The Relative Impact of External Capital on Manufacturing Output in Nigeria

Johnson Okonkwo Ugwu   Fredrick Onyebuchi Asogwa (Ph.D.)   Romanus Onyekachi Ugwuanyi
Department of Economics, University of Nigeria, Nsukka

Abstract

External capital is one of the major sources of investible resources in most developing Countries and is made of foreign direct investment (FDI),foreign aid (AID) and external debt. In this study, the relative impact of external capital on manufacturing output, on one hand, and on Economic growth, on the other hand, in Nigeria, are examined. Economic growth is proxied by gross domestic product (GDP) growth. Employing the Ordinary Least Squares (OLS) method and an annual time series data for the period between 1982 and 2013 obtained from World Bank's website, it is found that in the short-run, a $1 inflow of FDI is accompanied by a statistically insignificant 0.45 cent reduction in manufacturing output, a $1 inflow of foreign aid is accompanied by a statistically significant 49 cents reduction in manufacturing output and a $1 inflow of external debt is accompanied by a statistically significant 18 cents reduction in manufacturing output. This implies that FDI has a zero impact on manufacturing output while AID and external debt has a significant negative impact on manufacturing output in Nigeria. Therefore, all forms of external capital have different levels of negative individual impact on manufacturing output in Nigeria. Also, it is found that in the short-run, a $1 inflow of FDI is accompanied by a statistically significant $13.4 reduction in economic growth, a $1 inflow of aid is accompanied by a statistically insignificant $5.68 increase in economic growth and a $1 external loan inflow is accompanied by a statistically insignificant $1.73 increase in economic growth. This implies that FDI has a significant impact on economic growth, while AID and external debt has an insignificant or zero impact on economic growth. Therefore, not all forms of external capital do have significant impact on economic output in Nigeria. It is therefore recommended that government should make the business environment more investor friendly, make doing business in Nigeria easy, ensure prudent borrowing, ensure appropriate utilization of borrowed funds, ensure project continuity and ensure financial inclusiveness.
Keywords: Foreign direct investment, foreign aid, external debt, manufacturing output, economic growth.

Introduction

Nigeria is a middle income country. Its economy is the largest in Africa and the 26th largest in the world. Nigeria is blessed with natural resources such as crude oil, natural gas, timber, and a fertile land for farming. The major sectors of the economy that contributes to the economic growth of the country are the oil and gas sector, the agricultural sector, the manufacturing sector, the entertainment industry, transport, and communication sector. However, Nigeria is a mono economy as it depends heavily on the oil and gas sector. The oil and gas sector accounts for over 90% of export earnings as at 2012. This dependence has been the major cause of the structural unemployment, poverty, and other economic vices menacing the country since the last two decades.

The need to diversify Nigeria's economy rests on the potential dangers of this over dependence on oil and gas. A major sector of the economy that promotes economic growth is manufacture as it has been established that no nation will develop without the manufacturing sector. This idea is supported by many theories such as List (1841) - theory of national economies and Rostow (1960) - stages of development theory. Based on this, a lot of studies had been carried out on the challenges of the manufacturing sector in Nigeria in an effort to determine how to develop it. Some of the challenges being pointed out are infrastructural decay, lack of capital, lack of modern technology, excessive importation, etc. In other to solve the problem of the manufacturing sector in Nigeria, effort has been put towards mobilizing domestic savings and foreign capital. However, with the inadequate domestic savings in the country, emphasis has been placed on attracting external capital into the country.

The importance of external capital in the development of the manufacturing sector cannot be overemphasized. Various theories and models of economic growth like the neoclassical growth theory, the Harrod-Domar growth model, has also emphasized the importance of external capital in the growth of manufacturing sector and the overall economic growth of the economy. Also, studies have shown empirically that one of the reasons why some nations are not industrialized is the lack of capital for investment. It had also being shown that less developed countries do not have the required savings to fill the investment gap. Thus, there is a need for the inflow of external capital into Nigeria.

With the various economic and political reforms like the move towards democracy, the privatization of the power and telecommunication sector, etc, and agreements like the investment promotion and protection agreements (IPPAs), which were meant to attract foreign in investments into the non-oil sector, a lot of investments has continually flown into the country. Also various regimes of government in Nigeria had made

effort towards getting cheap loans and aid for the development of key infrastructure and sectors in the country including the manufacturing sector. Theoretically, these activities all have a direct or indirect impact on the output of the manufacturing sector. However, the reality about this impact is not yet explicit. Hence the need for an empirical study aimed at determining the relative impact of different forms of external capital on the output of the manufacturing sector.

