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The impact of governance on FDI flows to African countries

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Abstract

Purpose – The purpose of this paper is to investigate the effect of governance indicators (political stability, control of corruption, rule of law, regularity quality, voice and accountability and government effectiveness) on foreign direct investment (FDI) flows to African countries.

Design/methodology/approach – The authors employed a panel regression model on data from 50 African countries for the period 1996 to 2010. The empirical analysis uses the fixed and random effects estimation.

Findings – The results obtained through fixed and random effects indicate that out of the six World Bank's governance indicators, three are statistically significant. These are voice and accountability, government effectiveness and rule of law. This result implies that to improve their investment climate and increase the inflow of FDI, African countries need to improve the state of governance.

Research limitations/implications – The major limitation of this paper is the absence of different sources for governance indicators, and absence of long time series data on some other governance indicators such as transparency.

Originality/value – These results lead to the conclusion that some governance indicators are very important for foreign investors in their investment decisions, while other indicators are not. Governments have to consider these indicators while trying to attract foreign investment.

Keywords Africa, International investments, Governance, African countries, Foreign direct investment, Capital flows, Panel data regression

Paper type Research paper

1. Introduction

The experiences of different countries with foreign direct investment (FDI) have let people recognize that it can benefit the recipient countries through different ways. It can help in bridging the gap in domestic saving, contributing with foreign exchange for balance of payments, improving the production technology through the so-called technology transfer process, enhancing managerial practices through competition and labor mobility and promote economic growth through capital accumulation (Mottaleb and Kalirajan, 2010; Crespo and Fontoura, 2007). There is no doubt that governments of different African countries recognize the importance of FDI for their economies and the benefits that it may bring for their nations. This recognition is directly reflected into economic policies adopted by these countries recently. If not all, at least most of the African countries have revised their economic policies in order to improve their investment climate and promote their economies to attract more investment. In this context, African countries have opened their economies and have allowed the entry of multinational corporations as part of economic reform which was initiated and supported by the World Bank and the IMF in the early 1990s. In line with this, African countries have offered great incentives which include huge tax exemptions for foreign investments in many important sectors, accompanied by generous incentive packages for foreign investors. In spite of all these efforts, the outcome in terms of FDI inflow to African countries has been disappointing.

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While the amount of FDI flow to the African countries has increased in absolute terms during the past two decades, it has declined in relative term (Onyeiwu and Shrestha, 2004).

One of the possible justifications for African countries failure in attracting sufficient amount of FDI is that the economic reforms have not been accompanied by political and institutional reforms that could help in creating effective institutions and improve African state of governance. Ngowi (2001) argues that Africa has received little FDI because most countries are regarded by foreign investors as high risk and are characterized by a lack of political and institutional stability and predictability. Moreover, it has been generally argued that foreign investors and multinational corporations believe that good governance in the host country is very important for choosing investment locations and deciding the investment amount. Because good governance is a safeguard for their invested capital, that reduce political and economic risks. Contrary to political instability and poor governance that may hinder economic development, increase the country's risk and hence disturb the flow of FDI plan to both private and public sectors (Samimi *et al.*, 2011).

This paper concentrates on the relationship between six governance indicators (political stability, control of corruption, rule of law, regularity quality, voice and accountability and government effectiveness) and FDI flows to African countries. It tries to identify the causal relationship between governance indicators and FDI flow. By so doing, the paper will provide an answer based on empirical results for the question "Does state of governance in hosting countries matter for foreign investors?" How can social, economic and political governance (such as regularity quality, absence of violence, effectiveness of government, control of corruption, rule of law) serve foreign investor's needs? Questions like these have created need for this kind of work to be carried out. A panel regression analysis technique is used to investigate the impact of the six governance indicators on FDI flows. Fixed- and random-effects models are adopted to explore whether the governance indicators affect FDI flows to Africa in conventional ways. Panel data for about 50 African countries over the period 1999-2010 are used to estimate the model.

This paper contains five sections. Section 2 presents literature review that concentrate on the empirical studies investigated the determinants of FDI. Section 3 discusses state of governance in African countries. Section 4 outlines the flow of FDI to African countries with emphasis on trend and distribution among different countries. Section 5 presents the empirical model. The conclusion drawn from the analysis is presented in the last section.

