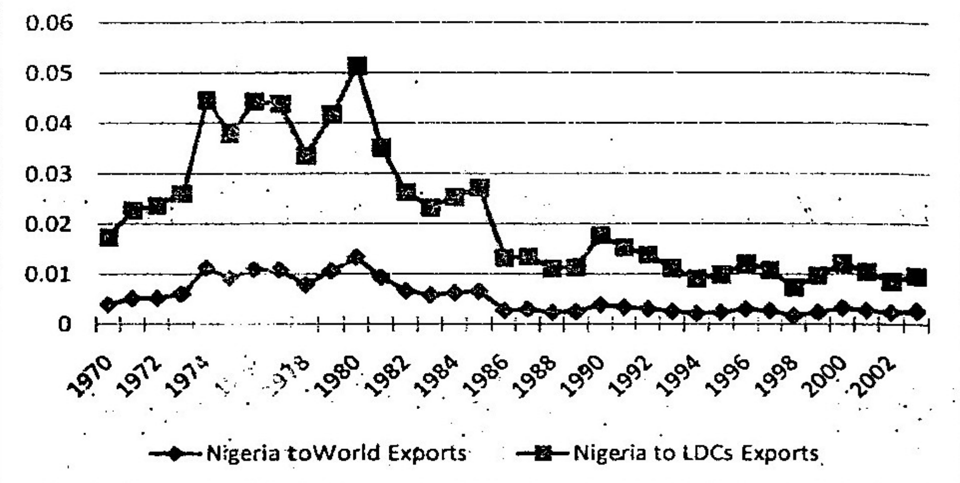


Fig. 4 Nigeria's Exports as a Ratio of Some Emerging Economies' Exports

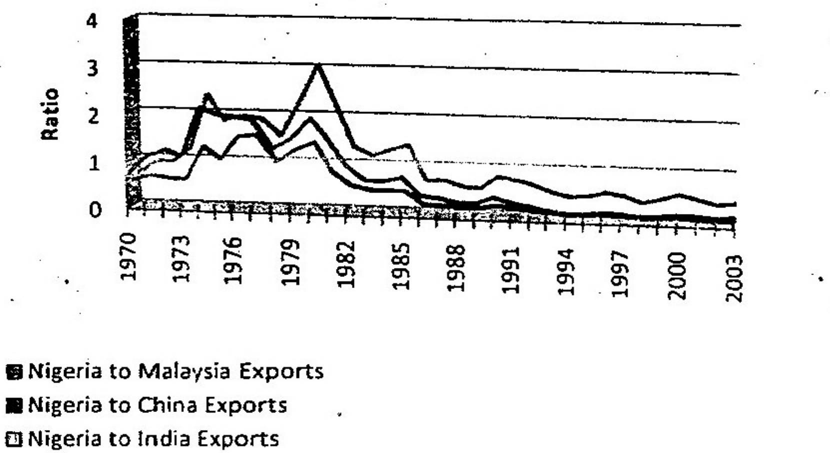


Fig. 5 EXPORT GROWTH IN NIGERIA AND MALAYSIA

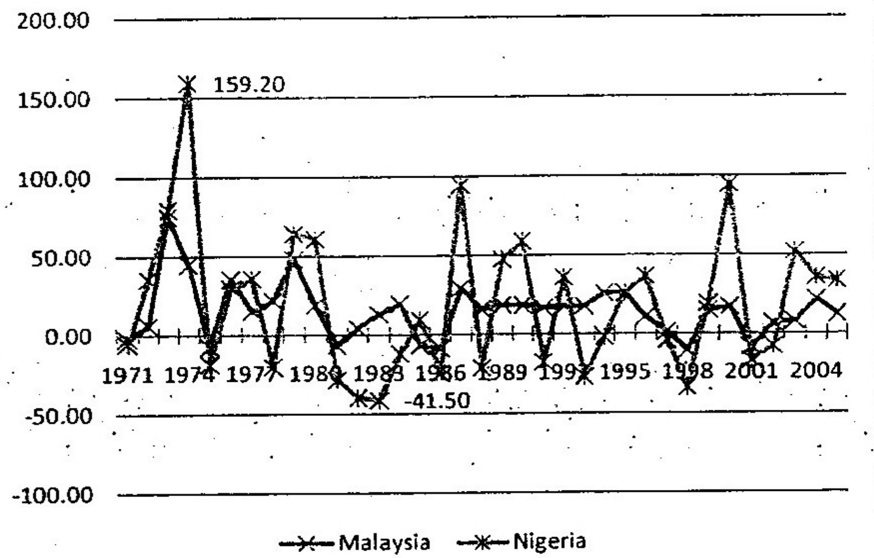


Fig. 6 EXPORT GROWTH IN NIGERIA, CHINA AND INDIA

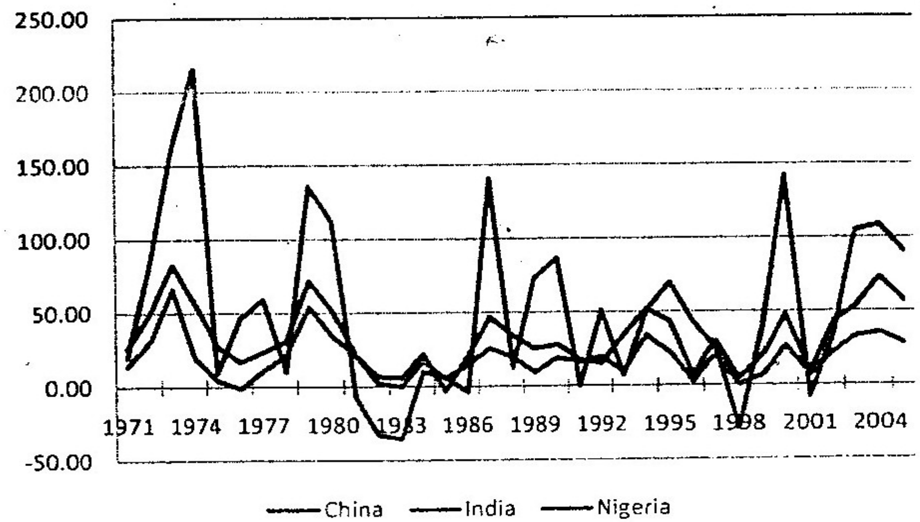


Fig. 7 IMPORT GROWTH TREND IN NIGERIA AND MALAYSIA

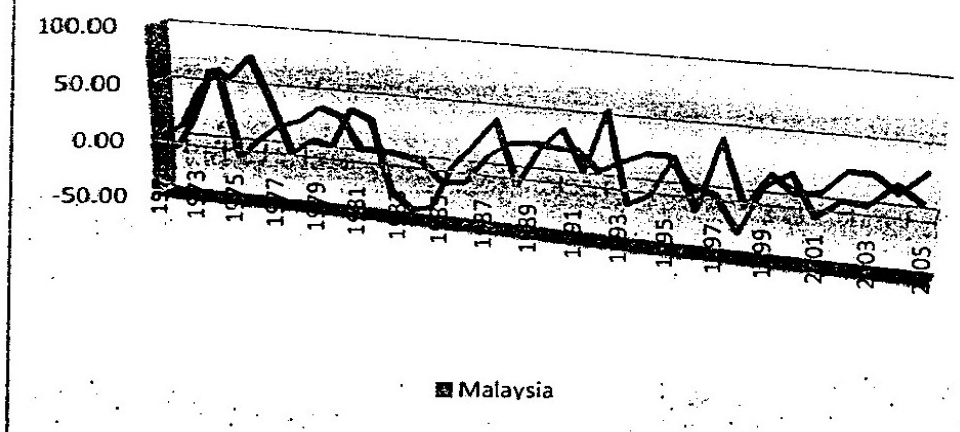


Fig.8 IMPORT GROWTH IN NIGERIA AND CHINA

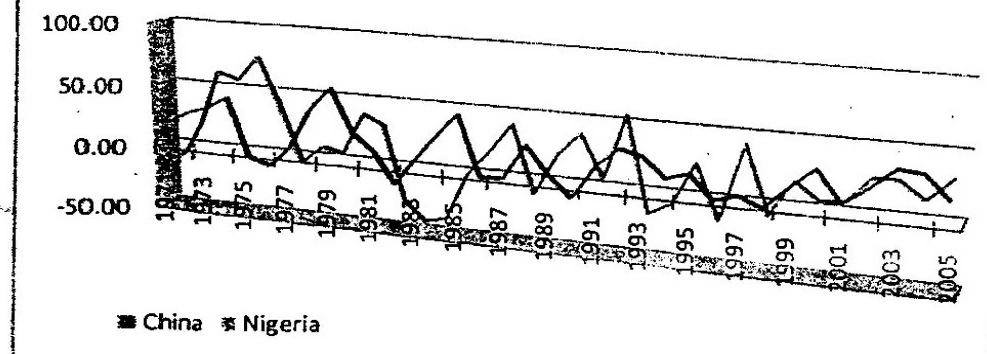
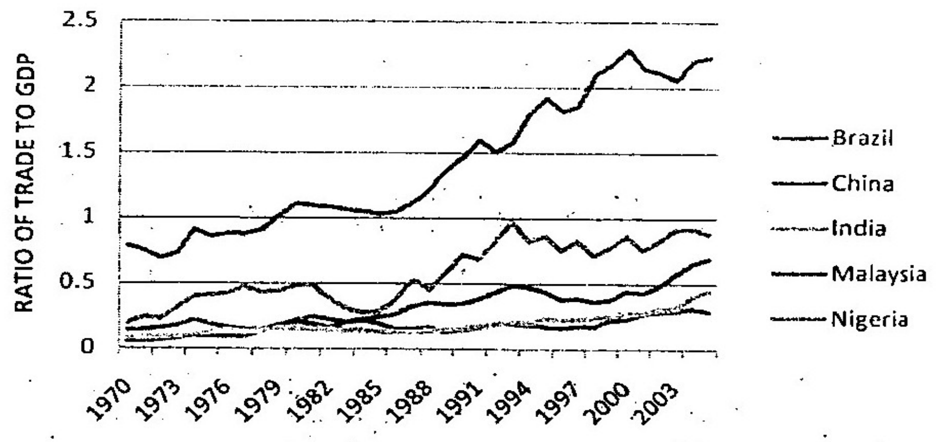


Fig.9 RELATIVE OPENNESS OF SELECTED COUNTRIES



Global influence on the Nigerian economy

Nigerian economy has had very significant international economic relationship from the birth of the Nigerian nation. Export earnings have not only provided the required foreign exchange for financing of import but have also been the most important source of fiscal revenue for financing budgets in Nigeria. Financing of the budget with this externally sourced funds have been achieved through tariffs on the exports (export duties), royalties on oil and other minerals exploited for export, and through monetization of foreign reserves. Between 1970 and 1999, the average share of oil revenue in total federal government revenue stood at 69.06%. The average shares of oil revenue for the five decades since independence are presented below (in percentages).

