

Economic and Social Research Foundation

Globalisation and East Africa

Working Paper Series No. 11

**Determinants of FDI Inflows to African Countries:
A Panel Data Analysis**

Beatrice K. Mkenda and Adolf F. Mkenda

April 2004

Determinants of FDI Inflows to African Countries: A Panel Data Analysis

By

Beatrice K. Mkenda

Economic and Social Research Foundation,
51 Uporoto Street,
Ursino Estate,
P.O. Box 31226, Dar es Salaam.
E-mail: bkmkenda@udsm.ac.tz

.

and

Adolf F. Mkenda
Department of Economics,
University of Dar es Salaam,
P.O. Box 35045, Dar es Salaam.
E-mail: amkenda@udsm.ac.tz

ABSTRACT

The study examines the key determinants of FDI inflows to African countries. One of the key determinants investigated is related to the stance of governance in the African countries. A panel data estimation approach is used to estimate the determinants. The study finds that governance is positively related to FDI inflows, although the coefficient is not significant. The stability of political regimes is also an important determinant of FDI inflows to African countries. Other important determinants are; population size, level of industrialisation, and aid received per capita. Although the level of infrastructure as proxied by the number of telephones is positively related to FDI inflows, the coefficient is insignificant. The level of government involvement in the economy as proxied by government consumption as a percentage of GDP is negatively related to FDI inflows. Several policy implications are drawn from the study. Firstly, population size, which proxies the market size is important for attracting FDI. The practical and rational way of expanding the market size is to integrate economies of individual countries into regional blocks. It also seems that FDI inflows into a country is adversely affected by the government's over-involvement into the economy. Increasing the GDP share of the private sector seems to be good for attracting FDI. In spite of the insights offered by the empirical results, one shortcoming of this study is that data on natural resource endowments of countries could not be obtained for use in the estimation of the determinants of foreign direct investment. The stylised facts indicate that endowment of natural resources is one of the determinants of FDI inflows.

Keywords: FDI, governance, panel data, Africa

JEL Classification: F23, C33, O55

Table of Contents

ABSTRACT.....	I
LIST OF TABLES.....	III
LIST OF FIGURES	III
1.0 INTRODUCTION.....	1
2.0 RATIONALE FOR SEEKING FOREIGN DIRECT INVESTMENT	3
3.0 SOME STYLISED FACTS: DISTRIBUTION AND TREND OF FDI INFLOWS.....	5
4.0 BRIEF REVIEW OF OTHER STUDIES.....	8
5.0 EMPIRICAL STRATEGY	10
6.0 THE RESULTS.....	12
7.0 SUMMARY AND CONCLUDING DISCUSSION	14
APPENDIX.....	15
REFERENCES.....	16

LIST OF TABLES

Table 1: Gross domestic savings (% of GDP), Average 1990-2000.....	3
Table 2: Average Percentage FDI Inflows to Selected African Countries*.....	7
Table 3: Selected Panel Data Studies.....	8
Table 4: Estimation Results: Fixed Effects Model.....	13

LIST OF FIGURES

Figure 1: FDI Inflows (Average Inflows Across the Developing World, US\$ million).....	5
Figure 2: FDI Inflows (Percentage Distribution Across Developing Regions).....	6

1.0 INTRODUCTION

One of the indicators of the extent of globalisation is the increase in foreign direct investment (FDI) flows around the world. Figures from UNCTAD indicate that FDI inflows to developing countries increased by 28 times between 1980 and 2000. Of the total inflows to the developing world over the same period, an average of only 2 percent went to African countries, while Asia and the Pacific received an average of 16 percent. The performance of Africa is pitiful compared to other continents. Governments in Africa are increasingly calling upon private investors to invest in their countries, and to take advantage of the competitive conditions being offered by various investment packages. The following quotations illustrate, albeit at a rhetorical level, the efforts being made by some African countries to attract private investment:

“Economic reforms implemented by the Tanzanian government since the mid-1980s have boosted foreign investment in the East African country”, President Benjamin Mkapa said on Wednesday...He pledged that his government would continue implementing further reforms, including "prudent" privatisation of loss-making public enterprises - (28th May 2003, speaking at a conference jointly organised by the Tanzania government and the Commonwealth Business Council, Dar es Salaam, News24.com).

Zambian President Levy Patrick Mwanawasa has pledged to a packed house of business leaders that he will stamp out corruption and continue to pursue economic liberalism as part of a package to bring in new investment. – (28th February 2003, speaking to a meeting organised by the Commonwealth Business Council, London, Business for Africa, “Zambian Investment Drive”).

