

Attainment of Economic Growth in Developing Countries: A Comparative Analysis of Foreign Direct Investment Inflows in Ghana and Nigeria

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Abstract

This study assessed the nexus between foreign direct investment and economic growth in Ghana and Nigeria over the period of 33 years (i.e 1990-2022). It uses secondary source of data. The variables such as foreign direct investment, control of corruption, government effectiveness and real gross domestic product (proxy of economic growth) were employed in the study. The data were collated from World Development Indicator, 2023. The techniques such as descriptive statistics, correlation analysis, co-integration test, and Autoregressive Distributed Lag (ARDL) were conducted to analyze the data. The results of ARDL show the presence of short run interaction between foreign direct investment and real gross domestic product of Ghana while the result of long run interaction is inconclusive. However, long run relationship exists between foreign direct investment and real gross domestic product of Nigeria. As a result, the short run disequilibrium is corrected in the long run at 1% as reported by ECM. The study concluded that the relationship between foreign direct investment and economic growth in Ghana is found in the short run while that of Nigeria exists in the long run. It was therefore recommended among others that Ghanaian government should keep creating conducive environment for business and formulate favourable investment policy to attract investors into the country. In Nigeria, the policy makers should lessen the stringent conditions of property registration and tax payment as pointed out by the World Bank. This will help to create better atmosphere for businesses, thereby increasing the volume of the FDI inflows into the country.

Key words: Direct investment; Corruption; Growth; ARDL; Policy

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1. INTRODUCTION

In recent time, African nations have been constantly seeking for the attraction of foreign investments into their countries due to its contributions towards local production, job creation and rapid economic growth (Osabohien et al, 2020). Foreign investments also act as an indispensable source of financing deficit current account and reduce high level of poverty. These investments do not only augment domestic economic output but also cater for sudden decline in foreign aids (Fosu, Bondzie & Okyere, 2014). This is why Ghana's and Nigeria's government outcries for the foreign investments, especially foreign direct investment inflows.

As part of the governments' efforts, several economic reforms were introduced by the Nigeria government in the mid-1980s while Ghana implemented policies of Investment Promotion Act of 1994. These were done to safeguard the interest of the investors and to also create conducive atmosphere for foreign investments (Owusu, 2019). Most of these reforms and policies were designed to attract investments, create employment opportunities and enhance economic growth (Okoro & Atan, 2014).

Although African countries, especially the aforementioned countries have been seen by several researchers as the major destination for foreign investments, the economies of these countries are characterized by unemployment and slow growth (Okoro & Atan, 2014). In Nigeria for instance, the prolonged state of insecurity and surge inflation have been major obstacles. Since 2016, the Nigeria's inflation rate has continued to swing on double digits with the current rate

estimated at 28.9% as at November, 2023. However, Ghana's inflation has reduced from 43.1% reported in July to 26.4% in November, 2023 (Trading Economics, 2023). In term of ease of doing business, Nigeria is the most difficult nation in Sub Saharan Africa in terms of property registrations. Among forty-eight (48) African countries tracked by the World Bank, Nigeria was ranked 48th in 2020 and 131st in the World while Ghana stood at 118th globally. Thus, Ghana fares better in terms of property registration, tax payment, good electricity and ease of doing business than Nigeria (TheCable, 2021).

Prior to this study, several studies have been carried out to prove the significance influence of direct investment inflows on economic growth of developing countries. Among these studies are Oyegoke and Aras (2021), Kulu, Mensah and Sena (2021), Samantha and Haiyun (2018), Owusu-Antwi, Antwi and Poku (2013) yet a conclusive results had not been reached. Weak institutional quality has also been pointed out by the previous studies as the hinder factor for the growth process of these two countries. These challenges coupled with the claims of Nigeria as the giant of Africa necessitate the renew

interest on the comparative analysis of foreign direct investment and economic growth in Ghana and Nigeria.

2. LITERATURE REVIEW

Direct investment popularly known as foreign direct investment is an investment into production of goods or services by corporate entity or individuals either by purchasing a firm or expanding the existing business operations (Babasanya, 2018). It is based on economic activities over a long period where profit repatriation can only occur whenever the project accrue huge incomes. It also provides firms with modern marketing channels, cheap production, technology, and products/service financing.

