



FOREIGN DIRECT INVESTMENT AND ECONOMIC GROWTH IN NIGERIA: AN ECM APPROACH

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ABSTRACT

The study examined the impact of foreign direct investments (FDI) on economic growth, using annual data collected from CBN statistical bulletins over a period of 33 years (1988-2020). It specifically aimed to determine how FDI and related variables such as trade openness (OPEN), government size (GOVSIZE), and inflation rate (INF) influence Nigeria's economic growth. The data were analyzed using the ordinary least squares regression method after performing descriptive statistics, trend analysis, ADF unit root tests, and Johansen cointegration tests. The cointegration analysis results indicate that FDI, OPEN, GOVSIZE, and INF have long-term policy implications for Nigeria's economic growth. Supporting this, the study applied the error correction model to assess short-term effects. The findings show that FDI and trade openness positively impact economic growth, although trade openness was statistically insignificant. Conversely, government size and inflation rate negatively affect economic growth, with government size also being insignificant. Overall, the study concludes that FDI positively influences economic growth both in the short and long term. It is recommended that the government focus on attracting FDI through investor-friendly policies and implement programs aimed at promoting economic growth.

Keywords: FDI, economic growth, ECM, trade openness, government expenditure

JEL: C22, F43, O43

INTRODUCTION

Since 1986, the government of Nigeria has actively implemented economic policies aimed at liberalizing and encouraging competition and investment in the Nigerian economy. Appropriate incentives are also continually being established to attract and promote private investment. Foreign direct investment (FDI) refers to the net inflows of investment to gain a lasting management interest (10 percent or more of voting stock) in an enterprise operating within the host country's economy. It includes the total of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as reflected in the balance of payments. FDI not only provides developing countries like Nigeria with the necessary capital for investment but also boosts job creation, managerial skills, and technology transfer. All of these factors contribute to economic growth and development. To achieve this, Nigerian authorities have been working to attract FDI through various reforms (Obida & Abu, 2010).

Financial reforms in Nigeria began with the deregulation of foreign exchange through the creation of the Second-tier foreign exchange market (SFEM) in September 1986. In its 1995 budget, the federal government of Nigeria announced measures to improve the foreign investment climate in Nigeria. Specific steps taken include the repeal of two laws, namely the Exchange Control Act of

1962 and the Nigerian Enterprises Promotion Decree of 1989, which had restricted and discouraged foreign investors from accessing the capital market. To fully implement its policies, the government enacted the Nigeria Investment Promotion Decree No. 16 of 1995 and the Foreign Exchange (Monitoring and Miscellaneous Provisions) Decree No. 17 of 1995, along with the establishment of the Industrial Development and Coordinating Committee (IDCC) in 1988.

The importance of foreign direct investment (FDI) on economic growth cannot be overstated. FDI has been a vital source of investment financing, especially in developing countries like Nigeria. It has been regarded as a catalyst for economic growth and development (Korna, Tagher & Idyu, 2013). Regardless of its resources, FDI generates much-needed revenue for the host country and increases income in areas such as technology transfer, including technical know-how, skills acquisition, boosting the productivity of domestic firms, and human capital development, all of which can stimulate economic growth. Umah (2007) noted that FDI is attracted as a way to supplement domestic resources to effectively carry out development programs and improve the living standards of the people.

The inflow of foreign direct investment (FDI) into Nigeria from 2005-2020 shows that, since the recapitalization effort and the development of structural reforms aimed at supporting foreign investors, the net FDI inflow experienced a steady but slow increase from \$4.98 billion in 2005 to a peak of \$7.07 billion in 2012 (CBN, 2020). However, due to the negative impact of the global financial crisis, FDI flow declined from \$5.98 billion in 2013 to \$0.98 billion in 2018. The decrease in FDI inflows can be linked to shortages of foreign reserves, falling oil prices, rising external debt, inconsistent exchange rates, and insecurity (Ugwuegbe & Ezeaku, 2016).

Furthermore, FDI net inflows account for only a small percentage of the nation's Gross Domestic Product (GDP). Over a five-year period, the percentage of FDI to GDP was 2.83% in 2005, 1.67% in 2010, 0.85% in 2015, and 0.55% in 2020 (CBN, 2020). The results show that FDI's contribution to GDP has been fluctuating, with the highest in 2005. The fluctuations and consistent decline in FDI in Nigeria reflect changes in the country's political, social, and economic environment over the study period.

