

# Capital Inflow and Its Dynamic Effect on Economic Development in Nigeria



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## ARTICLE INFO

## ABSTRACT

This paper examine the dynamic contribution of foreign capital inflow to the development of the Nigeria economic between the periods 1981 to 2014. This study employ error correction model, granger causality test, Cointegration test and unit root test to process the data used in the process of research. Finding reveals that all variable are stationary in the order of 1(1) integration and there exist two co-integrating equation suggesting presence of long run association among variable employed. The result of the empirical findings report that in the short run, foreign direct investment and bilateral loan immensely contribute to the development of the economy while multilateral loan and home remittance seems not to promote economic development to a large extent. The output of the error correction model validate the short run dynamics result while the causality test report unilateral nexus between bilateral loan and economic development in favour of HDI which suggest that bilateral loan has a weak contributive quadrant in stimulating economic development in Nigeria. Based on our findings, this study concluded that the contribution of capital inflow to the development of the Nigeria economy is weak and the expected level of sustainable development is not been felt to a large extent hence, the study recommends that financial discipline and moral tolerance such be embraced in order to achieve the motive of foreign inflows and hence promote economic development in Nigeria in the long run. Secondly, financial institution and Government should monitor and curtail the disparity between capital inflows and outflows through stabilization policies such as imposition of restrictive taxation and transfer rate on capitals leaving the nation and reduce to the barest minimum the cost of investment by foreign individual and institutions as this will serve as a sweetener to encourage more inflows of funds into the Nigeria economic.

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## 1.0 Introduction

Overtime, economic development has become a vital social–political and economic subject in the world debate; this is not owed to a sudden discovery of the extent of poverty or ill economic situations, but rather to a change in social attitude towards its actuality (Ogege and Shiro, 2013 as cited in Ikechukwu and Akinpelumi, 2016). Economists as well as financial analysts have long been absorbed in identifying features which induces nations to mature at varying rates over time. One of such factors is capital movement especially the level of capital inflow into the nation (Aroyede and Iyoha, 2014).

Capital inflow could simply refer to the quantum of foreign fund re-allocated to a particular country for the purpose of investment trade or business production. In achieving a sustainable level of development of any economy, it play a potent role regardless of its level of growth. In the LDC's, it is used to increase accumulation and rate of investments to create conditions for accelerated economic growth while the developed nation used it as a supporting tools in maintaining sustainable level of development overtime. For the transition countries, it is useful to carry out the reforms necessary to cross to open economy (Chigbu Ekeji at al, 2015)

On this premises, it is paramount to note that the standardization of the Nigeria stock market has brought about increment in the quantum of foreign inflows in the economy in form of foreign direct investment, foreign portfolio investment, multilateral and bilateral loans and foreign assistance in form of grants and aids. Nigeria economy experience a schematic-increment in the quantum of foreign inflows during the first and the last quarter of the past decade. The UNCTAD World business analysis (2006) further report that Nigeria accommodate the larger percentage of capital inflow projected into Africa to the tune of 70% of the total allocation to the sub African region and 11% of the total inflow into Africa countries generally. It was however recorded that the quantum of this fund allocated to the oil sector of the economy amount to about 90%. In another

report presented by the division of the congress federal research in 2008 highlighted the Nigeria received a net inflow of foreign direct investment worth about 5.4 billion USD which flows from the United States in 2006. Having enrich our understanding with series of empirical literature and theoretical bases as to what stimulate inflows of foreign capital and order factors that could promote more inflows into Africa and specifically into the Nigeria economy, it is potent to conduct a further research work on this premises to readdress the long term consequential effect of capital inflows in to the economy as well as its short term syndrome.

