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Macroeconomic environment and foreign direct investment inflows in Nigeria

Clement Korgbeelo
Department of Economics, Ignatius University of Education Rumuolumeni, Port Harcourt, Nigeria

Abstract
Over the years, the performance of foreign direct investment (FDI) in flows in Nigeria has not been satisfactory. A country's macroeconomic environment plays an important role in the inflow of FDI. This study therefore investigates the impact of Nigeria's macroeconomic environment on the inflows of FDI. Specifically, the study examines the impact of selected macroeconomic variables on the inflows of FDI in Nigeria. The selected macroeconomic variables include economic growth. (proxied by per capita real gross domestic product), interest rate, inflation rate, crude oil prices and corruption perception index. A variety of analytical techniques including Philips-Person unit root test, autoregressive distributed lag (ARDL) approach to cointegration and error correction model (ECM) was applied on annual time-services data covering the period 1981 to 2019. The data were obtained from secondary sources. The findings from the study indicated that economic growth and oil prices have weak positive impact on FDI inflows. On the other hand, inflation rate and corruption perception index have strong negative impact on FDI inflows while interest rate has weak negative impact on FDI inflows in Nigeria. It is recommended, among other things, that there is the need to improve the country's macroeconomic environment through policies that will stimulate growth, reduce inflation and interest rates, and reduce corruption in the country.

Keywords: macroeconomic, environment, FDI, ARDL

Introduction

In every society, there is the need to improve the welfare of the people. One way of achieving this is to ensure that there is greater availability of the goods and services needed by the people. Unfortunately, in this regard, the performance of the Nigerian economy has not be satisfactory (Ekpo & Umoh, 2003). There is the need therefore, to improve the productive capacity of the economy. But the improvement in the productive capacity requires capital accumulation which in turn, depends on savings. However, due to the oil-export dependent nature of the economy, and considering the fact that the fortunes of the oil sector are largely detached from the masses (Robinson, 2003) [42], there is a general prevalence of low income and consequently, low savings among the people (Imegi & Okanta, 2015) [22]. It will therefore be difficult to accumulate large enough capital needed to improve the productive capacity of the economy. The need therefore arises to attract the inflow of foreign capital to augment domestic capital for sustainable growth and development.

Foreign capital in the form of foreign direct investment (FDI) plays a prominent role in fostering economic growth and development in developing countries. In the face of domestic resource deficiency in funding productive enterprises, most developing countries rely on the inflows of foreign direct investment (Chorn & Siek, 2017) [13].

It is pertinent to note that the inflow of FDI is sensitive to the macroeconomic environment of the host country (Lipsey, 2004) [27]. Thus, macroeconomic variables such as the general level of prices, per capita income, interest rate, etc have significant influence on the inflow of FDI into a country.

Over the years, the performance of FDI inflows on the Nigerian economy has not been satisfactory (Anaele & Korgbeelo, 2020). Besides, the Nigerian economy has been operating in an increasing unfavorable macroeconomic environment over the years. The country has been experiencing high and rising levels of unemployment, high inflation rates, dwindling economic growth, high incidence of poverty, high cost of doing business, fluctuating and dwindling government revenue as a result of fluctuating oil prices, high incidence of corruption, among others. Such a poor macroeconomic environment is inimical to the inflow of FDI (Anyanwu, 2012) [8].

In spite of the foregoing, not much has been done in terms of designing special policies and programmes aimed at improving the macroeconomic environment so as to attract the inflow of FDI. What successive governments have been doing, upon assumption of office, is to embark on foreign trips to woo foreign investors to the country. But it appears that these costly foreign trips have not succeeded in significantly attracting foreign investment to the country. This is because, FDI inflows respond more to macroeconomic environment than diplomatic ties (Robinson, 2003) [42]. Thus, beyond the diplomacy - driven FDI inflows, there is the need to deliberately design policies to improve the country's macroeconomic environment with the specific objective of attracting the inflow of FDI. Such policies require empirical evidence on the relationship between macroeconomic environment and FDI inflows. This study therefore provides empirical evidence on the impact of selected macroeconomic variables on the inflow of FDI in Nigeria.