Some researchers believe that foreign direct investment positively impacts economic growth (Koojaroenprasit, 2012; Adeleke, Olowe, & Fasesin, 2014; John, 2016), while others argue that FDI has only a small, insignificant effect (Louzi, & Abadi, 2011; Ali & Hussain, 2017). Therefore, there is some controversy. The review of literature shows that there are significant variations in results from studies conducted in both developed countries and developing countries like Nigeria. Some of these studies did not use robust methodologies to analyze the data. This study, therefore, aims to evaluate the effect of foreign direct investment on economic growth in Nigeria.

LITERATURE REVIEW

Theoretical framework

The theory underpinning this study includes dependency theory and the Harrod-Domar growth model. Dependency theory was first introduced in two papers published in 1949 by Hans Singer and Raúl Prebisch. The theory posits that FDI has a detrimental long-term impact on economic growth. In the short term, any increase in FDI leads to higher investment and consumption, which

directly and immediately contribute to economic growth. However, as FDI accumulates and foreign projects become established, negative effects on the rest of the economy may emerge, slowing down economic growth. These effects are driven by the intervening mechanisms of dependency, particularly "decapitalization" and "disarticulation" (Aremu, 2005).

According to Aremu (2005), dependency theory holds that developing countries are poor because they have been systematically exploited through: imperial neglect; overdependence on primary products for export to developed countries; foreign investors' malpractices, especially through transfer pricing; foreign firm control of key economic sectors with the crowding-out effect on domestic firms; and reliance on foreign aid, which often worsens corruption and dependency syndrome. In this view, it is argued that FDI is exploitative and imperialistic in nature, ensuring that the host country becomes entirely dependent on the home country and its capital. (Anyanwu: 1998). Based on the foregoing, dependency theories believe that the involvement of developed countries in developing nations through FDI or other means cannot be expected to produce beneficial results for the developing economies.

Another theory, the Harrod–Domar growth model, suggests that there is no inherent reason for an economy to experience balanced growth. The model was independently developed by Roy F. Harrod in 1939 and Evsey Domar in 1946, although a similar model was proposed by Gustav Cassel in 1924. The Harrod–Domar model was a precursor to the exogenous growth model. The theory states that for an economy to grow, a portion of its GDP must be saved and invested. Although initially created to analyze the business cycle, the model was later adapted to explain economic growth. Its implications are that growth depends on the amount of labor and capital; more investment results in capital accumulation, which drives economic growth. The model has particular relevance for less economically developed countries like Nigeria, where labor is plentiful but physical capital is scarce, hindering economic progress. This theory is suitable for this study because economic growth largely depends on policies that promote foreign investment, increase savings, and utilize that investment more effectively through technological advances.

The empirical study on the impact of FDI and economic growth has attracted significant interest among economists. For example, Ogiogio (1995) reports negative contributions of public investment to GDP growth in Nigeria due to distortions. Aluko (1961) and Obinna (1983) find positive links between FDI and economic growth in Nigeria. Moudatsou (2003) examined the growth effects of foreign direct investment (FDI) in European Union (EU) countries while controlling for other growth factors. Using data from 1980 to 1996, the study estimated the growth effects of FDI for each country individually and by pooling data for the entire Union. Country-specific estimates suggest that growth drivers differ across EU members and that only past FDI inflows significantly impact growth. Interestingly, when data was pooled, the results showed that FDI positively affects the growth rate of EU economies both directly and indirectly (through trade strengthening). Moreover, unlike previous findings for developing economies, the study found that the growth impact of FDI was not dependent on the level of human capital in developed host countries.

Lyrouti, Papanastasiou & Vamvakidis (2004) investigate the existence and nature of the effect of FDI on the growth rate of a panel of transition economies, focusing on the US and Western European countries. The study uses Bayesian analysis. Results indicate that FDI does not have a

significant relationship with economic growth for the transition countries. Maji & Achegbulu (2011) examine the effect of foreign direct investment on economic growth in Nigeria. The data used were sourced from the Central Bank of Nigeria's statistical bulletin. The Ordinary Least Square (OLS) technique was used to estimate the relationship between foreign direct investment and economic growth over the period. The study shows that foreign direct investment has a positive impact on Nigeria's gross domestic product.

