

QUEST FOR SUSTAINABLE GROWTH, DOES FOREIGN DIRECT INVESTMENT STILL MATTERS? EVIDENCE IN SOME SELECTED AFRICA COUNTRIES.

By

Adewosi, O. Adegoke¹, Manu Donga² and Adamu Idi³

¹ & ²Department of Economics, Modibbo Adama University of Technology, Yola

³Department of Economics, Gombe State University

Corresponding Author: olusegunadewusi21@gmail.com

ABSTRACT

The debate on the role of Foreign Direct Investment in promoting rapid growth and development of the developing economies remain inconclusive. This paper examined whether FDI still matters in Africa, with the proper utilization of panel data estimation technique on the annual country data that were sourced from world Governance and Development Indicators. Using random and fixed effect model, the results reveals that some important variables such as coefficient of trade openness, rule of law, political stability, capital formation and population positively determined economic growth in Africa, accounting for about 2, 1, 65, 170, and 396.7 percent increase in economic growth. While, FDI and inflation were found to have negative impact on economic growth accounting for 21.4 and 2 percent fall in economic growth over the study period. The study then recommends amongst others formulation and implementation of policies that encourage domestic investment in the continents.

Keywords: Economic Growth, Foreign Direct Investment, Rule of Law, Africa, Panel Data.

JELCODE: O40, F21, K19, E52, E62.

1.0 INTRODUCTION

Foreign direct investment (FDI) is argued to be a growth enhancing measure that play a pivotal role in growth and deployment of not only the investing economies but also the host economies through creation of massive employment, reduce poverty and inequality, favourable balance of payment and trade, exchange rate appreciation and enhance economic growth and development (UNCTAD, 2018). Atique, Ahmad and Azhar (2004) also argued that FDI has the propensity to trigger rapid investment in an open economy beyond its capacity to save. Given the low level of savings in developing economies including Africa, FDI can complement the savings gap needed for rapid investment, create employment, and reduce poverty, and inequality and economic growth in general.

The global net inflow of FDI was \$859 billion out of which developing economies received 72 percent \$616 billion in 2020, the total FDI inflow in Africa stood at \$46 billion, Asia \$476 billion and \$151 billion in Latin American countries in the same year (UNCTAD, 2020). Out of the \$46 billion inflow to Africa, Egypt is the largest recipient of FDI in the continents attracting \$7.4 billion, followed by Ethiopia, Nigeria, Ghana and Morocco with \$3.6 billion, \$3.5 billion, \$3.3 billion and \$2.7 billion respectively in 2020. The top ten investors in Africa include, USA \$5.7 billion, United Kingdom

\$5.5 billion, France \$4.9 billion, China \$4.0 billion, South Africa \$2.4 billion, Italy \$2.3 billion, Singapore 1.7 billion, India \$1.4 billion, Hong Kong \$1.3billion, and Switzerland \$1.3billion (UNCTAD, 2020).

Within the African sub-region, North Africa continue to lead with the total inflow of \$13 billion, \$11.3 billion to West Africa, \$7.6billion to East Africa, \$5.7 billion to Central Africa and \$3.8 billion to Southern African countries (UNCTAD, 2020). Oil and gas sector, communication, electronics, automobile, manufacturing and agriculture are the major recipient of FDI in the continent.

This massive inflow of FDI has benefited almost all African countries, via employment generation, increase income, reduction in poverty and inequality, technology transfer, skills and man power development, export and economic growth and development (Agrawal,2013).

It has been argued that the host countries capacity to attract FDI depends on level of the GDP per capita, a country endowed with human capital can benefit from technology based FDI. In addition, infrastructural development, security, government policies, and trade Openness has also been highlighted as a critical factor that significantly attract foreign investors to the host countries and hence, the reason why countries put in place liberal policies that un-restrict in and outflow of goods (Agrawal, 2013).

Despite been regarded the major source of development fund, the impact of FDI on economic growth in developing economies has become a debatable topic in recent decades. Some studies such as Atiue, Ahmad and Azhar (2004) argued that FDI impact on economic growth via human capital development, capital formation and internal trade. Similarly, De Mello (1997) reported that it encourages the adoption of new technology through technology transfer in the production process. While Alfaro, Chanda, Kalemlioozcan and Sayek (2004) reported that, the impact of FDI on economic growth depends on the development of the financial market. On the other some studies reported hand, that it has become an avenue of luting public treasury and causing massive capital flight in the continents in the form of profit repatriate from the host country (Thomas, 2014, Masigia, 2018 Ndiaye & Xu, 2018).

It is against the above background that this paper seeks to examine whether FDI still matters in economic growth in Africa.

