

What Does FDI Inflow Mean For Emerging African Economies? Measuring the Regional Effects of FDI in Africa.

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Abstract

Can foreign direct investment (FDI) promote growth in Africa? What does the inflow of investment hold for African emerging economies? Are the determinants of FDI different for different regional blocs in Africa? This study reviews the implication of FDI for different regional blocs in Africa. FDI was found to have a significant effect on growth in North Africa but had no significant effect in East, Southern and West Africa. FDI was also found not to be driving growth in the whole of Africa in a significant manner. The implications of the findings are that even though trade openness seems to be a major factor driving FDI. Poor domestic markets were still preventing many African economies from taking full advantage of the gains from foreign direct investment. The study results could be useful to scholars who study the dynamics surrounding FDI disbursement and strategies on how FDI can drive growth in developing countries.

Keywords: Africa, Political Economy, FDI, Regional Policy and Markets. JEL Classification: C23, C70, E61, E62, F42, G25, H5, L16, O11, O23

1.0 Introduction

Not many studies have also tried to study the differences in the implications of FDI inflow specifically for countries across different regional blocs in Africa, implying that this study could fill this gap by contributing to the body of knowledge in this area. FDI is also likely to be more beneficial for growth in some regions than in others, and there will also be some differences in the implication of FDI for growth due to regional specific characteristics attributable to differences in trade, infrastructural and macroeconomic policy capabilities in countries. Also the outcome of FDI can be affected by natural resource presence, relative low cost of production and country specific strategic investment in infrastructure, which could make investors want to invest in many developing economies. Past studies have also listed specific regional conditions that can affect investor's perception these include the riskiness of the business environment for trade, ease of credit access to private sector businesses, transaction cost of carrying out business activities, infrastructural challenges, macroeconomic policy etc. see George, Odejimi, Matthews, and Ojeaga (2014).

GDP trends across the Africa continent show that many African countries are enjoying economic growth despite the global economic decline of the late 2000s, (the 2007 financial crisis to be specific) UN Statistics 2012. Differences in regional specific attractiveness for trade also mean that the true picture of what FDI implications will be across regions in Africa are also largely unknown. While there have been lots of insinuations that FDI can drive growth in countries, this has not been true for many developing countries particularly those in Eastern Europe and Africa, George, Odejimi Matthews, and Ojeaga (2014) since there have been little or no empirical evidence to support this.

This study investigates the effect of FDI on growth in ten countries (Egypt, Algeria, Nigeria, Ghana, Cameroon, Angola, Kenya, Uganda, South Africa and Botswana), two each from the five regional blocs in Africa which include North, East, West, Central and Southern Africa using panel data for a period of 53 years (1960 to 2012). The method of estimation is the general method of moment GMM although the results of the Ordinary least squares, linear mixed effects, two stage least squares (fixed and random effects) are also presented in the study. The rest of the paper is divided into the scope and objectives of study, stylized facts on FDI, growth, and macroeconomic variables in Africa, review of literature, theory and methodology, empirical analysis and results and finally the concluding section.

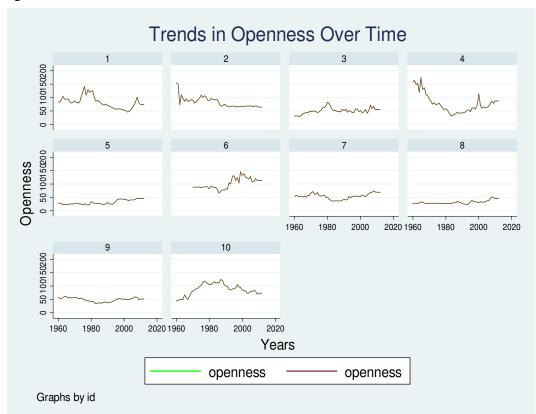
2.0 Scope and Objective of Study

The study investigates the implications of FDI for growth across regions in Africa. It also presents empirical arguments as to what factors are responsible for FDI inflow across regions. The objectives of the study include: i) To what extent can foreign direct investment (FDI) promote growth in Africa? ii) What does the inflow of investment hold for African emerging economies? iii) Are the determinants of FDI different for different regional blocs in Africa?

3.0 Stylized Facts on FDI, Growth and Other Macroeconomic Variables in Africa.

Trade openness appears to be on the decline in many African countries with only noticeable minimal increases in Eastern Africa. Depicting strong government involvement in business and a protectionist policy to protect domestic enterprises from hostile foreign firms in many African countries see Fig. 1 below.





Note: The above trends depict openness for the ten African countries in our sample Egypt, Algeria, Nigeria, Ghana, Cameroon, Angola, Uganda, Kenya, South Africa and Botswana. Openness is the ratio of exports to imports in the ten countries.

There also appears to be increases in government spending across regions although there are slight decline for Nigeria. This depicts that many African countries were probably increasing spending with relative increases in GDP across countries se Fig. 2 below.

Increased government spending if spent on capital expenditure could improve infrastructural quality in manner African countries.

Infrastructural decadence is still prevalent in many parts of Africa due to high level of corruption and institutional weaknesses. Transparency in policy implementation is likely to improve infrastructural and the quality of governance in many parts of Africa.

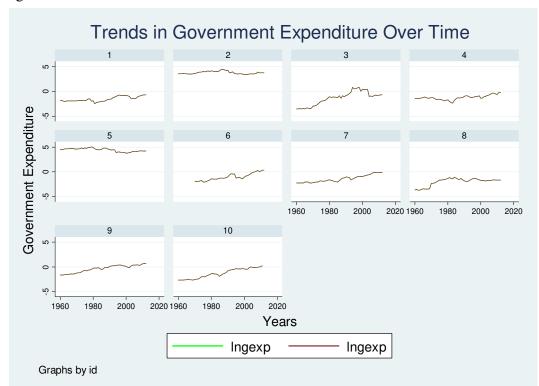


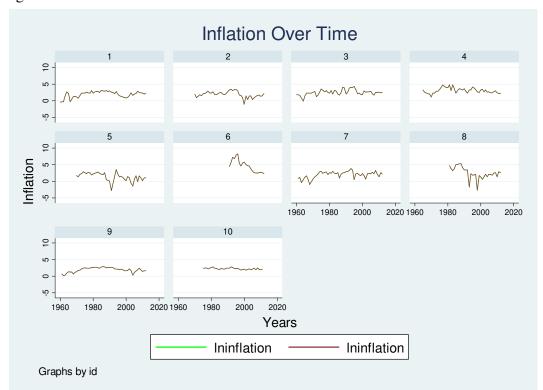
Fig. 2

Note: The above trends depict government expenditure spending for the ten African countries in our sample Egypt, Algeria, Nigeria, Ghana, Cameroon, Angola, Uganda, Kenya, South Africa and Botswana. Government expenditure spending is the aggregate expenditure of government in years in constant USD.

There are also slight decreases in inflation in many African countries see Fig. 3; however inflation remains quite high across all regions, with North and West Africa experiencing the highest inflation rate of well over 4% on the average (World Bank

Statistics 2013). Poor monetary policy is also a contributory factor to high inflation and the inability of the apex bank to proffer solutions to the poor rate credit acquisition in many African countries, this also mean that few private firms can access capital and this can hurt aggregate production in countries making many African countries to rely on imports.

Fig.3



Note: The above trends depict inflation for the ten African countries in our sample Egypt, Algeria, Nigeria, Ghana, Cameroon, Angola, Uganda, Kenya, South Africa and Botswana. Inflation is the increment in average prices over time in percentage.

Direct credit to the private sector i.e. corporate businesses (the measure for privatization) is also on the increase across all regions except North Africa. This is

attributable to the relative level of instability in the region due to the global financial crisis and the Arab Spring see Fig. 4.