2. Literature review

Recognizing that FDI as a key factor for economic growth and important tool for bringing technology to recipient countries, it has received great attention from many economists in recent literature. The literature on FDI can be categorized into three main groups: the first group investigates the effect of FDI on macroeconomic indicators, such as economic growth, exchange rate, rates of inflation, balance of payments and rates of unemployment. The second group examines the impact of FDI on different factors such as technology transfer to recipient countries, management practices by national firm and labor skill and productivities in hosting countries. The third group focusses on the determinants of FDI and the main driving forces for its inflow and outflows to different countries. This topic remains a hot issue for researchers from different disciplines for a long period of time. Their main concern has been to identify the key variables that cause variation in FDI and hence can be used as instruments for economic policies conducive for FDI attractiveness. This group can be subdivided into two sub-groups: the first sub-group undertaken at country level using time-series data. In these studies determinants of FDI were examined for individual countries over specific period of time. The variables identified by these studies include, GDP growth, GDP level, degree of openness measured by balance of trade, real exchange rate, political stability, market size measured by per capita income and size of population, domestic investment, the return or cost of capital rate as variable reflecting the costs of production in the host countries. The second sub-group undertaken across a set of country level over specific period of time using panel data an example of which includes Onyeiwu and Shrestha (2004), Samimi and Ariani (2010).

In the literature there were no studies that examined the relation between governance and FDI flows to countries. However, the impacts of some of the good governance indicators on FDI flows were examined as part of the determinants of FDI. Because of that, our review of the literature concentrated on the empirical studies that were related to the determinants of FDI. This can help identify the main factors that cause variation in FDI flows to different countries and at the same time investigate the relation between good governance indicators and FDI flows. Samimi and Ariani (2010) use annual aggregate data for 16 countries in MENA region covering the period (2002-2007) to investigate the impact of good governance on FDI. They found that control of corruption and political stability as indicators for governance are statistically significant variables which positively affected FDI flows to countries of MENA region. Onyeiwu and Shrestha (2004) use the fixed- and random-effect models based on a panel dataset for 29 African countries over the period (1975-1999) to explore whether the stylized determinant of FDI, affect FDI flows to Africa in conventional ways. They found that economic growth, inflation, openness of the economy, international reserves and natural resource availability are the main significant factors for FDI flows to Africa. While political rights and infrastructures were found to be unimportant for FDI flows to Africa. Asiedu (2002) examined whether the factors that affect FDI in developing countries also affect FDI flows to Sub-Saharan African (SSA) countries. She used cross-section data for 71 developing countries and found that some variables that are significant for FDI flows to developing countries do not seem to be important for FDI flows to SSA. These include the rate of return on investment and better infrastructure.

3. State of governance in African countries

There are many definitions, types and indicators of governance in the literature. The detail discussion and explanations of these types and definitions is beyond the scope of this paper. We limit our self to the World Bank definition for governance as "the ways public officials and public institutions acquire and exercise authority to provide public goods and services, including basic services, infrastructure, and a sound investment climate." The state of governance at regional or global level is assessed and compared through what so-called governance indicators. A number of different indicators are in use by different institutions. For the purpose of this paper, the World Bank's worldwide governance indicators (WGT) are used as measurement for the quality of governance. In this measurement, countries are ranked with respect to six aspects of good governance: voice and accountability (VA), political stability and absence of violence (PSAV), government effectiveness (GE), rule of law (RL), regulatory quality (RQ) and control of corruption (CC). The performance of a country in each one of the six aspects is reflected with an index ranges from -2.5 (weak) to 2.5 (strong).

Table I shows indexes for the estimates of the six governance indicators for 53 African countries. As clearly seen that the performances of most of the African countries are very weak as reflected with a large index estimate for all six indicators.

With exception of Botswana, Mauritius and Namibia all the rest of the African countries have at least one of the six governance indicators is negative. The second best group that has one negative index of estimate for governance indicators contains South Africa, Cape Verde and Seychelles. Tunisia stood alone in one group which has only negative index estimate in two governance indicators. The rest of the countries have negative index estimate for all or at least four governance indicators. In the next section FDI flow to Africa are examined in order to get some idea about, its size, trend and distribution among different countries.