Objectives of the study:
The specific objectives of this study are:
(i) To determine the impact of all forms of external capital on the output of the manufacturing sector.
(ii) To determine the impact of total external capital on economic growth in Nigeria.

Literature review:
Economic growth and economic development are the two main concern of every nation. Every nation wants to have a high growth in economic activities, productivity and employment. In the same way they also want to develop. For any nation to develop, that nation must grow. Growth is a necessary but not the sufficient condition for development. For a country to develop, it must grow. Due to the importance of growth in the development of a country, the goal of most growth theories is to explain the problem of growth and development. In other words, most growth theories try to explain why countries grow at different rates. In doing this, emphasis has been laid on some sectors of the economy as the main driver of economic growth and development. One of such sectors is the manufacturing sector.

List (1841), in his theory of national economies explained that a nation's true wealth is the full and many –sided development of its productive powers, rather than its current exchange value.

Another theory that emphasized the importance of the manufacturing sector in driving economic development is that by Rostow (1960). Rostow identified five basic stages of economic growth namely; Traditional society ,Preconditions for take –off, Take-off, Drive to maturity and Age of high mass consumption.

According to Rostow, and contrary to List, every nation passes through these five stages. In explaining these stages, Rostow pointed out that the precondition for take-off stage is the stage where a country begins to export primary product, developing its agriculture and manufacturing sector. This stage, to Rostow is necessary for the country to acquire more capital through the export of raw materials, for the development of the manufacturing sector .This is contrary to List's idea that nations do not need to rely on exporting primary products because that will mean more backwardness economically for them. Rostow also pointed out that the stage of take-off is the most important stage. This stage is characterized by increased manufacturing and goods are made both for export and domestic consumption.

One question commonly asked is how we are to achieve growth in the manufacturing sector, so as to increase the growth of the Nigerian GDP and thus lay the foundation for development. Different economic growth models have pointed out different variables as the determinants of economic growth.

Solow (1957) explains that growth is the function of human capital, physical capital, and technological progress, and investment in any of these increases growth. This suggest that an inflow of investment capital into the economy in the form of training, investment in the education sector, investment in the health sector, investment in technology, direct investment in the manufacturing sector, will have a positive effect on the growth of the sector and thus the entire economy through its positive linkage effect. According to Mankiw (2007), the Solow growth model shows that persistent growth must come from technological progress.

Another growth model that explains how economies can achieve growth is that provided by Sir Roy Harrod (1939) and Evsey Domar (1946) popularly known as the Harrod-Domar model. The Harrod-Domar model states that the rate of economic growth in an economy is dependent directly on the level of saving and inversely on the capital output-ratio. This model suggests that if developing countries want to achieve economic growth government need to encourage saving and support technological advancements to decrease the economy's capital output ratio.

The model also suggests that the main obstacle or constraint to development in developing countries was the relatively low level of capital formation in these countries. According to Rostow and other theorists, countries that could save 15 to 20 percent of its GDP will grow faster than countries that save less. So much have been explained theoretically on how a high interest rate can stimulate a high domestic saving. However, practically it is difficult to stimulate the level of domestic savings in less developed countries LDCs where income is low. According to Jhingan (2004), "since the level of income is low in such economies (LDCs), a high rate of interest is not likely to raise the propensity to save". In other worlds saving is interest inelastic in developing countries. This low level of saving is, as pointed out earlier from the Harrod-Domar model is the main constraint to development.

As a recipe to the above problem of low saving in LDCS, the Harrod-Domar model suggest that countries that could not reach the required saving ratio can do so through either foreign aid or private foreign

investment. In other words, LDCs should try to mobilize foreign capital in other to fill the saving and investment gap.

Foreign or external capital is what is needed to fill this gap and it comes in different forms. These forms include: loan, foreign direct investment and AID. Studies of FDI-growth issues in Nigeria include Ojedide (2005) which provided conceptual framework for the analysis of the macroeconomic effects of volatile capital flows. It concluded that capital flows have their pros and cons. This however depends on the initial conditions of the developing economy concerned. It can stimulate growth of the real sector when the initial conditions are right. It could retard growth however, due to macroeconomic shocks that could undermine the stability of real sector and impose higher adjustment cost on the economy. The paper therefore recommends capacity building as a way of maximizing benefits and minimizing risks from capital flows.

