Foreign Capital Inflows and Economic Growth: Evidence from Nigeria (1980-2017)

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Abstract

This research study examined the impact of foreign capital inflows on economic growth in Nigeria from 1980 to 2017. Secondary data sourced from World Bank was used. The analytical technique used was regression analysis of the ordinary least square (OLS) with bias on the ARDL regression. The result revealed that FDI, FPI have negative and significant impact on the GDP. However, the EL, EMR and ODA were observed to be positively related to GDP over the period. Therefore, the paper recommended that government should encourage policies to attract more of the positive inflowsas ODA, EL and EMR. The government must ensure that the institutions through which these funds pass through are thoroughly scrutinized. This is to ensure that the funds are used for the right reasons.

Keywords: GDP, FDI, FPI, Economic growth, WAMZ, ODA, EMR, and EL

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Background to the Study

The issue of foreign capital flows to Africa as a whole has become an important topic today among academic scholars. Since global economies were severely affected from the debt crisis in 1980s till present, especially Africa, Latin America and few economies in Eastern Europe and Asia. But infrastructural development, unacceptable level of corruption and instabilities in the economy and policies of the government as well as other issues discourage foreign investors from many African economies, mostly, West African Monetary Zone Countries (WAMZ) members, of which Nigeria is a major player.

Scholars have extensively debated on the issue of foreign capital as a tool for any economy whose capital requirement surpasses its saving capacity. Foreign capital flows to developing countries, mostly foreign direct investment, showed some buoyancy in 2015 and therefore equalized the careless fall in debt flows and reduced portfolio equity. According to 2016 World bank report, net financial flows (debt and equity) reduced to $379billion, one third the 2014 level ($1,159b) but FDI flows maintained steady at $543b, averagely higher than the year before it. Even with all these flows of capital in Africa, economic activities still remain poor. Epileptic energy supply, decay infrastructure, Social crises among others contributed to economic cancer in most of the West African economies with Nigeria being one of the worst hit. Apart from being politically unstable, is the issue of security for investor's capital in the Nigerian economy is a great concern contributing outflows of foreign investors in the country. It is expected that if institutions like corruption is moderated with good infrastructure facilities and inflows of foreign capital thus economy performance of any Nation will improve. Keeping those variables constant, foreign capital is the only solution to save the sub-region from economic downturns that affect development in Africa, especially, WAMZ countries. On the other hand, economic growth remains unrestricted in West Africa as compared with other developing countries. West Africa receives only 5% of total FDI inflows to developing economies which is far from being enough based on the targeted development in the region. This is seen to help reduce the saving and exchange gaps which will add to the domestic resources of the WAMZ members, speed up their developmental journey and therefore, raise the standard of living of the people. The importance of foreign capital add-on to domestic resources is evident in the developing economies, based on the increasing differences between their domestic capital stock and capital requirements. This is shown by the attention given to the drive for foreign capital, mostly, in developing countries. Foreign capital inflow has been shown as a key route for adding to the supply of funds for domestic investments (Fosu and Magnus, 2006). African countries and other growing economies need capital buildup and growth needed to defeat large scale poverty in these countries. Therefore, the relative merit of foreign capital inflow as a major source of increased productivity is now widely acknowledged, especially in the recent financial downturns .Further, economic development literature reveals that there is a strong link between foreign capital flow (FCF) and economic growth (Alfaro and Chanda, 2003; Borenszteinetl al., 1998; Levine, 2001).

International capital flows not only offer a great deal of benefits to financially integrated countries; they also pose numerous macroeconomic challenges (Reinhart and Rogoff, 2008).

While countries with some degrees of financial openness are able to share income risks with rest of the world, smooth their consumption path and bridge saving-investment and foreign exchange gaps (Prasad et al., 2007; Chenery and Strout, 1966), they also face the risks of having their economies exposed to exogenous shocks transmitted through capital flow volatility which, in turn, induce domestic instability (Fernandez et al., 2015).

Nigeria has encouraged inflows of capital by in various ways such as policies that encourage foreign investments. However, South Africa brought in the enormous majority of the foreign inflows being directed to Africa as a result of its nearness, development and size of the market which have given it strong advantage in the African continent while West Africa received a very minimal percentage. For example, South Africa brought in an average of 54.4% of total foreign direct investment (FDI) inflow to Africa in 2005 while an average of about 45.6% was distributed among the other sub-region and this style of distribution has not changed till now according to World Bank report.