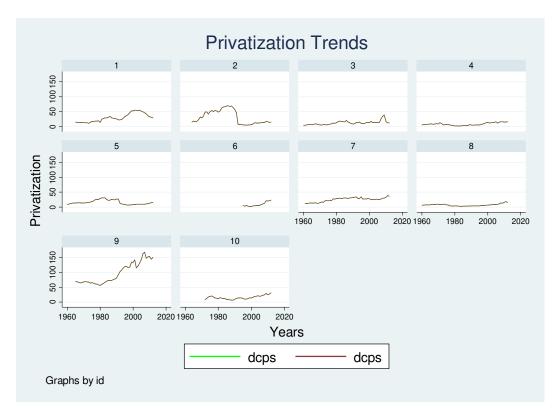


Fig.4

Note: The above trends depict privatization for the ten African countries in our sample Egypt, Algeria, Nigeria, Ghana, Cameroon, Angola, Uganda, Kenya, South Africa and Botswana. Direct credit to the private sector is all credit granted to the private sector in constant USD.

GDP is also on the increases in most African countries, depicting that high prices in global commodities were probably driving growth in across all regions in Africa see Fig. 5. The period of mild prosperity has however not been very effective in ushering in growth, making many African countries to be experiencing "jobless growth". Many African countries are also mineral resource dependent, while production of industrial manufacturables are primarily for domestic consumption since these products do not compete favorably with other manufactured goods in the global markets.

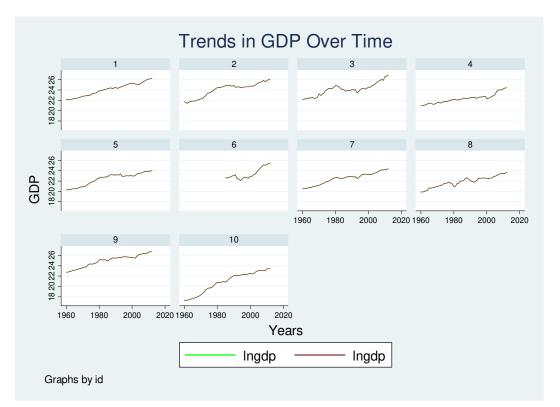


Fig. 5

Note: The above trends depict GDP for the ten African countries in our sample Egypt, Algeria, Nigeria, Ghana, Cameroon, Angola, Uganda, Kenya, South Africa and Botswana. GDP is the total goods and services produced in countries in constant USD.

FDI was also high, showing that Africa was still a choice destination for investors despite the riskiness of the business environment see Fig. 6. Other factors that are likely to attract foreign investment include relative cheap labor, closeness to destination markets for investors and availability and closeness to cheap raw material for production. Lots of factors still affect investors perception negatively these include political instability, inconsistency in macroeconomic policies, poor infrastructure, epileptic power supply, cost of training manpower etc.

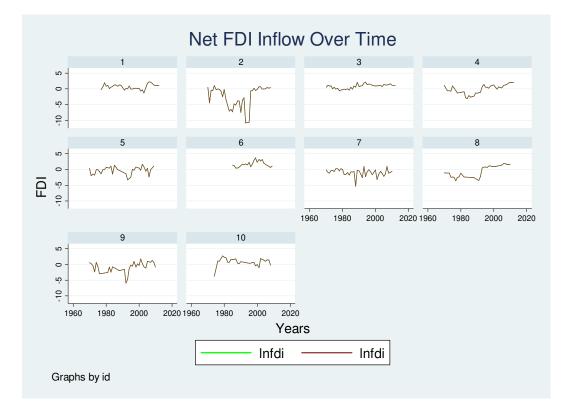


Fig.6

Note: The above trends depict FDI for the ten African countries in our sample Egypt, Algeria, Nigeria, Ghana, Cameroon, Angola, Uganda, Kenya, South Africa and Botswana. FDI is the aggregate foreign direct investment inflow in constant USD.

3.0 Review of Literature

In this section we review past and current literature, on the topic under discussion. The paper by Brunetti, Kisunko, and Weder (1997) argue that political instability has the capability to make countries less attractive for foreign direct investment. Henisz 2000 also states that institutions and policy changes can also affect investment inflow to countries. Other studies such as, Feng (2001) and Jensen (2003, 2006) argue that regime changes and country specific democratic status can affect investment inflow. Ojeaga (2012), also state that FDI has strong capability to improve living conditions in Africa using a panel sample of 10 selected African countries and controlling for endogeneity of the institutional variable using two stage least (2SLS) estimation technique.

Bornschier and Chase-Dunn 1985 also state that autocratic governments also have the capability to attract multinational companies (MNC) due to their ability to suppress labor cost and the reduced level of policy uncertainty associated with political elections. Studies also show that after taking control of foreign markets investors often fail to bring along all their revenues with them Graham and Krugman (1991), Kindleberger (1969), and Lipsey (2003).

Laura Alfaro, Areendam Chanda, Sebnem Kalemli-Ozcan, and Selin Sayek (2006) also state that firms undertake foreign investments because certain assets are worth more under foreign control than domestic control. Borensztein, De Gregorio, and Lee(1998) and Xu (2000) state that FDI could stimulate transfer of technology in countries with minimum threshold of stock of capital.

Aghion, Comin, and Howitt (2005) developed a model that show that domestic firms can attract FDI if they are innovative and perform well enough to drive growth. This study investigates the implications of FDI on growth in Africa. And contributes to the body of knowledge, by considering the implicational differences across regions. The regions considered include North, West and east/ South Africa. For a review of the FDI literature see Laura Alfaro, Areendam Chanda, Sebnem Kalemli-Ozcan, and Selin Sayek (2006).

4.0 Theory and Methodology

4.1 Theory

In this section we present the theory and methodology utilized in the study. Useful and non-predatory foreign direct investment can have positive effects on growth in many developing countries wishing to drive growth through investment in their domestic economies.

A host of factors can attract investors to many developing countries; they include cheap cost of labor which has the capacity to drive up cost of production, ease of access to capital which can influence the attractiveness of investing in a country, country specific institutional structure which can affect issues of property rights and private assets protection, country specific domestic market potential which can influence consumption and demand for produced products, investment destination fiscal policy such as government spending patterns, country specific monetary policy which can depict the riskiness of the immediate business environment, trade policy which can affect cost of starting new business and awards of business permits and the cost of transportation to local markets as well as ports for exporting which will reflect the transaction cost of business.

There also exist past theories of FDI, which suggest factors that affect FDI and conditions under which FDI can drive growth, some include e.g. Vernon (1966) who

suggests the product life cycle theory which he asserts the level of economic development directs the direction of investment. He states that new products are initially produced in the North due to its Research and Development and other Human Resources endowment and that as the product become improved and popular they are transferred to the less developed and gradually industrializing Southern economies. This he used to describe the flow of FDI from the developed North to other less developed economies in the South.

The Japanese FDI theory see in-depth analysis in Kojima, Kiyoshi and Terutomo Ozawa (1984), also analyzed FDI, competitiveness and economic development dividing it into three stages or phases of growth which include: i.) The first phase being where the country is under developed and becomes the focus of foreign investors who identify the advantageous potentials of the developing country. ii) The second phase being a case where the country is on the ladder of development and has developed internal markets and living standards and outgoing FDI is motivated by increasing labour cost. iii) The third phase where economic growth is based on competitiveness of the country and FDI is attracted and flows out based on innovation and country specific technological advances.

Dunning J. (1977) also state that a five stage FDI theory where in the first stage a country receives low FDI but foreign firms are beginning to see FDI benefits and there is no outgoing FDI since local firms see no specific advantage in investing overseas. In the second stage there begins to exist a growing incoming FDI due to low labour cost in the

country and the standard of living is rising drawing more people to the country. However there is still low outgoing FDI. The third stage where there exist high levels of incoming FDI but the nature is changing owing to a rise in wages and outgoing FDI are beginning to take off due to growth of domestic firms which are getting stronger and becoming more domestic firms becoming competitive internationally. The fourth stage where there is a high outflow with domestic firms seeking investment opportunities internationally. And the fifth stage where investment decisions are largely affected by Multinational Corporations (MNC) strategies and the inflow and outflow of FDI come to equilibrium.

