

Constraints to Foreign Direct Investment: The Nigerian Experience (1980 - 2015)

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Abstract—Foreign Direct Investment is considered as an invaluable tool for achieving economic growth in developing countries. In order to achieve the objective of a higher rate of economic growth and the efficiency in the utilization of resources, developing countries the world over have embarked upon various policy measures at attracting FDI. The study is an empirical investigation (using a time series data between 1980-2015) into the factors that constrain the inflow of FDI into the Nigeria economy. The Phillip Perron (PP) unit root test was used to test stationarity of the variables, Johansen Co-integration approach was conducted to test for long run relationship between the variables used, Vector Error Correction Model was used to establish the short run dynamics and the long run relationship as well as ascertain the speed of systemic adjustment in the model. The study found that government external and domestic debts, inflation rate and exchange rate appreciation (in favour of the domestic currency) have significant long run relationship with foreign direct investment in Nigeria. It therefore recommends among others a more prudent management of both domestic and external debt of Nigeria and that our monetary authorities should devise effective ways of fine-tuning and managing such macroeconomic tools and variables as the rate of inflation and exchange rate.

Keywords—Foreign Direct Investment, Inflation rate, External Debt, Domestic Debt, Foreign Exchange

I. INTRODUCTION

Nigeria is endowed with rich human and natural resources. Given these wealth in economic potentials, it is ironical that Nigeria is still rated as one of the poorest economies in the world. It is true that Nigeria has great economic potentials but her poor economic ‘know – how’ leaves her disadvantaged and at the receiving end of the ever highly competitive global economy. In order to be a relevant force in the global economy, the country must devise means of efficiently extracting and utilizing her numerous economic potential and improving her productive capacity without which, she will remain in her poor and low economic state. Physical and human capital can only be accumulated through investment. Most growth models have come to ascribe the rate of growth of an economy as being determined by the amount of physical and human capital, the efficient use of resources and the ability to acquire and apply modern technology. Since investment determines the rate of accumulation of physical capital, it thus became an important

factor in the growth of productive capacity and in turn, contributes towards the growth of the economy.

Despite the increased flow of investment, especially, to developing countries, Sub-Saharan Africa (SSA) countries still lag behind other regions in attracting foreign direct investment. The uneven dispersion of FDI is a cause of concern since FDI is an important source of growth for developing countries. Not only can FDI add to investment resources and capital formation, it can also serve as an engine of technological development with much of the benefits arising from positive spillover effects. Such positive spillovers include transfers of production technology, skills, innovative capacity, and organizational and managerial practices, Osinubi and Lloyd [5].

Domestically, Nigeria has been unable to generate sufficient investment to adequately propel her economic growth process. This has resulted in Nigeria government ‘looking for more efficient source of investment. In other words, the government has resorted to wooing of foreign investors. Among the various sources of investment, Foreign Direct Investment (FDI) is considered as the most invaluable for economic growth in developing countries like Nigeria. FDI serves as a stimulus to additional investment in the recipient country and is perceived as the most efficient source of investment for economic growth for developing countries including Nigeria. The success or failure of the past and present governments at wooing sufficient investment for growth and the success and failure of FDI to bring about the desired level of growth in the economy is hinged upon the prevailing political and economic circumstances in the country hence, foreign investors need to master these circumstances which characterize the Nigeria government at wooing foreign investment with little or no significance. Studies have found that there is a strong correlation between the growth situation in developing countries and their success at attracting Foreign Direct Investment.

A. Statement of the Problem

Many empirical researches have concluded that there is a positive relationship between Foreign Direct Investment (FDI) and economic growth [6]. It has also been stated that economic growth in developing countries is largely dependent on their success in attracting FDI. Hence, the concerted effort of the

Nigerian government, both the past and the present, to attract FDI is not out of place. The inflow of FDI into the country has not been very encouraging due to the various policy measures of the government towards its mobilization, especially in the late 80s. For example, the average ratio of FDI inflow to GDP from 1990 was mere 0.05 (5%). This outcome questions the concerted policy measures of the government towards foreign investment especially when this period falls within the structural adjustment programme (SAP) regime that took off in 1986. Furthermore, it seems difficult to ascribe the economic growth in Nigeria to the inflow of FDI especially when the growth rate has, in the early 80s, been recorded as negative even when FDI inflow was growing (but slowly). Even a high FDI inflow does not always coincide with a high real GDP growth rate, though the growth rate has been inconsistent. For instance, in 1990, the growth in FDI inflow was negative (-4.3%). Also, in 1997, 1998 and 1999, the growth in FDI of 4.8, 3.6 and 1.2 percent yielded a real GDP growth of 2.8, 2.9 and 0.4 percent respectively.

