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Impact of Foreign Direct Investment Inflows on Nigeria's Economic Performance (1981 to 2020)

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Abstract
The ARDL was used in this study to examine the impact of foreign direct investment inflows on Nigeria's economic performance from 1981 to 2020. The analysis starts with examining the stationarity of the data set using the Augmented Dickey-Fuller (ADF) unit root test. The Bounds test confirmed the existence of a negative association between FDI and the economy in the long run while in the short run, Portfolio Investment and Balance of Trade had a negative relationship on the economy and FDI maintained a positive relationship with the economy. Therefore the recommendations from this study are as follows Firstly, the government should ensure that the right economic and political environment is put in place for there to be some meaningful inflow of portfolio investment, secondly, the authorities in control should evaluate Nigeria's ease of doing business; currently, Nigeria ranks low; a higher ranking will encourage increased foreign involvement by bringing more FDI to Nigeria and thirdly government needs to grow the real sector of the economy. This will encourage export earnings, and improve our trade balance.
Keywords: Portfolio Investment, Economy, and Autoregressive Distributed Lag (ARDL)

Introduction

Theoretically and empirically, there exists a strong correlation between investment and economic growth in both developing and developed economies of the world. Foreign Direct Investment (FDI) which is an investment made to acquire lasting interest in enterprises operating outside of the economy of the investor has long been a subject of great interest globally. In an era of volatile flows of global capital, the stability of FDI and its emergence as an important source of foreign capital for developing economies has once again renewed interest in its linkages with sustainable economic growth. (Masanja, 2018; Olagbaju and Akinlo, 2018). Foreign direct investment represents a veritable source of foreign exchange and technological transfer, especially to a developing economy like Nigeria. It can be analyzed in terms of inflow of new equity capital (change in foreign share capital), re-invested earnings (unremitted profit), trade and supplier's credit, net inflow of borrowing and other obligations from the parent company or its affiliates (Nwankwo *et al*., 2013). Foreign direct investments consist of external resources, including technology, managerial and marketing expertise and capital. All these generate a considerable impact on the host nation's production capabilities. Kumar (2007), described FDI in several ways, first and most likely it may involve parent enterprises injecting equity capital by purchasing shares in foreign affiliates. According to the World Investment Report (UNCTAD, 2006) foreign direct investment occurs when an investor based in one country, home country, acquires an asset in another country the host country with the intent to manage the asset. Foreign direct investment is described as investment made to acquire a lasting interest (usually at voting stock) and acquire at least 10% of equity share in an enterprise operating in a country other than the home country of investors Mwilima (2003). Nigeria as a country, given her natural resources base, large market size, political stability and acceptable ease of doing business qualifies to be a major recipient of FDI in Africa, and in the last decade, Nigeria has been one of the three African countries to have received the highest inflow of FDI, (Morriact, 2010; Aisedu, 2013). The impact of foreign direct investment inflow on the economy is hardly felt by the poor of the society, there is a need to evaluate the performance of the inflow of FDI on some key indicators of the economy. Olagbaju and Akinlo (2018). The results of studies carried out on the linkage between FDI and economic growth in Nigeria are not unanimous in their submissions (Nwankwo *et al*,

2013). Due to this reason, it therefore becomes difficult to ascertain the direction of FDI and economic growth relationship in Nigeria. There are therefore limited country-specific studies to establish interactions between Foreign Direct Investment and Economic Growth. Nigeria's Government is putting so much effort into attracting foreign direct investments yet the economy is still dwindling. The Agricultural sector has been a loud recipient of foreign direct investment in Nigeria, but Nigeria remains a net importer of agricultural products and also a poor country. Efforts should be made towards monitoring FDI in the Agricultural sector because this sector has a more direct interface with the very poor in the society. Therefore, this study will make a concrete effort to examine the relationship between foreign direct investment inflows on Nigeria's economic performance. Saini and Singhania (2018) investigated the potential determinants of FDI in developed and developing countries based on panel data analysis using static and dynamic modelling for 20 countries (11 developed and 9 developing), over the period 2004–2013. They found that real GDP growth, per capita income, domestic inflation, commercial interest rates, trade openness, exchange rate and external indebtedness play a significant role in shaping the trends of foreign capital inflows.