Past methodologies such as that of Bengoa M. and Sanchez-Robles B. (2003) using a sample of 18 Latin American countries for 1970-99 also suggest that panel studies are suitable for studying the relationship between FDI and growth, showing that there exist a correlation between growth and FDI in Latin America. Borensztein E. J., Gregorio J. D. and Lee J. L. (1998) also state that a minimum threshold of human capital was needed for FDI to have a significant effect on growth using a panel data of 69 countries from 1970-1989.Roy and Van den Berg (2006) utilizing a time series data and adopting a simultaneous equation model (SEM) and considering the bidirectional relationship, between FDI and growth for the US, reveal that FDI has a significant and positive impact on growth. There are also mixed outcome for the spill over benefit of FDI for countries for instance Yudayeva et al. (2000), Castellani and Zanfei (2001), and Haskel et al. (2002) find positive evidence for the existence of spillover benefits from FDI while on the other hand Aitken and Harrison (1999) for firms in Venezuelan and

Djankov and Hoekman (2000) for firms in Czech Republic find and report negative and insignificant spillovers effects of FDI, respectively.

Blonigen and Wang (2005), also argue for the importance of absorptive capacity for countries to benefit from FDI, and state that FDI generates benefits to its host country only if the business climate is conducive defining conducive as the presence of adequate human capital, public infrastructure, financial institutions, legal environment necessary for private firm growth.

4.2 Methodology

In this study principal agency problem under the assumption that the investment process now becomes contract that is written in a World of asymmetric information, uncertainty and risk is adopted, utilizing 2 player (Investors and government) simple normal form game in the figures (i.e. Table 1 to 3), below. Investors can decide to invest or not to invest catering to their expectations and intended returns from investing in a country. Secondly investors could also see future potentials for growth in developing countries making them to invest subject to country specific economic circumstances and economic climate. This will results in different payoffs for the country and investors concerned.

We consider the five different states of development FDI inflow as stated by Dunning J. (1977) and the implicative effects for investors and countries with resulting payoffs. This will therefore lead to the following propositions for Africa: Proposition 1.0) \rightarrow Poor living standard could deter the inflow of FDI to countries.

- Proposition 2.0) \rightarrow Rising wages and improved living conditions could affect the inflow of FDI to countries.
- Proposition 3.0) \rightarrow Improved domestic innovation is likely to have an effect in attracting FDI and promoting growth in Africa.
- Proposition 4.0) → Development of the domestic market will lead to stronger Competition among local firms will attract FDI and improve growth in Africa.
- Proposition 5.0) → Improved markets, wages and sound macroeconomic policies will lead to optimum returns on investment for investors and maximize the growth potentials for countries. Resulting in a Nash-Equilibrium for investors and governments.

In the study we also consider different model specifications the first in which we study the effect of a host of factors on FDI, the second where the effect of FDI on growth is considered and the third where the implicative effects of FDI in the presence of macroeconomic policy on growth is considered. In the first case in Table 1 below,

| Strategy | State 1 | State 2 | State 3 | State 3 State 4 | |
|-------------------|---------------|-----------|-----------------|----------------------|--------------------|
| | Poor Wages | Rising | Rising | Competitive Domestic | Strong Presence of |
| | | Wages | Technology | Firms | MNC |
| Condition A | (0,0) | (0,1) | (0,2) | (0,3) | (0,4) |
| Investors do not | No FDI | No FDI | No FDI | No FDI Attracted | No FDI Attracted |
| Invest | Attracted | Attracted | Attracted | | |
| | (Equilibrium | | Growth | | |
| | of no | | | | |
| | Development) | | | | |
| Condition B | (1,0) | (2,1) | (3,2) | (4,3) | (5,4) |
| Investors Invests | Little or No | FDI | Significant FDI | Very Significant FDI | FDI Inflow Peaks |
| | FDI Attracted | Attracted | Attracted | Inflow | |

Table 1 FDI Flow Normal Form Game

Note: The above depicts the normal form game for FDI inflow to a country depicting the different stages in the countries development.

where we study the implicative effects of a host of factors on FDI we assert that countries in their development state are divided into five categories and that investors, will take these states into cognizance when making their investment decisions. In each state the investor can decide whether to invest (Condition A) or not to invest (Condition B) based on country specific economic conditions such as the standard of living (State 1), quality of labor (State 2), the level of domestic innovation (State 3), the state of development of the domestic market for trade (State 4) and finally the presence of Multinational Corporations (State 5). Here even though FDI inflow will peak in state 5 with strong presence of MNCs the FDI inflow will not be at optimum level since investors will be skeptical of the quality of many African countries economic policy. The same normal form game is also depicted to explain the implicative effects of FDI for economic growth in Table 2. This shows once again that FDI inflow results to little or no growth in State 1 Condition B, FDI inflow results to FDI driven growth of little significance in State 2 Condition B, FDI.

| Strategy | State 1 | State 2 | State 3 | State 4 | State 5 |
|-------------------|----------------|--------------|-----------------|----------------------|--------------------|
| | Poor Wages | Rising | Rising | Competitive Domestic | Strong Presence of |
| | | Wages | Technology | Firms | MNC |
| Condition A | (0,0) | (0,1) | (0,2) | (0,3) | (0,4) |
| Investors do not | No FDI | No FDI | No FDI Driven | No FDI Driven | No FDI Driven |
| Invest | Driven | Driven | Growth | Growth | Growth |
| | Growth | Growth | | | |
| Condition B | (1,0) | (2,1) FDI | (3,2) | (4,3) | (5,4) |
| Investors Invests | FDI Inflow | Inflow | FDI Inflow With | FDI Inflow With Very | FDI Inflow and FDI |
| | With Little or | Driven | Significant | Significant Growth | Driven Growth |
| | No Growth | Growth of | Growth | | Peaks |
| | | little | | | (Optimal Growth |
| | | significance | | | Condition Not |
| | | | | | |

Table 2 Normal Form Game Depicting Strategies for Driving Growth Using FDI without Economic Policy

Note: The above shows the strategies for driving growth in countries in different stages of development, it explains that growth might peak in countries with strong multinational corporation presence, but that growth is not likely to be the optimal growth.

results in significant growth in State 3 Condition B, FDI results in very significant growth in State 4 Condition B and in state 5 Condition B. In this case growth does peaks but not at the optimum level owing to probably poor attention to macroeconomic policy, implementation. In Table 3 with the implementation of sound macroeconomic policy growth is assumed to peak at optimum level for countries with strong Multinational Corporation Presence. With poor wages and living standards, FDI will do little to improve growth allowing us to state that FDI can only be beneficial for growth in the presence of good economic climate; further supportive arguments can also be found in Blonigen and Wang (2005).

| Strategy | State 1 | State 2 | State 3 | State 4 | State 5 |
|-------------------------|----------------|---------------------|-------------------|----------------------|--------------------|
| | Poor Wages | Rising Wages | Rising Technology | Competitive Domestic | Strong Presence of |
| | | | | Firms | MNC |
| Condition A | (0,1) | (0,2) | (0,3) | (0,4) | (0,5) |
| Investors do not Invest | No FDI | No FDI | No FDI Driven | No FDI Driven Growth | No FDI Driven |
| | Driven Growth | Driven | Growth | | Growth |
| | | Growth | | | |
| Condition B | (1,1) | (2,2) | (3,3) | (4,4) | (5,5) |
| Investors Invests | FDI Inflow | Inflow With | FDI Inflow With | FDI Inflow With Very | FDI Inflow and |
| | With Little or | Little Growth | Significant | Significant Growth | Growth Peaks at |
| | No Growth | | Growth | | Optimum (Optimum |
| | | | | | Growth Achievable) |
| | | | | | (Nash Equilibrium) |

Table 3. Normal Form Game Depicting Strategies for Driving Growth Using FDI with Economic Policy

Note: The above depicts the strategies for driving growth in countries in different stages of development; it also explains that growth might peak in countries with strong multinational corporation presence, and that this growth is likely to reach the optimum level with the implementation of specific macroeconomic policies.