Herzer (2006) using a bivariate VAR modeling technique found evidence of a positive FDI-led growth for Nigeria, Srilanka, Tunisia and Egypt, and based on weak exogeneity, tests a long-run causality between FDI and economic growth running in both directions was found for the same set of countries. This suggests that FDI cause increase in the productivity of the manufacturing sector which increases the economic growth of the country.

Supporting Herzer's research is Okodua (2009) who examined the sustainability of the FDI-growth relationship in Nigeria. Using the Johansen co-integration framework and a multivariate VAR with a vector error correction model, found evidence of a long-run equilibrium relationship between economic growth and FDI inflows. However, the study revealed a unidirectional causality from FDI to economic growth.

Also supporting the positive FDI-growth relationship is Oseghale and Amonkhienan (1987) who found that FDI is positively associated with GDP, thereby concluding that greater inflow of FDI will spell a better economic performance for Nigeria.

Other studies supporting the positive impact of FDI on economic growth in Nigeria include Aluko (1961), Brown (1962) and Obinna (1983). They all reported a positive link between FDI and economic growth in Nigeria.

On the impact of foreign capital on the growth of the manufacturing output, Adamu and Barde (2012) carried out an empirical study on the impact of FDI on the productivity of the manufacturing sector, using the Johansen co-integration test and the vector error correction model, and employing a time –series data, they found out that there is a long-run relationship between FDI and the performance of manufacturing firms in Nigeria. The study also found out that causality runs from FDI to the performance of manufacturing firms. By implication, policies to attract FDI into the manufacturing sector should have long range views and should be sustainable.

Opposed to the above are Opaluwa, Ameh, Alabi and Abdul (2012) who examined the effect of FDI on the Nigerian manufacturing sector. Employing a time series data spanning 1975-2008, and the Vector Auto Regression (VAR), co-integration and error correction techniques to establish the relationship between FDI and t he growth of the manufacturing sector, they found out that FDI has a negative effect on the manufacturing productivity and that the effect is statistically significant.

Also, Kabir (2012), found a positive relationship between FDI and industrial output using OLS method of regression.

Contrary to the above studies some studies rejected the findings of these studies that FDI has a sure positive and significant impact on economic growth.

Nunnenkamp and Spatz (2003) criticized the view that developing countries should draw on FDI to create economic development. They concluded that the growth impact of FDI is ambiguous because of highly aggregated FDI data. By disaggregating FDI and considering the compatibility of different types of FDI on economic conditions prevailing in the host country the positive growth effects of FDI are doubtful. Host country and industry characteristic as well as the interplay between both sets of characteristics determine the growth impact of FDI in developing nations.

Recently Steve, Samuel and Bodiseowei (2013) examined the impact of foreign aid, external debt and domestic debt on economic growth in Nigeria for the period 1981-2010. Using a co-integration and error correction mechanism, they found a positive relationship between domestic debt and foreign aid, and on the other hand a negative relationship between economic growth rate and external debt.

The models

To determine empirically the nature of the relationship between external capital and the growth of the manufacturing output, manufacturing output is expressed mathematically as a function of external capital and other influencing variables such as consumption expenditure, lending rate, gross capital formation and inflation rate. Our first model is therefore stated as follows;

MAN = f(FDI, AID, EDEBT, CEF, GCF, LR, INFL) which when expressed mathematically gives

$MAN = \beta_1 + \beta_2 FDI + \beta_3 AID + \beta_4 EDEBT + \beta_5 CEF + \beta_6 GCF + \beta_7 LR + \beta_8 INFL + \mu_i$

Where FDI = Foreign Direct Investment, f= functional relation, AID = Foreign Aid, EDEBT = External Debt,

CEF = Final Consumption Expenditure, GCF = Gross Capital Formation,

LR = Lending Rate, INFL = Inflation Rate, the β(s) are model parameters while μ_i = the stochastic error term.

On the other hand ,to determine empirically the nature of the relationship between external capital and economic growth, our second model is stated functionally as follows;

GDP = f(FDI, AID, EDEBT, RIN, CEF, GCF, ENC) and mathematically as

GDP = Υ_1 + Υ_2FDI + Υ_3AID + Υ_4EDEBT + Υ_5CEF + Υ_6GCF + Υ_7RIN + Υ_8ENC + μ_i

Where variables common to the two models are as defined in model 1, GDP = gross domestic product, RIN = Real Interest Rate, ENC = Energy Consumption and Υ(s) are model parameters.

Several tests were conducted such as the unit root test to show if the variables have been stationary over time as well as cointegration test meant to show if the variables have long-run equilibrium relationship among themselves. Both tests are pre-estimation tests carried out before actual estimation takes place. The source of the data for this study is the World Bank website.