4. FDI flows to Africa: trend and distribution

The FDI flow worldwide has increased rapidly throughout the last two decades, and African countries have benefited from this boom. The actual inflows of FDI into all 53 African countries have steadily increased from about \$5 billion in early 1990s to about \$20 billion in late 1990s. This reflects an annual average growth rate of about 18 percent for this period, compared with a global average growth rate of 20 percent. FDI flows to African countries have maintained their uprising trend during the 2000s and have increased from about \$35 billion in early 2000s to about \$73 billion in 2008. Nevertheless, FDI flows to African countries have registered a declining trend during the years 2009 and 2010 because of the international financial crises. The FDI flow declined to \$60.2 billion in 2009 and stood at about \$55billion in 2010 (United Nations Conference on Trade and Development (UNCTAD), 2010). These conclusions can be seen from Figure 1.

In terms of distribution among different countries FDI has taken place all over African countries, but the largest proportion appears to be located in a limited number of countries. The countries that have succeeded to attract the largest portion of FDI to Africa are Angola, Nigeria, Egypt and South Africa. These four countries accounted for about 53 percent of the total amount of FDI flows to Africa during the period 1990-2010. Contrary some countries have failed to attract reasonable amount of FDI flows, a set of 27 African countries have received <5 percent of the total FDI flows to Africa during the period 1990-2010 which was excluded from Figure 2. The figure portrayed the distribution of the FDI among the top 29 receiving countries.

5. Empirical model

To estimate the relationship between the six governance indicators and FDI flows to Africa, a panel regression model for 50 African countries for the period 1996-2010 is employed. Since most of the explanatory variables have negative values we cannot use the logs. Therefore the model is assumed to be linear and taking the following form:

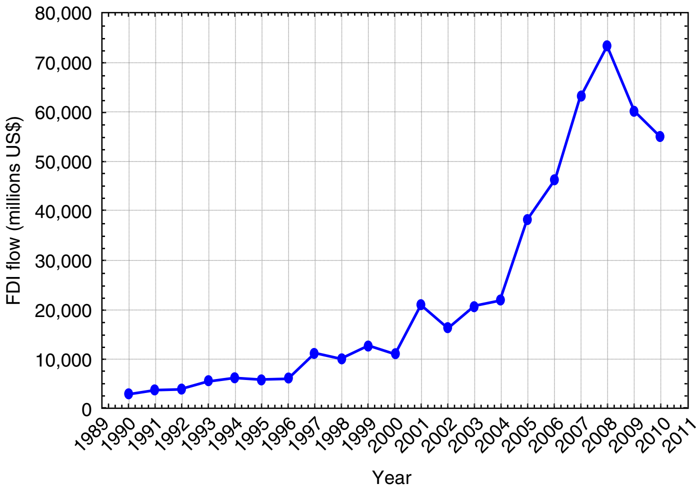
$$\mathrm{FDI}_{it} = \beta_0 + \beta_1 \mathrm{VA}_{it} + \beta_2 \mathrm{PSAV}_{it} + \beta_3 \mathrm{GE}_{it} + \beta_4 \mathrm{RQ}_{it} + \beta_5 \mathrm{RL}_{it} + \beta_6 \mathrm{CC}_{it} + \mu_{it} \quad (1)$$

where FDI_{it}, percentage of FDI flows to GDP in country i and in year t; VA_{it}, voice and accountability index in country i and year t; PSAV_{it}, political stability and absence of violence index estimate in country i and year t; GE_{it}, government effectiveness index in country i and in year t; RQ_{it}, regulatory quality in country i and in year t; RL_{it}, rule of law index in country i and in year t; CC_{it}, control of corruption index in country i and in year t.