The model adopted for the study now becomes one in which in the first specification, FDI will be a function of Market Potential, and all explanatory variables are lagged to resolve issues of multi-co linearity and serial correlation although this was done for only one period. The variable year is included to control for year effects and for robustness in the econometric estimation process. Three different specifications are written for the FDI Model using OLS and Linear mixed effects in equation 1, two stage least square in equation 2 and generalized methods of moment in equation 3.

(1).
$$FDI_{i,t} = \alpha_0 + \alpha_1 MARKPT_{i,t} + \alpha_2 X_{i,t} + u_{i,t}$$

(2a).
$$INST_{i,t} = \alpha_0 + \alpha_1 POL_{i,t} + \alpha_2 X_{i,t} + u_{i,t}$$

(2b).
$$FDI_{i,t} = \alpha_0 + \alpha_1 MARKPT_{i,t} + \alpha_2 X_{i,t} + u_{i,t}$$

$$(3). \qquad FDI_{i,t} = (\alpha_o - 1)FDI_{t-1} + \alpha_1 MARKPT_{i,t} + \alpha_2 X_{i,t} + \epsilon_{i,t}$$

While four different model specifications are written for the growth model, here growth is assumed to be a function of a set of explanatory variables $X_{i,t}$ and market potential. The model is estimated using the OLS, linear mixed effects, the two stage least squares estimation technique and the generalized methods of moment's estimation techniques respectively in this case the institutional variable is assumed to be endogenous both for the growth and FDI model specification for the two stage least squares estimation. While the country dummy results are not reported even though they are

(4). Growth_{it} =
$$\alpha_0 + \alpha_1 MARKPT_{i,t} + \alpha_2 X_{i,t} + u_{i,t}$$

$$(5a). \quad INST_{i,t} = \alpha_0 + \alpha_1 POL_{i,t} + \alpha_2 X_{i,t} + u_{i,t}$$

(5b). Growth_{it} =
$$\alpha_0 + \alpha_1 INST_{i,t} + \alpha_2 X_{i,t} + u_{i,t}$$

(6.)
$$Growth_{it} = (\alpha_o - 1)Growth_{t-1} + \alpha_1 FDI_{i,t} + \alpha_2 X_{i,t} + \epsilon_{i,t}$$

(7.)
$$Growth_{it} = (\alpha_o - 1)Growth_{t-1} + \alpha_1 FDI_{i,t} + \alpha_1 (FDI X Policy)_{i,t} + \alpha_2 X_{i,t} + \epsilon_{i,t}$$

included in the regression. The control for the endogeneity of the institutional variable is based on past literature which suggests that institutions are endogenous Przewoski A. (2004). The use of GMM in addition to control for multiple endogenous variables, deals with issues of panel bias and fixed effects since the disturbance term $\epsilon_{i,t}$ consist of the fixed effects $\mu_{i,t}$ and the idiosyncratic shocks $v_{i,t}$ see Arrellano Bond (1998), Bond (1998), Doormik, Arellano, Bond (2002) and Roodman (2009). Some other obvious advantages of the GMM estimation are that it controls for long run effects and the estimates are robust even in the presence of heteroscedastic errors. The lag of the dependent variable ($\alpha_0 - 1$) is also added as an explanatory variable and the system GMM includes all explanatory variable and their lag values as instruments allowing us to overcome the problem of searching for a suitable instrument see Roodman (2009) for extensive explanation of the GMM estimator.

5.0 Data, Empirical Analysis and Results

5.1 Data

In this section we describe all data used in the study and their sources and present the results of the regression models estimated for the study. The data used for the study is Table-4 Descriptive Statistics Used in the Study

| Variable | Observations | Mean | Std. Dev. | Min | Max |
|-------------------------------------|--------------|------------|------------|--------------|------------|
| Direct Credit to the Private Sector | 462 | 25.69 | 29.53 | 1.54 | 167.54 |
| Log of GDP per capita | 505 | 0.31000 | 0.600000 | 0.160000 | 0.00003 |
| Foreign Direct Investment (FDI) | 155 | 8861 | 4464 | 26 | 16960 |
| Institutions (Paved Road Network) | 386 | 1091653 | 2106332 | 4700 | 12000000 |
| Exports in Constant USD | 459 | 28.37 | 14.72 | 3.34 | 89.62 |
| Transportation Cost | 530 | 38.09 | 25.94 | 9.34 | 99.71 |
| Market Potential | 530 | 27900000 | 29100000 | 524173 | 1700000000 |
| Openness | 520 | 64.16 | 29.31 | 22.30 | 174.70 |
| Exchange Rate | 514 | 108.34 | 315.93 | 0.00000025 | 2147.5 |
| | | | | | |
| Inflation | 436 | 39.01 | 249.72 | -8.42 | 4145.11 |
| Government Expenditure Spending | 519 | 14.16 | 30.74 | 0.03 | 154.21 |
| Index of Economic Policy | 436 | 3980000000 | 4860000000 | -21600000000 | 4145 |

Note: Descriptive statistics is derived from author's dataset obtained from data market of Iceland and WDI data of the World Bank.

drawn from previous work by George, Odejimi, Mathews and Ojeaga (2014). All data are obtained from the data market of Iceland unless otherwise stated. A panel of ten African countries is used in the study two from each of the five major regional blocs (i.e.

| Variables | Sources | 5 | | Abbreviations | Description |
|--|-----------------|-----------|-----|---------------|--|
| Direct Credit to the Private Sector | Data Iceland | Market | of | DCPS | Credit granted to the private sector in constant USD. |
| Foreign Direct Investment | Data Iceland | Market | of | FDI | Aggregate inflow of investment over years in constant USD. |
| Gross Domestic Product | Data Iceland | Market | of | GDP/capita | Total goods and services produced in countries in constant USD |
| Institutions | Data Iceland | Market | of | INST | The measure for institution was the length of paved roads in kilometers |
| Openness | Data Iceland | Market | of | OPEN | This is the ration of exports to imports |
| Inflation | Data Iceland | Market | of | INF | This is the percentage changes in prices of community overtime. |
| Exchange Rate | Data Iceland | Market | of | EXC | This is the average local currency dollar exchange rate overtime. |
| Market Potential | Data Iceland | Market | of | MARPT | Domestic attractiveness of the local market for both foreign and local producers measured using population density. |
| Transportation Cost | Data Iceland | Market | of | TRCOST | Cost of crude oil overtime was used to capture the cost of transportation which represents the transaction cost of trade. |
| Exports | Data Iceland | Market | of | EXP | Aggregate goods and services exported overseas in constant USD. |
| Government Expenditure | Data Iceland | Market | of | GOVEXP | Government expenditure spending is the aggregate spending on consumption and infrastructure over time. |
| Index of Economic Policy | Authors | Compilati | ion | POL | Economic policy index constructed from the residual of inflation and openness on GDP (see Burnside and Dollar (2004)) |

Table-5. List of Variables and Description

Note: All data are obtained from Data Market of otherwise stated. The economic policy index is developed by authors.