Literature Review and Conceptual Clarifications

Conceptual Clarifications

The Concept of Foreign Direct Investment

Foreign Direct Investment (FDI) refers to when a foreigner acquires a productive facility located in another country and manages it or takes part in its management (Akpakpan, 1999) [3]. Similarly, the International Monetary Fund (1993) defines foreign direct investment as "an investment made to acquire lasting interest in enterprises operating outside the economy of the investor".

The Concept of Macroeconomic Environment

The macroeconomic environment refers to the condition that exists in the economy as a whole, rather than in a particular sector or region. The macroeconomic environment is closely linked to the general business cycle as opposed to the performance of individual business sectors (Ajayi, 1999; Levi, 2014) [2, 26].

Nigeria's Macroeconomic Environment: An Overview

In examining the macroeconomic environment of Nigeria, we follow the before and after Structural Adjustment Programme (SAP) approach.

The Pre-SAP Period (1960-1985)

The period before SAP is divided into three sub-periods reflecting the various political dispensations during the period.

1. **The Period from Independence to Shortly After Independence (1960-1965)**

Due to the fact that Nigeria was pursuing democratic culture, the country received diverse forms of technical assistance from many friendly countries (Ajayi, 1999) [2]. Agriculture was the dominant contributor to total employment, foreign exchange earnings, government revenue and GDP. The first national development plan was formulated during the period. Consequently, huge investments were made especially, in education and infrastructural development. Also, a fairly enabling macroeconomic environment was put in place through policies aimed at enhancing the growth and development of the country (Anyanwu, *et al*, 1997; Ajayi, 1999) [2].

2. **The Period 1966-1970**

Two important events took place during this period. These were the coup d'etat of 15 January, 1966 and the civil war. The two events disrupted economic activities, altered the political, social and economic fabric, and hampered the full exploitation of crude oil in the country. All these had adverse consequences on the country's macroeconomic environment (Nafziger, 1972; Noite, 2011; Onumonu & Anutanwa, 2017).

3. **The Period 1971 – 1985**

During this period, the country witnessed an oil boom in the early 1970s. The massive wealth from the oil boom brought about huge investments in the country. Thus, the investment/GDP ratio rose from less than 12 per cent in 1971 to a value above 25 per cent in 1977. Also, three successive development plans were formulated during the period: 1970 – 74, 1975 – 80, and 1981 – 85. All these helped to improve the country's macroeconomic environment (FGN, 1975; CBN, 1993; Ajayi, 1999; Wilson, 2002) [2]. However, the oil boom made the country to be oil dependent. Hence, the hitherto vibrant agricultural sector was neglected due to the oil syndrome. Consequently, as a result of the oil glut of 1981, economic crisis began in Nigeria. This adversely affected the macroeconomic environment (Anyanwu, *et al*., 1997; CBN, 2010).

The Post-SAP Period (1986 to Date)

The Post-SAP period is divided into two sub-periods: 1986-98 and 1999 to date.

1. **The Period 1986-1998**

During this period, the Structural Adjustment Programme (SAP) was introduced in July 1986. The SAP was to deal with pervasive macroeconomic distortions and imbalances in the economy (Anyanwu, 1993) [8]. Due to some of the liberal economic policies of the SAP, the country's macroeconomic environment witnessed relative improvement (Ajayi, 1999) [2].

In 1993, the government embarked on a political programme to return the country to democratic rule. This transition programme was assisted by the oil wind fall gain of the 1991 Gulf crisis. However, the various aftermaths of the annulled June 12 presidential election brought about serious uncertainties which adversely affected the countries macroeconomic environment (Ajayi, 1999) [2].

2. **The Period 1999 to Date**

On May 29 1999, the country returned to democratic rule after nearly two decades of military rule. The new democratic government attempted to accelerate economic growth and reduce poverty. The government's effort was aided by the sharp increase in oil prices in 2000 through improve government revenue. In addition, from 2003 to 2007, the National Economic Empowerment and Development Strategy (NEEDS) was implemented with the aim of improving the country's standard of living through a set of macroeconomic reforms. Similarly, the Vision 20:2020 framework of development was introduced in 2010. The above events resulted in relative improvement in some macroeconomic indicators between 1999 and 2013 (CBN, 2010; Ekpo & Umoh, 2013; Omitogun, Longe & Ajulo, 2018) [16, 36].