Olokoyo (2012) examined the effects of Foreign Direct Investment (FDI) on the development of the Nigerian economy. The study used the Ordinary Least Square (OLS) technique to analyze time series data from 1970 to 2007. The results clearly do not strongly support the idea of a robust link between FDI and economic growth in Nigeria, as suggested by previous literature. Although the result does not imply that FDI is unimportant, the model analysis lowers confidence in the belief that FDI has had an independent growth effect in Nigeria. Onyeagu & Okeiyika (2013) examined the relationship between FDI, HCD, and economic growth in Nigeria. The results show that FDI in Nigeria has a negatively insignificant impact on growth in the long run, indicating that FDI's contribution to Nigeria's economy is small over time. The negative, insignificant effect of human capital on overall growth in the long run suggests a shortage of skilled labor in the country. The ECM coefficient is -0.13 and is not significant, meaning that the speed of adjustment toward equilibrium is not at a moderate level.

Awe (2013) examined the impact of foreign direct investment on economic growth in Nigeria from 1976 to 2006 using the two-stage least squares (2SLS) method of a simultaneous equation model. The study's findings revealed a negative relationship between economic growth, measured by Gross Domestic Product (GDP), and Foreign Direct Investment (FDI), due to insufficient FDI flow into the Nigerian economy. Mehdi (2012) investigated the influence of foreign direct investment (FDI) on economic growth in Southern Asia from 1977 to 2009. The results show that foreign direct investment (FDI) has a positive and significant effect on economic growth, and variables such as human capital, economic infrastructure, and capital formation positively impact gross domestic product (GDP). However, population, technology gap, and inflation negatively affect economic growth.

Ugwuegbe, Okore & Onoh (2013) examine the relationship between Foreign Direct Investment and economic growth in Nigeria. The study covers the period from 1981 to 2009 using annual time series data from the Central Bank of Nigeria statistical bulletin. The Ordinary Least Squares technique was used to test the relationship between foreign direct investment and economic growth. The results indicate that FDI has a positive and insignificant impact on the growth of the Nigerian economy during the period studied. Gross fixed capital formation is positively and significantly related to economic growth. Interest rate has a positive and insignificant effect, while the exchange rate positively and significantly affects the growth of Nigeria's economy.

Saibu & Keke (2014) examined the impact of foreign private investment on economic growth using annual time series data from Nigeria. Co-integration and Error Correction Mechanism (ECM) techniques were employed to analyze the relationship between foreign private investment and economic growth. The results revealed substantial feedback of 116% and 78% from previous disequilibria between long-run economic growth and foreign private investment, respectively. Okafor, Ugwuegbe, & Ezeaku (2016) studied the relationship between foreign capital inflows and

economic growth in Nigeria over the period 1981-2014. Foreign capital inflows, represented by Foreign Direct Investment, Foreign Portfolio Investment, and Foreign Aid, were used, while economic growth was represented by Gross Domestic Product (GDP). The study utilized annual time series data from the CBN Statistical Bulletin, and the Toda-Yamamoto causality test was employed to examine the relationship between foreign capital inflow and economic growth in Nigeria. The results indicated that increases in foreign capital inflow led to a positive growth in GDP. Therefore, the government should develop policies and programs to boost foreign capital inflows, as this will accelerate economic growth.

Odo, Anoke, Nwachukwu, and Promise (2016) examine the impact of foreign direct investment on the growth of the Nigerian stock market from 1984 to 2015, using the Ordinary Least Square technique to estimate the variables specified in the regression model. The test results reveal a long-run equilibrium relationship between the dependent and explanatory variables. The findings from the VECM indicate that FDI and exports have a negative relationship with stock market growth both in the long and short run, while imports and gross capital formation are positively related to stock market growth in both periods. Based on these results, the study concludes that foreign direct investment has no significant impact on stock market growth in Nigeria.

Simionescu (2016) investigates the relationship between economic growth and foreign direct investment inflows in the European Union (EU-28) during the recent economic crisis. A panel data approach and Bayesian techniques are used to address the issue of limited data (2008–2014). The panel data methods, including a panel vector-autoregressive model and Bayesian random effect models, revealed a reciprocal and positive relationship between FDI and economic growth in EU-28 starting in 2008. The individual analysis based on Bayesian linear regressions found this trend to be specific to most of the EU-28 countries.