“Uganda has 13m hectares of idle land that potential investors can utilize”, a senior Uganda Investment Authority (UIA) official said on Tuesday...UIA assistant director, Arthur Tukahirwa told a 40-man delegation from South Africa's Free State Province who were in Uganda to explore investment opportunities. Tukahirwa said altogether, Uganda has just over 18m hectares of land for agricultural purpose. He said UIA promotes investment in the agriculture, tourism, services, mining, education, health, information, communication and technology sectors (2/5/2003, New Vision, “UIA Woos South African Investors”)

“Creating the right enabling environment for business is a priority for my government. A strong and vigorous private sector in Kenya is key to propelling economic growth and creating employment for the vast majority of the population...A NARC government will strive hard to make Kenya a secure and competitive destination for local and foreign investment.” (Mwai Kibaki, 2 December 2002, addressing reporters in Mombasa as the election campaign got fully underway in Kenya, Business for Africa website).

These calls for increased foreign private investment by African governments are a rational way of bridging the resource gaps that they are facing. While foreign private investors have responded to such calls, the rate and extent of FDI inflows to Africa is not the same as the inflows to other regions of the world. This paper seeks to examine two issues. The first one being to analyse the extent to which African countries have been drawn into the global

economy by way of the extent of FDI inflows and their trend over time. The second issue that the paper examines pertains to the main determinants of FDI to Africa.

Like other studies of this nature, this study draws on findings from various studies to isolate the key determinants, and it also draws on the theoretical literature. However, it goes a step further by incorporating governance factors as determinants of FDI inflows to Africa. African countries are increasingly being asked to improve the stance of governance in their countries. It would thus be interesting to see whether or not governance issues matter in attracting FDI. In terms of methodology, this study is in the frontier by using panel data methods of estimating the model. Panel data affords an opportunity to take into account country specific characteristics that are time invariant, and also, country invariant time specific factors without the need to specifically identify and estimate such characteristics and the factors.

The paper is organised as follows. Section two discusses the rationale for seeking FDI. Section three dwells on the stylised facts of FDI inflows to African countries. Section four reviews the empirical literature on FDI and its determinants, and it also sets the stage for isolating the main determinants that are used in the model. Section five outlines the empirical strategy, while section six discusses the results. Lastly, section seven concludes the paper.

2.0 RATIONALE FOR SEEKING FOREIGN DIRECT INVESTMENT

By and large, African countries have low domestic savings. On average, domestic savings as a percentage of GDP between 1990 and 2000 in sub-Saharan African were approximately 16 percent, while in East Asia and the Pacific, they were approximately 36 percent (see Table 2). Besides the low domestic savings, African countries are in general poor. The low domestic savings and low incomes of most African countries mean that it is difficult, if not impossible, to raise indigenous local capital to finance investment. As a result, most look up to foreign private investors to help finance investment to foster accelerating growth and development. FDI thus plays a crucial role of filling up the resource gap.

It is thus no wonder that African countries, in line with liberalisation efforts that began in the mid 1980s under various structural adjustment programmes (SAPs), instituted measures to attract FDI inflows. Among the measures meant to attract FDI, the following have been put in place at varying degrees in various African countries; setting up of investment centres as one-stop shops for investors, easing investment barriers for foreigners, opening up the capital account, liberalising trade policies, and instituting market-oriented policies by lifting controls on the exchange rate and consumer commodities (Dunning 2001). Also, under the SAPs, governments have been privatising previously state-owned enterprises.

Table 1: Gross domestic savings (% of GDP), Average 1990-2000

REGION	%
East Asia and the Pacific	35.9
Europe & Central Asia	24.4
Latin America and Caribbean	19.7
Middle East and North Africa	23.4
South Asia	19.2
Sub-Saharan Africa	15.7

Source: World Bank, (2002), World Development Indicators CD-ROM.

While most African countries have put in place conditions that are conducive for a speedy inflow of FDI, the response of investors has not been commensurate with measures so far in place. Some researchers have indicated that actually the pursuance of market-oriented policies has helped to bring in the FDI inflows that are seen now (Dunning, 2001), while others claim that the inflows should be more than what is actually taking place (CUTS, 2002).

Whether the FDI inflows are more or less is debatable, for foreign investors have their own reasons for being cautious with African countries. But what is generally recognised in the literature is that FDI contributes to economic growth in less developed countries (ODI, 2002; Lensink and Morrissey, 2001; Obwona, 2001), and that it is increasingly becoming an

important source of private capital. Studies have shown that FDI does indeed foster economic growth and development, and that the effect on economic growth is stronger in countries with a relatively educated population (Globerman and Shapiro, 2002), and where host countries pursue a policy of export promotion as opposed to import substitution (Lensink and Morrissey, 2001). The contribution of FDI inflows to economic growth arises through the increase in the capital stock, as a channel for technology transfer, and through enhancing technological change through technological diffusion (Lensink and Morrissey, 2001).