The results:

The results of the regression of both models are as follows;

For model 1,

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.71E+08	2.41E+08	-1.536075	0.1388
D(FDI)	-0.046407	0.217076	-0.213781	0.8327
D(AID)	-0.490126	0.116386	-4.211207	0.0004
D(EDEBT,2)	-0.174456	0.069227	-2.520049	0.0195
D(GCF,2)	0.570567	0.024925	22.89100	0.0000
D(LR)	-14082803	44123791	-0.319166	0.7526
D(INFL)	5149996.	11000069	0.468179	0.6443
CEF	0.039808	0.013909	2.862028	0.0091

R-Squared   0.976870

The unit root test carried out is indicative that manufacturing output(MAN), external loans(EDEBT), gross domestic product(GDP) and gross capital formation(GCF) are stationary at second difference while foreign direct investment(FDI), energy consumption(ENC), lending rate(LR), inflation rate(INFL) and aids(AID) are stationary at first difference. Final consumption expenditure(CEF) and real interest rate(RIN) are stationary at level form. The co-integration test was not conducted because from our unit root test result, the variables of the model are integrated of different order and is as such not qualified to undergo the co-integration test. Linearly, the model result is stated as follows;

MAN = -371000000 - 0.046407FDI - 0.496126AID - 0.174456EDEBT + 0.570567GCF - 14082803LR
+ 5149996INFL + 0.039808CEF

From the above stated regression equation, it shows that a $1 increase in FDI causes a statistically insignificant 0.046 cents reduction in manufacturing output (MAN), a $1 increase in foreign aid(AID) causes a reduction of a statistically significant 0.50 cents in MAN, a $1 increase in EDEBT is accompanied by a statistically significant 0.174 cents decrease in MAN, a $1 increase in GCF brings about 0.571 cents increase in MAN, a percentage increase in lending rate(LR) results in a decrease of $14082803M in MAN, a percentage increase in INFL leads to an increase of $5149996M in MAN and a $1 increase in CEF results to a 0.04 cents increase in MAN. The result of the histogram normality test indicates that the data for this model one are normally distributed. This is as shown below;
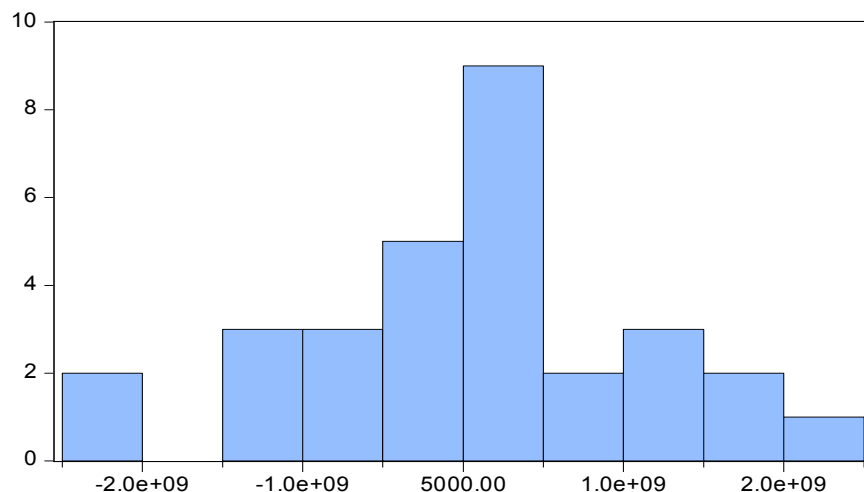
Series: Residuals		
Sample 1984 2013		
Observations 30		
Mean		1.35e-07
Median		28609375
Maximum		2.00e+09
Minimum		-2.39e+09
Std. Dev.		1.02e+09
Skewness		-0.304818
Kurtosis		3.094651
Jarque-Bera		0.475769
Probability		0.788294

For model 2;

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5.14E+09	4.07E+09	-1.263541	0.2196
D(FDI)	-13.38879	6.529989	-2.050355	0.0524
D(AID)	5.675921	3.900172	1.455300	0.1597
D(EDEBT,2)	1.729122	1.715547	1.007913	0.3245
D(GCF, 2)	3.419772	0.776946	4.401558	0.0002
CEF	0.811165	0.403796	2.008852	0.0570
RIN	-8.38E+08	4.83E+08	-1.734909	0.0967
D(ENC)	8.216018	2.993238	2.744859	0.0118