Uwubanmwen and Ogiemudia (2016) examined the effect of foreign direct investment on economic growth in Nigeria using annual time series data covering the period 1979 to 2013. The data were analyzed using the Error Correction Model. The results reveal that FDI has both immediate and time lag effects on Nigeria's economy in the short run but has a non-significant negative effect on the Nigeria economy in the long run.
Anetor (2019) discovered that FDI accounted for the major volatility in Nigeria's economic growth. The Structural Vector Autoregression model (SVAR) was used to estimate quarterly data from 1961Q1 to 2016Q4 to assess the effects of shocks of private capital influx on the growth of Nigeria's economy. The outcome demonstrates that FDI and portfolio investment shocks' impact on Nigeria's economic growth is positively correlated. Akanegbu and Chizea (2017) claim that using the neoclassical production function with annual time series data from 1991 to 2014, the country's stake in global FDI is a small proportion despite the multiple changes. The study's findings, which evaluated the impact of FDI on Nigeria's economy using OLS, suggested that FDI had a marginally favourable impact on production productivity in that nation. Agrawal (2015) assessed the relationship between foreign direct investment and economic growth in the five BRICS economies, namely, Brazil, Russia, India, China and South Africa over the period 1989 – 2012. Cointegration and Causality analysis were applied. The results indicate that foreign direct investment and economic growth are cointegrated at the panel level, indicating the presence of a long-run equilibrium relationship between them. Results from causality tests indicate that there is long-run causality running from foreign direct investment to economic growth in these economies. Oto and Ukpere (2014) assessed foreign direct investments and economic development and growth in Nigeria over 41 years. They observed that there is a positive relationship between foreign direct investments and economic growth in Nigeria. They suggested that policies are required which will facilitate foreign direct investments into the Nigerian economy. Solomon and Eka (2013) investigated the empirical relationship between Foreign Direct Investment and economic growth in Nigeria. The work covered a period of 1981-2009 using annual data from the Central Bank of Nigeria statistical bulletin. A growth model via the Ordinary Least Square method was used to ascertain the relationship between FDI and economic growth in Nigeria. The result of the OLS techniques indicated that FDI has a positive but insignificant impact on Nigerian economic growth for the period under study. Koojaroenprasit (2012) explored the impact of foreign direct investment on the economic growth of South Korea using secondary data for the period 1980–2009. Multiple regression analysis was employed in the study. This study found that there is a strong and positive impact of FDI on South Korean economic growth. Furthermore, the study indicated that human capital, employment and export also have a positive and significant impact, while domestic investment has no significant impact on South Korean economic growth. He argued that the interaction effects of FDI- human capital and FDI-export indicated that the transfer of high technology and knowledge hurts South Korean economic growth. Roman and Padureanu (2012) found that FDI and capital endowments are positively correlated with GDP in Romania, but what was not expected was the fact that human capital was negatively correlated with GDP evolution. As the authors stated, the last fact is explained by the reduction of Romanian population in 1995-2004. Trang, Duc, Anh, and Thang (2019) use the VECM and FMOLS OLS models to examine the short- and long-run effects of FDI on economic growth in developing countries income groups for the years 2000–2014. Oyatoye, Arogundade, Adebisi, and Oluwakayode (2011) in a study of FDI, Export and Economic growth in Nigeria throughout 1987- 2006 found that there is a positive relationship between FDI and gross domestic product (GDP). The result further showed that one naira increase in the value of FDI will lead to an N104.749 increase in GDP. Alejandro (2010) explained that FDI plays an extraordinary and growing role in global business and economics. It can provide a firm with new markets and marketing channels, cheaper production facilities access to new technology products, skills and financing for a host country or the foreign firms which invest, it can provide a source of new technologies, capital processes products, organization technologies and management skills and other positive externalities and spillover that can provide a strong impetus to regional economic growth. Stanisic (2008) did not find any positive correlation between FDI inflows and economic growth rate in Eastern European transition countries. However, he gave an assumption that this particular region is in the middle of the transitional process and

FDI influence is not definite.