Having noted the increasing importance of FDI as a source of private capital to boost economic growth and development, researchers are now recommending FDI as a preferred source of capital, as opposed to short-term portfolio equity, bank loans and debt. This is because FDI has proved to be resilient during financial crises, compared to other forms of financing that have been seen to suffer from large reversals during a crisis (Loungani and Razin, 2001). For example, a study by Morrissey (2003) showed that for the period 1970 to 1997, private capital and external debt exhibited the highest volatility, while FDI and official flows had the lowest volatility (see also Trevino *et al*, 2002). The resilience of FDI is not the only reason why it is the preferred source of finance for developing countries. Other gains from FDI include; *competition* (foreign companies which enter the domestic market increase competition, and hence encouraging domestic companies to increase efficiency or even adopt more efficient technology), *training* (the introduction of new technology may require an upgrading of local skills, which contributes to human capital development), *linkages* (by transacting with local businesses, the foreign firms may transfer new technology to them), *imitation* (local firms may become more productive by imitating the managerial practices and more advanced technologies of the foreign firms), and *contribution to tax revenues* (the presence of more foreign firms increases the tax revenues collected from companies, hence contributing to government income) (Lensink and Morrissey, 2001; Loungani and Razin, 2001).

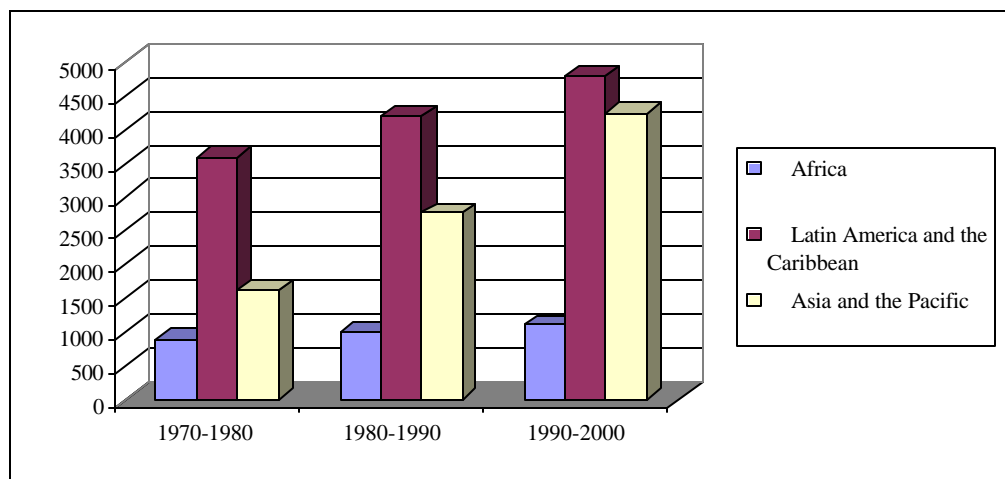
3.0 SOME STYLISTED FACTS: DISTRIBUTION AND TREND OF FDI INFLOWS

The amount of FDI inflows is one of the indicators of the extent of globalisation.² In this section, we will see the extent to which Africa has been drawn into the global economy by looking at the amount and trend of FDI. This is contrasted with other regions of the developing world.

Figure 1 shows the amount of FDI inflows to various regions of the developing world averaged over three sub-periods between 1970 and 2000. It shows that average FDI inflows to Africa increased only marginally from the 1970-1980 period to the 1990-2000 period. This contrasts sharply with FDI inflows to Asia and the Pacific, and Latin America and the Caribbean. While average FDI inflows over the three sub-periods to these latter regions have been increasing throughout the sub-periods, the average inflows to Africa have almost been stagnant. The most rapid increase in average FDI inflows over the three sub-periods has been to Asia and the Pacific, while in absolute amounts, Latin America and the Caribbean received the highest average FDI inflows.

In terms of inflows as a percentage of total FDI inflows, Figure 2 shows an even more glaring picture. Africa's percentage share of FDI inflows has actually been plummeting over time, while for Asia and the Pacific, the percentage of FDI inflows has been increasing. For Latin America and the Caribbean, the percentage dropped in the 1980-90 period, but it picked up thereafter.

Figure 1: FDI Inflows (Average Inflows Across the Developing World, US\$ million)



² Other indicators are; the amount of aid inflows, the percentage of trade in GDP, the convergence of domestic prices and world prices, the number of international tourists, incoming and outgoing international telephone calls, transfer payments and receipts, the number of Internet users, Internet hosts, and secure servers (http://www.foreignpolicy.com/issue_janfeb_2001/atkearneywtkm.html, and Mkenda, 2002).