## 1.1 Statement of the Problem

Quite a number of empirical studies has been carried out on capital inflow and a number of result emerge. But regardless of the claim by most scholars that Nigeria attracts the most flows in Sub-Saharan Africa; its impact is yet to be felt in the workings of the Nigerian economy. Also, the dichotomy between the empirical findings of previous studies has created a lot of problems in the establishment of direction of the relation between international flows and economic growth. Cooper and hardt (2000) reported that international financial flows has failed to promote economic growth due to high incidence of uncontrolled Capital outflows. Kolapo and Ojo,(2012) however argues that failure of international financial flow in stimulating economic growth will not only aggravate the downsizing of available productive resource for development but will also relegate economic bliss. Olotu and Jegbefume (2011), reported that despite the increment in international financial flow into the economy, Nigerian economy still depend totally on oil sector leaving other sectors operating far below their potentials. It is on this backdrop that this study finds more justification; and as such tend to deviate from previous works by means of including more variables. The critical intension here is to evaluate of the relationship that existed between capital inflow and economic development in Nigeria, the remaining part of this

paper will be stratified into five different section which contains the literature review, employed methodology, data presentation and analysis, conclusion and recommendations.

## **2.0 REVIEW OF RELATED LITERATURE**

### **2.1 Theoretical Framework**

#### **Capital Inflow Theories**

##### **Specific theory of location**

Hood and young, (1979) emphasis the specific advantage of location. According to them, Firm with absolute low cost technology move to the LDC's with low wages due to inconsistency of real cost amongst countries coupled with the fact that trade restriction are implemented to restrict importation in some countries. Operations of the multinational firm through production and manufacturing commence in such countries in order to collapse trade restriction. One of the major factors that attract the interest of the multinational firm mostly is the availability of raw materials and cheap labour in less developed countries (LDC's) which serve as a sweetener to the (MNCs).

##### **Argument of transfer of technology**

Charles argues that that developing countries do not have large and efficient institution dedicated to generate technological change, only the affluence countries have been able to organise such entity both private and public. According to him, developing countries then see them self in a condition where importation of technology is cheaper and profitable, to them rather than local technology. To the LDC's, importation of technology is consider as more superior to the local available technology. Minewhile, importation of foreign technology is a sub-optimal decision which will downsize and relegate the existence of the local technology. Hence, technological change through international inflow is a key to increase in productivity and economic development. Schumpeter (1934) argues that development can be achieve through invention and innovation. He pointed to the fact that

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finance is a stimuli to fulfilment of an entrepreneur objective. Hence, transfer of technology either in term of international financial inflow or multinational operation is essential in promoting development in an economy.

##### **The Dual Gap Analysis:**

Dual gap analysis is an extension of Harrod, R.F (1939) and Domar, D (1946) growth model which fundamentally address two issues: savings gap and foreign exchange gap in form if capital inflow. This theory is proposed on the condition that state thus, to achieve a reasonable level of development in an economy, investment is a key player. However, such investment cannot be successively achieved without huge domestic savings meaning that for a country to achieve a sustainable level of development, investment and huge domestic savings in required. However, in attaining comprehensive growth, this domestic savings and investment is not sufficient enough hence there is need for "import purchasing power conferred by the value of exports plus capital transfer" (capital inflow). This implies that the combination of domestic savings, investment and capital transfer is a function of economic development as opted by this theory.

##### **"MacDougall-Kemp hypothesis"**

Kemp (1964) analysis on capital inflow was an elaboration of the empirical study of MacDougall (1958) which happens to be one of the earliest theory of capital inflow. The hypothesis consider two country in is model: one being the host country and the order being the investing country while marginal productivity and cost of capital are assume to the equal, hence there is a free propensity of capital moving from capital surplus country to capital deficit country which tend to equalise the marginal productivity of capital between the two countries. The abundant flow of capital from the surplus country to the deficit country facilitate efficiency and effective utilisation of resources which in turn stimulate economic welfare. Though the quantum of output in form of investment outflow leaving the

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investing country is much, yet the net national income does not decrease due to the returns earned on capital invested abroad.