In the host country, FDI is a new source of capital, technology, skills, and also serves as instrument for the growth of developing economies. Direct investment consists of international resources, including managerial technology, marketing expertise and financial resources (World Bank (2018). All these factors influence the recipient country productive capacities. Hence, the FDI inflows into Ghana and Nigeria can be explained in Figure 1.

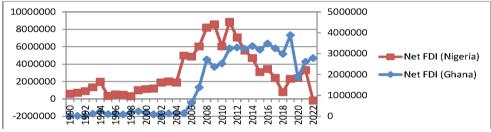


Figure 1 Comparison of Net FDI Inflow between Nigeria and Ghana

To avoid spurious trends, the value of net FDI inflows was divided by \$1000 since the data reported by the World Development Indicators (WDI) is in US Dollars. The figure shows that there are huge net inflows of FDI into Nigeria than Ghana. In 1990, while Nigeria poses \$587,883, Ghana has \$14,800 net FDI inflows. The difference between the two countries continued until 2015 when the net FDI inflows into Nigeria stood

at \$3,064,169 compared with Ghana's net FDI inflows of \$3,192,321. The period marked the era of economic recession that hit Nigeria economy coupled with the sharp decline in the value of Nigerian naira. Since then, Ghana had overthrown Nigeria in net FDI inflows until 2020. Surprisingly, Nigeria experienced the worst FDI inflows with a negative trend in 2022 while its counterpart continues rising (WDI, 2023).

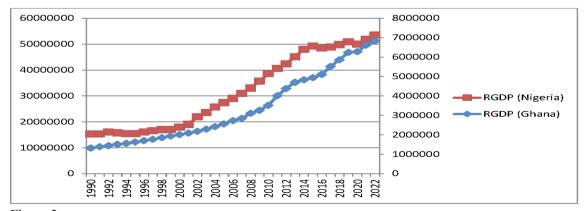


Figure 2 Comparison of RGDP between Nigeria and Ghana

On the other hand, economic growth was explained by Okpara (2006) as an upsurge in a country's national income, which reflects in the capacity of producing goods and services over a specific period of time. Anyanwu (1996) sees growth as an increase in economic output regardless whether it is on a smaller or larger population growth. Basically, the growth is often measured by Gross Domestic Product (GDP). This is because GDP is viewed as the market price of goods and services in a year (Sullivan & Sheffrin, 1996). Hence, the flow of real gross domestic product of Ghana and Nigeria over the years is further explained in Figure 2.

As expected, the economic output of Nigeria exceeds its counterpart for several years. The gap between the two countries in terms of RGDP could be as a result of the size and productivity of the country. This is evidence that foreign direct investment efficiently complemented local industries to boost the production of goods and services in Nigeria over a certain period of time.

On the theoretical ground, this study rests on the tenets of eclectic hypothesis advocated by Dunning (1993) and Cobb-Douglas Production theory. The former is centered on three factors, including ownership specific, location specific and internalization advantages. The proponent argued that these three factors are very essential for foreign investments. As regards the ownership specific, asset of a firm create avenue for successive competition in the global market despite the high cost of foreign affiliation and dearth of technology. Thus, the existence of ownership advantage is important for creating market competition (Sean-Leigh, 2007). Furthermore, resources endowments, marketing skills, technology advantage and effective organizational system have been outlined by Shenkar (2007) as the major attributes of ownership advantage. Location specific involves the advantage of good infrastructure, abundant labour force, and large markets that could be offered by the host country to a multinational corporation while internalization advantage emanates when it is convenient to exploit ownership and location advantages via FDI. Multinational corporations have opportunity of exploiting ownership advantage which arises from full knowledge of product marketing. Succinctly, location advantage is directed to the host country, while ownership and internalization advantages are investors' specific determinants. On the other hand, Cobb-Douglas only pointed out the interaction between factor inputs and economic outputs with the use of a model. It explains technological relationship between countries' productivity and inputs (such as capital and labour) over a certain period of time.