The rest of the paper are decomposed into section two literature review, section three, methodology, section four result and analysis and section five presents the summary, conclusion and policy recommendations.

2.0 CONCEPTUAL ISSUES

There are various definitions of FDI, for instance, Griffin & Pustery (2007) view FDI as the ownership or control of 10 percent or more of an enterprises voting securities or the equivalent interest in unincorporated businesses, this definition did take into consideration where the investment take place. Farrel (2008) also define FDI as a package of capital, technology, management and entrepreneurship that allows a firm to operate and provide goods and services in a foreign market. This definition is broader than the Griffing & Pustery definition because it highlights the fact that they can operate beyond their home country but only consider the foreign market neglecting the

domestic ones. FDI according to International monetary Fund (2014) is the investment that involves a long-term relationship reflecting a lasting interest of a resident entity in one economy (direct investor) in an entry based in an economy other than that of the investor (Foreign countries).

Economic growth refers to the increase in a countries production or income per capita. It is one of the major indices considered by almost all countries in the world in measure progress of a country, level of wellbeing of the masses. In economics, many variables are said to be effective in economic growth, for instance, technology, physical capital, human capital and so on. Meanwhile, foreign direct investment facilitates the movement of physical capital from capital surplus countries to capital deficit countries especially developing countries lacking the much-needed capital for investment. FDI may influence economic growth in two ways, directly, through increase production, employment generation, value added and increase export, and indirectly via technology, knowledge and know-how, positive externalities, technology spillover, human capital formation, and efficiency transfer from one country to another (Chakrabarti, 2001 and Mehdi, 2012).

3.0 THEORETICAL FRAMEWORK

Studies have identified various channels through which foreign direct investment contributes to economic growth. To the neoclassical growth theory, FDI inflows increase the stock of capital in host countries thereby promoting rapid and sustainable rates of growth than would be possible than relying on domestic savings. Endogenous growth theory postulates that technological advancement induce economic growth by creating externalities that compensate for diminishing returns to capital (Romer, 1990; Mankiw, Romer & Weil, 1992). FDI can therefore promote economic growth by allowing host countries access to advanced technologies not available domestically. It has also been argued that FDI leads to increased competition in the domestic market, which can cause greater efficiency of domestic firms; improved managerial practices may be transmitted to domestic firms to a more modern high capacity productive once. FDI help in training of domestic labor, strengthening of human capital development that generate positive externalities and promote economic growth. It also has the potential to increase access to export markets thereby increasing favourable balance of payment and trade especially in developing countries having weak industrial base.

4.0 EMPIRICAL REVIEW

Mehdi (2012) investigated the impact of foreign direct investment on economic growth in Southern Asia, using fixed and random effect model reported that, foreign direct investment, human capital, economic infrastructure and capital formation significantly impact on economic growth, the study also report that inflation, population and technology gap were found to have negative impact on economic growth. In a separate study, Petr & Beata (2016) investigated the impact of FDI on economic growth in Central and Eastern Europe, using random and fixed effects model, report that both foreign direct and domestic investment significantly affect economic growth. In addition, Argiro (2003) investigated the impact of foreign direct investment on European Union, using pooled regression; report that FDI, trade openness, and human capital significantly determined economic growth. Agrawal (2013) in a similar study also investigated the impact of foreign direct investment on the BRICS (Brazil, Russia, India, China and South Africa) economies, using panel error correction model (PECM),

report that there is evidence of long run equilibrium running from FDI to economic growth. Mohammed & Mahmoud (2013) investigated the impact of foreign direct investment on economic growth, using available literature; report that quite a significant number of studies shows that foreign direct investment has positive impact on economic growth with few studies showing that FDI impact negatively on economic growth and others shows inconclusive result. The study also report that human capital, financial market development and trade openness are complementary factors between domestic and foreign direct investment. Okumoko & Karimo (2015) investigated the impact of foreign direct investment on economic growth, using structural vector autoregressive model (SVAR), report that FDI contemporaneously affect economic growth. Neils & Robert (2017) investigated the impact of FDI on economic growth in developing countries using pooled regression; found that developed financial market and FDI significantly affect economic growth of 37 countries of Latin America and Asia. Akpan & Gamaliel (2017) investigated the impact of foreign direct investment on economic growth in Africa, using vector autoregressive model, report that FDI has slight positive impact on economic growth.

Music (2018) investigated the impact of foreign direct investment on economic growth in Bosnia and Herzegovina using multiple regression, reported that foreign direct investment accelerates the pace of economic growth through increase in national productivity, exchange rate stability, favourable balance of payment and trade, and creation of employment opportunities in the host countries.