Country	VA	PSAV	GE	RQ	RL	CC
			The governance indicators			
Algeria	−1.043	−1.441	−0.665	−0.712	−0.789	−0.635
Angola	−1.284	−1.106	−1.203	−1.301	−1.447	−1.308
Benin	0.239	0.511	−0.433	−0.399	−0.474	−0.650
Botswana	0.593	0.923	0.549	0.610	0.605	0.886
Burkina Faso	−0.392	−0.031	−0.670	−0.252	−0.488	−0.185
Burundi	−1.110	−1.905	−1.320	−1.300	−1.282	−1.066
Cameroon	−1.053	−0.562	−0.818	−0.804	−1.175	−1.019
Cape Verde	0.713	0.917	0.130	−0.203	0.500	0.440
Central African Republic	−0.987	−1.609	−1.461	−1.117	−1.469	−1.081
Chad	−1.230	−1.550	−1.165	−1.040	−1.263	−1.186
Comoros	−0.510	−0.255	−1.569	−1.409	−1.057	−0.861
Congo	−1.133	−1.012	−1.260	−1.209	−1.300	−1.044
Cote d'lvoire	−1.150	−1.552	−0.993	−0.738	−1.307	−0.887
Congo, Democratic Republic	−1.585	−2.338	−1.715	−1.634	−1.727	−1.478
Djibouti	−0.936	−0.284	−0.897	−0.751	−0.736	−0.563
Egypt	−1.036	−0.590	−0.353	−0.328	−0.027	−0.465
Equatorial Guinea	−1.728	−0.079	−1.494	−1.444	−1.289	−1.480
Eritrea	−1.853	−0.844	−1.132	−1.645	−0.790	−0.036
Ethiopia	−1.144	−1.447	−0.729	−1.054	−0.747	−0.715
Gabon	−0.722	0.214	−0.685	−0.316	−0.458	−0.773
Gambia	−0.897	0.248	−0.603	−0.454	−0.204	−0.570
Ghana	0.180	−0.072	−0.101	−0.154	−0.103	−0.121
Guinea	−1.247	−1.534	−1.039	−0.980	−1.341	−0.894
Guinea-Bissau	−0.839	−0.753	−1.214	−1.085	−1.415	−1.065
Kenya	−0.386	−1.168	−0.576	−0.266	−0.940	−0.951
Lesotho	−0.209	0.042	−0.325	−0.546	−0.133	−0.113
Liberia	−0.799	−1.581	−1.498	−1.577	−1.503	−1.005
Libya	−1.787	0.045	−1.048	−1.432	−0.857	−0.930
Madagascar	−0.206	−0.122	−0.588	−0.443	−0.444	−0.100
Malawi	−0.309	−0.077	−0.537	−0.412	−0.294	−0.512
Mali	0.174	0.192	−0.823	−0.394	−0.346	−0.504
Mauritania	−0.864	−0.206	−0.484	−0.398	−0.621	−0.323
Mauritius	0.846	0.837	0.592	0.543	0.935	0.522
Morocco	−0.636	−0.378	−0.115	−0.174	−0.029	−0.137
Mozambique	−0.103	0.163	−0.454	−0.428	−0.672	−0.478
Namibia	0.361	0.572	0.140	0.195	0.205	0.303
Niger	−0.551	−0.450	−0.878	−0.608	−0.742	−0.867
Nigeria	−0.846	−1.640	−0.983	−0.943	−1.263	−1.102
Rwanda	−1.359	−1.080	−0.557	−0.742	−0.868	−0.345
Sao Tome and Principe	0.247	0.541	−0.650	−0.764	−0.448	−0.450
Senegal	0.004	−0.368	−0.231	−0.231	−0.186	−0.270
Seychelles	0.043	0.855	0.120	−0.558	0.273	0.309
Sierra Leone	−0.596	−0.845	−1.294	−1.128	−1.154	−0.896
Somalia	−1.883	−2.703	−2.174	−2.439	−2.344	−1.738
South Africa	0.660	−0.183	0.616	0.530	0.100	0.401
Sudan	−1.687	−2.265	−1.226	−1.326	−1.436	−1.218
Swaziland	−1.323	−0.079	−0.774	−0.505	−0.707	−0.273
Togo	−1.190	−0.448	−1.363	−0.751	−0.864	−0.871
Tunisia	−1.009	0.139	0.459	−0.009	0.064	0.014
Uganda	−0.668	−1.306	−0.540	−0.049	−0.535	−0.817
Tanzania	−0.325	−0.439	−0.458	−0.418	−0.374	−0.652
Zambia	−0.360	0.139	−0.835	−0.489	−0.523	−0.736
Zimbabwe	−1.367	−1.137	−1.023	−1.811	−1.490	−1.159