Uwubanmwun & Ogiemudia (2016) examine the effect of Foreign Direct Investment (FDI) on economic growth in Nigeria. Annual time series data covering the period from 1979 to 2013 were analyzed using the Error Correction Model (ECM) technique. Results reveal that Foreign Direct Investment (FDI) has both immediate and lagged effects on Nigeria's economy in the short run. Additionally, FDI has a non-significant negative effect on the Nigerian economy in the long run during the review period. Therefore, FDI has a significant positive impact on the growth and development of the Nigerian economy only in the short run during the period under review.

Ogbokor (2016) examines the influence of foreign direct investment on economic growth in Namibia using an annual dataset from 1990 to 2014. The study found long-run relationships among all the variables. The estimated long-run equation also indicates a positive association between the explanatory variables and real gross domestic product. In particular, net foreign direct capital was found to have a stronger influence on economic growth compared to openness and the real foreign exchange rate. Alabi (2019) investigated the impact of foreign direct investment on economic growth in Nigeria from 1986 to 2017. Descriptive and regression analyses were used as estimation techniques. The findings of the study revealed that foreign direct investment was positive and significant for Nigeria's economic growth, while domestic investment was also positive but not significant at the 5% alpha level. It was also concluded that the real interest rate and exchange rate were both positive; however, the real interest rate was not significant, while the exchange rate was significant in influencing Nigeria's economic growth.

METHODOLOGY

This study employed an ex-post facto research design. Annual time series data for the variables were obtained from the Central Bank of Nigeria Statistical Bulletin and the World Development Indicators. A desk survey method was used to compile the data covering the period from 1988 to 2020. The selected period was based on the official policy shift toward FDI in 1988, marked by the establishment of the IDCC. To achieve the main objective of this study, the model of Ayanwale (2007) was adapted with slight modifications. Therefore, the study model is presented as:

$$\text{RGDPCP} = f(\text{FDI}, \text{OPEN}, \text{GOVSIZE}, \text{INFL})$$

Specifically, given the time series nature of the model is written in its econometric form as:

$$\text{RGDPCP} = \beta_0 + \beta_1 \text{FDI} + \beta_2 \text{OPEN} + \beta_3 \text{GOVSIZE} + \beta_4 \text{INFL} + \Sigma_0$$

Where,

RGDPCP = real gross domestic product per capita

FDI = foreign direct investment, defined as $(\text{FDI}/\text{GDP} \times 100)$

OPEN = openness of the economy (total trade - GDP ratio)

GOVSIZE = government consumption as a ratio of GDP

INFL = the rate of inflation

A priori expectation: FDI and $\text{OPEN} > 0$; GOVSIZE and $\text{INF} < 0$.

In the study, the characteristics of the time series data used in the analysis were first evaluated using descriptive statistics and supported by a trend analysis of the variables. Then, the stationarity properties of the data are examined using the Augmented Dickey-Fuller test. The presence of a stationary linear combination from the non-stationary time series provides evidence to conduct the Johansen cointegration test, which can be interpreted as a long-run equilibrium. If the cointegration tests are of the same order, the error correction technique will be applied to investigate short-run effects.

DATA ANALYSIS, RESULTS AND DISCUSSIONS

Data Analysis

The results of the descriptive statistics are presented in Table 1, which shows that economic growth (RGDP) had an average of 4.831818 during the period from 1988 to 2020. Data indicates that Nigeria's highest RGDP was 14.6000 in 2002, while the lowest was -1.790 in 2020. The difference between the maximum and minimum values determines the data's range. The standard deviation for RGDP was 3.857031. For foreign direct investment (FDI), the minimum value was 0.049718, and the maximum was 6.24000, with a mean of 2.102774 and a standard deviation of 1.409513.

Further analysis of the descriptive statistics revealed that the average trade openness (OPEN) over the study period (1988–2020) is 36.20362, ranging between a minimum of 16.94061 and a maximum of 53.27796. The variable did not deviate significantly, as its mean value (36.20362) exceeds its standard deviation (9.096351) for the period. Additionally, the government size proxy for government expenditure has a mean value of 4.251202 with a standard deviation of 3.050894. Finally, the inflation rates' mean value is 20.83545, with a standard deviation of 18.48002, with

its lowest value of 3.610000 in 1990 and highest value of 76.76000 in 1994.