1961-1969	-	0%
1970-1979	-	58.8
1980-1989	-	71.27
1990-1999	-	77.11
2000-2008	-	81.41
1970-2008	-	71.92

These ratios show that the Nigerian economy has been increasing her unsafe dependence on oil. If the revenue receipts by the Nigerian custom department on non-oil exports and import duties are added, then the external dependency impact on the federal government collected revenue currently would be over 90 percent. This may be seen and interpreted differently according to interest variation in the use of the data. Despite the enormous contributions of external trade to the Nigerian economy, the volatility of this source of revenue and impact of such on the economy must not be treated with levity. Oil price failure was a major cause of economic crisis that beset the Nigerian economy in 1980-1983, that eventually led to military intervention in governance, with its grave consequences. The fall in government revenue and balance of payments problem that resulted from the said oil glut resulted in contracting of high external and domestic loans by the governments (state and federal) in the 1980s and debt crisis and its management problems became a major fiscal and monetary policy issue in Nigeria.

The Nigerian economy has utilized the revenue from agricultural commodities' boom of the 1960s and the oil revenue to develop infrastructure in the country. Nevertheless, the pace of infrastructural development cannot be matched with the high inflows of revenue; neither could the high level of poverty be explained by the high export revenue, except as a paradox. Access to public infrastructure (such as power supply and landline telecommunication, railway network), safety of life and property, sound education and good healthcare have been very low, notwithstanding, the high inflow of revenue to governments. Per capita gross domestic product (GDP) in Nigeria in 2007, taking the population of 140,003,542 and the real GDP of ₦634.1b was ₦45,291.71, which amounted to ₦3,774.30 per person per month. In US dollars, this is $374.40 per capita or $31.20 each Nigerian per month in 2007 (exchange rate = $1: ₦120.97).

Real sector performance has not been any impressive. For instance, average capacity utilization of 44.07% in 2000-2007 remained low; with 36.1% at the opening of the period and peaking at 56.5% in 2003 and is currently staggering around 53%. The ratio of non-oil exports to total exports has been low and it places the description of mono-cultural exporting economy on Nigeria. The non-oil export accounted for 2.23%

average to total exports during the period 2000-2008. There is no significant change in the structure of the Nigeria exports – it is still dominantly oil.