Empirically, the study of a direct investment and economic growth was carried out by Oyegoke and Aras (2021) in Nigeria using regression analysis. The variables of interest (such as foreign direct investment inflow and outflow) were regressed against GDP. The findings indicate that direct investment has a positive and

significant influence on growth. It was therefore suggested that the inflow of FDI into the country, at least 80percent total content should be emphasised and closely monitored. Ebire, Onmonya and Ekemini-Inim (2018) assessed the determinants of direct investment in Nigeria over a period of 1986 – 2017. The study employs secondary data and conducted analysis via co-integration and error correction model. The findings reflect the presence of a long run interaction among the variables of interest. Thus, it was recommended that government should at all levels tackle the menace of insecurity in the country, thereby creating conducive atmosphere for FDI inflows.

In Ghana, Kulu, Mensah and Sena (2021) evaluated the influence of institutional quality on the nexus between direct investment and economic growth using Auto Regressive Distributed Lag (ARDL) technique for the data collated over the period of 1995 to 2019. It was found that direct investment and quality institutional index significantly and positively influence the country's economic growth both the short and long run. The study therefore suggested that government policies should centered their policies on foreign investment inflow and also strengthen institutions and regulations to complement the policies so as to enhance output growth. Owusu (2019) examined the influence of direct investment on the growth of Ghana's economy between 1980 and 2012. The study also employs ARDL approach as a tool of analysis. The finding shows that government expenditure and direct foreign direct investment positively influence growth while trade openness and inflation exhibit negative impact on Ghana's economic growth. Foreign investment inflow inflows to manufacturing and agricultural sector positively and significantly impact growth while service reflects a positive and significant impact only in the short period but a negative and insignificant in the long period. Conclusively, only FDI inflow to manufacturing sector is the most impactful investment.

3. METHODOLOGY

The research employed secondary source of data. The source of data was used in line with the work of Oyegoke and Aras (2021) and Kulu, Mensah and Sena (2021). The data such as real gross domestic product (proxy of economic growth), net foreign direct investment inflows and institutional variables such as control of corruption and government effectiveness over the period of 33years (1990-2022) were captured in this study. The real gross domestic product was chosen because it has been adjusted for inflation unlike other indicator of growth such nominal GDP. Also, the real GDP was reported by the World Bank (2023) as the true measure of growth. The data were culled from World Development Indicator (WDI) and also analyzed by adopting Autoregressive Distributed Lag (ARDL) techniques.

This study is modeled after the work of Owusu (2019) and also uses Cobb-Doglas model as a basis. This is because the model explains the nexus between output and inputs which is the main focus of this study. Thus, the Cobb-Doglas model is specified as:

$$Y = Al\alpha K\beta(1)$$

Here Y represents aggregate output, which is often influenced by K (capital) and L (labour). A implies total factor productivity which is also known as constant while α and β represent elasticity of labour and capital.

The study substituted Y for Real Gross Domestic Product (RGDP) and inputs as foreign direct investment,

and institutional variables such as control of corruption and government effectiveness. The study only employs foreign direct investment and institutional quality because some of the previous literatures have captured several influencing variables like exchange rate, trade openness, inflation rate among others. Hence, the model is given as:

$$RGDP = f(FDI, GE, CO) (2)$$

$$RGDP = \beta_0 + \beta_1 FDI + \beta_2 GE + \beta_3 CO + \mu (3)$$

The model is further written in ARDL form:

$$\Delta RGDP = \alpha_0 + \sum_{t=1}^{p_1} \alpha_1 \Delta RGDP + \sum_{t=1}^{p_2} \alpha_1 \Delta FDI_{t-1} + \sum_{t=1}^{p_3} \alpha_2 \Delta GE_{t-1} + \sum_{t=1}^{p_4} \alpha_3 \Delta CO_{t-1} + \beta_1 RGDP_{t-1} + \beta_2 FDI_{t-1} + \beta_3 GE_{t-1} + \beta_4 CO_{t-1} + \lambda ECM_{it-1} + \mu$$
 (4)

Where, RGDP implies Real Gross Domestic Product; FDI represents Net Foreign Direct Investment inflows; GE implies Government Effectiveness; CO means Control of Corruption; β_0 denotes constant term; α_1 - α_4 implies short-run coefficient; β_1 - β_4 is the long-run coefficient; and μ is the Error term