Khaliq and Noy (2007) studied the impact of foreign direct investment on economic growth using detailed sectoral data for FDI inflow to Indonesia over the period 1997 – 2006. The sectors examined are farm food crops, livestock product, forestry, fishery, mining and quarrying, non-oil and gas industry, electricity, gas and water, construction, retail and wholesale trade, hotels and restaurants, transport and communications, and other private and services sectors. According to their findings, at the aggregate level, FDI is observed to have a positive effect on economic growth. However, when accounting for the different average growth performances across sectors, the beneficial impact of FDI is no longer apparent. When examining different impacts across sectors, estimation results show that the composition of FDI matters for its effect on economic growth with very few sectors showing positive impact of FDI and one sector even showing a robust negative impact of FDI inflows (mining and quarrying). Ayanwale (2007) investigated the relationship between Non-extractive FDI and economic growth in Nigeria over the period 1970-2002. The study found that FDI has a positive link with economic growth, but cautioned that the overall effect of FDI on economic growth may not be significant. Also, the manufacturing sector FDI negatively affects the economy, reflecting the poor business environment in the country (Ayanwale, 2007). Ayadi (2007) in his study on FDI and Economic growth in Nigeria over the period 1980-2007 found that FDI has not contributed significantly to the explanation of output growth in Nigeria. The failure of FDI to generate the desired growth rate is attributed to the limited infrastructural development in Nigeria. He also found that FDI has some level of influence on the export of goods and services. Dauda (2007) found that whether FDI would promote growth depends on whether the country is adopting an import substitution strategy or an export promotion strategy. This researcher contends that once a country employs an export promotion strategy then FDI would promote economic growth and development through trade but if not, there would be an outflow of resources which would impair the country's growth promotion efforts. In the context of Nigeria, various empirical studies have been conducted to assess the impact of FDI on economic growth and development. Oyejide (2005) in a paper presented at CBN's 5th Annual Monetary Conference in Abuja provided a conceptual framework for the analysis of the macroeconomic effects of volatile capital flows. It concluded that capital flows have their advantages and disadvantages, but this depends on the initial conditions of the developing economy concerned. Capital flow can stimulate the growth of the real sectors when the initial conclusions are right. It could also retard growth due to macroeconomic shocks that could undermine the stability of the real sector and impose higher adjustment costs on the economy. The study recommended capacity building as a way of maximizing benefits and minimizing risks from capital flows.

Using panel regression analysis, Gherghina, Simionescu, and Hudea (2019) explored the connection between FDI influxes and economic development for eleven Central and Eastern European nations from 2003 to 2016. The actual findings backed up the theory of a nonlinear connection between FDI and GDP. The panel VECM and Granger causality test supported a one-way relationship between FDI and economic growth in the short run and a two-way connection bond between FDI and economic growth in the long run.

Using the "robust GMM" technique of estimation, Giwa, George, Okodua, and Adediran (2020) conducted a study to look into how FDI inflows can affect Nigeria's Real GDP. The analysis findings showed that while capital concentration had a negative and significant impact on RGDP, the influence of labour quality was positive and significant. The outcome did not show a stronger relationship between FDI and capital concentration as they advance the economy. The study suggested stepping up initiatives designed to draw FDI inflows to the productive sectors. Olorogun (2021) investigated a novel model for the Rwandan economy that describes the FDI-led growth hypothesis. The Johansen cointegration and ARDL methods were employed. Except for financial development from the banking sector, which was substantial in the short-run but negligible in the long term, other factors were shown to have a favourable influence on economic development. The long-term result portrayed that financial development wields a deleterious and substantial influence on FDI in Rwanda; while GDP and population generated a positive and significant effect.

Methodology

To examine the impact of foreign direct investment inflows on Nigeria's economic performance, this study employed *ex post facto* research design and Nigerian annual time series data from 1981 -2020, economic growth was proxied by the growth rate of GDP which is the dependent variable while FDI, Unemployment rate, Net Export, Exchange Rate, Portfolio Investment were used as the independent variables. Data were obtained from the Central Bank of Nigeria statistical bulletin (2021).