As a result, the second monetary zone in the sub-region within ECOWAS besides is Union Economique et Monetaire Ouest Africaine (UEMOE) which came into existence in 2000, when Gambia, Ghana, Guinea, Liberia, Nigeria and Sierra Leone signed the Accra declaration establishing the West African Monetary Zone (WAMZ). The aim of the WAMZ is to facilitate the monetary integration of the sub-region and to make sure the gains of ECOWAS monetary cooperation programme via sound management of the economies and the setting up of a single currency for these economies. However, there has been clear style of inflows to the sub-region. The majority of the capital inflows go to South Africa whereas the West Africa sub-region is left with minimal amount of inflows. Even within the West Africa sub-region, Nigeria seems to attract higher part of the inflows of capital as compared to other WAMZ countries. But, even as Nigeria looks more financially better when compared to other WAMZ countries, its share of the inflow is still very negligible when compared to that of South Africa. Therefore, we see interesting need to undertake this research so as to find out the cause(s) of this trend, get a better understanding of what really causes inflows to Nigeria and empirically explain what types of capital inflows lead to higher growth in Nigeria and how the country can take advantage of the inflows. These are the reasons behind this study.

Statement of the Problem
Sequel to the successful launching of the Euro as the single currency of the European Economic and Monetary Union (EMU), there has been a quest internationally by other trading blocs to emulate the European Union. Such quest has been from West African Zone in the form of the West African Monetary Zone. Despite its inconveniences, the major advantages of a monetary union include the enhancement of capital flows resulting from increased trade and financial transactions, and the guaranteeing of improved trade flows with and between the component states on the one hand and the rest of the world on the other hand.

An argument advanced by Neo-classical economists maintains that capital accumulation plays a pivotal role in economic growth and development. Developing countries like Nigeria

are plagued by lack of capital for investment and economic growth. This narrative is reinforced by poverty trap with low savings perpetuated by low income; low investment perpetuated by low savings and low productivity perpetuated by low investment and the circle continues. The most plausible option for breaking the vicious circle of poverty and thereby raising income, savings and investment for growth and productivity is by the injections of foreign capital into the economy. In furtherance to this development, Sachs (2005) opines that increased income through capital inflows such as FDI and ODA could lead to higher savings and capital growth and a way out of the poverty quagmire.

The WAMZ countries have experienced some form of economic growth with the example of Nigeria becoming the largest economy in Africa and Ghana equally becoming an investment destination with others experiencing rising income levels certainly deserves research spotlight. Unfortunately, there are divergent views as captured by extant literatures as to whether the various capital inflows into the WAMZ countries impacted her economies negatively or positively.

It is widely contended that the quality of institution, infrastructure and foreign capital flows are significant determinants of economic growth in developed economy. Public and private investments among African countries have been facing a consistent lack of resources needed to finance investments. The lack of adequate finance has reduced the ability of governments to embark on public expenditure in infrastructure and social services required to boost domestic demand, encourage private sector activity and sustain high level of growth for economic transformation (Onyeiwu, 2015). The chronic resource gaps arise from imbalances between exports and imports, between debt payments and resource inflows and between domestic savings and domestic investments (Anyanwu, 2012).

The infrastructural performance dimensions in relation to economic growth, Nigeria and other West African countries had been ranked low compared with other regions. This is because of the intrinsic features of African's economies demand for infrastructural development to promote economic growth. The state of infrastructural development is critical which has direct impact on the cost of production in the region as pointed out earlier. The diseconomies with regards to high cost of transportation hamper inter and intraregional trade and economic growth because cost of production increase discourage investors in the region and leave the region to other regions that have more developed infrastructures. The numbers of foreign investors leaving Nigeria, the largest economies among WAMZ is enormous. West Africa ranked bottom among other developing economies which is bad signal for foreign investors (Teixeira and Guimarães, 2015).

Furthermore, no study has looked at how the effect would differ depending on the level of growth or development of the receiving country. By exploring the effect of each of the capital flows, - FDI, FPI, ODA, Migrant Remittances, External Loans one would be able to determine in which way foreign capital contributes to the economic growth in WAMZ countries. Understanding the type of foreign capital that contributes mostly to growth would help to channel efforts to attract such capital flows that would contribute most positively to sustainable growth in Nigeria instead of just attracting all the foreign capital flows.