## 2.2 Empirical Review

The role of foreign capital inflow in economic development remains a critical issue in finance and economics literature. Some studies prove that it has its positive impact on the economic development empirically, while others proved that it has negative effects as well. Here we reviewed the works of some of these scholars and the corresponding findings made in each case.

In more recent study, monogbe (2016) examine the contribution of the multinational operations to the growth of the Nigeria economy between the period 1981-2014. This studies employ series of estimation tools and finding reveals that operation of the multinational firm does not stimulate economic performance in the short run while the holistic result of the causality test shows that in the long run, foreign direct investment is a stimuli to growth. The studies recommends that government must ensure appropriate check and balances between the operation of the multinationals and that of the local firm so as to ensure that the local investors are not crowded out of the system as finding has reveals that the operation of the multinational firm is most likely to completely crowd out the local investor through the introduction of high level of equipment, skill, technology and unhealthy competition which the local investors do not have the financial capacity to counter.

In an attempt to study the nexus between foreign direct inflow and economic growth in India, Narayan (2013) using pairwise granger causality as his bases for justification reported that there exist a long-run nexus between foreign direct investment, foreign portfolio investment and economic growth.

Aurangeb and Haq, (2012) examined the preliminary contribution of foreign capital inflow on economic growth in Pakistan between the period of 1981 to 2010. The study employs

series of estimation tools among which includes stationary test, multiple regression and so on. Findings reveals that of all the variable used in the process of research, three exogenous variables are statistical and significantly stimulate economic growth while there exist a bilateral causal link between remittance, foreign direct investment, economic growth and external debt. Furthermore, result shows a unilateral link between gross domestic product and foreign direct investment. The study hence concluded that in achieving a sustainable level of growth in a country, foreign capital inflow is essential.

Obiechina and Ukeje (2013) in their empirical study uses capital flows (FDI), openness of the economic, export and exchange rate as proxies for inflows with the intension of examining the long run causal nexus that exist among the variable employed between the periods of 1970 to 2010. This study employ johansen Cointegration test, Engle Granger 2-step technic and unit root test among others. Finding reports that in the short run, FDI does not promote economic growth while in the long run, granger causality output reveals that there exist a unilateral causality link between FDI and economic growth with causality flowing from GDP to FDI which suggest that foreign direct investment is having a parasitic effect on the growth of the economy.

In Tanzania, Odhiambo (2011) examine the dynamic causal nexus between financial deepening and economic bliss using ARDL bound. Findings reveals that there exist a unilateral causal flow from economic growth financial depth in Tanzania. Other findings shows a bilateral nexus between financial development and foreign capital inflows. The study therefore concludes that in the Tanzania context, financial development takes the lead while economic follows.

Adeniyi, Omisakin and Oyinola (2011) take a panel data of five west African countries which comprise of sierra Leone, Ghana, Gambia, cote'd'Ivoire and Nigeria from 1970 to 2005 using granger causality test and vector error correction model. The study proxies financial sector

development with total banking sector credit, credit to the private sector and total liquid liabilities to examine the extent to which financial intermediation promote the west African countries. Findings exert that to achieve a sustainable level of growth and foreign direct investment in Ghana, Gambia and Sierra Leone, financial services plays a potent role. While in Nigeria, there exist no long run nor short run causality flow between foreign direct investment and financial deepening which suggest that in the Nigeria context, fiancé is following while the economy is taking the lead.

Considering the pre and post regulated era in the Nigeria economy, Olusanya (2013) investigated how inflows through foreign direct investment promote economic bliss using a number of estimation tools between the periods 1970 to 2010. In an attempt to actualise the gross objective of the research work, the deregulated era was divided into three different period: between 1970-1986, 1986 to 2010 and lastly 1970 to 2010 with the intension to test the nexus between the variable employed. Finding reveals that in the pre-deregulation era, there exist a unidirectional nexus between (FDI) and economic growth with causality flowing from (GDP) to (FDI) suggesting a parasitic behaviour of (FDI) on the economy while in the regulated era, there was no record of reinforcement between (GDP) and (FDI) over the period of study.