Model Specification

The model adopted for this study is drawn from the theoretical framework and the previous studies of Obadan (1999), Otepola (2002) and Ayanwale (2007). The rationale behind this is that both foreign direct investment and domestic investment have a positive effect on economic output. The model is to investigate the effect of foreign direct investment inflow on Nigeria's economic performance. Following the above theoretical framework, the model specified for this study is specified as follows.

$$GDP = f(FDI, ER, NEX, POINV) \ldots\ldots 1$$

$$GDP = \beta_0 + \beta_1 FDI + \beta_2 ER + \beta_3 NEX + \beta_4 POINV + Et \ldots\ldots 2$$

This model was modified below to capture the specific objectives of the study

$$GRGDP = f(FDI, ER, BOT, FPINV) \ldots\ldots 3$$

The econometrics specification is thus specified as

$GRGDP = \beta_0 + \beta_1 FDI + \beta_2 ER + \beta_3 BOT + \beta_4 FPINV + Et$ ……4

Where;

$\beta_1, \beta_2, \beta_3, \beta_4 > 0$

GRGDP Product	=	Growth Rate of Gross Domestic
FDI	=	Foreign Direct Investment
BOT	=	Balance of Trade
ER	=	Exchange Rate
FPIVN	=	Foreign Portfolio Investment
Ut	=	Error or Stochastic Term.

Model Estimation

The empirical investigation involves three steps. The first step examines the stationarity of the variables using the ADF unit root test. The second step is to test for the presence of long-run relationships between the variables. This study employed Auto Regressive Distributed Lag (ARDL) bound test procedure which was developed by Pesaran and Pesaran (1997) and improved upon by Pesaran *et al*. (2001) for the estimation. Auto Regressive Distributed Lag itself is based on the integration concept introduced by (Granger, 1981), along with Granger and Weiss (1983) which states that two or more series can form a long-run equilibrium relationship if they tend to move together over time even though each of the series is not stationary. Auto Regressive Distributed Lag has the advantage of being applied because it gives a better result for small sample data set as compared to other approaches (Engle and Granger, 1987; Johansen and Juselius; 1990 and Phillips and Hansen, 1990) to co-integration, and takes satisfactory lags that captures the data generating process into the general-to specific framework of specification (Laurenceson and Chai, 2003). The equation of the unrestricted Error Correction Model (ECM) is thus stated as:

$$\Delta GRGDP_t = + \sum_{i=1}^{rn} \beta_{1i} \Delta GRGDP_{t-1} + \sum_{i=0}^{rn} \beta_{2i} \Delta FDI_{t-1} + \sum_{i=0}^{rn} \beta_{3i} \Delta ER_{t-1} + \sum_{i=0}^{rn} \beta_{4i} \Delta BOT_{t-1} + \sum_{i=0}^{rn} \beta_{5i} \Delta FPINV_{t-1} + ECT_{t-1} + E_t \ldots\ldots\ldots \quad (5)$$

Where Δ is the first difference of a variable, m is the maximum lag order, $\beta_1 \ldots B_5$ are short-run coefficients, $\varphi_1 \ldots \varphi_6$ represents the long-run dynamics, t is the time trend and it is the white noise error. Diagnostic tests comprising the Breusch-Godfrey Serial Correlation LM test, and the Breusch-Pagan-Godfrey heteroskedasticity test were carried out. A cumulative Sum of Recursive Residual (CUSUM) was applied to ascertain the stability of the ARDL estimates.

Empirical Results and Analysis

Unit root test

Table 1 presents the result of the stationarity test using the Augmented Dickey-Fuller test. The result revealed that GRGDP and POIVN were stationary at level, that is, they were integrated at the order I(0) while the other variables; FDI, BOT and ER, became stationary after the first difference, that is, they were integrated at the order I(1). Since all the variables used for this analysis have a combination of I(0) and I(1), the ARDL bounds test was used to establish a short and long-run relationship among our variables of interest.