In 2016, the economy plunged into recession. There was massive job loss, high inflation rate, negative GDP growth rates, reduction in FDI inflows, drop in external reserves, reduction in government revenue and increased fiscal deficit, etc. All these led to drastic deterioration of the country's macroeconomic environment (Ministry of Budget and National Planning, 2017). After five consecutive quarters of negative growth rates, (i.e, 2016:Q_1 – 2017:Q_1), the economy recovered from recession in 2017:Q_2. Although the recovery was sustained, no significant improvement has been recorded in key macroeconomic indicators (Emefiele, 2019; Adebayo & Gambiyo, 2020) [17, 1].

Theoretical Literature Review

Several theories that seek to explain the variables that determine the movement of investments across international bounderies have been developed. These theories have been classified into microeconomic and macroeconomic theories of FDI. The microeconomic FDI theories are more concerned with firm and industry features which give multinational corporations (MNCs) certain advantages over domestic firms. Some of the microeconomic theories of FDI include the industrial organization theory of Hymer (1976) [20], the monopolistic power theory of Kindleberger (1969) [24], the internalization theory of

FDI attributed to Buckley and Casson (1976) [11], the Oligopolistic theory of Knickerboker (1973) and the eclectic theory of FDI developed by Dunning (1980) [15]. On the other hand, macroeconomic FDI theories emphasize country-specific factors, and are more aligned to trade and international economics (Gray, 1981) [19]. According to Petrochilos (1989) [39], the macro-level factors that determine a country's ability to attract FDI include market size, economic growth, infrastructure, natural resources, institutional variables such as political stability, among others. The macroeconomic theories of FDI include the capital market theory based on the works of Aliber (1970; 1971) [4, 5], the location-based theory of FDI, the institutional FDI fitness theory of Wilhelms and Witter (1998) [43], etc.

For the purpose of this study, our focus is on the institutional FDI fitness theory developed by Wilhelms and Witter in 1998 [43]. The institutional FDI fitness theory which is a variant of the macroeconomic theories of FDI is based on the ability of a country to attract, absorb and retain FDI inflows. The theory states that a country's capacity to harness FDI inflows depends on its ability to adapt, or to fit to both the internal and external expectations of its investors. According to Wilhelms and Witter (1998) [43], the institutional FDI fitness theory rests on four fundamental pillars, namely, government, market, educational and socio-cultural fitness. Government fitness include the role of country's political strength, the adoption of protective regulations to manage market fitness, economic openness and greater transparency. The market fitness accounts for the economic and financial aspects of institutional FDI fitness in the form of machinery (physical capital) and credit (financial capital). Indeed, a developed financial market is an important variable in MNCs investment decision making process. Education is necessary in fostering an attractive environment for FDI since educated human capital embraces research and development creativity and the ability to process information. At the base of the pyramid are socio-cultural factors which according to Wilhelms and Witter (1998) [43], are the oldest and most complex of all the institutions. The above four institutional pillars are interrelated. (Denisa, 2010; Popovici & Calin, 2014; Makoni, 2015 [41, 28].

In concluding the theoretical review, we say that there is no single superior theory which explains FDI in a comprehensive manner. It is however necessary to conduct a study based on a specific theoretical background. Hence, this study is theoretically underpinned by the institutional FDI fitness theory.

Empirical Literature Review

In this section some of the studies conducted on the determinants of foreign direct investment inflows are reviewed.

Anyanwu (2012) [8] established that market size, trade openness, foreign aids, prevalence of rule of law, agglomeration and natural resources have positive impact on FDI inflow while higher financial development has negative effect on FDI in a sample of 53 African countries for the period 1986 to 2008. Phuong and Tuyen (2018) [40] observed a positive nexus between economic growth and FDI inflows, and a negative impact of FDI inflows on the environment in Vietnam for the period 1986 to 2015. Asiamah, Ofori and Afful (2019) [10] showed that inflation, exchange rate and interest rate have significant negative impact on FDI inflows while GDP, electricity production and telephone usage have significant positive effect on FDI inflows in Ghana.