According to the World Bank, Nigeria's macroeconomic performance over 2005 and 2006 was commendable. The economic reform efforts showed positive results.

However going by the latest ranking of 189 countries by World Bank ease of doing business global index, 2015 edition, Nigeria scored 169th position out of 189 countries ranked [9]. This result showed that Nigeria lacks the capacity to grow its local industries let alone attract reasonable foreign direct investment especially in the face of dwindling oil price and exchange rate volatility. The World Economic Global Competitive Index 2015, ranked Nigeria as 38th out of 144 countries with 286.5 billion US dollar using gross domestic product as an indicator [10]. This result is nothing to cheer about as the same index ranked Nigeria, 111th out of 144 countries also using GDP/Per Capita Income as an indicator. This implies that even as gross domestic product improves, its result does not reflect on the living standard of the citizens.

II. THEORETICAL AND EMPIRICAL LITERATURE REVIEW

This study shall focus on the Classical and Product life cycle theory. The classical theory claims that FDI and multinational corporations are very vital and contribute to the development of host countries through several channels. These channels include; the transfer of capital, advanced technological equipment and skills, improvement in the balance of payments, the expansion of the tax base and foreign exchange earnings, creation of employment, infrastructural development and the integration of the host economy into international markets [11]. The product life cycle theory states that FDI exist because of the search for cheaper cost of production. It states that many manufactured products will be produced first in the countries in which they were researched and developed. These countries are typically industrialized. Over the product life, production will tend to become capital intensive and will shift to foreign locations. So overtime, a product initially introduced in a country and exported from that country may end up becoming a product produced elsewhere and then imported back into that country [11]. Past studies have cited the host country's market size (measured by the Gross Domestic Product, GDP) as an

important determinant of FDI inflows (Raggazi, 1973; Moore, 1993; Wang and Swain, 1995; Chakrabarti, 2001 and Masayuki and Ivohasina, 2005) as cited in Obida and Abu (2010) [7]. This could not be possible however if the host country is only used as a production base due to low production costs and after which the finished product is exported back to another or home market, with this in view, the market size may be less influential or insignificant in determining FDI inflow. Aside from market size, inflation and exchange rate are other determinants of FDI inflow. If inflation rate is low, foreign investors are encouraged to invest in such a country leveraging on the cheap cost of production, likewise, where the exchange rate of a country depreciates vis a vis its trading partners, it attracts FDI since foreign firms may merge with or acquire domestic industries without having to spend their lives savings or borrow at cut throat interest rate before investing.

Foreign Direct Investment is the distinctive feature of multinational enterprises (or transnational corporations); a theory of foreign direct investment is a theory of multinational enterprise as an actor in the world economy Hennart, (1982). Based on this theory, the extension of an enterprise from its home country into a foreign host country is FDI rather than an international transfer of capital [3]. The extension of an enterprise involves flows of capital, technology and entrepreneurial skill and, in more recent cases, management practice to the host economy where they are combined with local factors in the production of goods and services. Alfaro L, Chanda A, and Selin Sayek (2004), discovered that countries with better financial system and financial market regulations can exploit FDI more efficiently and achieve a higher growth rate [4]. The study argues that countries need not only a sound banking system but also, functioning financial markets to allow entrepreneurs obtain credit to start a new business or expand on existing one. In this way, countries are able to benefit from inward investment to achieve a higher growth rate. Robu (2010) asserts that FDI is usually sought by countries that are going through the transition period and/or those that face severe structural unemployment. This is the situation of Nigeria [8]. Balasubramanyam V. N, Salisu M.A and Sapsford D (1996) finds that the impact of FDI on growth is stronger in countries with a policy of export promotion than in countries that pursue a policy of import substitution [2]. Export promotion policy is characterized by a free play of market forces and allocation of resources on the basis of comparative advantage, furthermore, because of the neutrality policy orientation it offers none of the incentives for rent seeking which the import substitution provides is observed. The competition it allows from both international trade and domestic sources encourages research and development and investment in human capital.