R-Squared   0.754043

Linearly, our second Model result is stated as follows;

GDP = -5140000000 - 13.38879FDI + 5.675921AID + 1.729122EDEBT
          + 3.419772GCF + 0.811165CEF - 838000000RIN + 8.216018ENC

From the above regression equation, a $1 increase in FDI causes a statistically significant decrease in GDP by 13.4 Cents, a $1 increase in AID leads to a statistically insignificant increase in GDP by 5.68 Cents, a $1 increase in EDEBT causes a statistically insignificant increase in GDP by 1.73 Cents, a $1 increase in GCF causes a statistically significant increase in GDP by 3.42 Cents, a $1 increase in CEF corresponds to a statistically significant increase in GDP by 0.81 Cents, a 1% increase in RIN causes a statistically insignificant decrease in GDP by $8,380 00000, a $1 increase in ENC leads to a statistically significant increase of GDP by 8.22 Cents. The result of this second Model's histogram show that the data are normally distributed. This is shown below;
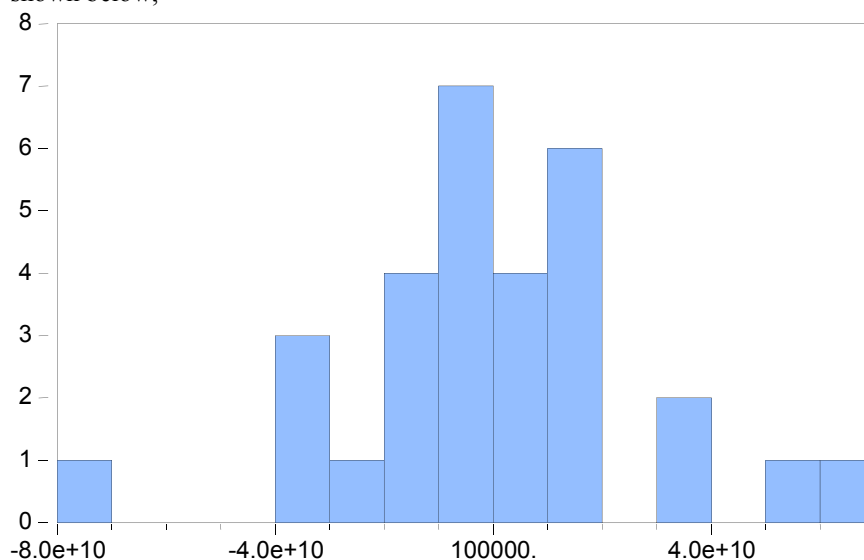
Series: Residuals		
Sample 1984 2013		
Observations 30		
Mean		2.54e-06
Median		-2.07e+09
Maximum		6.06e+10
Minimum		-7.46e+10
Std. Dev.		2.71e+10
Skewness		-0.082817
Kurtosis		4.126499
Jarque-Bera		1.620544
Probability		0.844737

Conclusion

The findings of this study has implications on Nigeria with respect to her relationship with the external world through the revelation of the reality of the benefits the economy has received from Nigeria's economic relation with the rest of the world. These implications include:

Globalization has significantly impacted the Nigerian manufacturing sector negatively. With the advent of globalization, time and space has been compressed, nations have been linked economically by trade and the flow of capital, nations have benefited and nations have lost. For the case of Nigeria, the finding of this study has shown that Nigeria is among the losing nations through the significant negative impact external capital inflow has had on the manufacturing output. This result contradicts apriori expectation. One explanation for this contradiction is that FDI inflow has been dominated by oil FDI, which flows just to facilitate increased oil extraction. As a result of this inflow, huge amount of economic rent has been collected by the Nigerian authorities. This huge economic rent has only increased the propensity to import, which has negatively affected the manufacturing sector due to Nigerian's preference for imported products and the high level of importation. The little FDI into the manufacturing sector has not being productive due to low level of competitiveness of the manufacturing sector which arises from the unfavourable business climate in the country. A second reason for this contradiction is that development aid and external loans is not being fully channeled to capital and infrastructure provision, resulting thus to increased importation and neglect of the manufacturing sector. These factors and many others are the cause of the negative impact external capital had on the manufacturing output.

Domestic Capital Formation is Very Important. As shown by evidence, gross capital formation has a positive impact on the manufacturing output and also on gross domestic product. This implies that domestic capital formation through increased savings mobilization, investment in domestic physical, social and human capital is very important for the growth of economic activities in the real sectors of the Nigerian economy.