Algeria, Egypt, Nigeria, Ghana, Cameroon, Angola, Kenya, Uganda, Botswana and South Africa) for a period of 53 years (i.e. 1960 to 2012), Direct credit to the private sector the measure for privatization is the flow, of private credit to private sector business in constant US dollars, GDP per capita our measure of growth and foreign direct investment foreign direct investment (FDI) are used as dependent variables interchangeably. Other list of explanatory variables include Institutions (INST) which is the length of paved road in Kilometers, exports which is total goods and services exported in constant USD, transaction cost of doing business is captured using average crude oil price which is a function of transportation cost, market potential depicts the domestic market attractiveness as a destination for finished products was captured using population density and four macroeconomic variables namely openness which is the ratio of exports to imports, government expenditure spending which captures country specific fiscal spending, inflation which depict the riskiness of the immediate business environment and reflects the quality of a country's monetary policy and average local currency to dollar exchange rate. The table of descriptive statistics is presented above in Table 4. The variable description and sources are also explained in Table 5 above. See George, Odejimi, Mathews and Ojeaga (2014) for full details.

5.2 Empirical Analysis and Results

In this subsection we present the intuition for the study and argue that FDI is not likely to have strong implications for developing countries in Africa with poor living standards, since investors will be less willing to invest and even in cases where wages and economic reforms are ongoing it will have little or no significant effect as depicted by past FDI theories and represented in the Normal form games presented in the methodological sections of the study.

| Table 6 FDI Regressio | ons for Africa | | | | |
|-----------------------|----------------|---------|---------|----------|-----------|
| | (1) | (2) | (3) | (4) | (5) |
| | OLS | LME | 2SLS RE | 2SLS FE | GMM |
| VARIABLES | FDI | FDI | FDI | FDI | FDI |
| | | | | | |
| MARKPT | -0.02 | -0.02 | 0.86*** | -22.30* | -26.03*** |
| | (0.43) | (0.43) | (0.30) | (12.50) | (6.79) |
| CREDITACC | -0.0177** | -0.02** | 0.01 | -0.0341* | -0.00557 |
| | (0.01) | (0.01) | (0.02) | (0.02) | (0.02) |
| INST | 8.60 | 8.60 | -7.17 | 4.96 | -2.62 |
| | (1.31) | (1.31) | (5.19) | (7.39) | (2.10) |
| INF | -0.001 | -0.001 | -0.0004 | -0.002** | -0.002** |
| | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| OPEN | 0.03** | 0.03*** | 0.04*** | 0.10*** | 0.08*** |
| | (0.01) | (0.01) | (0.01) | (0.03) | (0.02) |
| GEXP | -0.01 | -0.01 | -0.01 | 0.03 | 0.02 |
| | (0.01) | (0.01) | (0.01) | (0.02) | (0.01) |
| EXP | 0.09*** | 0.09*** | 0.09*** | 0.02 | -0.02 |
| | (0.02) | (0.02) | (0.02) | (0.03) | (0.03) |
| TRCOST | 0.01 | 0.01 | 0.01 | -0.02 | 0.01 |
| | (0.04) | (0.04) | (0.03) | (0.02) | (0.03) |
| Year dummy | No | No | Yes | No | Yes |
| Observations | 306 | 306 | 306 | 306 | 285 |
| R-squared | 0.315 | 0.32 | 0.23 | 0.23 | |
| Number of id | | | 10 | 10 | 10 |

Note: Standard errors in parentheses^{***} p<0.01, ^{**} p<0.05, ^{*} p<0.1. The above results depicts the variable controlled for and asserted to be responsible for FDI inflow in Africa. Economic policy has stong effects on FDI inflow depicting that investors pay close attention to country specific economic policy that can influence the business environment.

FDI will however have modest results under conditions where domestic markets, living standards and macroeconomic policies have been improved to a significant level. Therefore the justification for FDI to affect growth will be one in which the recipient country positions itself for the long term benefits of foreign investments. The results for the FDI model specification regression using OLS, linear mixed effects, two stage least squares and GMM for the African countries in the sample are presented in the Table 6 below however interpretation is based on our preferred model, the GMM estimation technique(see Table 6 Column 6). It depicts that FDI inflow can increase with less trade restriction and improved international trade since trade openness had a positive significant effect (contributing 8 percentage points to FDI increases in the countries in the sample) on foreign investment inflow into the continent. The results of the two-stage least square fixed effect and the GMM estimation appear close. This depicted that controlling for endogeneity of the institutional variable and unobservable effects in countries across regions were necessary. The Arrelano-Bond test for serially correlation and the Hansen over-identification test for instrumental validity were conducted and it was concluded that auto-correlation were minimized and the instrument were valid although these are not reported for brevity.

The results for countries in regions are also presented in tables 7 to 9 respectively The results show that different factors were responsible for FDI inflow to regions. For North Africa it was found that the level of past economic development, the potential of the domeestic markets and the riskiness of the business environment captured using inflation across countries had a strong and positive significant effect on investment inflow in general, but poor insitutions were found to weaken investors perception and lead to negative inflow of FDI to these countries.

| Table 7 FDI Regress | ion for North Africa | 1 | | |
|---------------------|----------------------|----------|----------|----------|
| | (1) | (2) | (3) | (4) |
| | OLS | LME | 2SLS FE | GMM |
| VARIABLES | FDI | FDI | FDI | FDI |
| | | | | |
| GDP/CAP | 2.01*** | 2.01*** | 2.50*** | 8.71*** |
| | (6.74) | (6.74) | (39.49) | (2.55) |
| MARKPT | 23.44*** | 23.44*** | 2.121 | 216.9*** |
| | (6.51) | (6.51) | (61.19) | (81.66) |
| DCPS | 0.03 | 0.03 | -0.01 | 0.05 |
| | (0.04) | (0.04) | (2.78) | (0.04) |
| INST | -8.20** | -8.20** | 7.93 | -1.83*** |
| | (3.61) | (3.61) | (3.40) | (5.03) |
| INF | 0.17*** | 0.17*** | 0.08 | 0.13** |
| | (0.05) | (0.05) | (1.58) | (0.05) |
| OPEN | 0.08*** | 0.08*** | 0.10 | 0.06 |
| | (0.02) | (0.02) | (1.40) | (0.05) |
| GEXP | 0.06 | 0.06 | 0.03 | -0.01 |
| | (0.04) | (0.04) | (0.79) | (0.05) |
| EXP | 0.04 | 0.04 | 0.18 | -0.04 |
| | (0.08) | (0.08) | (3.58) | (0.10) |
| TRCOST | -0.08** | -0.08*** | 0.12 | 0.07 |
| IRCOUT | (0.03) | (0.03) | (130.2) | (0.06) |
| L1.FDI | (0.05) | (0.05) | (150.2) | -0.21 |
| | | | | (0.27) |
| L2.FDI | | | | -0.45** |
| L2.1 D1 | | | | (0.20) |
| YEAR EFFECT | No | No | No | Yes |
| OBSERVATIONS | 67 | 67 | 67 | 62 |
| R-SQUARED | 0.89 | 07 | 07 | 02 |
| NUMBER OF ID | 0.09 | | 2 | 2 |
| NUMBER OF ID | | | \angle | \angle |

Note: Standard errors in parentheses^{***} p<0.01, ^{**} p<0.05, ^{*} p<0.1. FDI inflow for North Africa is affected significantly by market potential, which depicts the domestic market attractiveness for consumption and production such as availability of cheap labor. Institutions remain strong concerns that should be addressed in a critical manner since it has strong negative effects on investment inflow to North Africa.