Borensztein, Eduardo, Jose De Gregorio and Jong-Wha Lee, (1998) found that the positive impact of FDI on growth is enhanced when the host country's education exceeds a certain threshold [2].

III. DATA SOURCE AND ECONOMETRIC RESEARCH METHODOLOGY

Time series data collected from various editions and issues of the CBN Financial Review, and Central Bank of Nigeria Statistical Bulletin for the period 1980 to 2015 were used.

The Phillip Perron (PP) unit root test was used to test stationarity of the variables, Johansen Co-integration approach was conducted to test for long run relationship between the variables used. The Vector Error Correction Model was used to establish the short run dynamics and the long run relationship as well as ascertain the speed of systemic adjustment in the model. The vector error correction model is a variant of regression model which offers a robust and detailed analysis of the variables under investigation.

A. Model Specification

This study is based on the assumption that the inflow of FDI is constrained by the explanatory variables specified in the model below:

$$FDI = f(\text{EXT. DEBT}, \text{DOM. DEBT}, \text{INFL}, \text{EXR}) \quad (1)$$

Where

FDI	= Foreign Direct Investment Inflow
EXT. DEBT	= External Debt
DOM. DEBT	= Domestic Debt
INFL	= Inflation Rate
EXR	= Foreign Exchange Rate

The statistical form of the model is thus:

$$FDI = \alpha_0 + \alpha_1 \text{EXT. DEBT} + \alpha_2 \text{DOM. DEBT} + \alpha_3 \text{INFL} + \alpha_4 \text{EXR} + e \quad (2)$$

Where:

- α_0 = The Intercept
- α_1 = The Parameter Estimate of EXT. DEBT
- α_2 = The Parameter Estimate of DOM. DEBT
- α_3 = The Parameter Estimate of INFL
- α_4 = The Parameter Estimate of EXR
- e = The Random Variable or Error Term

The results of the Phillip Perron (PP) test are shown in Table 1 above. At 5% levels the test statistics for the log levels of government external debt, government domestic debt and exchange rate were statistically insignificant. This therefore suggests the null hypothesis of a unit root present among the series cannot be rejected at levels for these variables. At 5% levels only two of the series were stationary; hence, all variables were differenced once to achieve stationarity at first differencing using 5 percent level of significance. This result thus informs the use of first difference in our model. However, a stationary series was obtained for all the variables at first difference. Hence the PP test rejects the joint null hypothesis for the individual series at the 5 per cent level. Thus, from all of the tests, the unit roots tests indicate that the variables were integrated of order one. The stationarity of the variables in the models allow the outcome of the models to have policy implications.

On the evidence of the stationarity of two or more series which consists of different order of integration I (0) and one I (1), the necessary procedure is to confirm the long run relationship of these series such that a linear combination of two or more series would result to co integrated series of the higher order 1. Hence this study employs Johansen and Jusulis (1992) multivariate co integration procedure to verify if there is a long run relationship among the variables of the model as presented in tables 2 above. In the result from the above table (2); the trace and maximum Eigen value statistic test were examined in the process. The result of the trace and maximum Eigen statistic test indicates the existence of at most one co integrating relationship among the variables considered by the study. It thus suggests the presence of a long run equilibrium relationship among the series which consists of foreign direct investment (as the dependent variable) government external debt, government domestic debt, inflation rate and exchange rate.

Table 3 above shows the estimated result for the long run relationship between foreign direct investment (FDI) as the endogenous variable and government external debt, government domestic debt, inflation rate and exchange rate as the exogenous variables. Further analyses of the result showed that all the estimated lag coefficient of the variables indicate a significant relationship with foreign direct investment in Nigeria. Cumulated government external debt shows a significant inverse relationship with foreign direct investment and statistically significant. A percent change in government external debt will result to 0.576 percentage change in foreign direct investment all things being equal. Thus government external debt could be considered a significant determinant of foreign direct investment in Nigeria within the scope covered by this study.

The analysis of the government domestic debt indicates a significant inverse relationship with foreign direct investment. All things being equal a percentage change in government domestic debt will bring about 0.549 percentage change in foreign direct investment. This further show that changes in government domestic debt has significant effect on foreign direct investment. Hence the degree of the responsiveness of foreign direct investment to the changes in government domestic debt is found to be inelastic.