The broad objective of the study is to examine the impact of foreign capital inflows on economic growth in Nigeria, 1980 - 2017. The specific objects are to:
   i. Investigate the relationship between FDI and economic growth in Nigeria (GDP)
   ii. Examine the relationship between FPI and economic growth in Nigeria
   iii. Evaluate the relationship between EL and economic growth in Nigeria
   iv. Probe the relationship between EMR and economic growth in Nigeria
   v. Analyse the relationship between ODA and economic growth in Nigeria

Hypotheses
   H_1: There is a significant relationship between FDI and GDP
   H_2: There is a significant relationship between FPI and GDP
   H_3: There is a significant relationship between ODA and GDP
   H_4: There is a significant relationship between EMR and GDP
   H_5: There is a significant relationship between EL and GDP

Literature Reviews
Theoretical Framework
Two-Gap Models
Two-Gap Models of development are contained in the Post-Keynesian growth models for closed economies as designed by Harrod (1939) and Domar (1946). They tried to identify the pre-conditions for the economic growth of market economies. These two preconditions are mainly contained in the WAMZ economies and these are (1) Internally: poor savings would certainly result to poor investment. The GAP between these two is called saving constraints (SAVING GAP). Bridging this gap needs foreign direct investment (FDI). (2) Externally: inadequate foreign exchange arising from poor exports that is, high importation will lead to reduced foreign exchange. The GAP between this two is called foreign exchange constraints (TRADE GAP) which can be corrected by foreign aid to WAMZ countries.

Location-Specific Theory
This theory was said to be successful due to the fact that it laid emphasis on locational factors. It has been stated that as there is a difference of real wage costs among nations, the firms that have low technological costs move to low wage countries (Hood and Young, 1979). Also, in countries where trade barriers have been created by the government to reduce import levels, multinational companies tend to invest in these countries where they would be able to start up their manufacturing processes thereby taking advantage of the trade barriers. It could also be the availability of cheap raw materials, which could encourage a multinational to invest in a host country where there would be a larger supply of raw materials. The economies therefore used the help of this theory in finding the locations where cheap and abundant raw materials could be accessed easily. This theory is relevant to the study as it is exactly what happened to WAMZ countries from the data generated in terms of foreign direct investment to the countries.

The Home Bias in Equity International Finance Puzzle
The home bias in portfolio puzzle made popular by French and Poterba (1991) and Tesar and Werner (1995) refers to the concept that home investors prefer to hold home equities. Most

economic simulations presume that investors take advantage of risk sharing and probable profits in returns provided by the international capital markets. But empirical studies reveal that investorsdon't optimally diversifies internationally, and they favour their home country's equity to the extent of holding almost all their wealth in domestic assets. The question is, Why domestic investors don't make use of probable profits from foreign opportunities? This question is mostly confusing when you consider the fast rising international capital markets.

Therefore, the question is why there is a favoritism for home equity even in developed countries. Based on the fact that international equity transactions are not mainly limited in developed countries, one would not expect a resilient home favoritism in equity holdings of developed countries. However, some research works suggest that probable profits from investing in foreign equities must be related to the transaction costs of acquiring these equities. Though, transaction costs may be small with fully cohesive capital markets, they must be related with probable profits from variation.

Another description is that the market is not efficient and investors don't know the probable profits from including foreign equity in their business folder. Again, some researchers advocate that local investors are highly hopeful about the gains of domestic equities.The correlation of the home bias in equity international finance puzzle in WAMZ countries seen in the data generated as foreign portfolio investment attracted the least foreign capital inflow into the countries within the period under the study.

Donor Oriented Theory
Donor oriented theory known as international relations theory argues of a seeming divergent expectations or objectives between the donor countries and agencies on one hand and the recipient countries on the other hand. While the donor might be interested in the promotion of the economic wellbeing of the citizens of the country where they are channeling their aids, the long term interest of the recipient country might be both political and economic. This is the reason why some donors will prefer to tie their aid to a particular area and some donors go as far as stipulating certain conditions that must be fulfilled by the recipient country before accessing the aid. The conditionalities tied to aids by donor countries to WAMZ countries runs through almost all the countries. Some of the aids to WAMZ countries were withdrawn because of the vehemence of some WAMZ countries to same-sex marriage as it was repugnant to African culture.