| Table 8. FDI Regressions for West Africa | | | | | | | |
|--|--------|--------|---------|---------|---------|--|--|
| | (1) | (2) | (3) | (4) | (5) | | |
| | OLS | LME | 2SLS RE | 2SLS FE | GMM | | |
| VARIABLES | FDI | FDI | FDI | FDI | FDI | | |
| | 2.14 | 2.14 | | 15 20 | 2.44 | | |
| GDP/CAP | 2.14 | 2.14 | | 15.39 | 3.44 | | |
| | (4.20) | (4.20) | 1.00 | (56.01) | (4.90) | | |
| MARKPT | 2.69 | 2.69 | 1.26 | -102.2 | -6.44 | | |
| | (2.90) | (2.90) | (1.34) | (368.2) | (11.13) | | |
| DCPS | -0.07 | -0.07 | -0.08 | 0.23 | -0.07 | | |
| | (0.07) | (0.07) | (0.07) | (0.64) | (0.08) | | |
| INST | -1.34 | -1.34 | 2.54* | 0.06 | -1.58 | | |
| | (1.81) | (1.81) | (1.46) | (0.173) | (2.08) | | |
| INF | 0.02* | 0.02** | 0.01 | 0.03 | 0.03** | | |
| | (0.01) | (0.01) | (0.01) | (0.14) | (0.01) | | |
| OPEN | 0.05* | 0.05** | 0.06** | -4.33 | 0.07** | | |
| | (0.02) | (0.03) | (0.03) | (15.34) | (0.03) | | |
| GEXP | 0.06 | 0.061 | 1.06 | 0.18 | 0.24 | | |
| | (0.64) | (0.64) | (0.66) | (0.49) | (0.74) | | |
| EXP | 0.051 | 0.05 | 0.06* | -0.18 | 0.08 | | |
| | (0.03) | (0.03) | (0.04) | (0.62) | (0.05) | | |
| TRCOST | 0.02 | 0.02 | -0.002 | 2.60 | 0.166 | | |
| incosi | (0.05) | (0.05) | (0.03) | (9.17) | (0.14) | | |
| L1.FDI | (0.05) | (0.05) | (0.05) | ().17) | -0.30 | | |
| | | | | | (0.24) | | |
| L2.FDI | | | | | -0.07 | | |
| L2.FDI | | | | | | | |
| VEAD EFFECT | Na | Na | Na | Na | (0.21) | | |
| YEAR EFFECT | No | No | No | No | Yes | | |
| OBSERVATIONS | 67 | 67 | 67 | 69 | 63 | | |
| R-SQUARED | 0.916 | | - | | | | |
| NUMBER OF ID | | | 2 | 2 | 2 | | |

Note: Standard errors in parentheses^{***} p<0.01, ^{**} p<0.05, ^{*} p<0.1.The results of the preferred GMM model above depict that monetary (inflation) policy and trade policy (openness) has strong effects on FDI in West Africa. See Column 5 in the above table.

For West Africa the results are presented in table 8. The preferred model the GMM results in Column 5 Table 8 show that the economic climate (INF) and trade openness had positive significant effect on FDI inflow contributing 3 and 7 percentage

| Table 9. FDI Regression for East and Southern Africa | | | | | | | |
|--|-----------|-----------|----------|----------|----------|--|--|
| | (1) | (2) | (3) | (4) | (5) | | |
| | OLS | LME | 2SLS RE | 2SLS FE | GMM | | |
| VARIABLES | FDI | FDI | FDI | FDI | FDI | | |
| | | | | | | | |
| GDP/CAP | -795.29** | -795.29** | 0.01 | -5.39 | -5.39 | | |
| | (340.0) | (340.0) | (0.03) | (429.23) | (429.23) | | |
| MARKPT | -2.40 | -2.40 | -44.81** | -27.65** | -27.65** | | |
| | (1.82) | (1.82) | (18.44) | (12.56) | (12.56) | | |
| DCPS | -0.02 | -0.02 | 0.03 | 0.02 | 0.02 | | |
| | (0.03) | (0.03) | (0.09) | (0.06) | (0.06) | | |
| INST | 6.31 | 6.31 | -5.91 | -1.22 | -1.22 | | |
| | (7.55) | (7.55) | (5.13) | (1.38) | (1.38) | | |
| INF | -0.001 | -0.001 | -0.002 | -0.001 | -0.001 | | |
| | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | | |
| OPEN | 0.22*** | 0.22*** | 0.244*** | 0.17*** | 0.17*** | | |
| | (0.06) | (0.06) | (0.09) | (0.06) | (0.06) | | |
| GEXP | 0.02 | 0.02 | 0.08* | 0.02 | 0.02 | | |
| | (0.01) | (0.01) | (0.04) | (0.03) | (0.03) | | |
| EXP | -0.16* | -0.16* | -0.07 | -0.09 | -0.09 | | |
| | (0.08) | (0.08) | (0.12) | (0.09) | (0.09) | | |
| TRCOST | -0.08 | -0.08 | -0.10 | -0.03 | -0.03 | | |
| | (0.12) | (0.12) | (0.12) | (0.11) | (0.11) | | |
| YEAR EFFECT | 0.02 | 0.02 | 1.09 | 0.35 | 0.35 | | |
| | (1.10) | (1.11) | (1.22) | (1.04) | (1.04) | | |
| L1.FDI | | | | 0.25*** | 0.25*** | | |
| | | | | (0.08) | (0.08) | | |
| L2.FDI | | | | 0.05 | 0.05 | | |
| | | | | (0.09) | (0.09) | | |
| OBSERVATIONS | 172 | 172 | 172 | 160 | 160 | | |
| R-SQUARED | 0.434 | | | | | | |
| NUMBER OF ID | | | 6 | 6 | 6 | | |

Table 9. FDI Regression for East and Southern Africa

Note: Standard errors in parentheses*** p<0.01, ** p<0.05, * p<0.1. The preferred GMM model (see Column 5) show that less restrictive trade policies have strong capabilities to attract FDI for countries in our sample for this region and that FDI also depended on past FDI inflow to the region. Poor markets also had negative effect on FDI inflow to this region (market potential had a negative significant effect on FDI inflow).

points to FDI increases in West Africa. This depicted once again that, investors pay strong attention reduce trade restrictions and the riskiness of the business environment when deciding to invest or not to invest. The results for East and Southern Africa are presented in Table 9 and the results of the preferred GMM model show that less restrictive trade policies have strong capabilities to attract FDI for countries in our sample for this region and FDI was also found to depend on past FDI inflow to the region. Poor markets also had negative effect on FDI inflow to this region (market potential had a negative significant effect on FDI inflow). The results of the growth regressions are also presented below in Tables 10 to 13. It depicted that FDI had no significant effect on growth in Africa.

| Table 10. | Effect of FDI on Gr | | (4) | (5) | |
|--------------|---------------------|-------------------|---------|---------|--------------|
| | (1) | (2) | (4) | (5) | (6) |
| | OLS | LME | 2SLS RE | 2SLS FE | GMM |
| VARIABLES | GDP | GDP | GDP | GDP | GDP |
| EDI | (01 | (01 | 1 77 | (02 | 0.01 |
| FDI | -6.01 | -6.01 | 1.77 | 6.02 | 8.01 |
| | (3.77) | (3.77) | (4.50) | (9.29) | (5.76) |
| MARKPT | -3.62*** | -3.62*** | -4.67* | -0.02 | -3.89 |
| | (1.33) | (1.33) | (2.59) | (0.02) | (7.00) |
| DCPS | -4.68 | -4.68 | 2.68 | 1.81 | 0.02 |
| | (4.94) | (4.94) | (7.82) | (5.44) | (1.91) |
| INST | 0.01*** | 0.02*** | 0.01 | 0.01 | -0.01 |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) |
| INF | -1.89*** | -1.89*** | -1.21 | 0.20 | 0.23 |
| | (5.52) | (5.52) | (2.40) | (3.22) | (0.71) |
| OPEN | 9.97 | 9.97 | -4.16 | 1.86** | -2.67 |
| | (7.00) | (7.00) | (1.30) | (9.00) | (2.24) |
| GEXP | -2.37*** | -2.37*** | -2.10 | -1.44** | -0.02 |
| | (4.23) | (4.23) | (1.48) | (6.92) | (1.95) |
| EXP | 5.72*** | 5.72e-08*** | -8.99 | 1.42 | 1.30 |
| | (1.25) | (1.25) | (3.59) | (1.12) | (2.90) |
| TRCOST | 2.67 | 2.67 | 1.84 | 1.60 | -2.78 |
| | (2.36) | (2.36) | (6.71) | (1.20) | (3.22) |
| L1.GDP/CAP | (,) | () | (011-) | () | 1.34*** |
| 2110217012 | | | | | (0.06) |
| L2.GDP/CAP | | | | | -0.37*** |
| 22.001/014 | | | | | (0.05) |
| YEAR EFFECT | No | No | Yes | Yes | (0.03) No |
| OBSERVATIONS | 306 | 306 | 306 | 306 | 292 |
| R-SQUARED | 0.844 | 500 | 500 | 500 | 272 |
| NUMBER OF ID | 0.044 | | 10 | 10 | 10 |
| | 1 1 . | 1 yyyy (0 0 1 yyy | 10 | 10 | 10 |