Figure 2: FDI Inflows (Percentage Distribution Across Developing Regions)

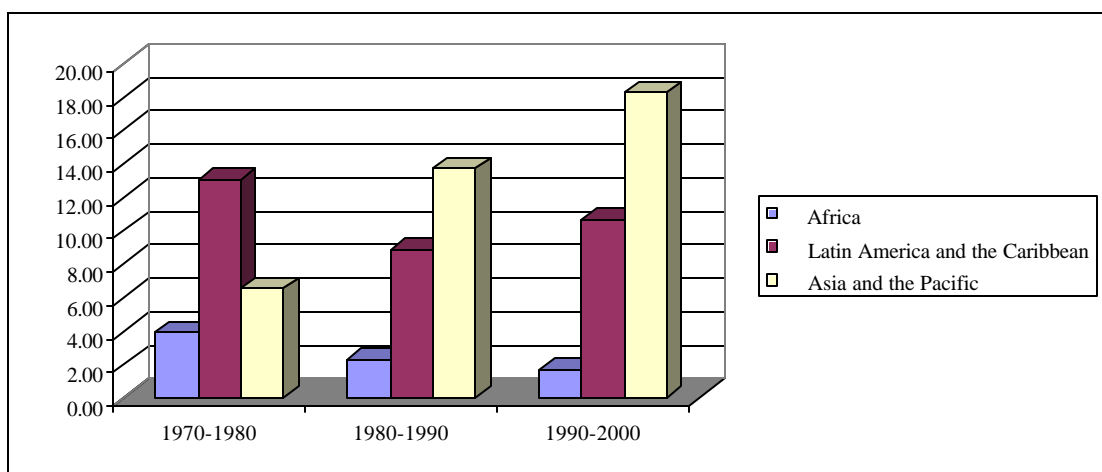


Table 1 gives countries that have received at least an average of 5 percent or more of total FDI inflows to the developing world in the two sub-periods, 1980-1990 and 1990-2000. For countries in sub-Saharan Africa, Table 1 shows that countries with a huge primary sector (natural resources such as oil and minerals) have attracted a higher percentage of FDI inflows. According to Basu and Srinivasan (2002), the nine oil-exporting countries account for 75 percent of FDI flows into Africa. Other factors that have been identified by the Basu and Srinivasan (2002) study that have helped to attract FDI inflows to certain African countries are; *locational advantages* (for example, owing to Swaziland and Lesotho's location, they attracted significant FDI inflows for multinational companies that wanted to produce goods for the South African market in the era of economic sanctions), *specific investment incentives* (Mauritius is cited as having attracted FDI inflows owing to its policy of creating export processing zones), and *broad-based policy reforms* (for instance, Mozambique and Uganda have promoted macroeconomic stability after episodes of war and political instabilities, and have also provided incentives to foreign investors).

A number of factors have been given for the continuing disparity in the FDI inflows among the different regions of the developing world. In general, foreign investors perceive Africa as a risky investment destination owing to its recurrent political and economic instability, poverty, and weak governance record.³ As such, researchers are strongly recommending the importance of African countries to strive to promote macroeconomic stability, improve their governance records, remove impediments to private sector activities, and implement reforms that will attract FDI inflows (see Basu and Srinivasan, 2002). Such conditions will no doubt

³ A case in point is the one cited in the *Foreign Policy Magazine*: Mobolaji Aluko, a Nigerian who chairs the department of chemical engineering at Howard University in Washington, D.C., has a devil of a time convincing Americans to invest in his entrepreneurial business ventures back home. Nigeria's political and social instability don't help. But equally important, says Aluko, are the endless e-mail scams originating from Nigeria that are "always at the back of [investors'] minds." (<http://www.foreignpolicy.com/story/story.php?storyID=136923>)

help to attract more FDI inflows, or make it attractive for multinational companies to locate their firms there.

Table 2: Average Percentage FDI Inflows to Selected African Countries*

	1980-1990	1990-2000
Angola	5.1	7.3
Botswana	5.2	0.2
Cameroon	6.8	-0.2
Nigeria	2.6	20.1
South Africa	1.5	10.0
Liberia	6.7	0.6
Morocco	4.9	8.0
Tunisia	12.4	7.6
Egypt	48.3	14.5
Algeria	8.4	2.5

Note: As a percentage of total FDI Inflows to Africa.

In this paper, we will not try to explain further the reasons behind this disparity. Rather, as stated earlier, we are looking at the factors that account for FDI inflows in Africa, especially to try to see if some factors related to governance issues matter. We do this using panel data for as many countries as the data allows.

4.0 BRIEF REVIEW OF OTHER STUDIES

A number of studies have been undertaken to examine the main determinants of FDI inflows. Most of these studies have employed cross-sectional econometric methods of analysis, while a few have used panel data. Table 3 provides a summary of studies that have employed panel data. The list is by no means exhaustive.