Umoh, Jacob and chuku (2012) employed single and simultaneous equation in exerting if there exist any feedback effect nexus between economic growth and foreign direct investment. Findings reveals that there is a presence of reinforcing relationship between FDI and economic growth in Nigeria hence they concluded that both FDI and GDP positively inter-wind each order in the process of stimulating growth.

In the empirical investigation done by Sackey, et al. (2012) finding shows that there exist a long run relationship between variable employed and that foreign direct investment positively contribute to the economic growth of Ghana. The study tend to

examine the behavioural nexus and the contributing effect of foreign direct investment on the growth of the Ghanaian economy using time series data from first. The study employed johansen Cointegration test, unit root test and vector auto regression technique and granger causality test to examine their causality link. Based on their findings, the study concluded that foreign direct investment stimulate economic growth in the long run in Ghana

In another similar study in Tanzania, Hassen and Anis (2012) evaluate the nexus between inflows in form of foreign direct investment and economic growth of the period 1975 and 2009 error correction model, unit test and Cointegration test to formulate a modern analytical model as cited by Akinlo, 2004. Result shows that long term economic growth could be achieve through foreign direct investment.

Moses (2011) reported a causal link between capital inflows and economic bliss in Nigeria. He further argues that foreign capital flows specifically impact more on the extractive oil sector than the other sectors of the economy hence creating Dutch diseases. This study appear more different from previous studies by collapsing foreign capital into various flow with the help of co-integration technique. And finally on the literature, Akanyo and Ajie (2015), reports the net capital flow has a significant and positive influence on the economic growth process of Nigeria.

### **3.0 METHODOLOGY**

#### **3.1 Data Source**

In an attempt to virtualise the schematic objective of this studies, secondary data were used in this work. “These data were time series and cross section (Panel). In Nigeria on yearly basis for the period covered in the work (i.e 1981-2014). The data were sourced and extracted from existing documents and materials. These include the Central Bank of Nigeria (CBN) statistical Bulletin, CBN Annual Report and Statement of Account, CBN Bullion”, text books, journals,

internet sources, and lecturer's notes relating to the research work among others.

### 3.2 Model Estimation

In line with previous related works, the following model was estimated to capture the relationship between the study variables:

$$HDI_t = f(BLT_t, MTL_t, FDI_t, HRT_t) \text{ ----- (1)}$$

Converting to econometric form by the introduction of the constant term ( $\alpha_0$ ) and error term ( $\mu$ )

$$HDI_t = \alpha_0 + \alpha_1 BLT_t + \alpha_2 MTL_t + \alpha_3 FDI_t + \alpha_4 HRT_t + \mu \text{ ----- (2)}$$

Where:

- HDI = Human Development Index
- BLT = Bilateral loan
- MTL = Multilateral loan
- FDI = Foreign Direct Investment
- HRT = Home remittances
- $\alpha_0$  = Constant Term
- $\alpha_1 - \alpha_4$  = Coefficients of Predictors

The study variables were later normalized which will be carried out by logging due to positive skewness of employed data which led to the model stated as:

$$\ln HDI_t = \alpha_0 + \alpha_1 \ln BLT_t + \alpha_2 \ln MTL_t + \alpha_3 \ln FDI_t + \alpha_4 \ln HRT_t + \mu \text{ ---- (3)}$$

Where:

- HDI = Human Development Index
- BLT = Bilateral loan
- MTL = Multilateral loan
- FDI = Foreign Direct Investment
- HRT = Home remittances
- $\alpha_0$  = Constant Term
- $\alpha_1 - \alpha_4$  = Coefficients of Predictors
- $\mu$  = Error Term/White Noise

### Apriori Expectation

Based on theories and empirical studies, the predictor variables have varying relationship with the dependent criterion variables which is therefore mathematically states as:

$$\alpha_1, \alpha_2, \alpha_3, \alpha_4 > 0$$

The above signifies a positive relationship and movement of the predictors and criterion variable

of the study.