Cointegration Test: From Table 2, the calculated F-statistic of the variables is 5.135819 is higher than the upper bound critical value of 3.46 at the 5% level of significance using restricted intercept and no trend. This implies that the null hypothesis of no cointegration cannot be accepted at the 5% level of significance and this therefore confirms the existence of a long-run relationship among the variables of interest.

ARDL Long Run Result for the Estimated Model

Table 3 is the ARDL long-run result of the estimated model. The coefficient of FDI was found to be negative and statistically significant at 5% and 1% significance level implying that an increase in Foreign direct investment reduces the growth rate of GDP in the long run. This corroborates the work of Uwubanmwen and Ogiemudia (2016), that FDI exerts a negative effect on the Nigerian economy in the long run. The coefficient of the Exchange rate was found to be positive and statistically significant at a 5% level of significance in the long run. The coefficient of Balance of trade and Portfolio investment was found to be positive and statistically insignificant at a 5% level of significance.

ARDL Error Correction Model Estimates

The parsimonious error correction model (ECM) result presented in Table 4 is based on the ARDL (4, 4, 0, 1,1) model, which revealed that FDI after one lag period in the short run, maintained a positive and significant relationship with the economy at 1 percent level of significance. Foreign Portfolio Investment was found to have a negative and significant relationship with the growth rate of GDP in the short run. Implying that an increase in foreign portfolio investment results in a decrease in the growth rate of GDP. One can conclude that foreign portfolio investment should be given more attention. Balance of trade was found to have a negative and insignificant impact on the economy in the short run this is not similar to our a-prior expectation. The statistical fitness of the model was confirmed by the Adjusted R-squared which stood at 0.585644. This means that 58.56% of the variation in the growth rate of GDP is explained by the combined effects of all the explanatory variables used during the period of study. This suggests that about 41.44 percent of the variation in the growth rate of GDP is accounted for by factors not captured in the model. The result also shows that the ECT (-1) is negative and significant. The significance of ECT is evidence that causality runs in at least one direction. The ECT (-1) of -0.997831 is the speed of adjustment from the short-run equilibrium to the long-run equilibrium. This suggests that in a situation of short-run disequilibrium or deviation, 99.7831 percent of the adjustment to the long run takes place within one period either by the market mechanism, government intervention or both of them.

The stability of the parameters of the model was

examined using the cumulative sum of recursive residuals (CUSUM). The CUSUM line did not spread beyond the 5 percent critical line, confirming the stability of the long-run and short-run coefficients of the exogenous variables on Nigeria's economic performance during the period covered by the study. The Jarque-Bera normality test result showed that the model scaled through the diagnostic tests as the probability value of 0.506 was greater than 0.05 implying that the null hypotheses of the normal distribution are not rejected implying that the estimated parameters are stable over time and can therefore be used for the consistent forecast.

Conclusion

The ARDL bounds test was used in this study to examine the impact of foreign direct investment inflows on Nigeria's economic performance from 1981 to 2020, employing time series data from the Central Bank of Nigeria's Statistical Bulletin. The variables were subjected to unit root tests using the ADF. The test result showed that the growth rate of GDP and foreign portfolio investment attained stationary at the level, while foreign direct investment, the balance of trade and the exchange rate became stationary after the first difference. The bounds test confirmed the existence of a long-run association among the variables in the model. In the long run, FDI exerted a negative influence on the economy while the exchange rate impacted positively on the economy. In the short run Portfolio investment and Balance of trade had a negative relationship with the economy while FDI maintained a positive relationship with the economy.

The following insightful recommendations are given below.

v The government should ensure that the right economic and political environment is put in place for there to be some meaningful inflow of portfolio investment.

v The authorities in control should evaluate Nigeria's ease of doing business; currently,

v Nigeria ranks low; a higher ranking will encourage increased foreign involvement by bringing more FDI to Nigeria.

v The government needs to grow the real sector of the economy. This will encourage export earnings, and improve our trade balance.

References

Agrawal, G. (2015). Foreign direct investment and economic growth in BRICS economies: A panel data analysis. *Journal of Economics, Business and Management, 3(4), 421-424*.