In Nigeria, Oladipo (2013) [35] found out that exchange rate, interest rate, money supply and trade openness have strong positive impact on FDI inflows while inflation and GDP have weak positive impact on FDI inflows. Osemene, Kolawole and Olanpeleke (2017) [38] observed that economic growth, export, inflation and interest rates have strong negative impact on FDI while exchange rate and imports have strong positive relationship with FDI inflows in Nigeria from 1984 to 2015. Nwosa and Adeleke (2017) [33] found out that trade oneness and world GDP are the main determinants of FDI volatility for the period 1986 to 2016 in Nigeria. Obayomi and Chioma-Chidinma (2018) [34] found that exchange rate stability, political stability, economic growth and favourable corporate tax have significant positive impact on FDI inflows in Nigeria. Omitogun, Longe and Ajulo (2018) [28] found out that oil price fluctuations do not favour FDI inflow in Nigeria. Ndugbu, Duruechi and Ojiegbe (2017) [31] showed that interest rate, inflation and real GDP have strong positive impact on FDI inflows in Nigeria. Emmanuel, Ike and Alhasan (2019) [18] showed that exchange rate has significant positive impact on FDI inflows while interest rate has weak negative impact on FDI inflows in Nigeria. Adebayo and Gambiyo (2020) [1] observed that trade openness and exchange rate have positive effect on FDI while interest rate has weak negative impact on FDI inflow in Nigeria.

From the empirical literature reviewed, we observed that no serious attention has been given to the impact of corruption as a determinant of FDI inflow in Nigeria. Our argument is that, the high level of corruption in Nigeria has the tendency to influence the inflow of FDI in the country and therefore, need to be examined.

Also, previous studies in Nigeria measure economic growth (as a determinant of FDI) in terms of GDP growth. This measure of economic growth is misleading since it does not incorporate the influence of population growth which may adversely affect the standard of living of the people. To fill these gaps, corruption perception index and per capital real gross domestic production (a proxy for economic growth) are included in the selected macroeconomic variables that affect the inflows of FDI in Nigeria.

Methodology

Description of the Variables of the Study

1. Dependent Variable

Foreign direct investment is the dependent variable for this study. Foreign direct investment refers to when a foreigner acquires productive facilities located in Nigeria and manages it or takes part in its management. FDI inflows is measured in millions of naira in this study.

2. Explanatory Variables

a. Per Capital Real Gross Domestic Product: This refers to the output per head of the population over a given period of time. It is the ratio of the inflation adjusted GDP to the total population.

That is, per capita real GDP = $\frac{\text{Real GDP}}{\text{Total Population}}$

The per capita real GDP is used as a proxy for economic growth. It is measured in billions of naira.

b. Interest Rate: This is the percentage of the principal charged by the lender for the use of his or her money. For the purpose of this study, interest rate is proxied by the monetary policy rate (MPR) which is the interest rate at which the Central Bank of Nigeria (CBN), as a lender of last resort, lends out money to the deposit money banks.

c. Inflation Rate: This is the rate at which the general price level (i.e, the consumer price index) changes over a given period of time. It is expressed in percentage.

d. Oil Price: This is the amount of money that a barrel of crude oil is sold in the international market. It is expressed as a given amount of US Dollar per barrel of crude oil.

e. Corruption Perception Index: This is an index that is used to score and rank countries/territories based on how corrupt a country's public sector is perceived to be by experts and business executives. The corruption perception index on Nigeria compiled by the Transparency International is used for this study

Model Specification

Our model is specified based on the institution FDI fitness theory developed by Wilhems and Witter, (1998) [43] and the analytical models used by Oladipo (2013) [35] and Ndugbu, Duruechi and Ojiegbe (2017) [31].

However, the adopted models were slightly adjusted to accommodate the variables of this study.

The mathematical form of the model is specified as:

FDI = f (PCRGDP, INTR, INFL, OILP, CPI)------ 3.1

Where
FDI = Foreign Direct Investment
PCRGDP = Per Capital Real Gross Domestic Product
INTR = Interest Rate
INFL = Inflation Rate
OILP = Price Per Barrel of Crude Oil
CPI = Corruption Perception Index
F = Functionality Notation

FDI is the dependent variable while PCRGDP, INTR, INFL, OILP, and CPI are the explanatory variables.