### 3.3 Identification of analytical tools and technique

The bone of contention here is to evaluate the nexus between capital inflow and economic development in Nigeria and to identify their various causality direction in the long run using dynamic estimation econometrics tools.

#### 3.2.1 stationality test

We employed unit root test in the process of identifying the stationality of the time series used in this research work. Considering the fact that time series data are assume to have stationarity problem, we subject our model to stationality test to hedge against spurious result using Dickey Fuller (DF) unit root test. Gujarati and Porter (2009), Maddala (2007) provided the bases for evaluating the existence of unit root or time series thus:

$$\Delta y_i = \alpha_0 + \alpha_1 y_{i-1} + \sum_{i=1}^n \alpha_i \Delta y_{i-1} + \delta_1 + e_1 \text{ ..... (4)}$$

Where;

- Y = chosen variable
- $\alpha_0$  = slope
- $\Delta = 1(1)$  order of differencing
- $\alpha_i$  = constant parameter
- $\sum i$  = stochastic process of stationality
- Criterion (AIC) to ensure that  $\sum i$  is white noise.
- From equation (4), the hypotheses to be tested are;
- Ho:  $\alpha_i = 0$ , i.e. "there is a unit root, - the time series is non-stationary".
- Hi:  $\alpha_i \neq 0$ , i.e. "there is no unit root, - the time series is stationary"

As decision criterion, the null hypothesis will be rejected if an only if the calculated Augmented Dickey Fuller statistic is greater that the critical value which suggest absence of unit root hence one can proceed to test for long run association between the variable employed.

#### 3.2.2 johansen's co-integration test

When two or more explanatory variables are involve in an empirical study, johansen co-integration test is employed to ascertain the long run nexus/association between the time series used in the process of research. According to (Maddala, 2007 as cited in Nnamdi and Torbira, 2016), in case there exist a prevailing endogenous variable in form of  $y$  and the complementary set of exogenous variables  $x_1, \dots, x_n$  which are assume to be co-integrated, the extent to which they are co-integrated is ascertained by their probability value and the order of ranking equation in order to create decision criterion for acceptance/ or rejection of the null hypothesis which presuppose no co-integration. Brooks (2009) explains that in a linear equation of  $I(1)$  co-integration order, if a set of time series  $r$  obtained where  $r \geq 2$  which are also co-integrated in the same order, it is expected that vector auto regression (VAR) model would contain the same set of  $r$  variables with a specified  $k-1$  lags of the endogenous variable in their first different form with a prevailing matrix of  $T$ - coefficient. Johansen co-integration model is expressed in a generalised form thus

$$\Delta y_t = \pi y_t - k + T1\Delta y_{t-1} + T2\Delta y_{t-2} + \dots - Tk - 1\Delta y_t - (k-1) + Vt..(5)$$

Where

$$(\sum_{i=1}^k \beta_i) - 1r \text{ and } T_i = (\sum_{i=1}^1 \beta_i) - 1r$$

As the decision criterion, the “null hypothesis will be rejected when the trace statistic is greater that the critical value followed by the ranking order” of the model which suggest presence of long run association and co-integration amongst the variable employed hence one can proceed to “error correction model to ascertain the speed at which the short run disequilibrium is adjusted in the long run”.

### 3.2.3 (ECM)

Brooks (2009) validate the “error correction model for its policy implication and its potent provision in ascertaining the speed at which the endogenous variable adjust back to equilibrium

after the short run distortions. Generally, ECM tends to ascertain the long run relationship that exist amongst employed series and the speed at which its abnormalities in the short run is adjusted in the long run hence, it is expected that the ECM coefficient is negative with a significant probability value” to justifies its validity.