The result of the estimated lag co efficient of inflation rate shows that a percentage change in inflation rate will result to a 0.247 percentage change in foreign direct investment at 1 percent significant level holding other variables at a constant. A proportionate change in inflation rate results to a less proportionate change in foreign direct investment. It could therefore be observed that the degree of the responsiveness of foreign direct investment to the changes in inflation is highly inelastic. The above result thus provides significant evidence in support of significant effect inflation could pose on private foreign direct investment in Nigeria.

Analysis of the co efficient estimate for cumulated effect of exchange rate suggests a significant direct relationship with foreign direct investment at 5 percent level of significance. A detailed analysis of the empirical result shows that a percent change in exchange rate appreciation in favour of domestic currency would lead to 1.171 percentage change in foreign direct investment in Nigeria. The estimated elasticity shows that the degree of responsiveness of foreign direct investment to changes in exchange rate movement in Nigeria is elastic. This implies that a proportionate change in inflation rate will bring about a more proportionate change in foreign direct investment. Evidence from inflation rate shows significant relationship with foreign direct investment with the highest resultant effect in magnitude and direction. Hence this study concludes that government external and domestic debt, inflation and exchange rate as macroeconomic variables reveals a significant long-run relationship with foreign direct investment in Nigeria and therefore must be adequately managed within the context of Nigeria economic to foster higher international relations with other economies of the world. Every foreign investor will prefer to invest their huge resources in an economy that is relatively stable and promises good returns on investment outlay which invariably depends on management of aggregate fiscal and monetary policy instruments of such an economy.

B. Granger Causality Analysis

With Co integration, the dynamic causal interactions among the variables should be phrased in a vector error correction form. This allows us to assess both long-run and short-run causality, respectively, on the χ^2 -test of the lagged first differenced terms for each right-hand-side variable and the t-test of the error correction term. The results of the test are presented in Table 3.

The analysis of the granger test reveals a unidirectional causality from exchange rate to foreign direct investment (FDI) at 10 percent level of significance. This implies that exchange rate granger causes FDI. Causality is observed between government domestic debt and inflation rate such that unidirectional causality runs from government domestic debt to inflation, hence indicating that government domestic borrowing do granger causes inflationary pressure within the economy. However, evidence from the foreign direct investment model shows error correction term was correctly signed and statistically significance at 5 percent. Further evidence from the error correction result reveals that over 50 percent of the errors from external shocks to the system will be restored per time. The result suggests there is possibility of convergence in the system with moderate speed of adjustment from the short-run to the long-run equilibrium state.

Table 1: Unit Root Test Results

Variables	Levels		Remarks	1 st Difference		Remarks
	PP-Statistic	Critical Value at 5%		PP-Statistic	Critical Value at 5%	
LFDI	-3.455018**	-2.951125	Stationary	-10.42546***	-2.954021	Stationary
LGEXDT	-2.210515	-2.951125	Non-stationary	-12.44585***	-2.954021	Stationary
LGDDT	-2.029498	-2.951125	Non-stationary	-40.43871***	-2.954021	Stationary
LINFL	-5.087512***	-2.951125	Stationary	-17.72616***	-2.954021	Stationary
LEXR	-1.855120	-2.951125	Non-stationary	-4.877442***	-2.954021	Stationary

Source: Author's Compilation 2016

NB;***, **, indicates stationarity at 1 percent and 5 percent levels.

Table 2: Co Integration Result

Hypothesized No. of CE(s)	Eigen Value	Trace Statistics	0.05 Critical Value	Prob.**	Hypothesized No. of CE(s)	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.643156	90.33870	76.97277	0.0034	None	34.00506	34.80587	0.0621
At most 1 *	0.612921	56.33364	54.07904	0.0310	At most 1 *	31.32121	28.58808	0.0218
At most 2	0.280531	25.01243	35.19275	0.3995	At most 2	10.86498	22.29962	0.7622
At most 3	0.219882	14.14745	20.26184	0.2794	At most 3	8.194219	15.89210	0.5247
At most 4	0.165065	5.953233	9.164546	0.1943	At most 4	5.953233	9.164546	0.1943