Table 10. Effect of FDI on Growth in Africa

Note: Standard errors in parentheses^{***} p < 0.01, ^{**} p < 0.05, ^{*} p < 0.1The results presented above depict that FDI has no effect on growth in Africa. It also depicts that growth were found to be influenced significant from growth from past periods.

The results for regions had a significant effect on growth although the results were mixed for regions except North Africa. also show the same for the implicative effect of FDI on growth. However Trade openness

| Table 11 | Table 11 Growth Regressions for North Africa | | | | | | | |
|--------------|--|-------------------|-----------------------|-----------------------|-------------------|--|--|--|
| VARIABLES | (1) OLS GDP | (2) LME GDP | (4) 2SLS RE GDP | (5) 2SLS FE GDP | (6) GMM GDP | | | |
| | | | | | | | | |
| FDI | 1.35*** | 1.35*** | 1.35*** | -3.12 | -3.16 | | | |
| | (4.51) | (4.51) | (4.51) | (5.04) | (7.05) | | | |
| MARKPT | -9.47*** | -9.47*** | -9.47*** | -1.24*** | -2.90 | | | |
| | (7.94) | (7.94) | (7.94) | (3.97) | (1.88) | | | |
| DCPS | 1.57* | 1.57* | 1.57* | -2.18*** | -8.58 | | | |
| | (8.70) | (8.70) | (8.70) | (4.66) | (1.11) | | | |
| INST | 0.02* | 0.02** | 0.01** | 0.01*** | -0.03* | | | |
| | (0.02) | (0.02) | (0.01) | (0.03) | (0.03) | | | |
| INF | -2.01 | -2.01 | -2.01 | -1.07*** | 3.85** | | | |
| | (1.45) | (1.45) | (1.45) | (9.31) | (1.86) | | | |
| OPEN | -1.65** | -1.65** | -1.65** | -4.86*** | -0.04 | | | |
| | (6.81) | (6.81) | (6.81) | (3.82) | (1.06) | | | |
| GEXP | -2.52** | -2.52** | -2.52** | -2.84*** | 3.75*** | | | |
| | (1.01) | (1.01) | (1.01) | (3.97) | (1.36) | | | |
| EXP | 5.45 | 5.45 | 5.45 | -3.07*** | 2.10 | | | |
| 2.11 | (2.12) | (2.12) | (2.12) | (8.87) | (2.60) | | | |
| TRCOST | 5.95 | 5.95 | 5.95 | 3.98*** | -2.55** | | | |
| 11100001 | (9.09) | (9.09) | (9.09) | (4.51) | (1.10) | | | |
| L1.GDP/CAP | ().0)) | ().0)) | ().0)) | (1.01) | 0.58*** | | | |
| | | | | | (0.19) | | | |
| L2.GDP/CAP | | | | | 0.34* | | | |
| | | | | | (0.19) | | | |
| YEAR EFFECT | No | No | No | Yes | Yes | | | |
| OBSERVATIONS | 67 | 67 | 67 | 67 | 64 | | | |
| | | 07 | 07 | | т | | | |
| R-SQUARED | 0.99 | | | 1.00 | • | | | |
| NUMBER OF ID | | | | | 2 | | | |

Standard errors in parentheses^{***} p<0.01, ^{**} p<0.05, ^{*} p<0.1. The results for regions also show the same for the implicative effect of FDI on growth. However Trade openness had a significant effect on growth although the results were mixed for regions except North Africa.

| Table 12. Growth Regressions for West Africa | | | | | | | |
|--|------------|------------|----------------|----------------|-------------------|--|--|
| | (1) OLS | (2) LME | (4) 2SLS RE | (5) 2SLS FE | (6) GMM CDD | | |
| VARIABLES | GDP | GDP | GDP | GDP | GDP | | |
| FDI | 6.60 | 6.60 | 1.79 | 1.79 | 1.79 | | |
| | (1.15) | (1.15) | (1.12) | (1.12) | (1.12) | | |
| MARKPT | -6.92*** | -6.92*** | -8.41*** | 3.17 | 3.17 | | |
| | (3.02) | (3.02) | (6.07) | (2.56) | (2.56) | | |
| DCPS | -8.67** | -8.67*** | 2.24 | 2.81 | 2.81 | | |
| | (3.13) | (3.13) | (4.82) | (3.56) | (3.56) | | |
| INST | 0.02*** | 0.02*** | 0.03*** | 0.02 | 0.02 | | |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | | |
| INF | 9.33 | 9.33* | -2.03 | 0.01 | 0.21 | | |
| | (5.59) | (5.59) | (1.19) | (6.92) | (6.92) | | |
| OPEN | -4.19*** | -4.19*** | -9.49*** | -5.77*** | -5.77*** | | |
| | (1.12) | (1.12) | (2.17) | (1.32) | (1.32) | | |
| GEXP | 8.84*** | 8.84*** | 5.79** | 2.50 | 2.50 | | |
| | (2.70) | (2.70) | (2.56) | (3.16) | (3.16) | | |
| EXP | -2.40 | -2.40 | -7.80*** | 0.33 | 0.33 | | |
| | (1.75) | (1.75) | (2.49) | (1.87) | (1.87) | | |
| TRCOST | -5.73*** | -5.73*** | -6.68 | -5.77 | -5.77 | | |
| | (1.45) | (1.45) | (2.24) | (2.44) | (2.44) | | |
| L1.GDP/CAP | | | | 0.82*** | 0.82*** | | |
| | | | | (0.16) | (0.16) | | |
| L2.GDP/CAP | | | | 0.11 | 0.11 | | |
| | | | | (0.16) | (0.16) | | |
| YEAR EFFECT | No | No | No | Yes | Yes | | |
| OBSERVATIONS | 67 | 67 | 67 | 65 | 65 | | |
| R-SQUARED | 0.99 | | 0.99 | | | | |
| NUMBER OF ID | | | | 2 | 2 | | |

Note: Standard errors in parentheses^{***} p<0.01, ^{**} p<0.05, ^{*} p<0.1. The results for regions also show the same for the implicative effect of FDI on growth. However Trade openness had a significant effect on growth although the results were mixed for regions except North Africa.