Table 3: Selected Panel Data Studies

Study By	Sample and Period	Explanatory Variables	Effect and significance
Morisset (2000)	29 African countries, 1990-1997	<ul style="list-style-type: none"> • Trade openness • Illiteracy rate • Telephones lines • Urban population • GDP growth rate • Natural resources 	<ul style="list-style-type: none"> •+, Significant •+, Insignificant •-, Insignificant •-, Insignificant •+, Significant •+, Significant
Aseidu (2002)	71 developing countries, of which 32 were Sub-Saharan countries, average for three sub-periods: 1988-90, 1991-93, 1994-97	<ul style="list-style-type: none"> • Openness • Infrastructure development • Return on Investment • Africa dummy • Openness*Africa • Infrastructure*Africa • Return*Africa 	<ul style="list-style-type: none"> •+, Significant •+, Significant •+, Significant •-, Significant •-, Insignificant •+, Significant •-, Significant
Addison and Heshmati (2003) **Results quoted are on full sample, except for ICT spending	Unbalanced panel of 110 countries observed during 1970-1999, with 72 countries observed over the entire sample, and a smaller sample of 39 countries observed for 1992 to 1999	<ul style="list-style-type: none"> • Openness • GDP growth • Government consumption • Wages • Education • Return to saving • Infrastructure • Degree of industrialisation • Investment risk • Minerals • Democracy • Fuel • Size • ICT Spending (for smaller sample, and pooled model) 	<ul style="list-style-type: none"> •+, Significant •+, Significant •-, Insignificant •+, Weakly significant •+, Significant in SSA, - elsewhere •+, Significant •-, Insignificant •-, Significant •-, Significant •+, Significant •+, Significant •-, Insignificant •+, Insignificant •+, Significant

While the studies in Table 3 have employed an advanced econometric technique, only one included a variable on governance. In the literature, we came across one study by Globerman and Shapiro (2002) that included governance issues, but used a pooled ordinary OLS model. The Globerman and Shapiro (2002) study assessed whether and the extent to which governance infrastructure influence FDI flows to and from the economies in their sample.

Other factors examined by the study are; the effects of human capital development and the quality of the environment. Since our interest is in inflows, we focus on their findings on inflows. Their results showed that governance infrastructure is an important determinant of FDI inflows. A further interesting finding was that there are diminishing returns to improvements in governance infrastructure. That is, smaller and typically poor economies get the greatest effects from improvements in governance infrastructure, while larger and richer economies gain less at the margin. The Globerman and Shapiro (2002) study covered as many countries as the Kaufmann, Kraay, and Zoido-Lobaton data set could allow. Our study differs from theirs in that we focus on Africa, where donors are increasingly asking governments to improve their governance stance.

The Addison and Heshmati (2003) study explored the determinants of FDI flows in developing countries using within-estimation methods, and pooled OLS. Besides the usual determinants in the literature, they included variables on democratisation and spread of ICT. They found that both democracy and ICT have significant and positive effects on FDI, leading them to conclude that developing countries should receive more support to democratise and set up ICT infrastructure if they are to attract FDI, and so that they are not left in a 'low-level ICT equilibrium trap'. Other findings from the study⁴ were that there is a positive relationship between the flow of FDI and economic growth, that openness to trade positively affects FDI, and that the level of risk negatively affects FDI (Addison and Heshmati, 2003, p.23).

⁴ See Table 3 for other results.

5.0 EMPIRICAL STRATEGY

We now turn to our own estimation strategy. As noted above, we employed panel data estimation technique. The model we estimate is linear, and is as follows:

$$FDI_{it} = \beta_0 + \mu_i + \beta_1 POP_{it} + \beta_2 GCONSGDP_{it} + \beta_3 DEMOC_{it} + \beta_4 COLLAPSE_{it} + \beta_5 INDUSTRY_{it} + \beta_6 TEL_{it} + \beta_7 AIDPC_{it} + e_{it}$$

where,

FDI	-	foreign direct investment
POP	-	population
GCONSGDP	-	government consumption as a percentage of GDP
DEMOC	-	democracy
COLLAPSE	-	collapse (standing for total collapse of governance)
INDUSTRY	-	industry value added as a percentage of GDP
TEL	-	telephone mainlines per 1,000 people
AIDPC	-	aid per capita
ε_{it}	-	error term
β_0	-	Constant
μ_i	-	Recipient effects.

The sources and detailed explanation of the variables are given in the appendix. We expect the following from our estimation:

Population – investors are generally drawn to regions where markets are big enough and consumers are well off to warrant the investment. In order to capture market size, we chose population. We expect a positive relationship between population and FDI inflows; the higher a country's population, the higher the FDI inflow.