Sabernia, Sabernia & Shamkhi (2018), reported that financial market plays a crucial role in attracting foreign direct investment into the host country. The study further reported that there is significant positive relationship between foreign direct investment, welfare and economic growth. While using vector error correction model, Masigia (2018), investigated the impact of foreign direct investment on economic growth reported that foreign direct investment, real exchange rate and economic growth are positively related in the short run and long run while in the long run foreign direct investment has negative relationship with government expenditure.

Thomas (2014) investigated the impact of foreign direct investment on economic growth in both developed and developing countries, using generalized method of moment (GMM), report that foreign direct investment affect productivity negatively in developing countries. While it has positive impact on economic growth of developed countries, it was also reported that it has a positive impact on the developing countries in the short run through technology transfer while it was reported in developed countries that it impacts positively on economic growth in the short run through knowledge spillover. Similarly, Ndiaye & Xu (2018), investigated the nexus between foreign direct investment and economic growth in West African Monetary Union using static panel data model, reported that foreign direct investment, capital stock, inflation and labour force have negative effect on economic growth while gross fixed capital formation, government expenditure and trade openness were found to have positive impact on economic growth.

Ogbokor (2018) investigated the nexus between foreign direct investment and economic progress using dynamic model, reported that the foreign direct investment and real exchange rate significantly predict economic growth while real interest rate, trade openness does not predict economic growth.

5.0 DATA AND METHODOLOGY

Give the scope and objective of this study, Panel data was employed because it increases the efficiency of estimators, and reduced the problems of multi-collinearity, autocorrelation, endogeneity in addition to increase in the degree of freedom in the estimations as well as help in controlling the problem caused by country and time specific effects. The study employs annual country data for a period of 1990 to 2018, which were obtained from World development indicators (WDI) 2019 and Worldwide Governance indicators (WGI) 2019 to achieve the objective of the study.

The model is specified as follows:

$$Y_{it} = \alpha Y_i + \tilde{O}Z_{it} + \pi_{it} \dots \dots \dots (1)$$

Where:

Y_{it} is the dependent variable (GDP) in country i , and Z_{it} is the vector of country specific regressors (FDI, Inflation, Trade Openness, Population, rule of law, and political stability), α measures the relative effect of foreign direct investment indices on economic growth. μ_{it} is the unobserved country specific effects. The π_{it} is the usual white noise error term.

Because of the difference in policy, and other environmental factor in those economies, random effects model were employed. In the random effect method, the constant is treated as random, that is, it allows different constant for each individual unit to be random. The presence or otherwise of individual effect is checked using LM-test. Where the null hypothesis state that all the constants are same, and hence, the model:

$$F = \{ (R_{FE}^2 - R_{CC}^2) / (N - 1) \} / \{ (1 - R_{FE}^2) / (NT - N - K) \} \dots \dots \dots (2)$$

If the calculated F value is greater than F critical value, we reject the null hypothesis. In the fixed effect model, the cross sectional effect is captured by the dummy D_i which represent the countries. The fixed effect model is started as:

$$Y_{it} = \alpha Y_i + \tilde{O} + \sum D_i + \pi_{it} \dots \dots \dots (3)$$

An alternative method is the random effect model that assumes that the constant for each country is random not fixed. The fixed effect assumed that each country differs in its intercept term whereas random effect model assumed that each country differs in error term. The random model can be stated as follows:

$$Y_{it} = \alpha Y_i + \tilde{O}Z_{it} + v_i + \pi_{it} \dots \dots \dots (4)$$

The choice between fixed effect and random effect model was made through Hausman test (1978). Which was based on the idea that under the null hypothesis of no correlation, both Ordinary Least Squares (OLS) and Generalized Lease Squares (GLS) are consistent and OLS is inefficient, while alternative hypothesis is that OLS is consistent but GLS is not. The Hausman test model is started as follows:

$$H = (\alpha^{FE} - \alpha^{RE})[(var(\alpha^{FE}) - var(\alpha^{RE}))^{-1} (\alpha^{FE} - \alpha^{RE}) \rightarrow X^2(\Omega) \dots \dots \dots (5)$$

If the value of H statistic, we reject the null hypothesis that random effect model is consistent and accept the fixed effect model.