Akanegbu, B. N., & Chizea, J. J. (2017). Foreign Direct Investment and Economic Growth in Nigeria: An Empirical Analysis. *European Journal of Research in Social Sciences, 5(1), 1-10*.

Anetor, F. O. (2019). Economic Growth effects of Private Capital inflow: A Structural VAR approach for Nigeria. *Journal of Economics and Development, 21(1), 18-29*.

Ayanwale, A.B. (2007). FDI and economic growth, evidence from Nigeria. AERC Research Paper 165, African Economic Research Consortium, Nairobi Balasubramanyam, V.N.

AYardi, F.S. (2007). Foreign direct investment. Available at http://www.allbusiness.com. Retrieved 1 16/4/2012

Alejandro D. B and Bautista A. D (2010) Conference FDI Mexico United States Canada NAFTA 2010. Central Bank of Nigeria statistical bulletin (2021).

Dauda, R. O.S. (2007) "The Impact of FDI on Nigeria"s Economic Growth: Trade Policy Matters". *Journal of Business and Policy Research Vol. 3, No.2, Nov —Dec.*

Engle, R. F., & Granger, C. W. J. (1987). Co-Integration and Error Correction: Representation, Estimation, and Testing. *Econometrica*, 55, 251-276.

Giwa, B. A., George, E. O., Okodua, H. and Adediran, O. S. (2020) Empirical analysis of the effects of foreign direct investment inflows on Nigerian real economic growth: Implications for sustainable development goal-17. *Journal of Cogent Social Sciences, 6(1), 1727621*.

Gherghina, S. G., Simionescu, L. N. and Hudea, O. S. (2019). Exploring foreign direct investment–economic growth nexus – Empirical evidence from central and eastern European countries. Sustainability, 11, 5421. doi:10.3390/su11195421.

Granger, C. W. J. (1981). Some Properties of Time Series Data and Their Use in Econometric Model Specification. *Journal of Econometrics, 16, 121-130.*

Granger, C.W.J. and Weiss, A.A. (1983) Time Series Analysis of Error-Correcting Models. In: Karlin, S., Amemiya, T. and Goodman, L.A., Eds., Studies in Econometrics, Time Series, and Multivariate Statistics, Academic Press, New York, 255-278.

Laurenceson, J. and Chai, J. C. H. (2003). Financial reforms and economic development in China. Cheltenham, UK, Edward Elgar., 1-28.

Khaliq, A. and Noy, I. (2007). "Foreign Direct Investment and Economic Growth: Empirical Evidence from Sectoral Data in Indonesia", University of Hawai'i, working paper.

Koojaroenprasit, Sauwaluck. (2012). The impact of foreign direct investment on economic growth: A case study of South Korea. *International Journal Business Science. Sci. 3: 8–19.*

Kumar A (2007): Foreign Direct Investment; Insights from the Federal Reserve Bank of Dallas; Vol. 2 No 1.

Masanja, C. R. (2018) The extent to which Foreign Direct Investment (FDI) contribute to the growth of host economies: evidence from Tanzania*, Business Management Review, 21(1), pp.1-22.*

Mwilima N. (2003) "Foreign direct investment in Africa" Labour Resources and Research Institute (LaRRI) South Africa

Nwankwo, O.G, Ademola, O. and Kehinde, O (2013). Effects of Globalization On Foreign Direct

Investment In Nigeria. *Lorem Journal of Business and Economics (LJBE) Volume 1 No 1 pp 11-17.*

Obadan, M.I. (1999), "Direct Investment in Nigeria: An Empirical Analysis," African Studies Review, vol. XXV, No.1.

Olagbaju, I. O. and Akinlo, A. E. (2018) FDI and economic growth relationship in sub-Saharan Africa: is the domestic financial system a significant intermediator? *Archives of Business Research, 6(5), 90-112.*

Olorogun, L. A. (2021). Revisiting the nexus of FDI-led growth hypothesis and economic development in Rwanda: A Johansen ARDL approach to cointegration. *Journal of the Knowledge Economy, Springer 21(1), pp.41-62*

Otto, G. and Ukpere, W. I. (2014). Foreign direct investments and economic development and growth in Nigeria. *Mediterranean Journal of Social Sciences, 5(2): 713-80.*

Oyejide, T.A. (2005). Capital Flow and Economic Transformation: A Conceptual Framework. Proceedings of Central Bank of Nigeria 5th Annual Monetary Policy Conference, Abuja, Nov. 10th and 11th.