Estimation of ECMs of the form:

$$\Delta Z = \Phi(B) \Delta Z_{t-1} + \mu + \beta et 1 + vt$$

(Banerjee et al. 1993; Hamilton, 1994; Johansen 1995)

“ECMs are useful for estimating both short term and long term effects of one time series on another. This study will utilize vector Error correction model”.

### 3.2.4 Granger Causality Tests:

According to Omoke and ugwuanyi (2010), “Granger causality tests are conducted to determine whether the current and lagged values of one variable affect another”. In a more clear sense, these test seeks to ascertain the extent to which set of variable employed promote/ reinforce or inter-wind each other over the period under study. Granger causality test is however presented on the premises of the underlining equation. Decision Rule: “If  $p$ -value(s)  $< \alpha$ , reject  $H_0$  . If  $p$ -value(s)  $> \alpha$ , do not reject  $H_0$ .”

$$y_i = \epsilon_0 + \sum_{i=1}^n \epsilon_1 y_{i-1} + \sum_{i=1}^n \epsilon_u X_{i-1} + U_t \dots \dots (6)$$

$$x_i = \delta_0 + \sum_{i=1}^n \delta_1 x_{i-1} + \sum_{i=1}^n \delta_u Y_{i-1} + V_t \dots \dots (7)$$

Where  $X_t$  and  $Y_t$  represent the set of endogenous and exogenous variables respectively while  $U_t$  and  $V_t$  represent the error term respectively. The lag length specified is maximum of 2

## 4.0 Data presentation and interpretation

#### 4.1 Unit Root Tests

Thus, before our estimation, we tried to check the time series characteristic of the variables to reduce spurious results due to non-stationarity since it is generally assumed that time series data has a problem of stationarity. The decision rule is that the absolute value of the Augmented Dickey-Fuller (ADF) statistic should be more than the value of the Test Critical Value utilizing the E-view software package. Below are the results;

**Table 1-** presentation of unit root test result

Variables	ADF Stat	5% critical value	Order	Remark
D(LOG(HDI))	-7.0332	-2.9571	1(1)	Stationary
D(LOG(FDI))	-7.8804	-2.9571	1(1)	stationary
D(LOG(HRT))	-2.9604	-2.8497	1(1)	Stationary
D(LOG(MTL))	-6.2190	-2.9571	1(1)	stationary
D(LOG(BLT))	-3.9706	-2.9571	1(1)	stationary

Source: E-View 9.1 Output.

From table 1 above we found that all the data employed are displayed at their absolute value (Augmented Dickey Fuller statistic) which is equally more than the critical value at 10% level of significant. This suggest that the variable employed in this research work has no unit root and hence they became stationary in the order of 1(1) co-integration. Hence we proceed to test for long run association between the variable employed.

#### 4.2 “johansen Cointegration test”.

These technique is employed in order to ascertain the strength of long run association that exist between the variable under study.

**Table 3** presentation of the ordinary least square result (linear output)

Included observations: 34

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.752840	0.043884	-17.15534	0.0000
LOG(FDI)	0.039903	0.012445	3.206374	0.0033
LOG(HRT)	-0.023700	0.009951	-2.381653	0.0240
LOG(BLT)	0.046742	0.010639	4.393259	0.0001
LOG(MTL)	-0.033658	0.019748	-1.704398	0.0990
R-squared	0.691843	Mean dependent var		-0.661820

**Table 2-** presentation of the output of Cointegration test

Hypothesize -d	Eigenvalue	Trace stat	0.05 Critical Value	Prob
None *	0.587636	78.7438	69.8188	0.0082
At most 1 *	0.488445	50.3967	47.8561	0.0283
At most 2	0.427022	28.9471	29.79707	0.0624
At most 3	0.249140	11.1260	15.49471	0.2039
At most 4	0.059321	1.9569	3.841466	0.1618

Source: E-View 9.1 Output.

from the output above, we found a long run nexus between all the series used in the process of research as the result justifies the fact that there are two co-integrating equation. The existence of the long run nexus depict that all the variable used in the process of research share “mutual stochastic trend and are linked in common long-run equilibrium hence, we can proceed to vector error correction mechanism (VECM) to test the speed of adjustment from short run disequilibrium to long run equilibrium state”.