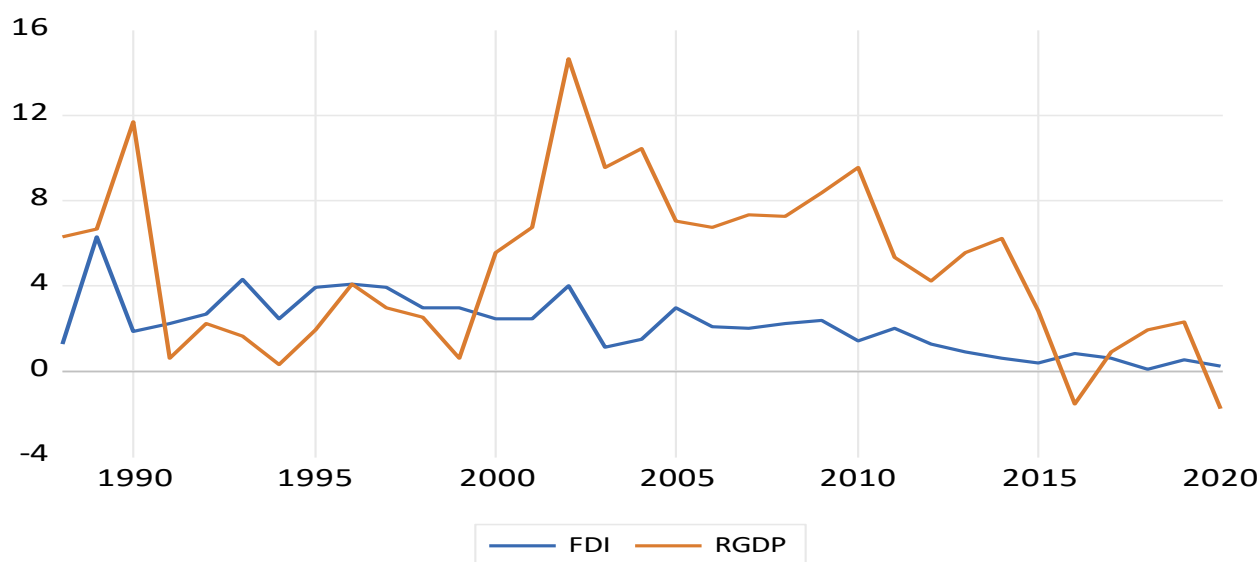
Table 1: Summary of descriptive statistics

	RGDP	FDI	OPEN	GOVSIZE	INF
Mean	4.831818	2.102774	36.20362	4.251202	20.83545
Median	5.310000	2.035419	36.05871	4.403315	12.60000
Maximum	14.60000	6.240000	53.27796	9.448340	76.76000
Minimum	-1.790000	0.049718	16.94061	0.911235	3.610000
Std. Dev.	3.857031	1.409513	9.096351	3.050894	18.48002
Skewness	0.394725	0.763003	-0.101101	0.415529	1.744995
Kurtosis	2.750915	3.516205	2.536194	1.660311	4.760099
Jarque-Bera	0.942253	3.568349	0.352002	3.417457	21.00721
Probability	0.624299	0.037936	0.838617	0.181096	0.000027
Observations	33	33	33	33	33

Source: E-views 12.0 statistical software

Furthermore, the analysis indicated that the measurement of skewness showed that RGDP, OPEN, and GOVSIZE were left-skewed (negatively skewed), while FDI and INF were positively skewed. The kurtosis coefficients for RGDP, OPEN, and GOVSIZE were below 3.00 (Platykurtic), indicating a flatter distribution, while FDI and INF had kurtosis values of 3.00 or above, suggesting they are peaked (Leptokurtic) relative to the normal distribution. The Jarque-Bera (JB) test measures the difference in skewness and kurtosis between the series and those of the normal distribution. The JB values 3.568349 and 21.00721 for FDI and INF are considered to pass the normality test, as their corresponding p-values are less than or equal to 0.05.