Government consumption as a percentage of GDP – the level of government consumption of a country can indicate the extent of government involvement in the economy. Public reforms that are undertaken under structural adjustment programmes are meant to reduce the relative size of the government in order to make it leaner and more efficient through better remuneration packages. Hence the smaller a government is, the more efficient it is perceived to be, thus creating a conducive environment for robust private investment. It should also be pointed out here that a relatively large government tends to “crowd out” private investment in an economy. Therefore, we expect a negative relationship between government consumption and FDI inflows.

Democracy – this variable indicates the extent of democracy in a country. A more democratic government implies more freedom, liberty and well-defined institutions for citizens to use and interact with. As such, we expect that countries whose political systems are more democratic are likely to attract more FDI inflows. We use democracy as a proxy for

governance here. Obviously, there are other ways of defining governance in relation to the need to attract private investment, that is, the need to establish fair and stable ground rules for investors to thrive. But this notion of governance is not necessarily consistent with the notion of individual liberty, freedom and plural democracy. We thus deliberately chose democracy as a proxy for governance because it encompasses the notions of individual freedom and liberty in a broader sense and indeed it may foster development of fair and stable ground rules for businesses. A positive relationship between governance (democracy) and FDI inflows is postulated.

Collapse - is an indicator of circumstances under which a country cannot function properly through a period of transition, complete collapse of political system, or under occupation by a foreign power. Under such unstable political situations, investors would be reluctant to locate their investments. Thus, a negative relationship between collapse and FDI inflows is expected.

Industry – we expect the level of industrialisation to be positively related to FDI inflows. Foreign investors are more likely to invest in a country whose level of industrialisation is higher. This is because they are more likely to have firms to do business with in terms of sourcing inputs, or marketing their products.

Telephone Mainlines per 1,000 people – physical infrastructure is an important aspect that foreign investors look at before they commit their funds. We thus picked this variable to control for physical infrastructure purely for reasons of availability of data, and for lack of an all-encompassing indicator of the quality of physical infrastructure in African countries. We expect that countries with more telephone lines per thousand people are more likely to attract more FDI inflows.

Aid Per Capita – it is a norm that poor countries receive foreign aid from rich countries. Since all African countries are poor (albeit at differing degrees), they all receive foreign aid. There are numerous factors that may make a country receive more foreign aid. One is probably the level of poverty in a country. But other important factors such as governance, historical links, strategic alliance and so on may as well explain the level of foreign aid that a country gets (see Mkenda and Mkenda, 2003). All in all, there is a sense that a country may create a conducive environment for donors to commit their money to the country. Success in creating such an environment may also attract foreign direct investment. The term donor confidence is now widely used to gauge the extent that a country's economic management and political administration receives a positive nod from donors, and such a positive nod is touted as an indication of success. Without getting into the normative issues of the desirability of this indicator, aid flow (suspension, scaling down, resumption) is used widely to describe a success or failure of regimes in Africa and such a fact may also be used by investors in deciding whether to enter a given economy or not. We postulate a positive relationship between FDI and per capital aid inflow.

6.0 THE RESULTS

The results of our estimation of a fixed effects model are given in Table 4. The sample used in the estimation is a balanced panel, covering 31 African countries observed during 1982 to 1997. Overall, the results of our estimation are as expected. The coefficient on population is statistically significant at 1 percent, and as hypothesised, there is a positive relationship between the population of a country and the inflow of FDI; the higher a country's population, the higher the FDI inflow. As expected, government consumption is negatively related to FDI inflows, although the coefficient is insignificant. The level of industrialisation is also an important determinant of FDI inflows. The results show that the percentage of value added in industry is positively related to FDI inflows, with the coefficient on the variable significant at 5 percent.

Regarding our two governance indicators, we obtained results consistent with our expectation. The extent of democracy is important, as well as the stability of a political regime. Our results show that the extent of democracy is positively related to FDI inflows, although the coefficient is insignificant. The extent to which political regimes are unstable is negatively related to FDI inflows, and the coefficient is significant at 10 percent.

Foreign investors often care about the quality and existence of infrastructure in countries they wish to invest. Our results support this assertion; countries with more telephones lines per thousand people attract more FDI inflows. The coefficient on the variable is however statistically insignificant. The insignificance of this variable may either be due to the fact that we did not have a good proxy for infrastructure, or perhaps we needed to control for more variables, particularly natural resource endowments to get the expected result at a significant level.