#### 4.3 short run dynamic multiple regression (ordinary lease square)

Ordinary lease square method is employed been the best and unbiased estimator in examining the short run dynamics between the employed variable.



Adjusted R-squared	0.649338	S.D. dependent var	0.112752
S.E. of regression	0.066768	Akaike info criterion	-2.440130
Sum squared resid	0.129281	Schwarz criterion	-2.215666
Log likelihood	46.48222	Hannan-Quinn criter.	-2.363581
F-statistic	16.27696	Durbin-Watson stat	1.449125
Prob(F-statistic)	0.000000		

Source: E-View 9.1 Output.

The result of the short run dynamics reveals that the sensitivity of Nigeria economic development to change in foreign direct investment stood at 0.039 which suggest that all things been equal, increase in the quantum of capital inflow through FDI is capable of stimulating economic development to the tune of 4% in the short run. Furthermore, we found that home remittance (HRT) and multilateral loan (MTL) has a positive probability value but a negative coefficient which suggest inverse relationship between economic development and those indicators which validate the Marxist opinion that foreign assistance either in form of

capital inflows through FDI, FPI, or borrowed fund is never free, it has some conditionality attached that help deepen underdevelopment of the host countries and on the other hand stimulate the multinationals corporation. In the same vein, bilateral loan (BLT) is positively significant to economic development in Nigeria. The global utility reveals that 64% fluctuation in the endogenous variable is captured and explained by the exogenous variable while the value of the Durbin Watson statistic shows the existence of auto correlation-in-the-short-run.

**Table 4-** presentation of Error correction model result

Included observations: 33 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.758308	0.045256	-16.75588	0.0000
LOG(FDI)	0.032243	0.013318	2.421093	0.0225
LOG(HRT)	-0.026247	0.010449	-2.511977	0.0183
LOG(BLT)	0.044610	0.010590	4.212321	0.0003
LOG(MTL)	-0.020724	0.022664	-0.914379	0.3686
ECM(-1)	0.316751	0.195796	1.617764	0.1173

  

R-squared	0.718139	Mean dependent var	-0.660259
Adjusted R-squared	0.665943	S.D. dependent var	0.114126
S.E. of regression	0.065962	Akaike info criterion	-2.436498
Sum squared resid	0.117478	Schwarz criterion	-2.164406
Log likelihood	46.20222	Hannan-Quinn criter.	-2.344947
F-statistic	13.75840	Durbin-Watson stat	1.906269
Prob(F-statistic)	0.000001		

Source: E-View 9.1 Output.

The error correction result however validate to some reasonable extent the output of the short run dynamics. Foreign direct investment possess a significant probability value of 0.0225 with a positive coefficient of 0.0322 which suggest that all thing been equal, increase in the quantum of inflows through FDI into Nigeria economy will stimulate economic development to the tune of 3% in the long run. The result of this research work counter the empirical findings of Nielson and Alderson (2007),who reported strong FDI presence and export dependence contribute to low economic growth of the host countries and downsize (worse) the quality of life. Bilateral loan (BLT) indicate a good predictor of economic development in Nigeria by possessing a significant probability value of 0.0003. On this premises, it is important to note that external debt comprises of multilateral and bilateral loan, the finding of the studies reveals that bilateral loan has been promoting economic development in Nigeria while multilateral loan proof negative and statistically insignificant to the development of the

economy. The report of this findings is in consonant with the work of monogbe,(2015) who reported that bilateral loan stimulate economic bliss in the long run, The non- productivity and redundancy of multilateral loan (MTL) and home remittance (HRT) could be attributed to financial indiscipline, fund diversion and moral hazard. Our adjusted R2 report a high predictive ability of 66% while our Durbin Watson value (1.9062) shows absence of auto correlation which negate the previous report of Durbin Watson in the short run dynamics. This implies that output of this findings is prudent enough to be used for decision making. The F statistic and the corresponding probability reveals normal distribution and aggregate significances.