Domestic Consumption is Important for the Growth of the Real Sectors in Nigeria. The result of the empirical study carried out shows that final consumption expenditure has a significant positive impact on both manufacturing output and gross economic output. This accentuates the importance of consumption in economic growth.

Manufacturing Firms in Nigeria do not benefit significantly from Inflation. Based on the empirical study carried out, inflation does not benefit manufacturing firms in Nigeria. The impact of inflation on manufacturing output is not statistically significant using the t-test. This is probably as a result of the high level of importation in Nigeria.

Interest Rate is not a major determinant of the growth in the Real Output in Nigeria. As shown by empirical analysis, interest rate (nominal and real) has no significant effect on the manufacturing and overall economic output in Nigeria.

This contradicts the classical believe that interest rate is a major determinant of economic growth in Nigeria.

It is revealed, therefore, that all forms of external capital have different levels of negative significant impact on the output of the manufacturing sector and a negative insignificant impact on economic output. This finding contradicts the findings of Adamu and Barde (2012), but concurs with the findings of Opaluwa, Ameh, Alabi and Abdul (2012). However, the finding of this study is not consistent to any economic growth theory. Also, a conclusion from the second estimated model is that not all forms of external capital have an insignificant impact on economic output in Nigeria.

We, therefore, recommend that government should make the business environment more investor friendly, make doing business in Nigeria easy, ensure prudent borrowing, ensure appropriate utilization of borrowed funds, ensure project continuity and ensure financial inclusiveness.

References

Abdul A., Barnabas E.B. (2012)."Foreign Direct Investment and the Performance of Manufacturing Firms in Nigeria", in Kojo Menyah, Joshua Abor (ed.) Finance and Development in Africa. (Research in Accounting in Emerging Economies, vol. 12), Emerald Group Publishing Limited, pp. 171-183.

Adelegan .J.O., (2000). "Foreign Direct Investment and Economic Growth in Nigeria: A Seemingly Unrelated Model." African Review of Money, Finance and Banking, Supplementary Issue of "Savings and Development" 2000. Milan. Pp. 5-25.

Akinlo. A. E., (2004). "Foreign Direct Investment and Economic Growth in Nigeria: An Empirical Investigation." Journal of Policy Modeling (26) 5, 627-639.

Akinwulegun S.O (2012). "Foreign Direct Investment (FDI) Trends in Developing Nations. Nigeria's Experience in a Globalizing Era. International Business and Management 4(1), pp 146-156.

Aluko, S.A., (1961). "Financing Economic Development in Nigeria". The Nigerian Journal of Economic and Social Studies. 3(1). Pp. 39-67.

Ayanwale .A. B. (2007). "Foreign and Economic Growth: Evidence from Nigeria". AERC Research paper 165.

African Economic Research Consortium, Nairobi.

Ayanwale .A.B. and Bamire .A.S. (2001). "The Influence of FDI on Firms Level Productivity of Nigeria's Agro/Agro-Allied Sector". Final Report Presented to the African Economic Consortium, Nairobi.

Boyd. J. H., and B.D. Smith (1992). "Intermediation and the Equilibrium Allocation of Investment Capital: implication for Economic Development." Journal of Monetary Economics. 30, 409-432.

Chenery .H.B. and Stout. A. (1966). Foreign Assistance and Economic Development". America Economic Review. 55, pp. 679-733.

Dan Steinbock (2013). "Nigeria's Huge FDI Flow: Is this benefitting Nigerians?". Bisinessday news, August 19th, 2013.

De Gregorio, Jose. (2003). "The Role of Foreign Direct Investment and Natural Resources in Economic Development". Working Paper No. 196 Central Bank of Chile, Santiago.

Dolan, Michael .B. and Brian W. Tomlin (1980). "First World- Third world Linkages: External Relations and Economic Development". International Organisation, vol. 34. No. 1. Pp. 41-63.

Edozien .E. G. (1968). "Linkages, Direct Foreign Investment and Nigeria's Economic Development". The Nigerian Journal of Economic and Social Studies. 10(2), pp. 119-203.

Ekperiwar C.M. (2011). Oil and non oil FDI and Economic Growth in Nigeria. Journal of Emerging Trends in Economics and Management Sciences. 2(4).

Herzer .D., Klasen .S., Nowak and Lehmann, D. F. (2006). " In Search of FDI-Led Growth in Developing Countries: The way Forward". Ibero American Institute for Economic Research.

Ismail, O. Fasany and Adegbemi, B.O. (2012). " Does Foreign Aid Accelerate Economic Growth? An Empirical Analysis for Nigeria". International Journal of Economic and Financial Issues. 4(), pp, 423-431.