Empirical Literatures
Bailliu (2000) in his study of 40 developing countries from 1975 – 1995 using panel generalised method of moments (GMM) estimation techniques observed that capital inflows promote higher economic growth for countries which have attained a particular development level in the banking sector, above and beyond any effects on the investment rate. Bailliu therefore concluded that domestic financial sector is an essential tool in the advancement of economic growth by international capital flows in developing countries.

Aizenman*et al.* (2013) observed that the link between growth and lagged capital flows depends on the type of flows, economic structure, and global growth patterns. In their study of 105 countries from 1990 to 2010 using panel data estimation, they found a robust relationship between FDI (both inflows and outflows) and growth but a smaller and less stable relationship between growth and equity flows. On the other hand, the relationship between growth and short-term debt was found to be nil before the 2008 financial crisis, and negative during the crisis period.

Prasad *et al.* (2007) in their study of 103 countries consisting transition, non-transition, industrial and non-industrial countries from 1970 to 2004 using cross-sectional regression and panel GMM estimation techniques, concluded that financial openness may be necessary to bring about domestic financial development. This suggests that even though activists in developing countries might decide to attain a certain level of financial development before pushing for financial integration, the benefits of financial integration and ensuing competition may be essential to spur domestic financial development.

Furthermore, Orji *et al.* (2014) analyzed the inflow of foreign capital into West African Monetary Zone (WAMZ) Countries and its impact on growth, for the period 1981 – 2010. Using seemingly unrelated regression (SUR) estimation procedure, the results showed that foreign direct investment exerted more significant and positive impact on output growth in Nigeria and Gambia.

Jawaid & Saleem (2017) examine the relationship of foreign capital inflows (i.e.: FDI, workers' remittances and external debt) with economic growth of Pakistan over the period of 1976-2015. Co integration results indicate that FCI and economic growth have a significant relationship in the long-run. They also find the impacts of remittances and external debts on economic growth are more than FDI in Pakistan.

Habibi, and Karimi, (2017) investigate the impact of FDI economic growth of Iran and Gulf Cooperation Council (GCC) over the period of 1980-2014, using ADRL approach. The empirical results show that FDI is one of the major derivers of economic growth in Iran and GCC. The bounds testing also indicates that there is a long–run steady-state relationship between FDI and GDP in Iran and for each country of GCC.

Ibrahim & Dahie (2016) examine the effect of FDI, ODA and domestic investment on economic growth in Somalia, taking annual data from 1970 to 2014. Results confirm that FDI has a significant positive impact on economic growth in Somalia.

Kosztowniak (2013) investigates the impact of FDI on economic growth in Poland, using CLS method over the period of 1995-2012. The result shows a low effectiveness of FDI on the Polish market, lack of reinvestment and transfer of income from abroad. The reasons are unfulfilled conditions of the positive FDI impact on the economy of Poland.

Adusah-Poku (2016) examines the impact of foreign capital inflows (which include FDI, personal remittances and foreign aids) on economic growth in Sub-Saharan countries over the period of 1990-2010 and using PMG estimator for dynamic heterogeneous panels. The results confirm that all the three forms of foreign capital inflows have positive and significant impacts on economic growth in the long-run. However, personal remittances were the only short-run driver of growth in Sub-Saharan countries.

Research Design

Nachmias and Nachmias (1976) cited in Baridam (2001) see research design as a framework or plan that is used as a guide in collecting and analyzing data for a study. The study shall adopt the quasi-experimental research design. This is adopted because the study seeks to explore the effect of the proxies for foreign inflows on economic growth. Nwankwo (2013), has it that the quasi-experimental design allows for the evaluation of the effect of independent variable(s) on a dependent variable using time series data.

Data Collection Methods and Sources

The study will rely on time series secondary data covering the dependent and independent variables which will be obtained, mainly, from the World Bank data, SEC Statistical Bulletins and the CBN covering the periods 1980 – 2018.

Method of Data Analysis

The researcher used the descriptive statistics, unit root test, autoregressive distributed lag (ARDL), cointegration analysis and error correction mechanism to analysis the data used. Thereafter, the researcher conducted post estimation test: Ramsey Reset test to check whether or not the model is correctly specified in linear form, the Breusch-Godfrey Serial Correlation LM test to check if the model suffers autocorrelation problem in the residuals up to the specified lag order, the White's heteroskedasticity test to verify whether or not the variance of the residuals of the model are homoscedastic, the Jarque-Bera test to verify if the variables of the model are normality distributed and the CUSUM test for stability to determine whether or not the model is stable and suitable for making long run decision.