Figure 1: Trend behavior of RGDP and FDI in Nigeria



From Figure 1 above, the trend analysis of both foreign direct investment (FDI) and real gross domestic product (RGDP) in Nigeria (1988-2020) shows that FDI and RGDP, as indicators of economic growth, reach their peaks in 1989 and 2002 respectively. However, the level of foreign direct investments in the country experienced a sharp decline in 1990 and has since shown minimal growth. This indicates that the impact of FDI on economic growth has been insignificant, with considerable variation in the RGDP to FDI ratio. Additionally, the trend analysis reveals that RGDP has been fluctuating since the 1990s, reaching its lowest point in 2020; this decline could be attributed to the global COVID-19 pandemic in 2020.

Unit Root test

To address the problem of spurious regression, it is important to verify the time series properties of the data used in the estimation. It might be appropriate to test for the presence of a unit root in the series using the Augmented Dickey-Fuller (ADF) test to check for the stationarity of the variables (Brooks, 2008). Unit root tests are used to determine whether a time series is stationary. A time series is stationary if a shift in time does not alter the shape of its distribution; unit roots are one reason for non-stationarity.

Table 2: Augmented Dickey-Fuller – Unit Root test

Variables	ADF at Level		ADF at First Difference		Order of integration
	Test Stat	Prob	Test Stat	Prob	
RGDP	-2.456414	0.1353	-4.334135	0.0002*	I(1)
FDI	-0.479839	0.8818	-7.460612	0.0000*	I(1)
OPEN	-2.620819	0.1918	-5.112577	0.0002*	I(1)
SIZE	-0.874540	0.7832	-4.845054	0.0005*	I(1)
INF	-2.910610	0.0562	-4.418497	0.0015*	I(1)

Source: E-views 12.0 statistical software

The results in Table 2 (above) show that none of the variables is stationary at level. This is because the hypothesis of the presence of a unit root in each of the variables cannot be rejected, as the respective probability values of the variables are higher than the three standard significance levels (1%, 5%, and 10%). However, all the variables become stationary after the first difference, due to the low p-value of the test statistic, which led to rejecting the hypothesis of the presence of a unit root in the variables. This indicates that all the variables are cointegrated of the same order, specifically I (1).

Co-integration test

The VAR lag order selection criteria in Table 3 show that a lag length of 1 is chosen at the 5% level based on the Akaike Information Criterion (AIC), Schwarz Information Criterion (SC), and Hannan-Quinn Information Criterion (HQ), indicating that the VAR (1) specification is the preferred estimation model and provides a plausible description of the data.

Table 3: VAR lag order selection criteria

Lag formation	AIC	SC	HQ
0	23.16844	23.35527	23.22821
1	20.75621*	21.69034*	21.05504*
2	20.80074	22.48218	21.33865

* indicates lag order selected by the criterion (tested at 5% level each)

The results of the stationarity analysis shown in Table 2 indicate that all the modeled variables are integrated of the same order. Therefore, the study then applies the Johansen cointegration tests to examine the long-term relationships among the variables. The results for the Trace statistic tests are reported in Table 4 below.

Table 4: Johansen Co-integration Test
Unrestricted Co-integration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	0.05 Critical Value	t-statistics	Prob**
None*	0.749341	47.85613	54.73214	0.0379
At most 1	0.338241	29.79707	18.97329	0.4948
At most 2	0.170035	15.49471	6.174840	0.6749
At most 3*	0.012735	0.397327	3.841465	0.0285

Source: E-views 12.0 statistical software

The results of the trace rank tests indicate that 2 cointegration equations exist among the set of variables at a 5% significance level. It is clearly shown that the trace tests suggest at least one cointegration vector. This result indicates that at least two cointegration vectors exist among the dependent variable (RGDP) and all the independent variables (FDI, OPEN, SIZE, and INF). This implies that the long-run movements of the variables are governed by a single equilibrium relationship.

Error Correction results

The result of the Johansen cointegration tests indicates that there is a long-run equilibrium relationship in the model. This provides economic support for performing the error correction process, considering the different forms of the various time series variables plus lag values of the error term from the static level equation.

The error correction term indicates that 45% of the adjustment to the long-run equilibrium needs to be corrected each year. The Durbin-Watson result is 1.73, and since this value lies between 0 and 2, it suggests there is no autocorrelation among the successive values of the variables in the model. The Fisher's statistic is 3.6860 with a p-value of less than 0.05. This implies that the model is statistically significant. More precisely, this means that the independent variables collectively influence economic growth in Nigeria. The R-squared value of 51 percent shows that the independent variables explain about 51 percent of the variation in the dependent variable (RGDP).