Expansion in oil trade, in which Nigeria may be said to have comparative advantage (not necessarily competitive, because of the wastes accruing from gas flaring) has led to neglect of other sectors of the economy. Both in terms of expansion of economic production activities and generation of revenue for government, oil trade has minimised the activities in the economy and in some cases has actually caused Dutch Disease to economic activities in other real sector of the economy. Growing a virile economy from the present structural outlook of the Nigerian economy to participate gainfully in the global economy is, thus, more challenging than meet the eye.

4. Methodology

Within the framework of trade-foreign direct investment-financial development and growth nexus, there exist networks of interrelationships which can only be adequately addressed by a system of simultaneous equations. Thus, we specify a four-equation simultaneous model to reflect the various networks of relationships. This model provides the various channels through which trade activities with the outside world, an inflow of foreign direct investment within a well-developed financial system, impact both directly and indirectly on economic performance.

Empirical Model

The model to be tested for this study can, following the discussion in the preceding sub-section and using the identified variables and others as dictated by theory, is specified as below. It must be observed that our model is a simultaneous equation one which captures the various channels (trade, capital and finance), through which the Nigerian economy should interact with the global economy to bring about better performance.

$$Lntrd = \alpha_0 + \alpha_1 Lnexr + \alpha_2 Lncps + \alpha_3 Lnopn + \alpha_4 Lncpi + \alpha_5 Lnoilr + \alpha_6 Lnpci \quad (1)$$

$$\alpha_1 >< 0 \text{ and } \alpha_2, \alpha_3, \alpha_4, \alpha_5, \alpha_6 > 0$$

$$Lnfdi = \beta_0 + \beta_1 lncps + \beta_2 Lnexr + \beta_3 Lnfird + \beta_4 Lnrgdp + \beta_5 Lnpci + \beta_6 Lnopn \quad (2)$$

$\beta_1 < 0$ and $\beta_2, \beta_3 > 0$

$$Lncps = \lambda_0 + \lambda_1 Lnm2gdp + \lambda_2 rir + \lambda_3 Lncpi + \lambda_4 Lnsav + \lambda_5 Lnfrt + \lambda_6 Lnpci \quad (3)$$

$\lambda_1, \lambda_4, \lambda_5, \lambda_6 > 0$ and $\lambda_2, \lambda_3 < 0$

$$Lnrgdp = \theta_0 + \theta_1 Lnoilp + \theta_2 Lnfdi + \theta_3 Lntrd + \theta_4 Lnpopgr + \theta_5 Lncps \quad (4)$$

$\theta_1, \theta_2, \theta_3, \theta_5 > 0$ and $\theta_4 < 0$

The variables in the above model can be defined as:
trd = Real total trade
exr = nominal exchange rate
fdi = foreign direct investment
cps = credit to private sector
opn = openness measured as sum of import and export divided by GDP
cpi = consumer price index
oilr = oil revenue
pci = per capita income
rir = real interest rate
oiltrd = oil component of trade
m2gdp = financial deepening proxied by broad money
sav = savings in the economy
frt = financial infrastructure proxied by number of commercial bank branches in the economy
rgdp = real gross domestic product
oilP = crude oil price
popgr = growth rate of the population

The presumptive signs of the variables in the above equations are presented below each of the equations.

Estimation and interpretation of results

Since our model is a simultaneous one, we shall not use the ordinary least square (OLS) estimation technique in the analysis. Rather, we shall adopt a system estimation method. This is to avoid biased and inconsistent estimates. In the simultaneous equation model, some of the endogenous variables may enter the model as independent variables. This will create simultaneity bias which correlates endogenous variables with the error terms. The particular system estimation method adopted for this study is the three-stage least square (3SLS) as it solves the problem of cross-

equation serial correlation in residuals since it simultaneously estimate a the equations of the model.