4. RESULTS AND DISCUSSION

4.1 Presentation of the Results

Table 1 Descriptive Statistics

	Ghana			Nigeria				
-	RGDP	FDI	GE	CO	RGDP	FDI	GE	CO
Mean	3346891.	1476239.	-0.158149	-0.152039	31588007	2985887.	-1.044036	-1.156906
Median	2729234.	636010.0	-0.155915	-0.110554	29057542	2005354.	-1.019901	-1.104557
Maximum	6829220.	3879831.	0.085353	0.038148	53533603	8841062.	-0.901513	-0.900949
Minimum	1316734.	14800.00	-0.356408	-0.368746	15317878	-186792.4	-1.204817	-1.502068
Std. Dev.	1774070.	1460430.	0.115424	0.122291	14300767	2627407.	0.091286	0.140687
Skewness	0.605153	0.267970	0.284546	-0.383689	0.209839	0.874262	-0.257805	-0.813495
Kurtosis	1.958758	1.283971	2.455486	2.004060	1.412210	2.595842	1.910220	3.224250
Jarque-Bera	3.504911	4.443983	0.620361	1.580767	3.708658	4.428436	1.453473	2.697385
Probability	0.173348	0.108393	0.733315	0.453671	0.156558	0.109239	0.483484	0.259579

Source: Author's Computation and Eviews

Table 2 Correlation Analysis

Ghana			Nigeria					
Var	RGDP	FDI	GE	CO	RGDP	FDI	GE	CO
GDP	1.000000	0.792490	-0.315259	0.350191	1.000000	0.117017	-0.461575	0.513736
DI	0.792490	1.000000	-0.167013	0.520555	0.117017	1.000000	-0.176276	0.309807
GE	-0.315259	-0.167013	1.000000	0.503203	-0.461575	-0.176276	1.000000	-0.348075
СО	0.350191	0.520555	0.503203	1.000000	0.513736	0.309807	-0.348075	1.000000

Source: Author's Computation and Eviews

Table 3 ADF Unit Root Test

	Gh		Nigeria		
Var	I(0)	I(1)	I(0)	I(1)	
RGDP	-	-3.0274 0.0433**	-	-2.8978 0.0571*	
FDI	-	-7.4145 0.000***	-	-5.9758 0.000***	
GE	-3.7253 0.0125**	-	-3.1083 0.0421**	-	
СО	-2.0443 0.0419**	-	-	-4.1555 0.0051***	

^(*) Significant at the 10%; (**) Significant at the 5%; (***) Significant at the 1%

Source: Author's Computation and Eviews

Table 4 Cointegration Test Ghana: Trace Test

Hypoth	nesized	Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.866960	54.98625	47.85613	0.0093
At most 1	0.423102	16.66125	29.79707	0.6649
At most 2	0.240109	6.209559	15.49471	0.6708
At most 3	0.050897	0.992526	3.841466	0.3191
Nigeria: Trac	e test			
Hypotl	hesized	Trace	0.05	

Hypothesized			Trace	0.05	
No. of C	CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *		0.823966	69.95377	47.85613	0.0001
At most	1 *	0.573563	36.94929	29.79707	0.0063
At most	2 *	0.451959	20.75577	15.49471	0.0073
At most	3 *	0.387988	9.329077	3.841466	0.0023

Source: Author's Computation and Eviews

Table 5
ARDL Short Run and Long Run Results

		Ghana		Nigeria			
Var	Coeff	Std Error	Prob	Coeff	Std Error	Prob	
RGDP(-1)	1.002905	0.022949	0.0000	0.988039	0.017804	0.0000	
FDI	0.127765	0.037379	0.0031	0.065065	0.118071	0.5884	
FDI(-1)	-0.063396	0.038108	0.1135	0.220061	0.123314	0.0912	
GE	147322.3	264180.7	0.5839	-814280.2	2149060.	0.7092	
CO	-146481.4	273791.6	0.5992	-3545722.	1520934.	0.0316	
C	61874.69	76199.73	0.4274	-4086527.	3119519.	0.2067	
R^2	0.99			0.99			
Adj R ²	0.99			0.99			
F-Stats	1355.192		0.000000	1078.360		0.000000	
Bound: F-Stats	3.37			4.57			
5% Lower	3.23			3.23			
Upper	4.35			4.35			
ECM				-0.01	0.02	0.51	
Heterosked	0.0664					0.2450	