Table 3 Normalized co integrating relationship

Normalized Co Integrating Coefficients (Standard Error in Parenthesis)				
LFDI	LGEXDT(-1)	LGDDT(-1)	LINFL(-1)	LEXR(-1)
1.000000	-0.576294	-0.548776	-0.246761	1.170940
	(0.13974)	(0.23970)	(0.12565)	(0.32294)
	[-4.12399]	[-2.28940]	[-1.96392]	[3.62584]

Table 4: Granger Causality Results based on VECM

Dependent Variable	Independent Variables					ECT _{t-1} coefficient (t-statistic)
	χ^2 -statistics of lagged 1 st differenced term [p-value]					
	Δ LFDI	Δ LGEXDT	Δ LGDDT	Δ LINFL	Δ LEXR	
Δ LFDI	--	4.224148 [0.1210]	2.042097 [0.3602]	0.232635 [0.8902]	5.423346* [0.0664]	-0.509496** [-2.73184]
Δ LGEXDT	0.550331 [0.7594]	--	1.424918 [0.4904]	0.030176 [0.9850]	0.497010 [0.7800]	-0.268987 [-1.40522]
Δ LGDDT	4.552735 [0.1027]	0.246390 [0.8841]	--	2.691119 [0.2604]	1.569642 [0.4562]	0.051445 [0.98149]
Δ LINFL	1.739344 [0.4191]	1.245834 [0.5364]	5.551742* [0.0623]	--	0.283775 [0.8677]	0.692870* [1.72296]
Δ LEXR	1.775053 [0.4117]	0.263683 [0.8765]	0.554028 [0.7580]	1.090352 [0.5797]	-	-0.159463 [-1.30046]

IV. STUDY RECOMMENDATIONS

The outcome of this study shows that FDI, despite the inherent limitations it is faced with, has a good prospect of growth in Nigeria. To increase the inflow of FDI and its performance, the following recommendations from this study were propagated.

- The responsiveness of foreign direct investment to the variations in cumulated lag effects of exchange rate is elastic. Hence a proportionate change in exchange rate has a significant elastic time lag effect on foreign direct investment. Therefore exchange rate policies formulation and implementation towards foreign direct investment should be critically examined with adequate consideration of its time lag effects.

- Government external and domestic debt apparently suggests a significant inverse relationship with foreign direct investment. This further implies that the management of government internal and external debts has many implications on its attraction of foreign capital through foreign investment inflows to the host country. Hence more prudent management and administration of government debts engender FDI inflow. If government borrowings are curtailed by the debt managers, foreign investors will have confidence and invest in the economy.
- Further evidence from the study reveals that high inflationary pressure within the economy could significantly affect the level of foreign capital inflows and consequently discourage prospective investors from entering into the market. The monetary authorities should intensify effort at sustaining the one digit inflationary target as a catalyst to attracting more foreign investors and also enable the Nigerian economy to harness its potential investment opportunities given its significant lag effect on foreign direct investment in Nigeria.
- Since most developing economies like Nigeria stands to gain much economic benefits from FDI when they are open to foreign trade. The present study suggests that the Nigerian government should intensify effort to reduce the bureaucratic bottlenecks in foreign trade transactions which is characterized by stringent custom duties and port-authorities' regulations.

V. CONCLUSION

Foreign direct investment no doubt has many beneficial effects for the growth and development of the national economy. However, for the country to optimize its potential benefits, it is important that the government exercise fiscal discipline and control measures in its pattern of borrowing and spending. Borrowed funds should be invested in productive economic activities that will further enhance investment opportunities that could guarantee the attraction of more foreign investors. Most importantly the monetary authorities should devise more effective strategies in the control and management of the exchange and inflation rates by developing effective monetary policies that will encourage price stability, full employment, income equality and trade liberalization. This will culminate to the provision of a suitable and sustainable macroeconomic environment that will enhance the attraction and retention of foreign investors and also encourage local investors in the economy. Foreign Direct Investment has been pivotal to economic growth in Nigeria; justifying the effort of successive governments in the country at using FDI as a tool for economic growth. Governments direct involvement in the provision of goods and services by establishing and controlling corporations, for example, has contributed little to economic growth in Nigeria. This justifies the privatization policy of the past administration of President Olusegun Obasanjo, Musa Yar'Adua as well as Goodluck

Jonathan to allow for the possible takeover by investors (both foreign and domestic) of the government corporations.

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