Kabir Haruna Danja (2012). "Foreign Direct Investment and the Nigerian Economy". American ournal of Economics 2(3), pp 33-40.

List .F. (1841), "The National System of Political Economy". Translated by Sampson .S. L., 1885 edition, page xxvi.

M.L. Jhingan (2007). "Macroeconomic Theory- Harrod-Domar Growth Models". Vrinda Publications limited. Page 511

N. Gregory Mankiw (2007). "Macroeconomics- Economic Growth Theory". Worth Publication. Page 186.

Nunnenkanp. P., and J. Spatz (2003). "Foreign Direct Investment and Economic Growth in Developing countries; How Relevant are Host Countries and Industrial Characteristics?" Kiel Working Paper no.1176.

Obinna .O.E. (1983). "Diversification of Nigeria's External Direct Finances through Strategic Foreign Direct Investment". Nigerian Economic Society Annual Conference Proceedings. Jos, 13-16th May.

Okodua, H. (2009). " Foreign Direct Investment and Economic Growth. Co-integration and Causality Analysis of Nigeria". The African Finance Journal, vol. 11, part 1.

Opaluwa D., Ameh A.A.Alabi J.O and Abdul Mohammed (2012). "The Effect of Foreign Investment on the Nigerian Manufacturing Sector". International Business and Management Journal 4(2).

Otepola. A. (2002). "Foreign Direct Investment as a Factor of Economic Growth in Nigeria." Africa Institute of Economic Development and Planning (IDEP), Dakar, Senegal.

Oyejide. T. A. (2005). "Capital Flows and Economic Transformation: A Conceptual Framework on Proceedings of Central Bank of Nigeria 5th Annual Monetary Policy Conference with the theme "Capital Flows and Economic Transformation in Nigeria." Held at the CBN Conference Hall, Abuja. November 10th to 11th.

Oyinlola, O. (1995). "External Capital and Economic Development in Nigeria (1970-1991)". The Nigerian Journal of Economic and Social Studies, 37(2&3), pp, 205-222.

Peter, N., Merial Alal, Bell Gam and Peter S.U., (2012). "Interplay of Foreign Aid, External Debt and Economic Growth: The Nigerian Experience". International Journal of Economic and Financial issues: 4(8) pp 1916-9728.

Steve S. T., Samuel G. E. and Bodiseowei C.O. (2013). "Foreign Aid, Debt and Growth Nexus in Nigeria". Journal of Economics, Business and ICT, 8(2).

Appendix 1

DATA SET FOR REGRESSION:

	GDP	EXCRV	INF	INTR	MS	CSP	FDI	FP	DI	TOPN
1984	116.2722	113.2	40.7	9.75	17.29213	10.71876	309.9624	12.1	51.00102	0.139898
1985	134.5856	99.9	4.7	9.75	16.56882	9.711546	322.5457	11.4	49.85675	0.139565
1986	134.6033	51.89167	5.4	9.75	17.68634	11.32769	546.6433	10.5	54.01055	0.110727
1987	193.1262	14.71667	10.2	15.1	14.27749	10.91669	1270.05	10.7	50.84758	0.249693
1988	263.2945	12.96667	56	13.7	14.56802	10.37865	652.5773	12.8	50.36186	0.199923
1989	382.2615	8.875	50.5	21.4	12.00824	7.953513	3630.342	12.2	43.26881	0.232384
1990	472.6487	7.716667	7.5	22.1	11.18315	7.097808	991.4339	10.6	49.04276	0.329217
1991	545.6724	6.341667	12.7	20.1	13.81803	7.578257	1267.445	17.5	49.13204	0.386722
1992	875.3425	3.741667	44.8	22.1	12.69358	6.640023	1652.279	11.5	54.57292	0.39843
1993	1089.68	2.966667	57.2	23.99	15.17315	11.6656	2721.928	8.6	59.37524	0.352764
1994	1399.703	2.958333	57	15	16.45296	10.24676	1.588137	8.4	63.29199	0.263519
1995	2907.358	0.741667	72.8	13.96	9.943428	6.191351	2.612014	10.2	60.96256	0.586714
1996	4032.3	30.16898	29.3	13.43	8.577088	5.917133	2.759985	12.2	64.705	0.464293
1997	4189.25	28.83495	10.7	7.455	9.865254	7.54806	2.636575	20.3	64.7419	0.49827
1998	3989.45	28.32107	7.9	9.98	12.23592	8.822173	2.024063	10.4	75.38883	0.39837
1999	4679.212	73.90537	6.6	12.59	13.44141	9.21455	1.983079	14.8	62.36948	0.438425
2000	6713.575	77.21021	6.9	10.67	13.08479	7.900013	1.72713	13.1	47.7242	0.43654
2001	6895.198	81.30414	18.9	9.98	18.40878	11.09412	1.920665	12.4	64.7349	0.467881
2002	7795.758	88.95123	12.9	16.5	19.31773	11.9359	2.889068	12.5	83.62111	0.417775
2003	9913.518	100.6317	14	13.04	19.69958	11.06101	2.606427	12.5	84.34644	0.521321
2004	11411.07	107.0665	15	13.32	18.68203	12.45864	2.175297	10.4	90.15371	0.577494
2005	14610.88	106.5833	17.8	10.82	18.05444	12.58233	4.477438	11.9	88.17948	0.687665
2006	18564.59	105.0247	8.2	8.35	20.45781	12.33864	3.364042	13.3	78.99984	0.561994
2007	20657.32	106.4104	5.4	8.1	24.82123	17.7596	3.676084	13.9	98.33755	0.591641
2008	24296.33	80.03	11.6	11.84	32.96055	28.48372	3.998727	7.7	86.50072	0.631903
2009	24794.24	96.03	12.4	13.27	37.99238	36.74587	5.137548	7.4	102.0523	0.545232
2010	54204.8	96.88	13.7	18.7	20.35787	18.73823	1.670942	6.5	57.22021	0.356452
2011	63258.58	101.1739	10.8	22.62	19.24243	16.85158	2.150393	6.5	50.16126	0.396117
2012	71186.53	98.94	12.2	22.51	19.51969	20.57872	1.564215	7.8	38.98041	0.334622
2013	80222.13	96.69111	8.5	23.69	18.89581	19.66827	1.090849	7.8	10.74957	0.294792