Model Estimation Technique
Autoregressive Distributed Lag (ARDL) Testing Approach
The model was specified as follows:

$$GDP_t = \lambda_o + \lambda_1 EL_{t-1} + \lambda_2 EMR_{t-1} + \lambda_3 ODA_{t-1} + \lambda_2 FDI_{t-1} + \lambda_3 FPI_{t-1} + \varepsilon_t$$

Where: *GDP* represents the gross domestic product, *EL* represents External Loans, *EMR* represents Economic Migrant Remittance, *FPI* represents Foreign Portfolio Investments and *FDI* represents Foreign Direct Investments and ε_t = white noise error term.

Data Analysis
Table 1: Descriptive Analysis

	ODA	GDP	FPI	FDI	EMR	EL
Mean	9.59E+08	1.71E+10	-2.17E+08	9.12E+08	1.293241	7.28E+09
Median	8.94E+08	6.74E+09	0.000000	1.31E+08	0.397121	6.14E+09
Maximum	1.76E+09	6.33E+10	1.27E+08	3.49E+09	10.13065	2.20E+10
Minimum	2.59E+08	4.04E+09	-2.54E+09	2000000.	0.010476	1.40E+09
Std. Dev.	3.92E+08	1.84E+10	4.97E+08	1.34E+09	2.257886	5.63E+09
Skewness	0.209214	1.327262	-3.080796	1.056741	2.320523	1.428729
Kurtosis	2.275707	3.288195	13.77161	2.264610	7.969034	4.146926
Jarque-Bera	1.107829	11.28845	243.8218	7.928705	73.19844	15.01080
Probability	0.574696	0.003538	0.000000	0.018980	0.000000	0.000550
Sum	3.64E+10	6.50E+11	-8.24E+09	3.47E+10	49.14315	2.77E+11
Sum Sq. Dev.	5.69E+18	1.26E+22	9.13E+18	6.64E+19	188.6279	1.17E+21
Observations	38	38	38	38	38	38

Source: Eviews

The descriptive stat shows the nature of the data used. For clarity sake, the jarqueberra test for normality will be the focus. As shown in the table, the data shows that only the ODA is normally distributed while others are not. This shows some elements of random walks which unit root tests will confirm.

Table 2: Unit Root Tests

Coefficient	I(0)	I(1)	Comments
EL (At levels: prob=0.1940) (At I(1): prob=0.0029)	Nonstationary	Stationary	
EMR (At levels: prob=0.5600) (At I(1): prob=0.0000	Nonstationary	Stationary	
FDI (At levels: prob= 0.4475) (At I(1): prob=0.0000	Nonstationary	Stationary	
FPI (At levels: prob= 0.0898) (At I(1): prob=0.0001	Nonstationary	Stationary	
GDP (At levels: prob= 0.8587) (At I(1): prob= 0.0009	Nonstationary	Stationary	
ODA (At levels: prob=0.0299) (At I(1): prob= 0.0000	Stationary	NA	

Source: Eviews results

The ADF is used to test for the presence of random walk among the variables used. The unit root tests for the presence of stationarity. The table shows the test results at levels and at second difference for the variables used. With the mixture of the stationarity levels, the bounds test for cointegration is used to determine the longterm relationship or not.

Table 3: Bounds Test for Cointegration

F-Bounds Test			Null Hypothesis: No levels relationship	
Test Statistic	Value	Signif.	I(0)	I(1)
		Asymptotic: n=1000		
F-statistic	8.785450	10%	2.26	3.35
K	5	5%	2.62	3.79
		2.5%	2.96	4.18
		1%	3.41	4.68

Source: Eviews test results

In order to determine whether the variables are cointegrated or not, a bounds test for cointegration was conducted. Cointegration shows if there is a long-run relationship or not. This showed that there is a long-run relationship between the GDP and the independent variables over the period based on the F-stat of 8.7 which is higher than I(1) of 3.35 as depicted in the table. The presence of a cointegrating factor becomes the basis for the conduct of error correction model from the ARDL analysis.