Oyatoye, E. O., Arogundade, K. K., Adebisi, S. O., & Oluwakayode, E. (2011). Foreign direct investment, export and economic growth in Nigeria. *Journal of Humanities and Social Sciences, 2(1). 144-168*

Pesaran, M.H. and Pesaran, B. (1997) Microfit 4.0. Oxford University Press, Oxford.

Pesaran MH, Shin Y, Smith RJ (2001) Bounds testing approaches to the analysis of level relationships. *Journal of Applied Economics 16(3):289–326*

Roman, M and Padureanu. A (2012). Models of foreign direct investments influence on economic growth: Evidence from Romania. *International Journal of Trade Economics and Finance. 3: 25–29.*

Saini, N., & Singhania, M. (2018). Determinants of FDI in developed and developing countries: a quantitative analysis using GMM. *Journal of Economic Studies, 45(2), 348–382.*

Solomon, H.C and Eka, O.O (2013).Impact of foreign direct investment on telecommunication sector on Nigerian economy. *International Journal of Modern Social Sciences. 2(3): 195-215.*

Stanisic, Nedad. (2008). Do foreign direct investments increase the economic growth of Southeastern European transition economies? South-East. *European Journal of. Economics. 6: 29–38.*

Trang, D. T.-H., Duc, V. H., Anh, V. T., & Thang, N. C. (2019). Foreign Direct Investment and Economic Growth in the Short Run and Long Run: Empirical Evidence from Developing Countries. *Journal of Risk and Financial Management, 12(176), 1-11.*

Uwubanmwen, A. E., & Ogiemudia, O. A. (2016, March). Foreign Direct Investment and Economic Growth: Evidence from Nigeria. *International Journal of Business and Social Science, 17(3),1-15.*

UNCTAD (2019) World Investment Report 1999: Foreign Direct Investment and the Challenge of Development. New York and Geneva: United Nations Conference on Trade and Development.

Table 1. Unit Root test results Summary using the ADF Procedure.

Variables	ADFTest Statistics	Critical Values	Order of Integration
GRGDP	-3.020593	-2.941145	I(0)
FDI	-6.975493	-2.943427	I(1)
BOT	-5.160664	-2.943427	I(1)
ER	-5.064865	-2.941145	I(1)
POIVN	-3.016165	-2.941145	I(0)

Note: The test includes both Trends and Intercepts and all at a 5% level of significance
Source: Own computations (E-Views output)

Table 2: ARDL Bounds Test for Co-integration Model

Test Statistic	Value	Significance	I(0)	I(1)
F-statistics	5.135819	10%	2.2	3.09
K	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

Source: Computed Result Using (E-Views 12)

Table 3: ARDL Long Run Result for the Estimated Model. Dependent Variable: GRGDP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI	-1.14E-08	3.93E-09	-2.910316	0.0084
ER	0.037283	0.014944	2.494881	0.0210
BOT	5.22E-11	6.32E-11	0.825870	0.4182
PTINV	-7.80E-10	4.10E-10	-1.900590	0.0712
C	3.792710	1.191203	3.183932	0.0045

Source: Computed Result Using (E-Views 12)

Table 4: ARDL Error Correction Model Result for the Estimated Model

Dependent Variable: GRGDP				
Variable	**Coeff.**	**Std. Error**	**t-Statistic**	**Prob.**
D(GRGDP(-1))	-0.098293	0.133341	-0.737155	0.4692
D(GRGDP(-2))	0.120795	0.131754	0.916822	0.3696
D(GRGDP(-3))	0.081878	0.117709	0.695598	0.4943
D(FDI)	-1.39E-09	1.41E-09	-0.983189	0.3367
D(FDI(-1))	1.21E-08	2.33E-09	5.184654	0.0000
D(FDI(-2))	1.16E-08	2.49E-09	4.662916	0.0001
D(FDI(-3))	7.03E-09	2.51E-09	2.806723	0.0106
D(BOT)	-4.61E-11	7.07E-11	-0.651132	0.5220
D(FPINV)	-4.59E-10	1.99E-10	-2.300166	0.0318
ECM(-1)*	-0.997831	0.161547	-6.176714	0.0000