The ordinary least squares (OLS) multivariate regression equation based on the above mathematical function is expressed as:

$FDI = a_0 + a_1PCRGDP + a_2INTR + a_3INFL + a_4OILP + a_5CPI + U$ ------ 3.2

Where a_0 is the regression intercept, a_1, a_2, a_3, a_4 and a_5 are the coefficients of the parameter estimates while U is the random disturbance term. All the variables are as earlier defined. A logarithmic transformation of equation 3.2 gives us:

$Log\ FDI = a_0 + a_1PCRGDP + a_2INTR + a_3INFL + a_4LogOILP + a_5CPI + U$----- 3.3

Where Log = the natural logarithm or the variables where applicable. All other variables are as earlier defined.

A priori Theoretical Expectations.

Based on economic theory, we expect the following signs of the coefficients of the individual parameter estimates.

$Log\ FDI = a_0 + a_1PCRGDP + a_2INTR + a_3INFL + a_4LogOILP + a_5CPI + U$

($a_1>0$, $a_2<0$, $a_3<0$, $a_4>0$, $a_5,<0$)

Nature and Sources of Data

The data used for this study were annual time-series data covering the period 1981 to 2019. However, the data on corruption perception index (CPI) covered the period 1996 to 2019. The data were obtained from secondary sources such as the Central Bank of Nigerian (CBN) annual statistical bulletin (2019), the CBN annual reports statement of account (various years), and the Transparency International publications.

Data Estimation Technique

Our specified model was estimated using the ordinary least squares regression technique. However, due to the peculiar properties associated with time-series data, the OLS technique was preceded by unit test so as to know whether the series are stationary or not, and also, to determine their order of integration. The unit root test was conducted using the Phillips-Perron unit root test. Based on the result of the unit root test, the autoregressive distributed lag (ARDL) technique was used in estimating the data.

Presentation of Results and Discussion of Findings

Presentation of Results

Unit Root Test Result

The result of the Phillips-Perron unit root test is presented in table 1

Table 1: Phillips-Perron Unit Root Test Result

Variable	Phillips-Perron Test Statistic (At Levels)	1% Critical Value	5% Critical Value	Phillips-Perron Test Statistic (At 1st Diff.)	1% Critical Value	5% Critical Value	Order of Integration
Log(FDI)	-2.891302	-3.615588	-2.941145	-10.57869*	-3.621023	-2.943427	I(1)
PCRGDP	-2.142738	-3.615588	-2.941145	-3.179737**	-3.621023	-2.943427	I(1)
INTR	-3.212719**	-3.615588	-2.941145				I(0)
INFL	-2.857453	-3.615588	-2.941145	-9.982217*	-3.621023	-2.943427	I(1)
Log(OILP)	-2.490641	-3.615588	-2.941145	-5870035*	-3.621023	-2.943427	I(1)
CPI	-2.210850	-3.615588	-2.941145	-5.434363*	-3.621023	-2.943427	I(1)

Source: Author's Computation from E-view 10.0

Note: *and** denote rejection of the null hypothesis of unit root at the 1% and 5% significance levels respectively.

The Phillips-Perron unit root test result in table 4.1 showed that INTR is stationary at level [i.e, I(0)] while log(FDI), PCRGDP, INFL, Log(OILP), and CPI are stationary after first difference [i.e, I(1)].

ARDL Bounds Test Result

The result of the ARDL bounds test for cointegration is presented in table 2

Table 2: ARDL Bounds Test Result

F-Bounds Test		Null Hypothesis: No Long-run relationship		
Test Statistic	Value	Significance	I(0)	I(1)
F-Statistic	7.655544	10%	2.08	3
K	5	5%	2.39	3.38
		2.5%	2.7	3.73
		1%	3.06	4.15

Source: Author's Computation from E-view 10.0

The bounds test result in table 2 shows that the computed F-statistic of 7.655544 is greater than the upper bound [I(1)] critical value of 3.38 at the 5% level of significance. Therefore, we reject the null hypothesis of no long-run relationship and conclude that there exist long-run (equilibrium) relationships among the variables in the model.