Table 4.1: Pooled OLS, Random Effects and Fixed Effects Models

<i>Variables</i>	<i>PooledModel</i>	<i>Random Effects</i>	<i>Fixed Effects</i>
Fdi	1.197 (2.12)*	-0.192 (1.80)***	-0.214 (2.16)*
Inflation	0.062 (0.83)	-0.002 (0.13)	-0.002 (0.14)
Tradopen	-0.533 (6.11)**	-0.004 (0.09)	0.020 (0.53)
Rulelaw	0.987 (5.09)**	0.035 (0.45)	0.001 (0.02)
Polistab	-0.013 (0.08)	0.053 (1.12)	0.065 (1.48)
Capforma	0.137 (0.41)	0.188 (1.95)***	0.170 (1.88)***
Pop	23.045 (4.07)**	3.926 (1.85)***	3.967 (1.97)***
_cons	-31.661 (1.57)	2.753 (0.34)	3.127 (0.56)
R^2	0.38		0.12
N	156	156	156
<i>Breush-Pagan LM test</i>		944.73*	
<i>Hausman test</i>			8.31

Source: Authors calculation using Stata 14

Note *, **, & *** indicate 1%, 5% & 10% level of significance, Standard F-test to choose between Pooled OLS and Fixed Effects Models, Hausman Test to choose between Random and Fixed Effects Models and the T-ratio in parenthesis

From Table 4.1, by way of analysis, the pooled OLS and random effect model test was conducted after which Breush-Pagan LM-test was conducted to ascertain whether there is individual specific effect among the countries under study. The LM-test rejected the null hypothesis of no individual specific effect and accepted the alternate hypothesis (hence, the rejection of pooled OLS). This has necessitated fixed effect model test having established the present of individual specific effect. However, the choice between the random and fixed effect model was made using Hausman test, where the results favours the fixed effect model, in which our interpretation was based on. From the table, the coefficient of FDI did not conform to the *a priori* expectation though significant at 10 percent; this implies that as foreign direct inflow increase in Africa, economic growth reduces by 0.21 point. This is in tandem with the findings of Ndiaye & Xu (2018) who reported that FDI has negative impact on West African Monetary Union Member nations.

The coefficient Inflation that is a measure of economic stability conform to *appriori* expectation although statically insignificant at any conventional level. This is also connected with the low level of productivity and the deteriorated foreign exchange that has seriously affected the value of currencies of most African countries, although there is no theoretical postulation that back this assertion. This finding also conform to results of Ndiaye & Xu (2018) who reported a negative impact of inflation on economic growth in West African Monetary Unions members.

The coefficient of Trade openness which measures the openness of the economy though conform to *appriori* expectation but statistically insignificant at any level, this is simply connected to the fall in the oil price at the international market couple with the low level of productivity in Africa. In addition, openness of the African borders has serious negative implication on the African economies in general as looters takes the advantage to move African resources out of the continents for their personal gain. This conform to the findings of Argiro (2003).

The coefficient of rule of law, which is one of the major factors considered by foreign investors conform to *appriori* expectation though statistically insignificant at any level. This is because of the high rate of corruption that has marred the law enforcement agencies although several security reforms have been introduced to cope the menace and ensure a strong security capable of boosting the confidence of both domestic and foreign investors in the region.

The coefficient of political stability conform to the *appriori* expectation even though is not statistically significant, the simple explanation is the fact that most African countries are seriously having the challenges of instability in form of insecurity, which are politically incline but effort are been made to restore stability in the continent so as to attract foreign direct investment.

The coefficient of capital formation as a measure of investment is positive and significant at one percent, these shows that investment play a vital role in Africa especially domestic investment. since most of the entrepreneurs are indigenious and the possibility of capital flight is very low and the possibility of re-investment of profit earned is high, the impact can easily trickle down to rapid economic growth and development.

Population as a measure of market size has a positive and significant impact on economic growth in Africa. This is simply because of the large size of African population that makes it a potential market for investors.

6.0 CONCLUSION AND POLICY RECOMMENDATIONS

The study examines whether FDI still matters in economic growth in Africa African Countries over a period of 1990 to 2018. The important variables adjudge to be crucial determinants of economic growth in Africa were uncovered in a panel data, where static panel data models such as Pooled OLS, Fixed effects and Random effects were applied respectively. Firstly, trade openness, rule of law, political stability, capital formation and population were found to have positive impact on economic growth while foreign direct investment and inflation were found to have negative impact on economic growth. The study therefore concludes that trade openness, political stability, rule of law and population have positive impact on economic growth while foreign direct investment and inflation have negative impact on economic growth in Africa over the

study period. Hence the conclusion that foreign direct investment does not matter in Africa.

The major policy implication of this findings is that, the need for a serious financial sector reforms that can be capable of mobilizing savings domestically addition to the provision of subsidies of all kind to the investors. A policy that encourage reinvestment of profit especially by the domestic investors should be encourage, this could be achieve through giving tax incentives on profit to be reinvested and heavy tax on the profits not meant for reinvestment and financial assistance to the domestic investors should be introduce in the continent to induce them complement the foreign investors.

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