Source: Computed Result Using (E-Views 12) R^2_{adj} ***= 0.58, D.W = 2.27***

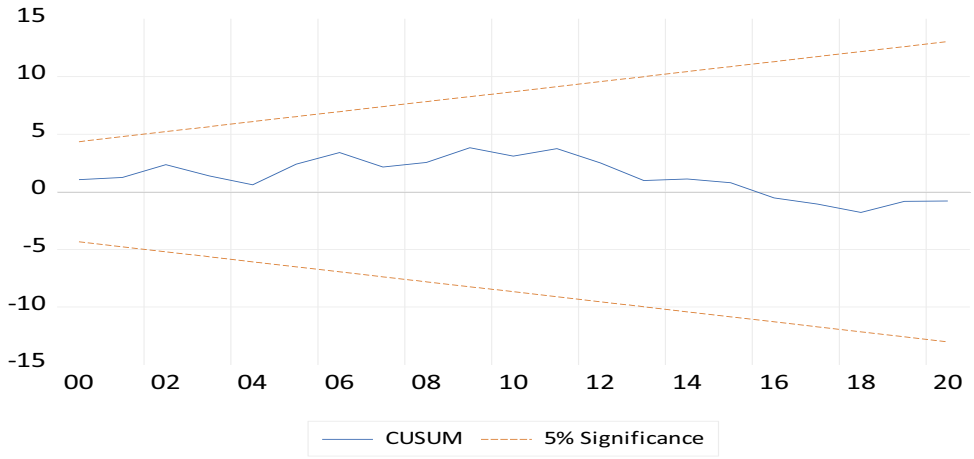
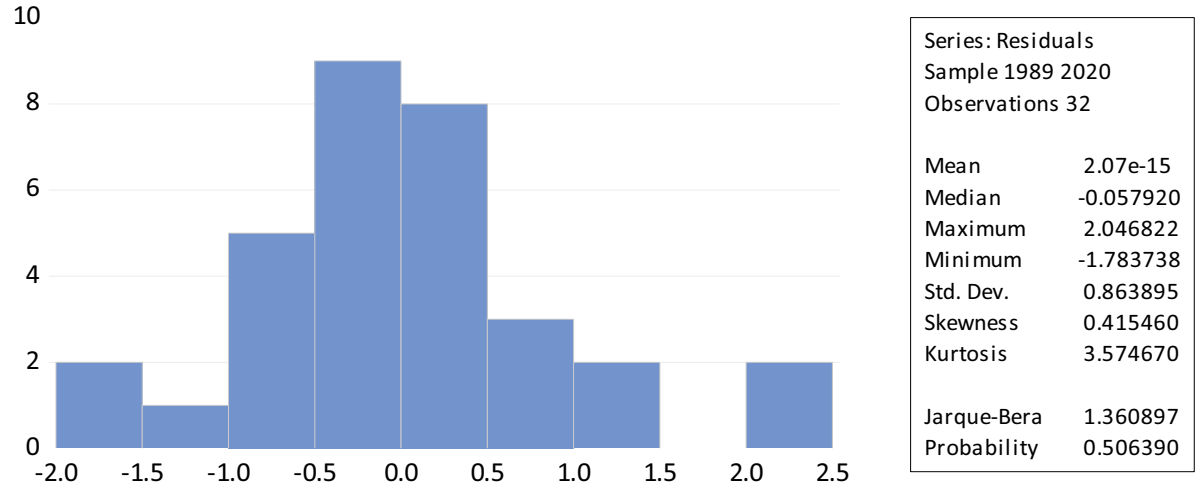


Figure 1: CUSUM Test of Stability
Source: Computed Using (E-Views 12)



Source: Computed Using (E-Views 12)
Figure 2. Normality Test.