Table 4: ARDL ECM Regression

ARDL Error Correction Regression
Dependent Variable: D(GDP)
Selected Model: ARDL(2, 2, 1, 2, 2, 2)
Case 5: Unrestricted Constant and Unrestricted Trend
Date: 01/07/20   Time: 13:49
Sample: 1980 2017
Included observations: 36

ECM Regression
Case 5: Unrestricted Constant and Unrestricted Tr end

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.61E+10	1.14E+10	0.000000	0.0000
@TREND	4.04E+09	5.07E+08	0.000000	0.0000
D(GDP(-1))	0.062247	0.082186	0.757388	0.4586
D(EL)	-0.807409	0.992113	-0.813828	0.4264
D(EL(-1))	3.929224	1.251513	3.139579	0.0057
D(EMR)	-5.97E+09	2.60E+09	0.000000	0.0000
D(FDI)	0.522510	3.394962	0.153908	0.8794
D(FDI(-1))	-8.461734	4.610078	-1.835486	0.0830
D(FPI)	-2.680215	1.513553	-1.770810	0.0935
D(FPI(-1))	3.000090	1.645448	1.823266	0.0849
D(ODA)	12.24594	2.873644	4.261466	0.0005
D(ODA(-1))	-4.291327	2.211373	-1.940572	0.0681
CointEq(-1)*	-0.539432	0.072639	-7.426218	0.0000

R-squared	0.869095	Mean dependent var	5.87E+09	
Adjusted R-squared	0.800797	S.D. dependent var	3.68E+10	
S.E. of regression	1.64E+10	Akaike info criterion	50.15420	
Sum squared resid	6.19E+21	Schwarz criterion	50.72603	
Log likelihood	-889.7756	Hannan-Quinn criter.	50.35378	
F-statistic	12.72502	Durbin-Watson stat	2.449868	
Prob(F-statistic)	0.000000			

* p-value incompatible with t-Bounds distribution.

Source: Eviews

The long-run ECM analysis shows that the coefficient of determination is 0.86. This means that 86% of the changes in the dependent variable are explained by the changes in the independent variables. The overall model is also statistically significant at 5% level of significance based on the f-statistic. We also note that the ECM (CointEq) is rightly signed as it shows that the speed of adjustment is 54%. It is statistically significant at 5% level of significance.

Table 5: Granger Causality Test

Pairwise Granger Causality Tests
Date: 08/24/19   Time: 18:25
Sample: 1980 2017
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
EL does not Granger Cause GDP	36	0.38551	0.6833
GDP does not Granger Cause EL		8.59873	0.0011
EMR does not Granger Cause GDP	36	1.90463	0.1659
GDP does not Granger Cause EMR		19.0994	4.E-06
FDI does not Granger Cause GDP	36	4.01263	0.0282
GDP does not Granger Cause FDI		1.55283	0.2277
FPI does not Granger Cause GDP	36	13.8628	5.E-05
GDP does not Granger Cause FPI		6.90456	0.0033
ODA does not Granger Cause GDP	36	7.30543	0.0025
GDP does not Granger Cause ODA		3.68989	0.0365

Source: Eviews test results

The pair-wise granger causality test shows the direction of cause between the dependent and the independent variables. The table below shows that GDP granger causes EL and EMR while FDI granger causes GDP. There is a uni-directional causality between GDP, EL, EMR, FDI.
Again, the GDP, FPI and ODA showed a bi-directional causality among themselves based on the values of their f-stat as shown in the table.

Table 6: Serial Correlation Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.798623	Prob. F(3,15)	0.1907
Obs*R-squared	9.524050	Prob. Chi-Square(3)	0.0231

Source: Eviews test results

The researcher used the serial correlation test to know if there is the existence of serial autocorrelation or not among the variables. The result shows that there is absence of serial autocorrelation. From the probability value of the f-stat, there is no reason to reject the null hypothesis of no serial correlation in the model.