Source: Author's Computation and Eviews

4.2 Discussion of Results

Table 1 presents the attributes of the variables employed in the study. The mean and median of the data series indicate high level of consistency as it was found in the above results. As expected, the mean and medium of Nigeria's RGDP exceeds that of its counterpart. The mean value of Nigeria's RGDP is 31588007 while that of Ghana indicates 3346891 over the period under study. Nevertheless, the two values are the highest values among other variables of study, followed by the Foreign Direct Investment (FDI). This is an indication that RGDP and FDI are the major indicators of determining economic progress and development across the globe. The standard deviation which measures the degree of fluctuation

shows high value for RGDP in the two countries. It is not surprising because economic condition (recession or boom) is the most volatile variable. A slight change in economic policy will affect all economic activities, thereby influencing the extent of growth a country can achieve. Hence, in these two countries, all the variables of study (RGDP, FDI, GE, CO) are moderately skewed because their values are tending towards zero. Furthermore, all the series are normally distributed as reported by Jarque-Bera results of the Ghana and Nigeria.

Table 2 shows the results of correlation test. This statistics assess the extent of collinearity among the variables under study. Among the regressors, only the government effectiveness shows a negative and

low correlation with other variables in both countries. Deductively, the model is freed of multicollinearity problem.

In an attempt to ensure proper utilization of analytical technique, all the data were subjected to a unit root test using ADF method. As shown in the Table 3, In Ghana, government effectiveness and control of corruption are stationary at level I(0) while real gross domestic product and foreign direct investment are stationary at first difference I(1). However, in Nigeria, only government effectiveness is stationary at I(0) while others are stationary at I(1) considering 1%, 5% and 10% level of significance Thus, the model is suitable for ARDL approach and also expected to be freed of spurious results.

In Table 4, the results of Trace Cointegration tests were reported. As captured in the table, only one cointegrating equation was discovered in Ghana. However, the long run interactions among the variables of study were confirmed in the Nigeria's results. Thus, there is need to re-establish these results using Autoregressive Distributed Lag (ARDL) technique.

Table 5 presents the coefficient of RGDP proxy of economic growth and the regressors. In Ghana, the coefficients of foreign direct investment and government effectiveness have positive relationship with RGDP. This implies that a unit increases in each of the variable will boost Ghana's economy. However, the lag1 of FDI and corruption have negative influence on RGDP in the short run. That is, as each of these variables increase by a unit, RDP will drop by 0.06 and 146481 units respectively. Among all the explanatory variables, only foreign direct investment has a significant impact on economic growth of Ghana over a short period of time. These results corroborate the findings of Kulu, Mensah and Sena (2023). However, the ARDL bound test shows that the long run result of Ghana is inconclusive because the f-stats result of 3.37 fall within upper and lower bound values.

In Nigeria, foreign direct investment, and lag 1 of FDI have positive interaction with RGDP. However, government effectiveness and control of corruption have negative relationship with RGDP. This implies that a unit rise in FDI and lag 1 of FDI will upsurge Nigeria's economy over the specific period. However, a unit increase in corruption will worsen Nigerian economic condition. From the results, it was discovered that foreign direct investment has no significant impact on economic growth in Nigeria in the short run while control of corruption is impactful. In the long run, the ARDL bound test reported that foreign direct investment has effective interaction with economic growth in Nigeria as indicated by F-stats of 4.57 which exceeds upper bound value of 4.35. This result was in line with the outcome of the research conducted by Ebire, Onmonya and Ekemini-Inim (2018). This result also confirmed the findings of cointegration test which specify that long run relationship

exists among the variables. As a result, error correction model was conducted and about 1% disequilibrium error was corrected but not significant in achieving long run equilibrium over the period. The study also conducted diagnostic test using Heteroskedaisity test. It was observed that the results are freed of heteroskedaisity problem.