Table 1: Unit Root Tests

Variable		*Unit Root Tests*		*Conclusion*
		ADF	*PP*	
Lncpi	level	-0.256	0.120	I(1)
	1st Diff	-3.915**	-3.080*	
Lncps	level	-2.089	-2.089	I(1)
	1st Diff	-5.956**	-6.014**	
Lnexr	level	-1.454	-1.374	I(2)
	1st Diff	0.858	-0.964	
	2nd Diff	-2.320*	-2.320*	
Lnfdi	level	0.027	-0.320	I(1)
	1st Diff	-8.608**	-8.583**	
Lnfrt	level	-2.11	-2.147	I(1)
	1st Diff	-5.184**	-5.172**	
Lnm2gdp	level	-1.729	-1.729	I(1)
	1st Diff	-3.806**	-3.478*	
Lnoilp	level	-2.489	-2.527	I(1)
	1st Diff	-5.400**	-5.401**	
Lnoilr	level	-1.057	-1.087	I(1)
	1st Diff	-6.705**	-13.47**	
Lnopn	Level	-2.618	-2.618	I(1)
	1st Diff	-8.703**	-9.297**	
Lnpci	Level	0.352765	0.312	I(1)
	1st Diff	-5.224**	-5.217**	
Lnpopgr	Level	-3.573*	-3.481*	I(0)
Lnrgdp	Level	-2.211	1.177	I(1)
	1st Diff	-5.528**	-5.389**	
rir	Level	-1.399	-1.483	I(1)
	1st Diff	-3.653**	-2.901***	
Lnsav	Level	-1.691	-1.809	I(1)
	1ST Diff	-4.776	-4.727	
Lntrd	Level	-2.618	-2.618	I(1)
	1st Diff	-8.703**	-9.297**	

Critical values, *(**) implies a rejection of the null hypothesis of non-stationarity at 5% and 1% respectively

Table 2: Short-run results of system of equations

Equation 1: Dependent Variable: Real Trade

Variable	3SLS		
	Estimated Coefficient	Std Error	t-Statistic
Constant	0.0168	0.0049	3.417
ΔΔLnexr	-0.00033	0.0013	-0.2376
ΔLncps	0.0158	0.0157	1.0083
ΔLnopn	0.9938	0.0086	114.7122
ΔLncpi	-0.9569	0.0189	-50.6123
ΔLnoilr	0.0277	0.0102	2.6974
ΔLnpci	0.9586	0.0103	47.523

Equation 2: Dependent Variable: Foreign Direct Investment

Variable	3SLS		
	Estimated Coefficient	Standard Error	t-Statistic
Constant	0.1124	0.2073	0.5423
Δlncps	-0.2938	0.751	-0.391
ΔΔlnexr	0.0661	0.0648	1.0202
ΔlnFird	0.0366	0.3406	0.1075
Δlnrgdp	-0.4478	0.2355	-1.9012
Δlnpci	1.2319	0.4799	2.5666
Δlnopn	0.2784	0.3741	0.7443

Equation 3: Dependent Variable: Financial Sector

Variable	3SLS		
	Estimated Coefficient	Std Error	t-Statistic
Constant	0.1957	0.0522	3.7479
ΔLnm2gdp	0.4068	0.1839	2.2121
Rir	-0.0038	0.0015	-2.4570
ΔLncpi	-0.3538	0.2478	-1.4273
ΔLnsav	-0.0026	0.2149	-0.0121
ΔLnfrt	0.0216	0.2163	0.0998
ΔLnpci	0.4562	0.2103	2.1687

Equation 4: Dependent Variable: Real Gross Domestic Product

Variable	3SLS		
	Estimated Coefficient	Std Error	t-Statistic
Constant	-0.2181	0.4190	-0.5204
ΔLnoilp	0.4473	0.2174	2.0572
ΔLnfdi	-0.1471	0.1012	-1.4526
ΔLnttrade	-0.1134	0.2041	-0.5558
Lnpopgr	0.2261	0.3749	0.6032
ΔLncps	0.5073	0.4975	1.0195

However, an evaluation of the time series properties of the variables of the model is carried out using both Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) tests for unit root. The results are reported in table 1 below. It is clear that all the variables are non-stationary except population growth rate which is stationary at level. All the other variables are stationary at first difference except nominal exchange rate which was at second difference. The short-run results of the system of equations are presented in table 2.

The model adopted here is simple contemporaneous macro-econometric relations in which the effects of trade flows, foreign direct investment and financial sector development are traced on economic growth. The transmission path of the effects is traced using the three transmission variables (trade, foreign direct investment and the proxy for financial sector development, which is credit to the private sector). The estimated regression coefficients for the six explanatory variables in the trade equation have the expected signs with four of the variables in the equation being statistically significant at 1 percent level of significance. The level of openness, per capita income and oil revenue have significant positive impact on trade, while domestic price increases reduce the volume of trade significantly, meaning that excessive inflation is detrimental to trade expansion and growth.