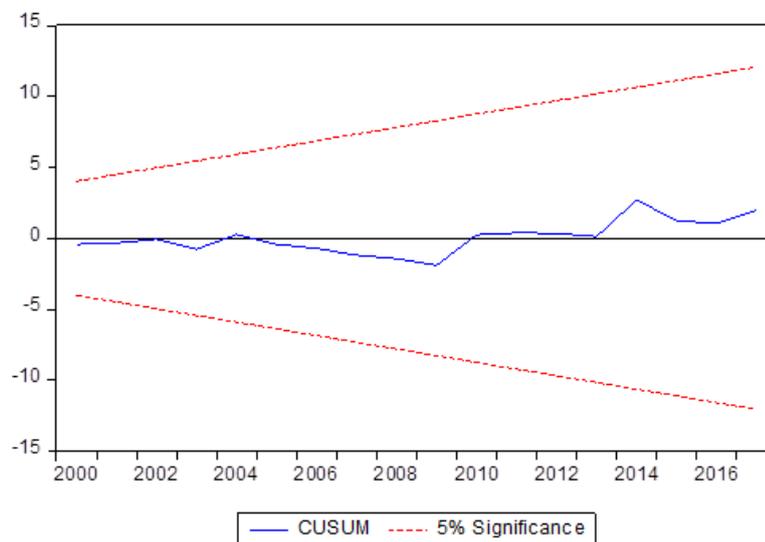**Table 7:** Heteroskedasticity Test

Heteroskedasticity Test: ARCH

F-statistic	2.324571	Prob. F(2,31)	0.1146
Obs*R-squared	4.434072	Prob. Chi-Square(2)	0.1089

Source: Eviews test results

The variance of the model is also constant based on the results of the heteroskedasticity test.

CUSUM Test

The CUSUM test also shows that the model lies within the 5% boundaries and therefore, stable over the period.

Tests of Hypotheses
H_{o1}: GDP and FDI
The result of the analysis in table shows that FDI at levels is positively related to GDP. The result reveals that as FDI increases by a unit, GDP increases by 0.52units and vice versa. However, FDI is not statistically significant at 5% level of significance using the t-value. The analysis shows that we will accept the null hypotheses and conclude that there is no significant relationship between FDI and GDP over the period.

H_{o2}: GDP and FPI
The result in table reveals that FPI has a positive relationship with GDP as expected apriori at first difference. As FPI increases over the period by a unit, GDP increases by 3units and vice versa. FPI is also slightly statistically significant at 5% level. We would accept the alternative hypotheses, reject the null hypotheses and conclude that there is a significant relationship between FPI and GDP over the period.

H$_{03}$: GDP and ODA
The result in the table also shows that ODA has a positive relationship with GDP at levels. As ODA increases over the period by a unit, GDP increases by 12.2units and vice versa. ODA, however, is statistically significant at 5% level. We would accept the alternative hypotheses, reject the null hypotheses and conclude that there is a significant relationship between ODA and GDP over the period.

H$_{04}$: GDP and EMR
The result of the analysis in table shows that EMR is negatively related to GDP. The result reveals that as EMR increases by a unit, GDP decreases by 5.9units and vice versa. Again, EMR is statistically significant at 5% level of significance using the t-value (prob. = 0.000). The analysis shows that we will reject the null hypotheses and conclude that there is a significant relationship between EMR and GDP over the period.

H$_{05}$: GDP and EL
Finally, the result in the table also shows that EL also has a positive relationship with GDP at first difference. As EL increases over the period by a unit, GDP increases by 3.9units and vice versa. EL, however, is also statistically significant at 5% level. We would accept the alternative hypotheses, reject the null hypotheses and conclude that there is a significant relationship between EL and GDP over the period.

Conclusion and Recommendations
The study aimed to investigate the impact of foreign capital inflow on economic growth of Nigeria over the period, 1980 – 2017 using the Autoregressive Distributed Lag (ARDL). The underlying (independent) variables: Foreign Direct Investment (FDI), Foreign Portfolio Investment (FPI), External Loans (EL), Economic Migrants Remittances (EMR), and Official Development Assistance (ODA) were used as measures of foreign capital inflows against its impact on the dependent variable proxied by Gross Domestic Product (GDP). The findings showed varying degrees of influences of the independent variables on the GDP of Nigeria over the period. The test results also show that not all the variables are significant when corrected in the short run using the ECM. Again, the outcome of the investigation revealed that ODA and EL contributed more to the economic growth of Nigeria than the other variables.

It is therefore recommended that more efforts to increase foreign inflows from EL, ODA must be encouraged. However, although external loans (EL) have a positive and significant relationship with the GDP, the authorities must use it sparingly. The reason being that it comes with debt burden that can linger longer than necessary if not well managed. Again, the researcher recommends a holistic financial approach to foreign inflow management. Some of the variables such as FDI, FPI which are supposed to show positive relationship but showed negative ones in the first difference FDI$_{t-1}$ and FPI$_t$ reveals that there could some fundamental and institutional issues which make these funds not to get to their right destinations. Therefore, it is recommended that the government x-rays the institutions through which the foreign inflows flow through as this will help ensure they are used for the right purpose.

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