| Table 13. Growth Regressions for East and Southern Africa | | | | | | | | |
|---|---------------|-----------------|----------------|-----------------|--------------|--|--|--|
| | (1) OLS | (2) LME | (4) 2SLS RE | (5) 2SLS FE | (6) GMM | | | |
| VARIABLES | GDP | GDP | GDP | GDP | GDP | | | |
| | 5 0044 | 5 0.0*** | 1.04 | 2 5 0 ** | 1.22 | | | |
| FDI | -5.08** | -5.08** | -1.24 | -3.59** | 1.33 | | | |
| | (2.17) | (2.17) | (7.68) | (1.52) | (8.48) | | | |
| MARKPT | -5.09*** | -5.09*** | -3.04 | 0.01 | -7.69 | | | |
| | (1.22) | (1.22) | (1.32) | (0.03) | (1.28) | | | |
| DCPS | 1.31* | 1.31* | -2.52 | 2.53* | -1.84 | | | |
| | (7.52) | (7.52) | (2.50) | (1.44) | (5.61) | | | |
| INST | 0.02** | 0.02** | 0.21 | 0.23 | 0.21 | | | |
| | (0.03) | (0.01) | (0.03) | (0.13) | (0.11) | | | |
| INF | 1.77 | 1.77 | -6.29 | -7.32 | 0.14 | | | |
| | (3.02) | (3.02) | (5.39) | (5.06) | (0.03) | | | |
| OPEN | 1.10*** | 1.10*** | 2.70 | 1.54*** | -1.34** | | | |
| | (1.13) | (1.13) | (1.04) | (2.66) | (6.67) | | | |
| GEXP | -1.08*** | -1.08*** | 2.29 | -8.21 | -0.93 | | | |
| | (3.21) | (3.21) | (2.18) | (1.22) | (3.35) | | | |
| EXP | -1.64*** | -1.64*** | -1.97 | -1.04*** | 1.74* | | | |
| | (1.57) | (1.57) | (2.29) | (3.36) | (8.92) | | | |
| TRCOST | -2.21 | -2.21 | -9.47 | -5.86 | -1.24 | | | |
| incosi | (2.95) | (2.95) | (6.07) | (4.67) | (1.05) | | | |
| L1.GDP/CAP | (2.00) | (2:)0) | (0.07) | (1.07) | 1.31*** | | | |
| | | | | | (0.08) | | | |
| L2.GDP/CAP | | | | | -0.34*** | | | |
| | | | | | (0.08) | | | |
| YEAR EFFECT | No | No | No | No | (0.08) No | | | |
| OBSERVATIONS | 172 | 172 | 172 | 172 | 163 | | | |
| R-SQUARED | 0.98 | 1/2 | 1/2 | 1/2 | 105 | | | |
| NUMBER OF ID | 0.90 | | 6 | 6 | 6 | | | |
| NUMBER OF ID | | | 6 | 0 | 0 | | | |

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Note: Standard errors in parentheses^{***} p<0.01, ^{**} p<0.05, ^{*} p<0.1. The results for regions also show the same for the implicative effect of FDI on growth. However Trade openness had a significant effect on growth although the results were mixed for regions except North Africa.

The fourth Growth model specification where FDI was interacted with country specific economic trade policy was also considered and estimated the results are presented in Table 14. It showed strong significant effect for growth, depicting that FDI inflow into countries with sound and consistent macroeconomic policy particularly as it relates to trade could make the seeming non-growth increasing FDI begin to have useful implications for growth.

| | (1) | (2) | (3) | (4) | (5) |
|------------------|----------|----------|---------|---------|----------|
| | OLS | LME | 2SLS RE | 2SLS FE | GMM |
| VARIABLES | GDP | GDP | GDP | GDP | GDP |
| FDI*POL | 0.01 | 0.17 | 1.77 | 6.02 | 0.03*** |
| | (0.26) | (0.27) | (4.50) | (9.29) | (6.34) |
| MARKPT | 0.39*** | 0.38*** | -4.67* | -0.02 | -0.52*** |
| | (0.11) | (1.21) | (2.59) | (0.02) | (0.68) |
| DCPS | 0.36 | -1.08** | 2.68 | 1.81 | -9.25 |
| | (0.48) | (0.47) | (0.78) | (0.54) | (0.17) |
| INST | 0.03*** | 0.01*** | 0.01 | 0.01 | 0.02** |
| | (0.02) | (0.02) | (0.01) | (0.01) | (0.02) |
| INF | 0.10** | 0.10** | 1.21 | 0.20 | 0.02 |
| | (0.45) | (0.47) | (2.40) | (3.22) | (0.03) |
| GEXP | -2.83*** | -2.85*** | -4.16 | 1.86** | -2.20 |
| | (0.41) | (0.41) | (1.30) | (9.00) | (1.60) |
| TRCOST | 0.54** | 0.15*** | 0.21 | 0.14** | 0.23 |
| | (0.24) | (0.52) | (1.48) | (6.92) | (0.66) |
| L1.GDP/CAP | | | -8.99 | 1.42 | 1.56*** |
| | | | (3.59) | (1.12) | -0.03 |
| L2.GDP/CAP | | | 1.84 | 1.60 | -0.58*** |
| | | | (0.67) | (0.12) | -0.03 |
| YEAR EFFECT | | | Yes | Yes | |
| OBSERVATIONS | 329 | 329 | 306 | 306 | 329 |
| NUMBER OF GROUPS | 320 | 280 | | | |
| NUMBER OF ID | | | 10 | 10 | 10 |

Table 14. Growth Regressions Africa Using Interactive Variable Openness for Policy

Note: Standard errors in parentheses^{***} p<0.01, ^{**} p<0.05, ^{*} p<0.1. FDI in the presence of sound macroeconomic policy appears to have a positive significant effect on economic growth making sound macroeconomic policy to be a useful factor in making FDI help improve Growth on the Continent.

6.0 Discussion, Conclusion and Recommendations.

In this study we investigated the factors responsible for FDI inflow into some selected African countries and the implicative effect of FDI for growth in some selected countries in Africa and in regions in Africa (these regions included, North, West, Southern and East Africa, the last which were combined as a result of their interrelatedness). The objectives of the study were to determine: i) To what extent can foreign direct investment (FDI) promote growth in Africa? ii) to examine what the inflow of foreign direct investment hold for African emerging economies? iii) Are finally examine the differences in the determinants of FDI for different regional blocs in Africa?

It was found that FDI does not have significant effect on growth in the selected African countries in our sample and in the selected countries in regions. It was also discovered that FDI could have strong implicative effects on growth if sound and consistent macroeconomic policies are implemented particularly less trade restrictive policies.

There were also observed differences in the factors responsible for FDI inflow across the selected countries in regions. It was found that past economic performances, country specific market potential and the riskiness of the business climate had positive significant effects on FDI inflow into North Africa. However institutional factors were found to remain an impediment as this affected investors perception of the region strongly (see Table 7 Column 5).

For West Africa it was noticed that less restrictive trade policies and the less risky the business climate is had strong influences on investor's perception and FDI inflow to the West African Sub-Region (see Table 8 Column 5). For Southern and East Africa it was found that less restrictive trade policies had strong capabilities to drive FDI inflow into the Sub- Region, the major impediment to FDI inflow to this region was found to poorly developed domestic markets which meant that investors and producers where probably faced with the challenge of exporting finished goods to the international market making investors perception about available domestic market for finished goods to affect FDI inflow in a negative manner(see Table 9 Column 5).

Using the Normal form games based on the past theories of FDI it was asserted the sound and consistent macroeconomic policies were probably likely to make FDI have useful effects for economic growth and that countries could achieve optimum growth from foreign investment if macroeconomic policy particularly as they effect trade are put in place. In concluding the study, it is recommended that countries across regions should pay strong attention to macroeconomic policies particularly as it affects trade.

It is also clear that domestic market development is necessary, since this has strong capabilities to insulate countries in times of global shocks and boost investors' confidence in the strength of the investment destination country in times of uncertainty. Improvement of institutions is also recommended for transparency and ease of obtaining business permits; other factors such as legal framework as it concerns trade have to also be put in place boost investors' confidence in the judiciary and shore up their confidence in obtaining redress in cases where there are breaches of contracts etc.

The implication of the results of the study are that FDI is not currently promoting growth in a significant manner in Africa, and that if policy makers pay strong attention to the development of domestic markets as well as improving the business environment for trade through less restrictive trade policies, FDI is likely to have strong implicative effects for growth. It is recommended that institutions and infrastructural concerns be addressed as this could reduce the transaction cost of trade as well as the ease of obtaining business permits in general.

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