Table 4: Estimation Results: Fixed Effects Model

Number of observations = 496			
Number of groups = 31			
Observations per group:			
Minimum = 16			
Average = 16			
Maximum = 16			
	Coefficient	Standard Error	t-statistic
Pop.	2.17E-05	1.95E-06	11.14***
Gconsgdp	-1.319	1.777	-0.74
Industry	5.902	1.412	4.18***
Democ	0.519	2.987	0.17
Collapse	-49.389	28.748	-1.72*
Tel	0.602	0.567	1.06
Aidpc	-0.679	0.331	-2.05**
Constant	-333.663	53.729	-6.21
F test that all $\mu_i = 0$: $F(30, 458) = 14.58$ Prob > F = 0.0000			
R-sq:			
Within 0.29			
Between 0.64			
Overall 0.49			

Note: The dependent variable is foreign direct investment.

***Significant at 1 percent

**Significant at 5 percent

*Significant at 10 percent

The last variable, aid per capita indicates that the more aid a country receives, the less FDI inflows it will get, and the coefficient is statistically significant at 5 percent. This is contrary to what we had postulated. We suspect that the failure to get a variable for natural resource endowments may have been the reason for this; while natural resource rich countries may tend to receive more FDI, they also tend to receive less foreign aid. Since we did not include the variable for natural resources due to lack of data, we thus failed to control for this aspect of natural resource richness and thus failed to get the expected result between FDI and foreign aid. The other possible explanation is that FDI tends to go to relatively rich countries (an aspect of market size) while foreign aid goes to relatively poor countries and thus a negative coefficient on the aid per capita variable should have been expected.

7.0 SUMMARY AND CONCLUDING DISCUSSION

This paper set out to examine the key determinants of FDI inflows to African countries. The inflow of FDI to Africa is an important indicator of the extent of globalisation. Figures indicate that Africa is marginalized in terms of the amount or volume of FDI inflows and hence it is important to examine the factors that determine the inflow to FDI to African countries. Such determinants may give insights into the ways of increasing the inflow of FDI to Africa. The model employed drew from the theoretical literature and from other studies. However, it went a step further by incorporating governance factors as determinants of FDI inflows to Africa, and also it employed panel data methods of estimating the model. Few studies have utilised this econometric tool.

By and large, the results obtained from the model are consistent with expectation. We found that the bigger the population of a country, the more FDI inflows it will get. This is perfectly in line with an important motive for foreign firms, which is to locate in a country where there is a market for its products. We also found that government consumption is negatively related to FDI inflows, thus rendering support to the view that bloated governments tend to be seen as impediments to private investment and may actually crowd out private investment. The level of industrialisation is also important for potential investors as the higher the level of industrialisation, the more FDI inflows it gets. Good governance is important for investors, as indicated by our results. The more democratic a country is, the more FDI inflows it gets, and if a country is unstable politically, foreign investors shy away from it. Infrastructure is also important as it facilitates doing business. We found that countries with more telephones lines per thousand people attract more FDI inflows. The results though are not statistically significant. Lastly, we found that the more aid a country receives, the less FDI inflows it will get.

We can deduce two policy implications from this study. The first one is that countries that have bigger markets attract more FDI. For Africa, the efforts being made to establish regional integration groupings is welcome as it is likely to attract more FDI. Regional groupings have the effect of increasing the market size, a key motive for private firms to invest in a particular country. Also, since regional groupings tend to harmonise policies related to trade and investment, a factor that is attractive for investors, African countries should strive for more integration. Secondly, it is important that African countries institute democratic reforms at an even faster pace so that stable political regimes can be the order of the day. Foreign investors care about their investments and as such, they would be wary of investing in countries that face ethnic conflicts, and are unstable politically.

A limitation of this study is that we did not have data for natural resource endowments in the countries investigated. The stylised facts reviewed in this paper indicate that natural resource endowments are an important determinant of FDI inflow.

APPENDIX

Variables Used and Sources

FDI – Foreign direct investment, (million US\$), <http://www.unctad.org>.

POP – Total population, World Development Indicators 2002 CD-ROM, The World Bank.

GCONSGDP – General government final consumption expenditure (% of GDP), World Development Indicators 2002 CD-ROM, The World Bank.

DEMOC – An indicator of democracy relating to the general openness of political institutions, Polity IV Project: *Political Regimes Characteristics and Transitions, 1800-2000*, Monty G. Marshall, Keith Jagers and Ted Robert Gurr, <http://www.cidcm.umd.edu/inscri/polity/index.htm>. The survey assigns an 11-point scale; with 0 denoting low democracy, and 10 denotes high democracy.

COLLAPSE – An indicator of circumstances under which a country could not function properly through a period of transition, complete collapse of political system, and under occupation by a foreign power, *Polity IV Project: Political Regimes Characteristics and Transitions, 1800-2000*, Monty G. Marshall, Keith Jagers and Ted Robert Gurr, <http://www.cidcm.umd.edu/inscri/polity/index.htm>. The survey assigns the following scores; -66 – period of interruption, -77 – period of interregnum, and -88 – period of transition. For our analysis, we assigned all the scores 1 to indicate collapse, while the rest were assigned a value of 0.