Table 5: Error Correction results
Dependent Variable: D(RGDP)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.328319	0.522681	-0.628143	0.5354
D(FDI)	0.174843	0.354469	0.493252	0.0260
D(OPEN)	0.019565	0.061505	0.318120	0.7529
D(GOVSIZE)	-0.057300	0.418294	-0.136984	0.8921
D(INF)	-0.119383	0.037879	-3.151705	0.0041
ECM(-1)	-0.455991	0.154961	-2.943618	0.0048
R-squared	0.514815	Mean dependent var		-0.250625
Adjusted R-squared	0.402279	S.D. dependent var		3.454486
S.E. of regression	2.885521	Akaike info criterion		5.124689
Sum squared resid	216.4820	Schwarz criterion		5.399474
Log likelihood	-75.99436	Hannan-Quinn criter.		5.215745
F-statistic	33.68607	Durbin-Watson stat		1.735356
Prob(F-statistic)	0.011809			

Source: E-views 12.0 statistical software

Furthermore, the estimated least squares results in Table 5 showed that the coefficient of FDI was 0.1748, with a significant probability value of 0.0260. This indicates a positive and statistically significant effect of foreign direct investment on economic growth in Nigeria. Consequently, the changes in FDI over time lead to a considerable increase in Nigeria's economic growth. Therefore, higher FDI inflows into Nigeria are associated with a faster pace of economic growth. This finding aligns with the work of Maji & Achegbulu (2011) and Egbo (2010), but contradicts Lyrودي, Papanastasiou, & Vamvakidis (2004) and Onyeagu & Okeiyika (2013). The results also revealed that trade openness has an insignificant positive effect on Nigeria's economic growth, suggesting that increased trade openness could positively impact economic growth. This outcome supports our a priori expectation. The third hypothesis examined the effect of government size, measured by government consumption, on Nigeria's economy. It showed a negative, yet insignificant, effect on economic growth. Specifically, a one-unit increase in government expenditure is associated with approximately a 5.7% decrease in economic growth in Nigeria. This result is consistent with Alphonsus (2019), who concluded that government expenditure exerts a strong negative influence on economic growth.

Lastly, the regression equation of inflation with an estimated coefficient of -0.1193 shows a negative effect on economic growth in Nigeria and is statistically significant. This indicates that the inflation rate has both short-term and long-term implications on economic growth, exerting a negative effect in both periods. Therefore, a percentage change in INF will result in a

corresponding percentage decrease in economic growth in Nigeria. The results align with Ur Rahman (2014), who found that inflation has a negative and non-significant effect on economic growth in Nigeria.

CONCLUSION AND RECOMMENDATIONS

This study investigated the effect of foreign direct investments on economic growth, based on annual data spanning 33 years (1988-2020). The aim was to determine how foreign direct investment and other FDI-related variables such as trade openness, government size, and inflation rate have influenced economic growth in Nigeria. Historical data were collected and analyzed using the error correction technique. The study concluded that foreign direct investment and trade openness positively affected Nigeria's economic growth, although trade openness was statistically insignificant. Meanwhile, government size and inflation rate were found to negatively impact economic growth, with government size also being insignificant.

However, the empirical results of the Johansen cointegration test have indicated that there are at least two cointegrating factors among economic growth (RGDP) and the independent variables in Nigeria. This suggests that long-run movements of the variables are driven by one equilibrium relationship. The study therefore concludes that foreign direct investment positively affects economic growth both in the short and long term.

From the findings, the study makes the following recommendations for policy and practice:

1. Since FDI affects economic growth in both the short and long term, the government should focus on attracting FDI through investor-friendly policies and also promote programs that support economic growth.
2. The government and the monetary authorities should design policies and programs that will protect local industries and encourage the production of homemade products so as to effectively boost exports and, in turn, economic growth.
3. The government should implement economic measures to curb excessive spending and unnecessary expenditure, especially in unproductive sectors.
4. The monetary authorities have a critical role in controlling inflation by reducing the money supply, which will help lower the prices of goods and services in the economy, as well as boost foreign direct investment and economic growth.

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