ARDL Estimated Long-Run Result

The result of the estimated long-run relationship is presented in table 3

Table 3: ARDL Estimated Long-Run Result

Long-Run Coefficients Case 2: Restricted Constant and No Trend				
Variable	**Coefficient**	**Std. Error**	**t-statistic**	**Prob.**
PCRGDP	0.004023	0.008729	0.460883	0.6515
INTR	-0.061087	0.044942	-1.359245	0.1942
INFL	-0.098679	0.017342	-5.690050	0.0000
Log(OILP)	0.667805	0.786065	0.8492554	0.4089
CPI	-0.273369	0.033898	-8.064411	0.0000
C	6.506848	1.752445	3.713011	0.0021
EC = Log(FDI) – (0.0040*PCRGDP – 0.0611*INTR – 0.098679*INFL + 0.6678*Log(OILP) – 0.2734*CPI + 6.5068)				

Source: Author's computation from E-view 10.0

From the long-run result in table 3, per capital real gross domestic product and oil prices have positive relationship with FDI inflows while interest rate, inflation rate and corruption perception index have negative relationship with FDI inflows in Nigeria.

ARDL Estimated Short-Run Result

It should be noted that the short-run estimation was first done with an over-parameterized model and thereafter, with a parsimonious model. Also, the order of lag selection in the ARDL process was automatically selected based on Akaike Information Criterion (AIC). The parsimonious short-run (error correction model) result is reported in table 4.

From the ECM regression result in table 4, the Error correction variable [i.e, CointEq(-1)] has a correct negative sign and it is also significant at the 0.05 level of significance. This implies that foreign direct investment is adjusted to changes in the explanatory variables and lags of the dependent variable within a year in the current period. The coefficient of the CointEq (-1) term is -1.109934.

This means a speed of adjustment of about 110 per cent. The implication is that about 110 percent of any disequilibrium in the short-run is reconciled to long-run stable equilibrium within a year.

Table 4: ARDL Short-Run Result

ARDL Error Correction Regression, Dependent Variable: DLOG(FDI) Selected Model: ARDL(1, 3, 0, 4, 3,3) Case 2 Restricted Constant and No Trend Date: 06/07/21 Time: 04:11 Sample: 1981 2019 Included observations: 35				
ECM Regression Case 2: Restricted Constant and No Trend				
Variable	**Coefficient**	**Std. Error**	**t-statistic**	**Prob.**
DLog(FDI(-1)	1.109934	0.197178	5.629087	0.0000
D(PCRGDP)	0.018128	0.016449	1.102097	0.2878
D(PCRGDP(-1)	-0.012799	0.016353	-0.782709	0.4460
D(PCRGDP(-2)	0.036206	0.013061	2.772100	0.0142
D(INFL)	-0.038848	0.008762	-4.433631	0.0005
D(INFL(-1))	-0.065373	0.011141	-5.867735	0.000
D(INFL(-2))	-0.020367	0.009222	-2.208453	0.0432
D(INFL(-3))	-0.026622	0.007565	-3.519121	0.0031
DLog(OILP)	1.216448	0.401709	3.028182	0.0085
DLog(OILP(-1))	0.720188	0.420638	1.712132	0.1075
DLog(OILP(-2))	2.078586	0.432793	4.802730	0.0002
D(CPI)	-0.108449	0.037453	-2.895589	0.0111
D(CPI(-1))	-0.019595	0.038431	-0.509886	0.6176
D(CPI(-2))	-0.213927	0.037753	-5.666510	0.0000
CointEq(-1)	-1.109934	0.128143	-8.661659	0.0000
R-Squared 0.852208 Mean dependent var 0.248935 Adjusted R-squared 0.760718 S.D Dependent var 1.073384 S.E. of regression 0.525062 Akaike info criterian 1.838572 Sum squared resid 5.7894482 Schwarz criterion 2.460711 Log likelihood -18.17501 Hannan-Quinn Criter. 2.053334 Durbin-Watson stat. 2.331687				

Source: Author's Computation from E-view 10.0

Post-Estimation Tests Results

The results of the post-estimation tests are presented in table 5

The post-estimation tests check if the basic assumptions underlying the classical linear regression model (CLRM) are satisfied. From the results in table 5, the linearity, homoscedacity, normality and no serial correlation assumptions of the CLRM are satisfied.