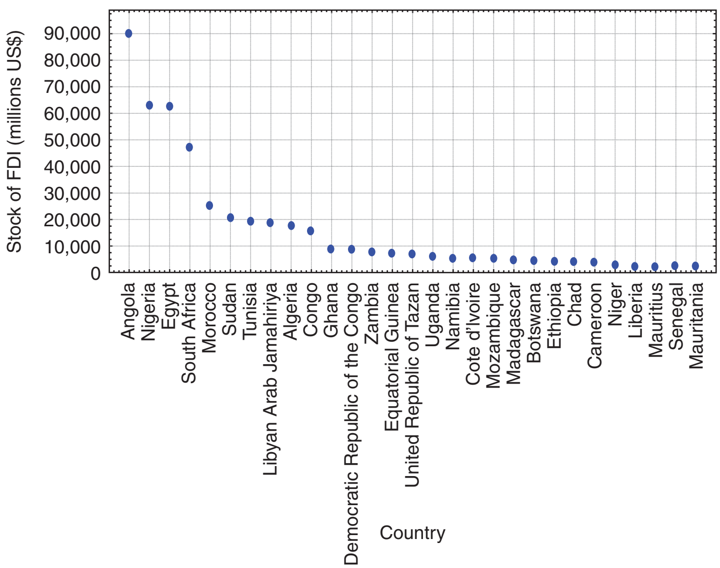
Source: World Bank (2010)

Table I.
Averages (for years 1966, 1998, 2000 and 2003-2010) of the six governance indicators for African countries



Source: United Nations Conference on Trade and Development (2010)

Figure 1.
FDI flow (millions US$) sum of years 1990-2010 for African countries



Source: United Nations Conference on Trade and Development (2010)

Figure 2.
Stock of FDI (millions US$) for African countries for the years 1990-2010

Different data sources are used in this paper. FDI flows measured in million of US dollars is obtained from the database of the UNCTAD. Data for governance six indicators' index is obtained from the World Bank's WGT.

The estimation of the model for random and fixed effect produces the results in Table II.

The results in Table II shows that voice and accountability, government effectiveness and rule of law are statistically significant variables that affect FDI flow to African countries. These factors have positive impact on FDI flows to African countries. While the

Dependent variable:	FDI flows	
Effects:	Country fixed; years fixed	
Model parameters	Coefficient estimate	t-statistic p-value
Constant		
C	938.9750	0.0000
Independent variables coefficients		
VA	−665.4306	0.0062
PSAV	−481.7628	0.1110
GE	372.0113	0.0032
RQ	185.1446	0.5529
RL	1,350.637	0.0000
CC	−381.5822	0.0695
R^2	0.673961	
Adjusted R^2	0.634214	
F-statistic (p-value)	16.95637 (0.0000)	
Durbin-Watson	0.759381	
Hausman statistic (p-value)		
Years	21.341820 (0.0016)	
States	14.639213 (0.0233)	

Table II.
Two ways effects panel regression analysis results

other three governance indicators (i.e. political stability, regulatory quality and control of corruption) are insignificant. The three significant variables explain about 63 percent of the variation of FDI flows to African countries. When comparing these results with results of previous studies different points can be observed. None of the three significant factors were included as part of explanatory variables of previous studies. While two of the three insignificant factors (political stability and control of corruption) were found as positively impacted on FDI flows to countries.

6. Conclusion

This paper investigated from an empirical point of view, the impact of governance on FDI flows to African countries. The results indicate that voice and accountability, government effectiveness and the rule of law, as measurements for governance, have a positive impact on FDI flows to African countries. While political stability, regulatory quality and control of corruption, as other indicators for governance, have no real impact on FDI flows to Africa. Thus, we can conclude that beside economic reforms African countries need to adopt institutional reforms that could contribute in improving their state of governance, promote their investment climate and help in attracting more FDI.

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