source: CBN statistics bulletin (2009 & 2013)

APENDIX 2:

REGRESSION RESULTS:

MODEL 1;

Dependent Variable: D(MAN,2)

Method: Least Squares

Date: 09/16/14   Time: 10:58

Sample (adjusted): 1984 2013

Included observations: 30 after adjustments

HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 4.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.71E+08	2.41E+08	-1.536075	0.1388
D(FDI)	-0.046407	0.217076	-0.213781	0.8327
D(AID)	-0.490126	0.116386	-4.211207	0.0004
D(EDEBT,2)	-0.174456	0.069227	-2.520049	0.0195
D(GCF,2)	0.570567	0.024925	22.89100	0.0000
D(LR)	-14082803	44123791	-0.319166	0.7526
D(INFL)	5149996.	11000069	0.468179	0.6443
CEF	0.039808	0.013909	2.862028	0.0091

R-squared	0.976870	Mean dependent var	-6.40E+08
Adjusted R-squared	0.969510	S.D. dependent var	6.73E+09
S.E. of regression	1.18E+09	Akaike info criterion	44.83012
Sum squared resid	3.04E+19	Schwarz criterion	45.20378
Log likelihood	-664.4519	Hannan-Quinn criter.	44.94966
F-statistic	132.7347	Durbin-Watson stat	2.007511
Prob(F-statistic)	0.000000		

MODEL 2;

Dependent Variable: D(GDP,2)

Method: Least Squares

Date: 09/16/14   Time: 09:07

Sample (adjusted): 1984 2013

Included observations: 30 after adjustments

HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 4.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5.14E+09	4.07E+09	-1.263541	0.2196
D(FDI)	-13.38879	6.529989	-2.050355	0.0524
D(AID)	5.675921	3.900172	1.455300	0.1597
D(EDEBT,2)	1.729122	1.715547	1.007913	0.3245
D(GCF,2)	3.419772	0.776946	4.401558	0.0002
CEF	0.811165	0.403796	2.008852	0.0570
RIN	-8.38E+08	4.83E+08	-1.734909	0.0967
D(ENC)	8.216018	2.993238	2.744859	0.0118

R-squared	0.754043	Mean dependent var	2.21E+09
Adjusted R-squared	0.675784	S.D. dependent var	5.47E+10
S.E. of regression	3.11E+10	Akaike info criterion	51.38410
Sum squared resid	2.13E+22	Schwarz criterion	51.75775
Log likelihood	-762.7615	Hannan-Quinn criter.	51.50363
F-statistic	9.635203	Durbin-Watson stat	2.842359
Prob(F-statistic)	0.000018		