5. CONCLUSION AND RECOMMENDATIONS

From the findings, it was specified that direct investment has a short run impact on Ghana's economy and the outcome of the long run relationship is inconclusive. The study therefore concluded that only short run interaction exists between foreign direct investment and economic growth in Ghana. However, the study concluded that there is a significant relationship between direct investment and Nigeria's economic growth in the long run. Hence, the study suggested as follows:

i. Following the assertion that FDI only contributes to economic growth of Ghana in the short run, the Ghanaian government should keep creating conducive environment for business and formulate favourable investment policy to attract more foreign investors into the country as this will play a significant role in the long run.

ii. Both Ghanaian and Nigerian governments should jack up their efforts in fighting corruption and improve the quality of the institution due to its active influence in attracting foreign investment or capital into the country.

iii. Sequel to the confirmation of long run influence of foreign direct investment on Nigerian economy, the policy makers should lessen stringent conditions of property registration and payments of taxes as pointed out by the World Bank. This will help to create a favourable atmosphere for business, thereby increasing the volume of the FDI inflows.

iv. Finally, countries crying out for an upsurge in foreign investments should maintain stable electricity as part of the role of public institutions. The challenges of power shortage, especially in Nigeria should be rectified as this will motivate the investors to remain and increase the level of investment in the country.

REFERENCES

Anyanwu, J. C. (1996). *Monetary economics: Theory, policy and institutions,* (1st ed.). Lagos: Hybrid Publishers Limited.

Babasanya, A. O. B. (2018). Foreign direct investment and employment generation in Nigeria. *Journal of Economics and Sustainable Development*, 9(4), 42-47

Ebire, K., Onmonya, O. L., & Ekemini-Inim, V. (2018). Effect of the determinants of foreign direct investment in Nigeria: Error correction mechanism. *Journal of Global Economics*, 6(4) 1-7

Fosu, G. O., Bondzie, E. A., & Okyere, G. A. (2014). Does foreign direct investment really affect Ghana's economic

- growth?. International Journal of Academic Research in Economics and Management Sciences, 3(1), 148-158
- Kulu, E., Mensah, S., & Sena, M. (2021). Effects of foreign direct investment on economic growth in Ghana: The role of institutions. *Economic of Development Journal*, 20(1), 23-34
- Okoro, H. M. & Atan, A. J (2014). Impact of foreign direct investment on employment generation in Nigeria: A statistical investigation. *IOSR Journal of Business and Management*, 16(3), 44-56.
- Osabohien, R., Awolola, O. D., Matthew, O., Itua, O. Q., & Elomien, E. (2020). Foreign direct investment inflows and employment in Nigeria. *Investment Management and Financial Innovations*, 17(1), 77-84.
- Owusu, A. K. (2019). Impact of foreign direct investment on economic growth in Ghana. A Dissertation Submitted to the University of Ghana in Partial Fulfillment of the Requirement for the Award of Master of Science in Development Finance.
- Owusu-Antwi, G., Antwi, J., & Poku, P. (2013). Foreign direct investment: A journey to economic growth in Ghana-Empirical evidence. *International Business and Economic Research Journal*, 12(5), 573-584

- Oyegoke, E. O. & Aras, O. N. (2021). Impact of foreign direct investment on economic growth in Nigeria. *JOMEINO*, *1*(1), 31-38.
- Shenkar, O. (2007). Foreign direct investment: theory and application. Retrieved fromwww.sagepub.com. upmdata/18594 chapters 3pdf on November 13, 2013.
- Sullivan, A. & Sheffrin, S.M. (1996). *Economics: Principles in action*. Upper Saddle River: Pears on Prentice Hall.
- TheCable (2021). The future of Africa? Seven times Ghana has beaten Nigeria to the prize. Retrieved from https://www.thecable.ng/the-future-of-africa-seven-times-ghana-has-beaten-nigeria-to-the-prize/amp. Accessed on 12/08/2023
- Trading Economics (2023). Ghana inflation rate speeds up to 4-month high of 43.1. Retrieved from https://tradingeconomics.com/ghana/inflation/. Accessed on 12/08/2023
- World Bank (2023). What is the difference between current GDP and constant GDP. Retrieved from https://datahelpdesk. worldbank.org/knowledgebase/articles/114942-what-is-the-difference-between-current-and-constant. Accessed on 13th August, 2023.
- World Development Indicator (2023). *Statistical data*. Available at www.worldbank.org.