Of course, inflation has deleterious effects on exports; and for the Nigerian economy, non-oil exports are negatively affected by high domestic prices which put such export commodities at a competitive disadvantage internationally. Since the import level in Nigeria is positively correlated with export earnings, the level of imports will trail the trend of exports and on trade flow, thus presenting the behaviour exhibited in the trade equation estimated above. Quite interestingly, nominal exchange rate regression coefficient estimated here proved not to be significant in the trade equation, and with a very low magnitude of impact– viewed in terms of estimated value of the coefficient, which is just 0.00033. These confirms the relatively weak import of exchange rate in Nigerian export trade relations, since export of crude petroleum, which constitutes about 90 percent of Nigerian total exports, does not depend on exchange rate. Again, given the expression of the nominal exchange rate used here as the naira to the dollar, the negatively signed estimated coefficient relevantly fits into the explanation of the inverse import-exchange rate relations.

The second equation in the model captures the estimation of foreign direct investment, which is specified as depending on credit to the private sector (or the level of financial sector development), exchange rate, interest rate premium, real GDP, per capita income and openness. The proxy of financial sector development in this model has the expected negative relationship with inflow of FDI in Nigeria. This negative regression coefficient is due to the complementary relationship existing between FDI and domestic supply of credits to private sector investment. The coefficient is not statistically insignificant. Exchange rate depreciation should lead to increase inflow of FDI, that is, a positive relationship between the two variables. The interaction of exchange rate with FDI is such that if there is 100 percent depreciation, FDI inflow will increase by 6 percent. The coefficient of exchange rate is however not significant. Regression coefficient of cross-border interest rate premium is 0.036, positive as expected, but low in magnitude and insignificant. Per capita income regression coefficient is the only explanatory variable in FDI equation that has both the right sign and is statistically significant. Per capita income is actually an indicator of effective purchasing power and market capability of the Nigerian economy. Thus, an increase in per capita income by 1 unit will lead to 1.2 units (more than proportionate) increase in the inflow of foreign direct investment. This suggests that increase in income per capita and equity in the distribution of the GDP will remarkably increase the inflow of foreign direct investment.

Another important channel through which Nigeria's economy is linked to the world is through the development in the financial sector. This is captured in equation 3 above and proxied by credit to private sector as a ratio of gross domestic product. Six exogenous variables were modelled. The result, as expected, shows that money supply as ratio of gross domestic product, financial sector infrastructure, and per capita income are positively correlated to credit to private sector. Indeed, all but financial infrastructure is statistically significant. One important outcome of this result is that per capita income has had a positive and significant influence in growing the private sector in Nigeria. Thus, greater development of the

economy, as higher per capita income should capture in terms of market power, equity and welfare concerns of the people would go a long way to endure and deepen the private sector liquidity. Thus, private sector growth and associated efficiency in the sector would be enhanced. On the other hand, real interest rate, consumer price index, and savings are negatively related to credit to private sector as ratio of gross domestic product. However, it is only the real interest rate that is statistically significant. Thus, maintaining macroeconomic stability plays a significant role in ensuring that credit to the private sector is increased. It is however surprising that saving apart from being insignificant, returns a negative relationship with credit to private sector in Nigeria.

The economic performance equation regresses crude oil price, FDI, trade, population, and financial sector development indicator on the real GDP. By this specification, only oil price coefficient is statistically significant, and indeed the performance of the Nigerian economy is not only dependent on the oil exports but the world price of crude oil determines the inflow of development funds in the government sector and the investment funds for the private sector. Again even though the financial sector development indicator is not significant in the economic performance equation, its positive contribution to the growth process of economic activities has been captured by regression coefficient as 100 percent increase in this variable will lead to 50.7 percent rise in the real GDP. Population growth and credit to private sector are positively related to real gross domestic product, but are not statistically significant. However, foreign direct investment and real trade on the other hand, are both negatively related and insignificant.

5. Conclusion

Nigeria may not have been doing well in her budgetary processes and achievements in terms of her macroeconomic performance and global economy. But the country has had some magic years by which it was expected that all Nigerians should be educated, live in good shelter, eat good food, have good health, or live in safety, etc. These magic years lacked the magic wands to make them work. But a long history of policy failure should not form the basis of our failing more and more. We should learn from our prodigal past! The result has shown that per capita income has a positive and significant effects on the various channels through which Nigeria's growth process could be enhanced. The implication is that if fairness and equity prevail in Nigeria, real trade, FDI and financial sector development would necessarily act as a transmission channel through which economic performance of is enhanced.

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