Table 5: Post-Estimation Tests Results

Test	Value	Prob.	Decision
Linearity (Ramsey Reset) Test			Accept null hypothesis that the model is correctly specified.
t-statistic	0.401028	0.6945	
f-statistic	0.160823	0.6945	
Heteroscedasticity (Glejser)			Accept null hypothesis that residuals have variance. That is, they are homoscedastic
Test			
F-statistic	0.746709	0.7293	
Normality (Jarque-Bera)			Accept null hypothesis that data is normally distributed
Test			
F-statistic	0.432537	0.805519	
Breusch-Godfrey Lm Test			Accept null hypothesis of no serial correlation of the residuals.
F-Statistic	1.986663	0.2856	

Source: Author's Computation from E-view 10.0

Discussion of Findings

The ARDL bounds test approach to cointegration indicated that there exist long-run relationship among the variables of the study. The long-run regression result showed that PCRGDP (i.e, economic growth) and oil princes have insignificant positive impact on FDI inflows. Interest rate has insignificant negative impact on FDI inflows while inflation rate and corruption perceptive index have significant negative impact on FDI inflows in Nigeria. All the variables turned up with a priori expected signs.

In the short-run, FDI inflows lagged by one period has significant positive impact on FDI inflows in the current periods. This shows that FDI inflows in the previous period has significant positive effects on FDI inflows in the current period.

Economic growth in the current period has insignificant positive impact on FDI inflows. Economic growth lagged by one period has insignificant negative impact on FDI inflows while economic growth lagged by two periods has significant positive impact on FDI inflows.

Inflation in the current and it lagged values in periods one, two and three have significant negative impact on FDI inflows.

Oil prices in the current period and its lagged value in period two have significant positive impact on FDI inflows. However, the period one lag of oil prices has insignificant positive impact on FDI inflows. Corruption perception index in the current and its value lagged by two period have significant negative impact on FDI inflows while the period one lag of corruption reception index has insignificant negative impact on FDI inflows.

The coefficient of multiple determination (R-squared) is 0.852208.

This shows the explanatory variables (i.e, the macroeconomic environment) jointly account for about 85 per cent of the total variable in the dependent variable (FDI). The adjusted R-squared is 0.760718.

This implies that the loss in degree of freedom, as a result of the introduction of additional explanatory variable in the model, will reduce the R-squared to 76 percent. The Durbin – Watson statistic is 2.331687. This implies that estimated the short-run result is not affected by the problem of autocorrelation.

Conclusions and Recommendations

Conclusions

From the findings of the study, the following conclusions are reached.

1. Economic growth has weak positive impact on the inflow of foreign direct investment in Nigeria.
2. Interest rate has insignificant negative impact on FDI inflows in Nigeria.
3. High inflation rates strongly discourage the inflow of FDI in Nigeria.
4. Oil prices has weak positive impact on FDI inflows in Nigeria.
5. Corruption perception index strongly discourages the inflows of FDI in Nigeria.

Recommendations

Based on our findings, the following recommendations are made.

1. To stimulate the inflows of FDI, there is the need to improve the country's macroeconomic environment. To this end, policies that will improve the per capital income of the people and reduce inflation should be pursued.
2. There is the need to lower the interest rates charged by the deposit money banks and other financial institutions in the country. This will increase the access of prospective investors to loanable funds. To achieve lower interest rates, there should be significant increase in the supply of loanable funds.
3. There is also the need to diversify the economy away from its overdependence on crude oil. This will reduce the vulnerability of the macroeconomic environment to the vagaries of oil prices.
4. To reduce the negative impact of corruption on the inflows of FDI, the anti-corruption agencies should be revamped and revitalized to enable them wage honest war against corruption in the country.
5. The government should try to reduce the general state of insecurity in the country. To this end, the security agencies should be equipped and strengthened to effectively curb the insurgency in the Northeast and armed banditry in several

other parts of the country. This will encouraged foreign investors to invest in the country.

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