INDUSTRY – Industry, value added (% of GDP, World Development Indicators 2002 CD-ROM, The World Bank.

TEL – Telephone mainlines (per 1,000 people), World Development Indicators 2002 CD-ROM, The World Bank.

AIDPC – Aid per capita (US dollars) - Official Development Assistance and Official Aid disbursed, OECD Website, <http://oecd.org/>.

REFERENCES

Addison T., and Heshmati A., (2003), “The New Global Determinants of FDI Flows to Developing Countries: The Importance of ICT and Democratisation”, *Wider Discussion Paper No. 2003/45*, United Nations University.

Aseidu Elizabeth, (2002), “On the Determinants of Foreign Direct Investment to Developing Countries: Is Africa Different?”, *World Development*, **30** (1), 107-119.

Foreign Policy Magazine, A.T. Kearney/*Foreign Policy Magazine Globalisation Index*, http://www.foreignpolicy.com/issue_janfeb_2001/atkearneywtkm.html

Basu A., and Srinivasan K., (2002), “Foreign Direct Investment in Africa – some Case Studies”, *IMF Working Paper WP/02/61*.

Cleary Seán M., (2001), “An Enabling Environment for Foreign direct Investment in the Southern African Development Community”, in Wohlmuth K., Bass H-H., Grawert E., Gutowski A., Kappel R., König A., Wauschkuhn M., (ed), *Africa’s Reintegration into the World Economy*, African Development Perspectives Yearbook 2000/2001, Transaction Publishers.

Dunning John H., (2001), “Globalisation and FDI in Asian Developing Countries”, in Storm, S. and Naarstepad, C.W.M., (ed), *Globalisation and Economic Development: Essays in Honour of J. George Waardenburg*, Edward Elgar Publishing Inc.

Globerman Steven and Shapiro Daniel, (2002), “Global Foreign Direct Investment Flows: The Role of Governance Infrastructure”, *World Development*, **30** (11), 1899-1919.

Jenkins C. and Thomas L., (2002), “Foreign Direct Investment in Southern Africa: Determinants, Characteristics and Implications for Economic Growth and Poverty Alleviation”, paper prepared for a programme of research on *Globalisation and Poverty*, University of Oxford and London School of Economics.

Lensink R., and Morrissey O., (2001), “Foreign Direct Investment: Flows, Volatility and Growth”, University of Nottingham. School of Economics CREDIT Research Paper 01/06, <http://www.nottingham.ac.uk/economics/credit/>.

Loungani Prakash, and Razin Assaf, (2001), “How Beneficial Is Foreign Direct Investment for Developing Countries”, *Finance and Development*, **38** (2).

Mkenda, B.K., (2002), “To What Extent Is East Africa Globalised?”, *Globalisation and East Africa Working Paper Series No. 1*, October.

Mkenda, B.K and A. F. Mkenda (2003) “A Dynamic Panel Data Estimation of Aid Allocation Criteria”, ESRF and the Department of Economics, UDSM., Mimeo.

Morrisset Jacques, (2000), “Foreign Direct Investment in Africa: Policies also Matter”, *Transnational Corporations*, **9** (2), 107-25.

Morrissey Oliver, (2003), “Private Capital Flows to Sub-Saharan Africa: Managing Volatility with an Application to Tanzania”, paper presented to an ESRF seminar.

New Vision, (2003), “UIA Woos South African Investors”.

Obwona Marios B., (2001), “Determinants of FDI and their Impact on Economic Growth in Uganda”, *African Development Review*, **13** (1), 46-81.

Obwona Marios B., (2001), “Determinants of FDI and their Impact on Economic Growth in Uganda”, *African Development Review*, **13** (1), 46-81.

ODI, (2002), “Foreign Direct Investment: Who Gains?”, *ODI Briefing Paper*, Overseas Development Institute, London.

Singh Harinder and Jun Kwang W., (1995), “Some New Evidence on Determinants of Foreign Direct Investment in Developing Countries”, *World Bank Policy Research Working Paper No. 1531*.

Trevino Len J., Daniels John D., and Arbeláez Harvey, (2002), “Market Reform and FDI and Latin America: an Empirical Investigation”, *Transnational Corporations*, **11** (1), 29-48.

Business for Africa, (2003), “Zambian Investment Drive”, http://www.africaplc.com/hp_news_zambian_investment.html

Business for Africa, (2002), “Restoring Investor Confidence”, http://www.africaplc.com/hp_news_restore_investors_confidence.html

News24.com, (2003), “Tanzania's FDI Investment 'up'”, <http://www.news24.com/News24/Finance/Economy/>