#### 4.4 “Granger causality Test”

“This is a statistical hypothesis test for determining whether one time series is useful in forecasting another, (Engle and Granger, 1987; Granger, 1981)”

**Table 5-** presentation of granger causality test result

Pairwise Granger Causality Tests  
Date: 06/30/16 Time: 16:27  
Sample: 1981 2014  
Lags: 1

Null Hypothesis:	Obs	F-Statistic	Prob.
LOG(FDI) does not Granger Cause LOG(HDI)	33	0.20851	0.6512
LOG(HDI) does not Granger Cause LOG(FDI)		0.43922	0.5126
LOG(HRT) does not Granger Cause LOG(HDI)	33	0.47072	0.4979
LOG(HDI) does not Granger Cause LOG(HRT)		1.05704	0.3121
LOG(BLT) does not Granger Cause LOG(HDI)	33	0.03662	0.8495
LOG(HDI) does not Granger Cause LOG(BLT)		8.12254	0.0078
LOG(MTL) does not Granger Cause LOG(HDI)	33	0.51135	0.4801
LOG(HDI) does not Granger Cause LOG(MTL)		1.17108	0.2878

*E-View 9.1 Output.*

Output of the “pairwise granger causality test” shown in table 5 indicate that there prevail no causality link between HRT, FDI, MLT and HDI which is proxies for economic development. This suggest that capital inflow through this channel seems not to significantly contribute to the development of the Nigeria economy. On the order hand, there exist a unilateral causality link between BLT and HDI with causality flowing from development indicator to BLT.

## 5. Discussions, Summary and Conclusion

From our findings, the result of the Cointegration test exert an evidence of hope, specifying that inflows of capital has a long run association to economic development over time. From the multiple regression outputs, we found that FDI and BLT significantly promote economic development in the short run to the tune of 4% which suggest that further increment in capital inflow is a stimuli to economic bliss while home remittance and multilateral loan portray insignificant response to the economy development. The non-productivity of this indicators could however be attributed to fund diversion, moral hazard, and financial indiscipline. In the long run, the report of error correction model validate the result of the multiple regression, suggesting that capital inflow into the economy has proof significant and moderately contribute to the development of the Nigeria economy over the study period, result of this findings is in consonant with dual gap analysis which argues that to achieve a sustainable level of economic development, capital transfer in form of inflow is essential. From the “granger causality test”, we found that there is no causality link between foreign direct investment, multilateral loan, home remittance and economic development, while the causality link between bilateral loan and HDI is unidirectional in favour of human development index which suggest that bilateral loan has a weak contributive quadrant in stimulating economic development. From the above findings, we conclude that the contribution of capital inflow to the development of the Nigeria

economy is weak and the expected level of sustainable development is not been felt to a large extent. Secondly, larger percentage of the capital inflows most time are diverted for personal consumption which dithers the expected level of development and finally capital inflows can only act as a stimuli to economic development if suitable term of trade in created across the borders. On this premises, we recommend thus:

## 6. Recommendations

Considering the unproductive and redundancy contribution of some indicators of capital inflow into the economy, we hereby advice that financial discipline and moral tolerance such be embraced in order to achieve the motive of foreign inflows and hence promote economic development in Nigeria in the long run.

The financial institution and Government should monitor and curtail the disparity between the capital inflows and outflows through stabilization policies such as the imposition of restrictive taxation and transfer rate on capitals leaving the nation and reduce to the barest minimum the cost of investment by foreign individual and institutions as this will serve as a sweetener to encourage more inflows of funds into the Nigeria economic.

Finally policies that will encourage the effective utilization of borrowed fund on capital project such has production sector, manufacturing sector and more should be implemented so as to feel the effect of the inflows and its contribution on economic development.

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